

Creating a public forest consciousness:

Forestry and forest conservation in New Zealand, 1916-1935

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Abbreviations

In text

DFSA	Dominion Federated Sawmillers' Association
NBPS	Native Bird Protection Society
NZAN	New Zealand Association of Nurserymen
NZFL	New Zealand Forestry League
SFS	State Forest Service

In footnotes

AJHR	Appendix to the Journals of the House of Representatives
ANZ	Archives New Zealand
AS	Auckland Star
ATL	Alexander Turnbull Library
EP	Evening Post
ES	Evening Star
FUA	Farmers' Union Advocate
JA	Journal of Agriculture
NEM	Nelson Evening Mail
NZFL	New Zealand Forestry League
NZH	New Zealand Herald
NZJA	New Zealand Journal of Agriculture
NZT	New Zealand Times
ODT	Otago Daily Times
PBH	Poverty Bay Herald
SFS	State Forest Service
ST	Southland Times

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Abstract

By the middle of the 1910s, conservationists and scientific foresters in New Zealand feared that the Dominion faced a timber famine – a shortage of wood – as a result of the largescale deforestation that followed the British colonisation of New Zealand. To avoid a timber famine, forestry advocates and professional foresters sought to educate the public on the dangers of deforestation and the need for scientific forest management, hoping to create a public forest consciousness. This constituted a central aim of the work of the New Zealand Forestry League (NZFL), a voluntary conservation organisation formed in 1916, and later the New Zealand State Forest Service (SFS), established in 1919. By drawing upon a large body of primary sources, including official and unofficial material as well as published and unpublished material, this thesis examines the efforts of the NZFL and the SFS to create a public forest consciousness in the period of 1916-1935.

As this thesis shows, the NZFL and the SFS aimed to acquire public support for scientific forestry, have the public participate in the prevention of a timber famine either by planting trees or reducing waste, and also promote a public appreciation and realisation of the aesthetic and utilitarian value of forests and native birdlife. To create a public forest consciousness, the NZFL and the SFS employed a range of methods and tools. These included: holding lectures, promoting movies, putting up posters, distributing pamphlets and leaflets, publishing a popular magazine, supplying articles to journals and newspapers, selling and offering trees and seeds, as well as participating in exhibitions. The NZFL and the SFS also undertook propaganda schemes aimed at particular groups of the public such as, farmers, the timber industry, and school children, to encourage private forestry, reduce waste, and instil both a love for forests and political support for forestry in the future generation. Lastly, the two organisations collaborated with the Native Bird Protection Society (Royal Forest & Bird Protection Society) in its work to safeguard indigenous avifauna. Making a public forest consciousness encompassed all aspects of forestry and forest conservation, from promoting the planting of exotic quick-growing timber trees to protecting native bird life to ensure the ecological well-being of indigenous forests.

This thesis, by examining the efforts of the NZFL and the SFS to create a public forest consciousness, adds to the environmental history of New Zealand. It expands institutional histories, by highlighting hitherto un-researched dimensions of public engagement by voluntary conservation organisations and the SFS. Furthermore, and perhaps most significantly, it

expands the scholarship of environmental history in general by showcasing the value and importance forestry advocates and scientific foresters placed on public support and public participation in forest conservation.

Introduction

A looming timber famine

It is common knowledge that experts have variously estimated that the available amount of forest left in New Zealand will last perhaps 30 years and at the most 40 years. Unless immediate steps are taken to plant considerable areas, future generations would require to import all the timber used.¹

James Glenny Wilson, 1916

By the middle of the 1910s a timber famine – a shortage of wood – seemed imminent in New Zealand. Indeed, the situation was dire. In 1840, forests covered a little over forty percent of New Zealand. Six decades later only twenty-five percent remained, as the rest had perished by the settler's axe and fire.² Desperately seeking to avoid a timber famine, forestry advocates and professional foresters sought to educate the public on the dangers of deforestation and the need for scientific forest management, hoping to create a public forest consciousness. This thesis examines the means through which forestry advocates and trained foresters aimed to foster a public forest consciousness, and the importance of public opinion in forestry from 1916 to 1935, highlighting the relationship, techniques, and transmission of knowledge between experts and the public in conservation politics. As this thesis will show, by fostering a public forest consciousness, the New Zealand Forestry League (NZFL) and the New Zealand State Forest Service (SFS) sought to ensure public support for scientific forestry, have the public participate in the prevention of a timber famine by planting trees or by reducing waste, and foster a public appreciation of the utilitarian and aesthetic values of forests and their native wildlife.

Defining forest consciousness

What is forest consciousness? In New Zealand, the phrase seems to have appeared in 1914 as newspapers reported on the establishment of the New South Wales branch of the Australian Forest League.³ 'It is proposed', the *New Zealand Times* noted, quoting the aims of the new

¹ James G. Wilson, 'To the Editor,' unnumbered. A L Hunt Papers, ATL, MS-Papers-0158-297.

² Graeme Wynn, 'Destruction under the guise of improvement? The forest, 1840-1920,' in *Making a New Land: Environmental histories of New Zealand*, ed. Eric Pawson and Tom Brooking (Dunedin: University of Otago Press, 2013), 127.

³ "'Forest consciousness'," NEM, 8 May 1914, 4; 'Forest reserves,' NZH, 11 June 1914, 9; 'Local and general,' *Hawera & Normanby Star*, 15 June 1914, 4; ST, 16 June 1914, 4.

branch, ‘to educate the public “to a realisation of the value of forests and of the evils resulting from their destruction, so that eventually a forest consciousness shall be created in the public mind.”’⁴ As previous research shows, other branches of the Australian Forest League also expressed the development of a public forest consciousness as one of their objectives.⁵ Government bodies, too, partook in the efforts to develop a public forest consciousness.⁶ Similar variants of forest consciousness appeared as well, such as forest conscience and the neologism ‘forest conscienceness’, used by imperial forester Charles Edward Lane Poole at the British Empire Forestry Conference in 1920. The latter, historians speculate, sought to raise an awareness of the value of forests (forest consciousness) and the moral need for wise forest management (forest conscience), a conclusion based on semantics.⁷ However, strict semantic definitions are of little value, especially as many other terms were used by forestry advocates, trained foresters, and newspapers during the interwar period, for example: ‘forest sense’, ‘tree sense’, and ‘tree mindedness’.⁸ The last two were used, as Kirstie Ross notes, during the promotion of tree-planting as a solution for soil conservation in New Zealand in the late 1930s and in connection with the centennial celebrations taking place across the country in 1940.⁹ In addition to Ross’s, research on forest consciousness in New Zealand has largely focused on proselytising by individuals, seeking to instil an aesthetic and economic appreciation of forests in the public mind.¹⁰

Forest consciousness has also been connected to the notion of environmentalism, which has received plenty of attention amongst scholars, for example Richard H. Grove, whose

⁴ ‘News of the day,’ NZT, 13 June 1914, 4.

⁵ Ron Chapman, ‘Fighting for the Forests: A History of The Western Australian Forest Protest Movement 1895-2001’ PhD diss., Murdoch University, 2008, 48.

⁶ Libby Robin, ‘School gardens and beyond: progressive conservation, moral imperatives and the local landscape,’ *Studies in the History of Gardens & Designed Landscapes* 21, no. 2 (2001): 90f.

⁷ M. Calver et al., ‘Why ‘A forest conscienceness?’’ in *Proceedings 6th National Conference of the Australian Forest History Society Inc.*, ed. Michael Calver et al. (Rotterdam: Millpress, 2005), XVII-XIX.

⁸ For examples of ‘forest sense’, see: ‘Afforestation,’ ODT, 8 April 1924, 8; ‘The world’s timber,’ ODT, 20 January 1926, 11; ‘Forestry matters,’ EP, 13 April 1934, 5. For examples of ‘tree sense’, see: “‘Plant now to save shortage,’” *Star*, 15 May 1931, 13; ‘Tree planting on farms,’ *Hawera Star*, 6 June 1931, 14; ‘The “Tree sense,”’ NZH, 16 May 1934, 4; ‘The National Value of Trees,’ *Timaru Herald*, 2 June 1934, 12. For examples of ‘tree mindedness’, see: ‘Nature’s lessons,’ *Manawatu Evening Standard*, 17 May 1934, 6; ‘Save the trees,’ AS, 28 January 1938, 6; Leo. Fanning, ‘Nature and man,’ NEM, 5 February 1938, 10.

⁹ Kirstie Ross, *Going Bush: New Zealanders and Nature in the Twentieth Century* (Auckland: Auckland University Press, 2008), 14 and 93-124.

¹⁰ See, for example: James Beattie, ‘Alfred Sharpe’s forest consciousness in New Zealand and Australia, 1859-1908,’ in *Proceedings 6th National Conference of the Australian Forest History Society Inc.*, ed. Calver et al., 17-25; Michael Roche, ‘Edward Phillips Turner: The development of a ‘Forest Sense’ in New Zealand 1890s to 1930s,’ in *Proceedings 6th National Conference of the Australian Forest History Society Inc.*, ed. Calver et al., 143-153; Vivien Edwards, *A path through the trees: Mary Sutherland – forester, botanist & women’s advocate* (Wellington: Writes Hill, 2020), 34-43.

ambitious work set to trace its origin.¹¹ Gregory Allen Barton, suggests that environmentalism emerged from empire forestry in nineteenth-century India ‘under the auspices of British Imperialism.’¹² Indeed, according to Barton, empire forestry presented ‘hard-headed environmentalists and legislators’ with ‘a ready-made model to persuade the public that the reservation of vast areas of the public domain would serve settlers, industrial development, governmental revenue, *and* environmental purposes.’¹³ ‘Nineteenth- and early twentieth-century environmentalism’, he argues:

depended upon a consciousness that saw the state representing the good of the whole. Within this framework in India, a “forest conscience” arose that utilized the market value of trees over and against the needs of individuals, who realized a one-time only, immediate profit.¹⁴

The Indian Forest Services, Barton notes, in seeking to combat waste and deforestation, strived to impose ‘a “forest conscience” on the minds of the local inhabitants, as well as the merchants and the government of India’ by showcasing the ‘forest as a potential treasure house rather than an obstacle to civilization’.¹⁵ From India, the imperial forestry model and its methods spread across the British Empire. In New Zealand, Barton claims, ‘work began to emulate the Indian exemplar’ with tremendous effect in the first decades of the twentieth century, seeing the ‘substantial afforestation, the suspension of *laissez-faire* principles on state property, the assertion of absolute government ownership of nonprivate land, and the encouragement of community forestry.’¹⁶ ‘To these accomplishments’, he continues, ‘were added the protection of “native birdlife” and the education of the public of the necessity of conservation’.¹⁷ Yet, despite the emphasis Barton places on public engagement, be it in India or New Zealand, he does not elaborate upon how foresters sought to create a forest conscious public, nor the role of the public in ensuring the success of forestry and how foresters depended on the support of the public in the late 1910s and throughout the 1920s. This thesis, with reference to New Zealand, addresses the questions raised but left unanswered by Barton.

¹¹ Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens, and the Origin of Environmentalism, 1600-1860* (Cambridge: Cambridge University Press).

¹² Gregory Allen Barton, *Empire Forestry and the Origins of Environmentalism* (Cambridge: Cambridge University Press, 2002), 1.

¹³ *Ibid.*, 1.

¹⁴ *Ibid.*, 92.

¹⁵ *Ibid.*, 75.

¹⁶ *Ibid.*, 123.

¹⁷ *Ibid.*, 123.

Locating forest consciousness in New Zealand environmental historiography

Few countries have undergone a more rapid and extensive environmental transformation in recent time than New Zealand. Māori, arriving in Aotearoa from tropical Polynesia around the late 1200s, hunted the gigantic moa birds to extinction and burned large tracts of forests on the eastern coast of both islands.¹⁸ In the decades following the voyages of James Cook in the late eighteenth century, European missionaries, traders, and whalers connected New Zealand to a global trade network and introduced new crops and animals whilst felling timber in the North Island and depleting marine resources in the waters further south.¹⁹ Yet, the transformation caused by Māori and early European settlers pales in comparison to the changes following the Treaty of Waitangi in 1840, signed by the British Crown and Māori as organised colonisation of New Zealand commenced. By 1870, New Zealand was home to 250,000 settlers (named Pākehā by Māori) and nine million sheep.²⁰ As a result of its relatively late European colonisation, a plenitude of different sources documenting the changes remain available to scholars, thus making studying the environmental remaking of New Zealand particularly rewarding.²¹ This has led to New Zealand holding a special place in global environmental history, most notably through Alfred Crosby's influential 1986 work, *Ecological Imperialism*, in which the country serves as a case study of the creation of what Crosby calls 'Neo-Europes'; regions drastically ecologically transformed into images of Europe as its empires expanded across the globe, introducing plants, animals, and diseases.²²

The environmental history of New Zealand is not just a history of successively invading humans and other organisms, as early writings on the subject suggest.²³ As Eric Pawson and Tom Brooking note, it is far from 'an ideal laboratory for studying human environmental impacts within an unusually compressed time frame': it is instead a history of cultural, political, and intellectual engagements by different peoples with the environments of Aotearoa New

¹⁸ Atholl Anderson, 'A fragile plenty: pre-European Māori and the New Zealand environment,' in *Making a New Land*, ed. Pawson and Brooking, 35-51.

¹⁹ Evelyn Stokes, 'Contesting resources: Māori, Pākehā and a tenurial revolution,' in *Making a New Land*, ed. Eric Pawson and Tom Brooking, 52-63; Jim McAloon, 'Resource frontiers, environment and settler capitalism, 1769-1860,' in *Making a New Land*, ed. Pawson and Brooking, 70-85. See also: Alfred W. Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900*, 2nd ed. (New York: Cambridge University Press, 2004), 228-252.

²⁰ Crosby, *Ecological Imperialism*, 265.

²¹ Paul Star, 'New Zealand's Changing Natural History: Evidence from Dunedin, 1868-1875,' *New Zealand Journal of History* 32, no. 1 (1998): 59f; Eric Pawson and Tom Brooking, 'Introduction,' in *Making a New Land*, ed. Pawson and Brooking, 17-31.

²² Crosby, *Ecological Imperialism*, 1-7 and 217-268 in particular for a New Zealand context..

²³ Andrew Hill Clark, *The Invasion of New Zealand by People, Plants and Animals: The South Island* (New Brunswick: Rutgers University Press, 1949); Crosby, *Ecological Imperialism*.

Zealand.²⁴ Since the 1990s, a steadily growing body of research has shed light on the complex history of the environmental transformations of Aotearoa New Zealand, examining the role of social, economic, and scientific ideas. This is perhaps best demonstrated by *Environmental Histories of New Zealand*, edited by Pawson and Brooking, published in 2002, and of which a new edition, *Making a New Land: Environmental histories of New Zealand*, appeared in 2013.²⁵ Regional and biographical case studies, in turn, have highlighted the transformation of local sites and the involvement of certain individuals.²⁶

The most obvious transformation of the New Zealand landscape resulting from European colonisation was the widespread and rapid removal of forests, especially in the North Island. As Vaughan Wood notes, leading scientific agricultural theories in the eighteenth and first half of the nineteenth century erroneously argued that the more vegetation the better the soil. Therefore, first Cook, and later Edward Gibbon Wakefield and the New Zealand Company advocated and established settlements in forest dense areas.²⁷ Wakefield, influenced by Enlightenment and Romantic ideas, hoped to transplant British civilization and make New

²⁴ Eric Pawson and Tom Brooking, 'Introduction,' in *Environmental Histories of New Zealand*, ed. Eric Pawson and Tom Brooking (Auckland: Oxford University Press, 2002), 5.

²⁵ Pawson and Brooking, ed., *Environmental Histories of New Zealand*; Pawson and Brooking, ed., *Making a New Land*. See also: Tom Brooking, Eric Pawson, et al., *Seeds of Empire: The Environmental Transformation of New Zealand*, new edition (London: Bloomsbury, 2020).

²⁶ For regional case studies, see, for example: James Beattie, 'Fashioning a future. Part I: Settlement, improvement and conservation in the European colonisation of Otago, 1840-60,' *International Review of Environmental History* 6, no. 2 (November 2020): 75-102; Geoff Park, *Ngā Uruora/The Groves of Life: Ecology and History in a New Zealand Landscape*, (Wellington: Victoria University Press, 2018); Catherine Knight, *Ravaged Beauty: An environmental history of the Manawatu* 2nd ed (Pohangina Valley: Totara Press, 2018); Jonathan West, *The Face of Nature: An Environmental History of Otago Peninsula* (Dunedin: Otago University Press, 2017); Peter Holland, *Home in the Howling Wilderness: Settlers and the Environment in Southern New Zealand* (Auckland: Auckland University Press, 2013); Robert Peden, *Making Sheep Country: Mt Peel Station and the Transformation of the Tussock Lands* (Auckland: Auckland University Press, 2011); Matthew Hatvany, 'Environmental Failure, Success and Sustainable Development: The Hauraki Plains Wetlands Through Four Generations of New Zealanders,' *Environment and History* 14, no. 4 (2008): 469-495; Paul Star, "'Doomed Timber': Towards an Environmental History of Seward Forest," in *Landscape/Community: Perspectives from New Zealand History*, ed. Tony Ballantyne and Judith A. Bennett (Dunedin: University of Otago Press, 2005), 17-29; Paul Star, 'New Zealand's Changing Natural History,' 59-69. For biographical studies, see, for example: Paul Star, *Thomas Potts of Canterbury: Colonist and conservationist* (Dunedin: University of Otago Press, 2020); Paul Star, 'Regarding New Zealand's environment: The anxieties of Thomas Potts, c. 1868-88,' *International Review of Environmental History* 3, no. 1 (2017): 101-138; Paul Star, 'Thomas Potts and the Forest Question: Conservation and Development in New Zealand in the 1860s,' *International Review of Environmental History* 1 (2015): 173-206; James Beattie, 'W. L. Lindsay, Scottish Environmentalism and the 'Improvement' of Nineteenth Century New Zealand,' in *Landscape/Community*, ed. Ballantyne and Bennett, 43-56; Robin Hodge, 'Seizing The Day: P  r  ne Moncrieff and Nature Conservation in New Zealand,' *Environment and History* 9, no. 4 (2003): 407-417; Jennifer Robin Hodge, 'Nature's Trustee: P  r  ne Moncrieff and Nature Conservation in New Zealand 1920-1950' (PhD diss., Massey University, 1999); Ross Galbreath, *Walter Buller: the Reluctant Conservationist* (Wellington: GP Books, 1989).

²⁷ Vaughan Wood, 'Appraising Soil Fertility in Early Colonial New Zealand: The 'Biometric Fallacy' and Beyond,' *Environment and History* 9, no. 4 (2003): 393-405.

Zealand ‘a small, cohesive, and conservative society on liberal-democratic principles’.²⁸ Agriculture proved central in Wakefield’s vision with a landed gentry leading New Zealand’s political affairs while workers laboured and developed the land to later earn themselves a piece of it. However, most migrants detested this notion. Instead of working on large estates for a number of years, they set to acquire their own land as soon as possible, resulting in a significant growth of family farms in the latter decades of the nineteenth century and prompting the vision of New Zealand as, what Brooking calls, a ‘yeotopia’.²⁹ ‘These yeomen farmers’, he notes, ‘would ... be the major agents of [environmental] transformation by clearing the land to make way for British-style stock and crop farms.’³⁰ Indeed, the quest to transform New Zealand into a Britain of the South, or even a Better Britain, was, as previous research notes, marked by the complex idea of improvement, which Pawson and Brooking describe as ‘an ideological, material, and technical project’ that aimed to produce and generate wealth of the land.³¹ Beyond a mere desire to improve the land from a material standpoint, religion also influenced the colonists, who believed it their Christian responsibility to transform New Zealand into a land of milk and honey.³² To early settlers, Graeme Wynn notes, the removal of forest ‘measured everyday existence.’³³ Besides clearing trees, early pastoralists experimented with a variety of grasses to find the best mix suitable to the conditions of New Zealand, eagerly sharing their findings in journals and by correspondence.³⁴ While by 1920 there was limited land to develop, the growing use of fertilisers allowed the grasslands of New Zealand to carry 70,000,000 sheep by the early 1980s.³⁵

Beyond stocking the land with sheep and cattle, settlers also introduced a number of plants and animals for utilitarian and aesthetical reasons. These included, as Paul Star and James Beattie show, familiar birds from Europe and many ornamental plants from Asia, China in

²⁸ On Wakefieldian ideas, Edward Gibbon Wakefield, and the New Zealand Company, see: Erik Olssen, ‘Mr Wakefield and New Zealand as an Experiment in Post-Enlightenment Experimental Practice,’ *New Zealand Journal of History* 31, no. 2 (1997): 197-218. Quote from p. 216.

²⁹ Tom Brooking, “‘Yeotopia’ Found ... But? The Yeoman ideal that Underpinned New Zealand Agricultural Practice into the Early Twenty-First Century, with American and Australian Comparisons,’ *Agricultural History* 93, no. 1 (2019): 68-101, especially 69-78.

³⁰ *Ibid.*, 71.

³¹ Eric Pawson and Tom Brooking, ‘Introduction,’ in Brooking, Pawson et al., *Seeds of Empire*, 8. On a better Britain or a Britain of the South, see James Belich, *Making Peoples: A History of the New Zealanders From Polynesian Settlement to the End of the Nineteenth Century* (Auckland: Allen Lane; Penguin Press, 1996), *passim*, for example, 299 and 449.

³² James Beattie and John Stenhouse, ‘Empire, Environment and Religion: God and the Natural World in Nineteenth-Century New Zealand,’ *Environment and History* 13, no. 4 (November 2007): 430-435.

³³ Wynn, ‘Destruction under the guise of improvement?’ 127.

³⁴ Vaughan Wood and Eric Pawson, ‘Flows of Agricultural Information,’ in Brooking, Pawson, et al., *Seeds of Empire*, 139-158.

³⁵ Tom Brooking and Vaughan Wood, ‘The grasslands revolution reconsidered,’ in *Making a New Land*, ed. Pawson and Brooking, 193-208.

particular.³⁶ In addition to Europe and Asia, settlers acquired plants and animals from Australia and the Americas. However, a number of exotic plants and animals, some of them introduced by accident, soon became dominant weeds and pests.³⁷ The European rabbit (*Oryctolagus cuniculus*), for example, quickly multiplied beyond control in open country, prompting settlers to release various mustelids, which only created further ecological problems as they caused havoc amongst native avifauna and reptiles while at the same time proving ineffective in reducing the number of rabbits.³⁸

The continuous desire to improve, utilise and maximise the resources of Aotearoa New Zealand, be it by clearing tracts of indigenous forests, acclimatising British birds, or introducing garden plants from Asia, did not mean that settlers disliked the native bush and its birds. On the contrary, as Star notes, as Pākehā transformed the environment of New Zealand, a subtle ‘counter-revolution’ occurred, namely ‘the colonization of European minds within New Zealand, by indigenous flora and fauna.’³⁹ Simultaneously as the bush coverage diminished, efforts to protect it and its inhabitants, from the 1870s and onwards, increased. In the 1890s, for example, scenery protection societies were being formed around New Zealand. As Star and Lynne Lochhead demonstrate, motives for preservation were many, including economic, aesthetical, sentimental, ecological, and patriotic. Far from being separate, these motives could and did often overlap.⁴⁰ Furthermore, efforts to protect native birds also reflected a scientific shift in New Zealand with the abandonment of the displacement theory, which suggested that

³⁶ Paul Star, ‘Human Agency and Exotic Birds in New Zealand,’ *Environment and History* 20, no. 2 (2014): 275-299; James Beattie, ‘The empire of the rhododendron: reorienting New Zealand garden history,’ in *Making a New Land*, ed. Pawson and Brooking, 241-251; James John Beattie, ‘Making home, making identity: Asian garden making in New Zealand, 1850s-1930s,’ *Studies in the History of Gardens & Designed Landscapes* 31, no. 2 (June 2011): 139-159; James Beattie, Jasper M. Heinzen & John P. Adam, ‘Japanese gardens and plants in New Zealand, 1850-1950: Transculturation and transmission,’ *Studies in the History of Gardens & Designed Landscapes* 28, no. 2 (2008): 219-1950.

³⁷ Peter Holland and Gull Figgins, ‘Environmental Disturbance Triggering Infestations of Gorse, Rabbits, and Thistles in Southern New Zealand: 1850 to 1980,’ *International Review of Environmental History* 1 (2015): 41-79.

³⁸ Carolyn M. King, *Invasive Predators in New Zealand: Disaster on Four Small Paws* (Cham: Springer International Publishing, 2019), 145-248; Carolyn M. King, ‘The history of transportations of stoats (*Mustela erminea*) and weasels (*M. nivalis*) to New Zealand, 1883-92,’ *International Review of Environmental History* 3, no. 2 (2017): 51-87; Carolyn M. King, ‘The chronology of a sad historical misjudgement: The introductions of rabbits and ferrets in nineteenth-century New Zealand,’ *International Review of Environmental History* 3, no. 1 (2017): 139-173; Holland and Figgins, ‘Environmental Disturbance Triggering Infestations of Gorse, Rabbits, and Thistles in Southern New Zealand: 1850 to 1980,’ 41-79; Holland, *Home in the Howling Wilderness*, 145-167; Peden, *Making Sheep Country*, 65-94; Philippa Wells, ‘The Fall and Fall in the Legal Status of Mustelids in New Zealand,’ *Environment and History* 15, no. 3 (2009): 343-368; Phillipa K. Wells, ‘“An Enemy of the Rabbit”: The Social Context of Acclimatisation of an Immigrant Killer,’ *Environment and History* 12, no. 3 (2006): 297-324; Paul Star, ‘“Nature’s Trump Card”: Confronting the Rabbit Problem in Southern New Zealand, 1867-1897,’ *ENNZ: Environment and Nature in New Zealand* 1, no. 2 (2006): 3-10.

³⁹ Paul Star, ‘New Zealand’s Changing Natural History,’ 64.

⁴⁰ Paul Star and Lynne Lochhead, ‘Children of the burnt bush: New Zealanders and the indigenous remnant, 1880-1920,’ *Making a New Land*, ed. Pawson and Brooking, 141-157.

native forests, birds, and even Māori, were all doomed to extinction. By 1900, native birds, many of which had become national icons, like the kiwi (*Apteryx spp.*), Star argues, became protected by law ‘quite specifically because they were native’.⁴¹ In addition to native bird legislation and the calls for scenery preservation, other scholars have highlighted changes in New Zealand literature and uses of native flora for medicinal purposes.⁴² However, far from all environs were becoming protected as a national identity emerged amongst Pākehā. Swamps, for example, garnered little affection from Pākehā, who considered them unhealthy and unproductive, and as such, undertook major efforts to transform them into farmland.⁴³ Rivers, too, were modified in the name of improvement, either being diverted, dammed or serving as drains.⁴⁴ The emergence of hydro-electric technology in the late nineteenth century saw Pākehā seeking to improve rivers by building dams and hydro plants well into the 1980s. Such developments provoked the Save the Manapouri campaign in the 1960s, which scholars regard as marking the birth of the modern environmental movement in New Zealand.⁴⁵ Mountains and forests, on the other hand, continued to occupy a central role in the growing national identity.⁴⁶ As Star notes, Pākehā developed ‘an intricate forest vocabulary specific to New Zealand’, most notably by referring to forests as bush.⁴⁷ Indeed, the terms ‘bush’, and ‘going bush’, constitute the focal points in Kirstie Ross’s *Going Bush* as she explores various outdoor engagements, including nature education and outdoor recreation.⁴⁸

As a result of the cultural prominence of forests, forest history has come to grow into a major branch on the tree of New Zealand environmental history, with particular emphasis on deforestation. As a large body of research demonstrates, most notably by the historical geographers Graeme Wynn and Michael Roche, as well as environmental historians James Beattie and Paul Star, concerns of a timber famine prompted a wide array of responses in terms

⁴¹ Paul Star, ‘Native Birds Protection, National Identity and the rise of Preservation in New Zealand to 1914’, *New Zealand Journal of History* 36, no. 2 (2002): 133.

⁴² Joanna Bishop, ‘The Role of Medicinal Plants in New Zealand’s Settler Medical Culture, 1850s-1920s’ (PhD diss., University of Waikato, 2014).

⁴³ James Beattie, ‘Colonial Geographies of Settlement: Vegetation, Towns, Disease and Well-Being in Aotearoa/New Zealand, 1830s-1930s,’ *Environment and History* 14, no. 4 (2008): 593-595; Geoff Park, ‘“Swamps which might doubtless Easily be drained”: swamp drainage and its impact on the indigenous,’ in *Making a New Land*, ed. Pawson and Brooking, 174-189.

⁴⁴ Catherine Knight, *New Zealand’s rivers: An environmental history* (Christchurch: Canterbury University Press, 2016), 65-89.

⁴⁵ Knight, *New Zealand’s rivers*, 120-148; Catherine Knight, ‘Modernising Rivers: River ‘Improvement’ Efforts and Hydroelectric Power Development,’ *New Zealand Between the Wars*, ed. Rachel Bell (Auckland: Massey University Press, 2017), 154-177. On the Save the Manapouri campaign, see Ross, *Going Bush*, 155-158; Young, *Our Islands, Our selves*, 168-174.

⁴⁶ Eric Pawson, ‘The meaning of mountains,’ *Making a New Land*, ed. Pawson and Brooking, 158-173.

⁴⁷ Paul Star, ‘New Zealand Environmental History: A Question of Attitudes,’ *Environment and History* 9, no. 4 (2003): 268.

⁴⁸ Ross, *Going bush*.

of preservation, conservation, and afforestation. The rapid and large scale deforestation of New Zealand, Beattie argues, sparked environmental anxieties amongst settlers as early as 1840, and encompassed a fear of climate change, sand drift, soil erosion, flooding, and a timber famine.⁴⁹ In nineteenth-century New Zealand, these concerns, in particular the issue of deforestation and conservation – sometimes referred to as the forest question, Wynn notes – largely attracted settlers of ‘the middle and upper ranks of British society’, who, due to their secure financial position ‘were able to appreciate the long-term and ecological consequences of an unbridled assault on the New Zealand environment.’⁵⁰ Though few in number, this group exerted significant influence on the forest question for two reasons. Firstly, many of them sat in Provincial Councils and the General Assembly. Secondly, ‘some of this group were ardent naturalists, well informed of the latest developments in the study of natural history and in touch with the wider nineteenth-century world of ideas.’⁵¹ Wynn notes the influences of the American George Perkins Marsh and his *Man and Nature*.⁵² However, the push for conservation in New Zealand was not merely the result of ideas from overseas. Local observations, too, influenced early conservationists.⁵³ Star masterfully shows this in his work on naturalist, runholder, and politician Thomas Henry Potts (1824-1888). Arriving in Canterbury in 1854, Potts, a devoted Christian, energetically set out to improve the land. As years passed and forest resources diminished in an already forest scarce province, Potts began expressing concern over future timber supplies; a worry accelerated by witnessing an uncontrolled bush burn destroying large tracts of tōtara (*Podocarpus totara*). When Potts, in 1868, made an unprecedented call for the conservation of New Zealand’s forests in Parliament, he quoted Marsh and recent forest legislation passed in Victoria, Australia.⁵⁴

Potts’s attempt, though supported by fellow politicians with interests in natural history, encountered general resistance from his parliamentary colleagues. As Wynn notes, state forestry in a political environment dominated by the principles of *laissez-faire* represented a form of paternalism.⁵⁵ Instead, as Roche notes in his pioneering *Forest policy in New Zealand*,

⁴⁹ James Beattie, ‘Environmental Anxiety in New Zealand, 1840-1941: Climate Change, Soil Erosion, Sand Drift, Flooding and Forest Conservation,’ *Environment and History* 9, no. 4 (November 2003): 379-392.

⁵⁰ Graeme Wynn, ‘Pioneers, politicians and the conservation of forests in early New Zealand,’ *Journal of Historical Geography* 5, no. 2 (1979): 171-188. Quote from 186. See also: Graeme Wynn, ‘Conservation and Society in Late Nineteenth-Century New Zealand,’ *New Zealand Journal of History* 11, no. 2 (1977): 124-136.

⁵¹ Wynn, ‘Pioneers, politicians and the conservation of forests in early New Zealand,’ 186.

⁵² *Ibid.*, 171-188.

⁵³ James Beattie and Paul Star, ‘Global Influences and Local Environments: Forestry and Forest Conservation in New Zealand, 1850s-1925,’ *British Scholar* 3, no. 2 (2010): 191-218.

⁵⁴ Star, ‘Thomas Potts and the Forest Question,’ 173-206, in particular 186-191.

⁵⁵ Wynn, ‘Pioneers, politicians and the conservation of forests in early New Zealand,’ 171-188; Wynn, ‘Conservation and Society in Late Nineteenth-Century New Zealand,’ 124-136.

the earliest attempts to address a diminishing timber supply focused on encouraging private tree-planting.⁵⁶ Despite the political hostility, Premier Julius Vogel, increasingly aware of the forest question, sponsored the New Zealand Forests Act in 1874, which saw employment of Captain Inches Campbell Walker, previously serving in the Indian Forest Service.⁵⁷ The employment of Walker, Beattie notes, highlights the forestry exchanges between India and Australasia as a response to environmental anxieties, especially deforestation.⁵⁸ Once in New Zealand, Walker advocated for the scientific management of New Zealand's native forests and the establishment of climatic reserves to prevent floods and erosion as well as to ensure a steady supply of rain. To avoid antagonising supporters of settlement, Walker, as Beattie writes, 'stressed the economic benefits of scientific state forestry to New Zealand.'⁵⁹ To Walker and contemporary supporters of scientific forestry, 'conservation represented a different – albeit complementary – form of colonial development.'⁶⁰ Unfortunately, economic retrenchment saw Walker leave after a few years, curtailing any major attempts to introduce scientific forestry in New Zealand. Although a forestry branch of the Lands Department was formed in 1897, its work was limited to establishing state plantations of exotic timber trees.⁶¹

The Forestry Branch's planting did little to alleviate any concerns of a timber famine as native forests – the main source of timber – continued to diminish. The 1913 Royal Commission on Forestry, on the premise that the indigenous forests possessed 33,060,883,437 superficial feet of timber in 1909, that New Zealand consumed 358,000,000 feet annually, and that both population and consumption would double in thirty five years, noted: 'it is not safe to conclude that there will be any supply of moment at the expiration of thirty years from the present time'.⁶² As Star and Beattie suggest, the Commission regarded native species as too slow growing and therefore recommended the planting of exotics, *Pinus radiata* in particular, to avoid a timber famine. The Commission's conclusion, Star and Beattie argue, formed the starting point of present New Zealand forestry practices, which solely concern the planting and harvesting of exotic timber trees, especially *Pinus radiata*.⁶³

⁵⁶ M. M. Roche, *Forest policy in New Zealand: an historical geography 1840-1919* (Palmerston North: Dunmore Press, 1987), 43-57; Paul Star, 'Tree Planting in Canterbury, New Zealand, 1850-1910,' *Environment and History* 14, no. 4 (2008): 563-582.

⁵⁷ Roche, *Forest policy in New Zealand*, 76-81.

⁵⁸ James Beattie, *Empire and Environmental Anxiety: Health, Science, Art, and Conservation in South Asia and Australasia, 1800-1920* (Basingstoke: Palgrave Macmillan, 2011). For Walker in particular, see: 155-157.

⁵⁹ *Ibid.*, 156.

⁶⁰ *Ibid.*, 9.

⁶¹ Roche, *Forest policy in New Zealand*, 57-66.

⁶² *AJHR*, 1913, C12, xxx.

⁶³ James Beattie and Paul Star, 'State Forest Conservation and the New Zealand Landscape: Origins and Influences, 1850-1914,' in *Landscape/Community*, ed. Ballantyne and Bennett, 56.

Whereas there is a large body of scholarship on the period up to 1920 on New Zealand forests and forestry, the 1920s to the 1950s, as Roche notes, ‘remains comparatively neglected by environmental historians’.⁶⁴ According to Roche, environmental historians tend to conclude with the 1913 Royal Commission, or 1920 at best, and overlook the influence of sustained yield management in New Zealand forestry practice amongst professional foresters, which, he argues ‘needs to be kept to the fore.’⁶⁵ During the early twentieth century, as mentioned, sustained yield management enjoyed huge support amongst professional foresters in New Zealand, first by imperial forester Sir David Ernest Hutchins (1850-1920) and later the Canadian forester Leon MacIntosh Ellis (1887-1941), New Zealand’s first Director of Forestry following the establishment of the State Forest Service in 1919.⁶⁶ Ellis, however, abandoned sustained yield management to a certain extent in favour of exotic afforestation in 1925.⁶⁷ ‘The development of state conservation from the 1920s’, Roche argues, symbolised by the formation of the SFS, ‘was overseen by a small number of technical experts within the bureaucracy’ who sought to ensure a “‘wise use” of natural resources in the public interest’.⁶⁸ While Roche offers an excellent account of the history of the SFS in *History of Forestry*, the work focuses on the institution itself, not the department’s relationship to the public.⁶⁹

According to Beattie, as ‘democratic government emerged in many settler colonies’ so did ‘gradual acceptance of state involvement in society.’⁷⁰ Yet, the breakthrough of democracy did not automatically guarantee the success of forestry – far from it. ‘Our system of government’, Robson Black, manager of the Canadian Forestry Association, noted in 1923, ‘is such that every policy involving large expenditures must have its origin with the masses of electors or await their sympathy and consent.’⁷¹ To Robson, the absence of forestry policies in Canada, and the rest of the British Empire for that matter, stemmed from a lack of public understanding that could solely be addressed through propaganda to form ‘an intelligent partnership with public opinion.’⁷² While a few forest societies, such as the American Forestry

⁶⁴ Michael Roche, ‘An interventionist state: ‘wise use’ forestry and soil conservation,’ *Making a New Land*, ed. Pawson and Brooking, 209.

⁶⁵ Michael Roche, ‘(Re)Interpreting exotic forestry in 1920s New Zealand,’ *International Review of Environmental History* 1 (2015): 155.

⁶⁶ On Hutchins, see: Michael Roche, ‘Colonial Forestry at its Limits: The Latter Day Career of Sir David Hutchins in New Zealand 1915-1920,’ *Environment and History* 16, no. 4 (2010): 431-454.

⁶⁷ Roche, ‘(Re)Interpreting exotic forestry in 1920s New Zealand,’ 147-172.

⁶⁸ Roche, ‘An interventionist state: ‘wise use’ forestry and soil conservation,’ 209.

⁶⁹ Michael Roche, *History of Forestry* (Wellington: New Zealand Forestry Corporation in association with GP Books, 1990).

⁷⁰ Beattie, *Empire and Environmental Anxiety*, 29.

⁷¹ Robson Black, ‘Propaganda and the cause of forestry,’ *Empire Forestry Journal* 2, no. 1 (April 1923): 115.

⁷² *Ibid.*

Association in the United States and the Royal Scottish Arboricultural Society in the United Kingdom, were formed in the nineteenth century, the rise of forest organisations across the settler societies of the British Empire in the early 1900s, with the Canadian Forestry Association in 1900, the Australian Forest League in 1912, and the NZFL in 1916, reflected the importance of the public in solving the forest question.

Although it was among the first national conservation organisations in New Zealand, the NZFL has received limited attention by scholars and the association has almost faded into obscurity.⁷³ Roche describes the NZFL as ‘one of the earlier public interest environmental groups in the Dominion’ that drew upon methods developed by British and American pressure groups.⁷⁴ This included using social connections its members enjoyed with ‘high level bureaucratic and parliamentary decision makers’ and the distribution of propaganda material, including publishing a journal.⁷⁵ Roche has dedicated particular attention to the former, examining letters between members of the NZFL and politicians.⁷⁶ The NZFL has received further attention by Lochhead in her thesis on early conservation groups in New Zealand. In her thesis, Lochhead provides a thorough account of the NZFL as she details its aims and objectives, connections to earlier preservation groups, internal disagreements on land utilisation, and biographical overviews of its members.⁷⁷ However, though previous research recognises the NZFL’s aim to educate the public, for example by publishing a magazine, its propaganda work has been largely overlooked. As such, this thesis, by examining the work by the NZFL and the SFS to foster a public forest consciousness to avoid a timber famine, and educate the public on the values of state forestry, contributes to New Zealand environmental history by focusing on how conservationists and scientific foresters sought to engage with the public in preventing deforestation, and instil a love of forests and trees.

A time of uncertainty

The period examined in this thesis – 1916-1935 – and in particular the 1920s, can be summarised as ‘a time of widespread disillusionment and political instability as well as economic insecurity.’⁷⁸ Indeed, the 1920s started and ended with a recession. However,

⁷³ Hamish Levack, ‘Current relevance of the New Zealand Forestry League,’ *New Zealand Journal of Forestry* 54, no. 1 (2009): 27-28.

⁷⁴ Roche, *Forest Policy in New Zealand*, 110.

⁷⁵ *Ibid.*, 110.

⁷⁶ *Ibid.*, 112-118.

⁷⁷ L. E. Lochhead, ‘Preserving The Brownies’ Portion: A History Of Voluntary Nature Conservation Organisations In New Zealand 1888-1935’ (PhD diss., Lincoln University, 1994), 239-265.

⁷⁸ Tom Brooking, ‘Economic Transformation,’ in *The Oxford History of New Zealand*, 2nd ed. ed. Geoffrey W. Rice (Auckland: Oxford University Press, 1992), 231.

between these recessions, the period also saw the launch of large infrastructural projects and major state reforms in areas of education and health, as well as various welfare projects. Thus, as Rachel Bell suggests, the interwar period ‘was a paradoxical one.’⁷⁹

The rise of state intervention prompted an expansion of existing departments and the creation of new ones, such as the SFS. As the state grew, so did the cities. In 1926, a third of all Pākehā – around half a million – lived in either Auckland, Wellington, Christchurch, or Dunedin.⁸⁰ Offering all kinds of modern enjoyments, such as cinemas and dancehalls, cities proved particularly alluring to the young. As Charlotte Macdonald notes: ‘Living in cities, listening to jazz, walking on footpaths and pavements rather than fields and tracks, conveyed what it was to be modern.’⁸¹ At the same time, the attractive modern lifestyle also prompted concern amongst the more conservative population as divorce rates and numbers of children born out of wedlock increased significantly, whilst the national birth rate was decreasing.⁸² Founded by Frederic Truby King in 1907, the Plunket Society sought to improve the nursing of babies through what it considered to be scientific methods, believing poor nurturing would result in decay in social order and the degeneracy of the white race.⁸³ In the 1920s, King and the Plunket Society enjoyed significant influence, which Erik Olssen attributes to their ability to link the care of children with the health of the family as well as the British Empire, thereby addressing ‘some of the major anxieties within New Zealand society’.⁸⁴ So as to educate the public, King and the Plunket Society held lectures, distributed pamphlets, and arranged classes.⁸⁵

The Plunket Society’s notion of arranging public lectures, publishing pamphlets, and influencing opinion by other means reflected the growing attempts by social reformers and experts, at times referred to as social engineers, during the interwar period to address societal issues. As John M. Jordan notes, the notions of scientific solutions together with an expanding public administration led to social reformers to perceive their task ‘not of fomenting consensus or defining goals, but of troubleshooting and problem solving.’⁸⁶ One example in New Zealand is the School Medical Service, founded in 1912, which during the interwar period launched

⁷⁹ Rachel Bell, ‘Introduction: A Nation on the Cusp,’ in *New Zealand Between the Wars*, ed. Bell, 11.

⁸⁰ Erik Olssen, ‘Towards a New Society,’ in *The Oxford History of New Zealand*, 2nd ed. ed. Rice, 256 and 258f.

⁸¹ Charlotte Macdonald, *Strong, Beautiful and Modern: National Fitness in Britain, New Zealand, Australia and Canada, 1935-1960* (Wellington: Bridget Williams Books, 2016), 18.

⁸² Olssen, ‘Towards a New Society,’ 254.

⁸³ Erik Olssen, ‘Truby King and the Plunket Society: An Analysis of a Prescriptive Ideology,’ *New Zealand Journal of History* 15, no. 1 (1981): 3-23.

⁸⁴ Ibid. Quote from 3.

⁸⁵ Ibid., 3-23.

⁸⁶ John M. Jordan, *Machine-Age Ideology: Social Engineering and American Liberalism, 1911-1939* (Chapel Hill: University of North Carolina Press, 1994), 7.

several schemes to improve the health of children by scientific means.⁸⁷ However, to succeed in their missions, social reformers, including those working for the state, realised the necessity of propaganda to reach out to the public, with state departments establishing their own public relations or press divisions.⁸⁸ The School Medical Service, for example, employed a range of tools to educate and engage with the public, such as pamphlets, lectures, and radio programmes.⁸⁹ As this thesis shows, the NZFL and the SFS employed propaganda tools in a similar fashion in their quest to prevent a timber famine and garner political support for forestry.

During this period, New Zealand officials and newspapers often boasted about the Dominion having the best race relations in the world between Pākehā and Māori.⁹⁰ Although Māori enjoyed some political representation, not least through the Young Māori Party with members like Apirana Ngata, and in the realms of sport and culture where individual Māori rose to prominence, New Zealand was by and large a segregated society.⁹¹ While a small proportion of Māori had ventured into the cities, most still lived in poor and isolated rural communities.⁹² Moreover, voluntary organisations, like the Plunket Society, and state initiatives, such as infant welfare, either focused primarily on Pākehā, or tended to benefit Pākehā to a much larger extent.⁹³ This separation, as this thesis shows, was also evident in the efforts to create a public forest consciousness which, though never explicitly stated, primarily targeted the Pākehā public.

Methodological considerations, sources, and disposition

This dissertation examines the efforts by forestry advocates and foresters to create a public forest consciousness so as to avoid a timber famine, and to prevent ecological catastrophe due to decades of deforestation. Specifically, it considers the importance forestry supporters and foresters ascribed to public support and participation in forest conservation and preservation. J. R. McNeill suggests that the field of environmental history, if generalised, consists of ‘three main varieties’; material, which ‘concerns itself with changes in biological and physical

⁸⁷ Margaret Tennant, ‘“Missionaries of Health”: The School Medical Service During the Inter-war Period,’ in *A Healthy Country: Essays on the Social History of Medicine in New Zealand*, ed. Linda Bryder (Wellington: Bridget Williams Books, 1991), 128-148.

⁸⁸ Mariel Grant, *Propaganda and the role of the state in inter-war Britain* (Oxford: Clarendon, 1994).

⁸⁹ Tennant, ‘“Missionaries of Health”,’ 128-148.

⁹⁰ Aroha Harris, ‘Persistence and Resilience, 1920-1945,’ in *Tangata Whenua: A History*, ed. Atholl Anderson, Judith Binney, and Aroha Harris (Wellington: Bridget Williams Books, 2015), 312. See also James Belich, *Paradise Reforged: A History of the New Zealanders From the 1880s to the Year 2000* (Auckland: Allen Lane; Penguin Press, 2001), 189-191.

⁹¹ Harris, ‘Persistence and Resilience, 1920-1945,’ 311-328.

⁹² Ibid.

⁹³ Barbara Brookes, *A History of New Zealand Women* (Wellington: Bridget Williams Books, 2016), 187-193.

environments, and how those changes affect human societies', particularly in terms of economy and technology; cultural and intellectual, which focuses on attitudes to, and ideas of, nature; and political, which 'considers law and state policy' and often centres around the nation state.⁹⁴ While McNeill notes that most work in environmental history tends to fall into one or two of these categories, the occasional work encompasses all three: this dissertation is one such example. First, relating to the material approach, this thesis explores the consequences of deforestation in New Zealand by examining the fears and responses to a timber famine. Second, it relates to the cultural and intellectual approach by investigating the efforts by the NZFL and the SFS to instil a public forest consciousness, an appreciation of forests for their utilitarian and aesthetical values. Third, it connects to the political approach, demonstrating how the creation of a public forest consciousness constituted a cornerstone in the SFS's work to prevent a timber famine.

To examine the efforts by the NZFL and the SFS to create a public forest consciousness, this thesis draws upon a range of primary sources and includes official and unofficial as well as published and unpublished material. Official material – largely material produced by the SFS – constitutes the largest source and consists of unpublished reports, memos, and proposals, various publications like leaflets and bulletins aimed for public distribution, and lastly, visual material, such as posters. A majority of the material produced by the SFS is held at Archives New Zealand. A particularly valuable official source is the *Appendices to the Journal of the House of Representatives* (AJHR), which include the annual reports of the SFS and other departments as well as the findings and conclusions of various commissions. Unofficial material includes published and unpublished material produced by the NZFL, for example meeting minutes, presidential speeches, and leaflets, but also material from other associations as well, such as the Tararua Tramping Club and the Native Bird Protection Society. Letters and private correspondence constitute a small but valuable source, too.

The threat of a timber famine, and the dangers of deforestation more generally, constituted regular topics in newspapers during this period. Newspapers have been accessed through the Papers Past website, which has digitised a great number of national and local papers. The thesis also draws upon a number of journals issued by state departments and private organisations (most of them held in the Alexander Turnbull Library or the Hocken Collection). Journals of the former includes the *New Zealand Journal of Agriculture*, published by the Department of Agriculture, and the *New Zealand School Journal* and the *New Zealand Education Gazette*,

⁹⁴ J. R. McNeill, 'Observations on the Nature and Culture of Environmental History,' *History and Theory* 42, no. 4 (2003): 6f. Quote from 6.

both published by the Education Department. The last consists of journals such as the *Farmers' Union Advocate*, the official organ of the Farmers' Union, and *The Forest Magazine (of New Zealand)*, official journal of the NZFL, which, after the Tui Publishing Company acquired the magazine, would be published under many different names throughout the 1920s, but continued to serve as the official publication of the NZFL. By drawing upon an array of different sources, from memos between staff of the SFS to speeches at the meetings of the NZFL and newspaper articles, allows me to examine why the SFS and the NZFL regarded a public forest consciousness essential to prevent a timber famine, how they sought achieve it, and how newspapers portrayed the work and value of the SFS and the NZFL.

This thesis consists of six chapters, each examining a different aspect of the work by the NZFL and the SFS to create a public forest consciousness in New Zealand. Chapter one, 'Forestry and the public, 1916-1926', discusses the value forestry advocates and scientifically trained foresters attributed to public opinion in matters of forestry, and how they sought to acquire public support for forestry through various methods of propaganda. The chapter begins by studying the formation of the NZFL, its relationship with imperial forester David Ernest Hutchins, and how together they campaigned for the establishment of a forestry department, a task in which they succeeded following the creation of the SFS. Next, the chapter explores the co-operation and links between the NZFL and the SFS in seeking to educate the public on forestry. This work is exemplified by an examination of the early issues of the *Forest Magazine (of New Zealand)*, which was established by the NZFL, and to which the SFS regularly contributed articles. Aside from collaborating with the NZFL, the SFS conducted its own propaganda. This is further explored by looking at the various exhibitions in which the SFS participated. Lastly, the chapter highlights the importance and value the NZFL and the SFS alike attributed to the press in creating a public forest consciousness.

Chapter two, 'Farmers and forest consciousness, 1916-1932', examines the particular efforts by the NZFL and the SFS to educate farmers on the benefits of farm forestry in the hopes of promoting private tree-planting and thereby avoiding a timber famine. While farming and forestry have often been perceived as opposites, not least in the nineteenth century, this chapter shows that both the NZFL and the SFS sought to promote farm forestry as an essential aspect of agriculture. This chapter begins by studying the early work undertaken by the NZFL, and its relationship and collaboration with the New Zealand Farmers' Union in terms of promoting farm forestry and forestry in general. Next, the chapter explores the vision expressed by the SFS of farm forestry as a major supplier of timber, and its collaboration with the New Zealand Association of Nurserymen to stimulate private tree-planting. Lastly, the chapter examines the

use of statistics by the SFS to track the development of a forest consciousness amongst farmers in New Zealand.

Chapter three, ‘Inculcating children with a love of trees and forests, 1920-1935’, illustrates that the NZFL and the SFS sought to educate not only the adult population on the value of forestry and tree planting, but children as well, and focuses on the co-operative “Forestry in Schools Campaign” between the SFS and the Education Department. The chapter begins by detailing earlier attempts to educate children on the value of planting trees, most notably Arbor Day, and how the “Forestry in Schools Campaign” drew upon these events and celebrations. Thereon, the chapter examines the purposes of the campaign, the various ways the SFS and the Education Department promoted it, and how they adjusted it to urban and rural school conditions. Lastly, the chapter explores the competitions hosted by the NZFL as a means to develop a love for and knowledge of nature.

Chapter four, ‘Transforming a wasteful Dominion, 1920-1930’, shows that forest consciousness did not merely involve the planting of trees, but also encompassed the wider utilisation of timber and better industrial practices. This chapter examines the attempts by the SFS, and to a lesser extent the NZFL, to encourage forest conscious consumption as a means to reduce waste. It also explores efforts by the SFS in embracing applied science to promote wider usage of less common species as well as improve practices within the timber industry to reduce waste. These efforts are exemplified in a study of the Housing Conference in 1924, which the SFS organised in the hopes of standardising building bylaws and thereby reducing waste.

Chapter five, ‘Protection forests and forests protection, 1916-1932’, demonstrates that as much as the NZFL and the SFS expressed concern about an imminent timber famine, both organisations also worried about climatic consequences of deforestation, in particular erosion and flooding. As such, the forest consciousness that the NZFL and the SFS sought to instil in the public also emphasised the wider utilitarian value of forests beyond timber and the need to protect forests. The chapter then explores measures employed to raise public awareness of two significant factors in forest protection – the dangers posed by fire, and the importance of native bird preservation. As the latter shows, the SFS, and the wider forest conservation movement, enjoyed a close connection with the native bird protection movement, especially the Native Bird Protection Society.

Chapter six, ‘Forest consciousness and recreation: seeing and enjoying the trees, 1916-1932’ highlights the aesthetic aspect of forest consciousness. As this chapter shows, the NZFL and the SFS considered scenery preservation an integral part of scientific forestry and forest

conservation as a whole, with both seeking to protect forests considered beautiful, believing the preservation of aesthetical forests would help inculcate a public forest consciousness. Indeed, during the 1920s, an increasing number of Pākehā escaped to the forest for recreation, either exploring the bush by foot or driving through it on recently constructed roads. As this chapter shows, the SFS and the NZFL came to develop a strong collaboration with tramping clubs.

This thesis, by examining the initiatives, policies, and activities by the NZFL and the SFS, shows that fostering a public forest consciousness was central in the work of the two organisations. This included acquiring a broad public support politically for forestry, having the public plant trees or reduce waste to prevent a timber famine, and showcasing and educating the public on the aesthetic and utilitarian values of forests and native wildlife.

Chapter One

Forestry and the public, 1916-1926

New Zealand has never seriously considered the forest question, which has been looked on as an amiable fad. In a democratic country the Government, naturally, will not deal thoroughly with the forest question without a mandate from the people; and the mass of the people know nothing about forestry in New Zealand as compared to forestry in other countries.⁹⁵

David Ernest Hutchins, 1916

Forestry, to succeed in a democratic country such as New Zealand, according to imperial forester David Ernest Hutchins, required a public aware and supportive of the science. This chapter examines the efforts by the New Zealand Forestry League (NZFL) and the New Zealand State Forest Service (SFS), from 1916 to the middle of the 1920s, to educate the public in the necessity of implementing scientific forestry in New Zealand to avoid a timber famine. This chapter explores the means and channels the two bodies employed to create a forest conscious public, arguing that propaganda came to constitute a central aspect of forest conservation in early twentieth century New Zealand.

This chapter begins by looking at the early propaganda work undertaken by the NZFL with Hutchins to educate the public on the necessity of establishing a forestry department to prevent a timber famine. Next, the chapter examines the early relationship between the SFS and the NZFL, an analysis of which demonstrates the close partnership between the two organisations in spreading propaganda to shape public opinion in favour of the new department. This collaboration and propaganda work is examined in further detail by a study of the early years of the *Forest Magazine (of New Zealand)* [hereafter *Forest Magazine*], founded by the NZFL and which came to function as a megaphone for the cause of scientific forestry. Thereon, the chapter looks at exhibit displays organised by the SFS as a means of engaging with a wide audience to demonstrate the necessity of forestry. Lastly, the chapter examines the valuable role that the NZFL and the SFS attributed to newspapers in educating and bringing the cause of forestry before the public.

⁹⁵ D. E. Hutchins, 'Scientific National Forestry for New Zealand,' NZJA 13, no. 5 (1916): 394.

The New Zealand Forestry League and an imperial forester

In April 1916, James Glennly Wilson warned in a letter published in newspapers across New Zealand, that, unless addressed, a timber famine was imminent.⁹⁶ In order to ‘get the Government to realize the necessities of the case’, he outlined his intention to form a society similar to the Royal Scottish Arboricultural Society with the aim of arousing public opinion on the importance of forestry.⁹⁷ As ‘Governments are moved by public opinion’, Wilson explained, the only way to force action consisted of creating ‘a public opinion sufficiently strong to force the pace.’⁹⁸ To demonstrate the power of public opinion he pointed to the successful and foresightful work of the Navy League ‘in securing to Britain our present naval strength’ by creating popular support for a strong fleet prior to the outbreak of the war.⁹⁹ Thus, he urged ‘those who love trees for their own sake and for the benefits of present planting for future generations’ to join him in awakening government and public alike to the importance of forestry.¹⁰⁰

Wilson’s letter certainly inspired. As president of both the Farmers’ Union and the Board of Agriculture, Wilson was an establishment figure whose warning was not easily dismissed.¹⁰¹ Three months after his initial plea and subsequent advertising in the press, ‘gentlemen from various parts of the Dominion’ gathered in Wellington on 11 July 1916 to discuss the establishment of a forestry association.¹⁰² After an opening speech by Wilson, in which he repeated the need to secure New Zealand’s timber supply, Hutchins took the stage. A distinguished forester with a career across the British Empire, Hutchins arrived in New Zealand

⁹⁶ See, for example: Sir James Wilson, ‘Reafforestation,’ *Star*, 20 April 1916, 4; J. G. Wilson, ‘Appeal to tree lovers,’ *Manawatu Times*, 21 April 1916, 2; J. G. Wilson, ‘Afforestation,’ *ES*, 22 April 1916, 8; Sir J. G. Wilson, ‘Afforestation,’ *ODT*, 24 April 1916, 8; Sir James G. Wilson, ‘Our timber supplies,’ *Dominion*, 24 April 1916, 6; ‘Our vanishing forests,’ *AS*, 24 April 1916, 9; Sir James Wilson, ‘A great national need,’ *Hawera & Normanby Star*, 26 April 1916, 4; ‘Need of trees,’ *EP*, 27 April 1916, 2; Sir J. G. Wilson, ‘Afforestation,’ *Otago Witness*, 3 May 1916, 5. See also: James G. Wilson, ‘To the Editor,’ unnumbered. A L Hunt Papers, ATL, MS-Papers-0158-297. I will use this reference hence forth when quoting the letter.

⁹⁷ Wilson, ‘To the Editor,’ unnumbered. A L Hunt Papers, ATL, MS-Papers-0158-297.

⁹⁸ *Ibid.*

⁹⁹ *Ibid.* Founded in 1895, the Navy League, as Matthew Johnson notes, ‘sole *raison d’être* was the political promotion of British naval power.’ This objective the Navy League sought to achieve by political lobbying and by influencing public opinion through propaganda. The organisation proved immensely popular, boasting 100,000 members at beginning of World War I. The Navy League had branches across the Empire, including New Zealand. On the influence of the Navy League and its propaganda, see: Matthew Johnson, ‘The Liberal Party and the Navy League in Britain before the Great War,’ *Twentieth Century British History* 22, no. 2 (2011): 137-163, quote from 141. See also: W. Mark Hamilton, *The Nation and the Navy: Methods and Organization of British Navalist Propaganda, 1889-1914* (New York & London: Garland Publishing, 1986).

¹⁰⁰ Wilson, ‘To the Editor,’ unnumbered. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹⁰¹ For a full biography of Wilson, see: L. J. Wild, *The Life and Times of Sir James Wilson of Bulls* (Christchurch: Whitcombe & Tombs, 1953).

¹⁰² Attendance note. A L Hunt Papers, ATL, MS-Papers-0158-297. For advertising, see, for example: ‘Meetings,’ *NZT*, 8 July 1916, 8; ‘Meetings,’ *ODT*, 8 July 1916, 1; ‘Proposed Forestry League,’ *AS*, 8 July 1916, 12; ‘Proposed Forestry League,’ *Dominion*, 12 July 1916, 9; ‘Meetings,’ *Lyttelton Times*, 8 July 1916, 1.

in late 1915 to conduct a report on the state of forestry in the Dominion after Wilson, in his capacity as President of the Board of Agriculture, had persuaded Prime Minister William Ferguson Massey to invite the forester to New Zealand.¹⁰³ ‘The forest question’, he informed the audience, ‘is the most important social question now before the country’ since ‘the indiscriminate destruction of the forests’ had resulted in New Zealand ‘losing wealth and population, together with much of its beauty’.¹⁰⁴ This, he argued, was not a consequence of political inaction, but public ignorance: ‘For the present absence of a forest policy it is entirely unjust to blame the Government, which naturally in a democratic country can only reflect public opinion.’ To support his thesis, Hutchins pointed to the short-lived forest acts implemented by Premier Julius Vogel in 1876-77, which, he claimed, failed because they were ‘in advance of public opinion’.¹⁰⁵ Therefore, Hutchins suggested that the first and foremost objective of the forestry association would be ‘to gradually educate public opinion on forestry’, and secondly ‘to see that no hasty action, due to the play of party politics, be allowed to pass unnoticed and interfere with the great far-reaching interests of the country in its national forestry’.¹⁰⁶ This was a task it would share with existing forestry societies in North America, Europe, Japan, and, most recently, Australia, following the formation of the Australian Forestry League in 1911, and whose first general meeting he had attended before crossing the Tasman Sea.¹⁰⁷ The necessity of informing the public on forestry was, clearly, not unique to New Zealand.

Wilson’s and Hutchins’s speeches ignited the attendees with enthusiasm as they ‘unanimously agreed’ to establish a forestry society, choosing the name the New Zealand Forestry League (NZFL).¹⁰⁸ Reflecting its high intentions, the NZFL, eager to invoke public opinion and recruit members, arranged for Hutchins’s lecture to feature in the *New Zealand Journal of Agriculture* a mere month after the NZFL’s inauguration.¹⁰⁹ Michael Roche uses the address as an example of ‘Hutchins’s role as a proselytiser as much as a forestry expert’ by pointing to its dramatic language and claims.¹¹⁰ However, he overlooks the important role the NZFL played in ensuring the lecture’s publication. Indeed, a year later, in 1917, the NZFL had the lecture published as a pamphlet with the ambition of ‘arousing a wider and deeper public

¹⁰³ For Hutchins’s time in New Zealand, see: Roche, ‘Colonial Forestry at its Limits,’ 431-454.

¹⁰⁴ D. E. Hutchins, ‘Scientific National Forestry for New Zealand,’ NZJA 13, no. 4 (1916): 295.

¹⁰⁵ Hutchins, ‘Scientific National Forestry for New Zealand,’ 396.

¹⁰⁶ *Ibid.*, 392.

¹⁰⁷ *Ibid.*, 390 and 392. For Hutchins’s time in Australia, see Michael Roche, ‘David Hutchins in Australia 1914-1915: the Penultimate Chapter in the Career of an Imperial Forester,’ *Historical Records of Australian Science* 21, no. 2 (2010): 165-180.

¹⁰⁸ ‘N. Z. Forestry League,’ unnumbered. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹⁰⁹ NZFL, council, 22 August 1916, 2. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹¹⁰ Roche, ‘Colonial Forestry at its Limits,’ 437f. Quote from 438.

appreciation of the need for preserving and conserving the rapidly diminishing forests of the Dominion.’¹¹¹ The publication of Hutchins’s address also reflected another ambition of the NZFL, namely, to ‘become the channel through which the views of all Forestry enthusiasts will find expression, and by which public opinion will be directed to the great importance to this Dominion of a sound policy for the maintenance, management, and control of our valuable forests’ and thus act as the avant-garde of New Zealand forestry.¹¹² As Wilson noted in 1918: ‘The future of our timber depends upon the way in which a few enthusiasts can influence public opinion to get the Government to take active steps.’¹¹³ This the NZFL sought to achieve by publishing material ‘from the pens of practical men – enthusiastic lovers of our beautiful flora – whose one desire is to co-operate with Nature in the production of never-failing supply of useful timber trees.’¹¹⁴ One such practical man was Hutchins.

As previously mentioned, Hutchins arrived in New Zealand in 1915 to report on New Zealand forestry, just as he had recently done for Australia’s forests.¹¹⁵ What was supposed to be a brief stay extended to his death in late 1920. During his time in New Zealand, as previous research notes, Hutchins clashed with scientists and politicians, not least after the publication of his *A Discussion on Australian Forestry* in 1916, in which he chastised the conclusions of the 1913 Royal Commission on Forestry and New Zealand forestry in general.¹¹⁶ In addition, his consistently delayed reports soon became a source of frustration, including for Massey, whom he ‘displayed a refined capacity to annoy and alienate’.¹¹⁷ However, Hutchins also enjoyed allies, not least Wilson, who had convinced the government to invite him.¹¹⁸ Moreover, as Lynne Lochhead has shown, Hutchins exhibited a great influence over the NZFL, converting Wilson and others to promote scientific forestry based on sustained yield management of native forests rather than exotic afforestation.¹¹⁹ Yet, little attention has been given to the close collaboration between Hutchins and the NZFL, not least in terms of the scientific legitimacy Hutchins offered the NZFL. While its members held a strong interest in forestry and tree-

¹¹¹ D. E. Hutchins, *Scientific national forestry for New Zealand: inaugural address delivered at the initial meeting of the League in the Chamber of Commerce, Wellington, July 11th, 1916* (Wellington: Watkins Tyler & Tolan Printers, 1917), foreword.

¹¹² Ibid.

¹¹³ James G. Wilson, ‘Foreword,’ in *The New Zealand Forestry League. Practical Observations on Forestry*, ed. New Zealand Forestry League (Wellington: Watkins Print, 1918), 3.

¹¹⁴ New Zealand Forestry League, ‘A word about the League,’ in *The New Zealand Forestry League. Practical Observations on Forestry*, ed. New Zealand Forestry League (Wellington: Watkins Print, 1918), 6.

¹¹⁵ Roche, ‘David Hutchins in Australia 1914-1915,’ 165-180.

¹¹⁶ Roche, ‘Colonial Forestry at its Limits,’ 437-444.

¹¹⁷ Ibid., 437-444; Michael Roche ‘‘The Best Crop the Land Will Ever Grow’’: W. F. Massey through the Lens of Environmental History,’ *Journal of New Zealand Studies* no. 8 (2009): 111. Quote from the latter.

¹¹⁸ Roche, ‘Colonial Forestry at its Limits,’ 436.

¹¹⁹ Lochhead, ‘Preserving The Brownies’ Portion,’ 246.

planting, and some of them occupied prominent forestry positions, especially Edward Phillips Turner who at the time of the creation of the NZFL led the recently created Forestry Branch of the Department of Lands and Survey, none possessed any formal education or training in forestry.¹²⁰ Prior to leading the Forestry Branch, Phillips Turner served as Secretary on the 1913 Royal Commission on Forestry and as Inspector of Scenic Reserves. Although trained as a surveyor he possessed great field botanical knowledge and would later become Secretary of Forestry, and from 1928-1931 serve as Director of Forestry.¹²¹

In November 1917 the NZFL offered to pay Hutchins to give lectures and spread the gospel of scientific forestry, seeking to take advantage of his scientific authority and credibility to establish a branch of the society in Nelson.¹²² Hutchins agreed not only to go to Nelson, but to tour through the South Island, speaking at Invercargill, Dunedin, Christchurch, and Akaroa.¹²³ Hutchins also lectured independently. In 1920, for example, he addressed the Wellington Workers' Education Association.¹²⁴ Speaking before diverse audiences, in his lectures Hutchins emphasised different aspects and benefits of establishing a forestry department and scientific forestry. To the bourgeois audience of the Otago Expansion League, which sought to boost the region commercially and culturally, and whom he addressed in Dunedin in 1918, he stressed the financial profits that forestry would bring, a message clearly tailored to the business interests of the attendees.¹²⁵ In the years following the Great War, the Otago Expansion League came to promote regional afforestation schemes.¹²⁶ In his 1920 lecture to the Workers' Education Association, he claimed that the implementation of scientific forestry would lower the cost of living by ensuring cheaper timber prices for fuel and house-construction.¹²⁷ As the *Dominion* reported in its summary of the lecture:

‘Forestry, said Sir David Hutchins, ought to appeal to the workers. It was at its best under national control, and it was antagonistic to land aggregation. It provided an ideal defence force of men accustomed to an open-air life and it provided employment without displacement. National forestry had long been a plank in the platform of the British

¹²⁰ For a short biography on the initial members of the council of the NZFL, see Lochhead, ‘Preserving The Brownies’ Portion,’ 242-244, fn 14-24.

¹²¹ Roche, ‘Edward Phillips Turner,’ 143-153.

¹²² NZFL, council, 21 November 1917, 2. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹²³ NZFL, council, 15 May 1918, 1. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹²⁴ NZT, 5 June 1920, 3.

¹²⁵ ‘Afforestation,’ ODT, 23 March 1918, 10. On the Otago Expansion League, see: John Griffiths, ‘North American Boosterism in the South Pacific: Evaluating the failure of New Zealand’s Progress Leagues, 1880-1980,’ *International Journal of Regional and Local History* 12, no. 1 (2017): 1-23.

¹²⁶ Griffiths, ‘North American Boosterism in the South Pacific,’ 10.

¹²⁷ ‘A lecture. Facts about forestry. Sir D. Hutchen’s [sic] views,’ NZT, 8 June 1920, 6.

Labour Party, and in Australia phenomenal progress had been made in forestry under Labour Governments'.¹²⁸

In his presidential address in 1920, Wilson noted with glee that 'the Labour Unions which never before took any interest in the subject' expressed 'concern as to the future supply', which he attributed to soaring housing demands.¹²⁹ These were points Hutchins had repeatedly stressed in his lectures and writings.¹³⁰ His message on the value of scientific forestry to workers lived on after his death in 1920. In 1923 the *Maoriland Worker*, the paper of the Labour party, referred to Hutchins as it sought 'to emphasise the importance of the due preservation and development of the indigenous forests of New Zealand, particularly from the point of view of those who are dependent upon their exertions, mental or physical, for a livelihood.'¹³¹ As the paper noted:

The economic importance of forestry to the community at large, and particularly to the wage-earners, cannot be too strongly stressed. It has, unfortunately been thought in the past that all New Zealand wanted was settlement of its rural lands. The fact is that we have had too much settlement. Thousands upon thousands of acres of valuable bush have been destroyed to make room for grass of a low earning power.¹³²

The *Maoriland Worker* pointed to calculations by Hutchins showing that sustained yield management of kauri forests, per acre, offered better state revenue and more jobs than sheep runs.¹³³ Although Hutchins's estimates only considered kauri, the paper concluded that 'the cultivation of' other native trees 'would prove highly profitable to the State, a great stimulus to other industries, and a great factor in finding healthy employment for a large section of our people.'¹³⁴ A formidable proselytiser, Hutchins played a significant role in spreading the gospel of forestry.

The NZFL, when not publishing writings by Hutchins or employing him for a lecture tour of the South Island, utilised many of his arguments in their publications. In its first pamphlet,

¹²⁸ 'Practical forestry,' *Dominion*, 7 June 1920, 6.

¹²⁹ NZFL, annual meeting, 7 July 1920, 2. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹³⁰ See, for example: Hutchins, 'Scientific national forestry for New Zealand,' 300f; Hutchins, 'Scientific national forestry for New Zealand,' 380f; Hutchins, *Scientific national forestry for New Zealand*, 6f; 'Forestry,' NZT, 10 October 1918, 2; 'Forestry,' NZT, 11 October 1918, 2.

¹³¹ 'Need for Afforestation,' *Maoriland Worker*, 22 August 1923, 14.

¹³² *Ibid.*

¹³³ *Ibid.*

¹³⁴ *Ibid.*

issued in 1917, the NZFL stressed the need to educate the public on the value of forestry to prevent a timber famine.¹³⁵ This was, as the NZFL noted, an essential task to achieve its goals: 'If the public appreciated the fact that a considerable area of forest land unsuitable for settlement could be saved, they would insist on the Government preserving it and improving its capacity for timber production.'¹³⁶ To demonstrate to the public the benefits of forestry, the NZFL detailed the many benefits the establishment of a forestry department and the implementation of scientific forestry would bring, for example, by highlighting the employment opportunities created for 'a very large number of men returning from the war'.¹³⁷ Contrary to popular belief that native forests and trees grew too slowly, in supporting the implementation of sustained yield management, the NZFL pointed to data gathered by Hutchins demonstrating that native trees grew just as fast as the timber trees used in forestry operations in Europe and North America.¹³⁸ Therefore, 'it follows', the NZFL argued, 'that if those forests are worth preserving, so are ours.'¹³⁹ The pamphlet concluded with an appeal to join the NZFL: 'It is hoped that every person who considers this great National question fairly will be impelled to promptly join the League.'¹⁴⁰ The propaganda of the NZFL certainly proved effective, as Wilson remarked in his presidential speech at the annual meeting of the NZFL in 1918: 'The interest created by the League and the repeated warnings as to the danger of the situation with regard to our future timber supplies and the effect which we hoped for, viz., a strong public opinion should be done so as to preserve our remaining forests.'¹⁴¹ Indeed, it was with triumph Wilson noted that Massey recently had 'promised that forestry should be allocated to a separate Department.'¹⁴² Even better, Sir Francis Henry Dillion Bell would serve as commissioner (minister) of forests. The next year, an independent forestry department was established following the separation of the Forestry Branch from the Department of Lands and Survey. Furthermore, with Bell, who had 'a sympathetic ear' to 'the pro-forestry lobby', serving as commissioner of forests, the future of the department looked bright.¹⁴³ The NZFL had succeeded in one of its primary objectives to avoid a timber famine – the establishment of a forestry department. In 1919, the government appointed the Canadian forester Leon MacIntosh Ellis as Director of Forestry, who

¹³⁵ New Zealand Forestry League, *The New Zealand Forestry League (Incorporated). Reasons for its Establishment. Its Aims and Objects. Motto. "Preservation and Conservation."* (Wellington: Watkins, Tyer & Tolan, Ltd: 1917), 3f. A L Hunt Papers, ATL, 1876-1968: Papers. MS-Papers-0158-294F.

¹³⁶ *Ibid.*, 4.

¹³⁷ *Ibid.*, 5.

¹³⁸ *Ibid.*, 5.

¹³⁹ *Ibid.*, 5.

¹⁴⁰ *Ibid.*, 6.

¹⁴¹ 'President's address,' 19 July 1918, 1. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹⁴² *Ibid.*, 1.

¹⁴³ Roche, 'The Best Crop the Land Will Ever Grow', 111.

promptly renamed the Forestry Department the State Forest Service (SFS). The creation of the SFS under a scientifically trained forester saw the NZFL operating in an entirely new environment.

Common efforts, the New Zealand Forestry League and the State Forest Service

Despite achieving its primary objective – the establishment of a forestry department under a scientifically trained forester – the NZFL did not consider itself redundant, but obliged to work in support of the new entity. In his 1920 presidential address, Wilson noted that plenty of ‘propaganda work’ lay ahead of the NZFL.¹⁴⁴ ‘The public’, Wilson remarked, ‘must be further aroused’ to the importance of forestry.¹⁴⁵ Ellis, who presided at the meeting, also spoke about the imperative role of the NZFL in ensuring the continued progress of forestry in the Dominion by creating, raising, and securing public support for the newly founded SFS.¹⁴⁶ According to Ellis the prominent position of forestry in North America stemmed from propaganda conducted by various forest societies.¹⁴⁷ Afterwards, Wilson guaranteed the new director ‘the cordial support of the [L]eague’.¹⁴⁸ This section examines the early relationship between the NZFL and the SFS and their collaborative efforts to further forestry in New Zealand.

Ellis’s belief and recognition of the value of a forest association was shared with other foresters. American forester Gifford Pinchot, during his time as head of the Division of Forestry and later Chief of the United State Forest Service, steadily sought to educate the public on forestry and conservation.¹⁴⁹ Imperial forester Charles Edward Lane Poole, a contemporary of Ellis, suggested in 1922 that forestry, unless ‘supported by a sympathetic and enlightened public opinion on the great matter of forest conservation’ would never see full success.¹⁵⁰ This Lane Poole knew all too well from his tenure as Conservator for Western Australia (1916-1921), when he repeatedly clashed with sawmillers and politicians as he sought to place the region’s forests under scientific management.¹⁵¹

¹⁴⁴ NZFL, annual meeting, 7 July 1920, 3. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹⁴⁵ Ibid., 3.

¹⁴⁶ Ibid., 14.

¹⁴⁷ Ibid., 14.

¹⁴⁸ ‘Trees and timber,’ EP, 8 July 1920, 8.

¹⁴⁹ Char Miller, *Gifford Pinchot and the making of modern environmentalism* (Washington, DC: Island Press/Shearwater Books, 2001).

¹⁵⁰ C. E. Lane Poole, ‘Western Australia as a producer of fine timber,’ *Empire Forestry Journal* 1, no. 1 (1922): 35.

¹⁵¹ By the time of the publication of the article Lane Poole had resigned due to major disagreements regarding forest management. John Dargavel, *The Zealous Conservator. A Life of Charles Lane Poole* (Crawley: University of Western Australia Press, 2008), 43-77.

Reflecting Wilson's assurance to Ellis, the NZFL published a pamphlet in April 1921, stressing the importance, even necessity, of continued forestry propaganda. 'In other countries', the NZFL warned, 'it has been found that with a change of Minister or Ministry, or for political reasons, a sound forestry policy may be endangered or reversed.'¹⁵² Preventing short-sighted political interference, the NZFL argued, could only be achieved by fostering a 'public sentiment' for forestry.¹⁵³ Thus, as its next objectives, the NZFL suggested that 'the League should establish branches all over the Dominion, and educate the public by platform and press work to the vital importance of forestry to the community.'¹⁵⁴ To achieve this, the NZFL intended to employ 'a well-known and thoroughly qualified organiser and publicist.'¹⁵⁵ However, conducting such a campaign and appointing an organiser involved a huge financial undertaking. Hutchins, indeed, had earlier advocated hiring an organiser but lack of money prevented this.¹⁵⁶ To meet the costs, the NZFL asked existing members to contribute while encouraging people to join them in their cause for forestry.¹⁵⁷ The appeal met with success as the NZFL employed writer and poet William Lawson as 'organiser' just a month later.¹⁵⁸ Lawson took up the position in a most enthusiastic manner, enrolling 33 new members in July alone.¹⁵⁹ In his lectures and interviews with the press, Lawson stressed the importance of forestry and urged people to join the NZFL.¹⁶⁰ As he told a *Waikato Times* reporter:

Our aim is to have a [L]eague strong in membership, which will be representative of the whole Dominion. Such a body would carry great influence in urging an active forestry campaign for the conservation and judicious milling of our existing native forests, also for the ensuring of future supplies of timber by natural regeneration, and by the extensive planting of exotic trees such as the pines and eucalyptus.¹⁶¹

Lawson would occasionally be joined by other foresters and forestry advocates lecturing on the importance of forestry. For example, Ellis joined him in Christchurch while James Deans,

¹⁵² New Zealand Forestry League, *Are you interested in forestry?* (Wellington: L. T. Watkins, Print, 1921), 1.

¹⁵³ *Ibid.*, 1.

¹⁵⁴ *Ibid.*, 1.

¹⁵⁵ *Ibid.*, 2.

¹⁵⁶ 'Afforestation,' ODT, 23 March 1918, 10.

¹⁵⁷ *Ibid.*, 1f.

¹⁵⁸ NZFL, special meeting, 5 May 1921, 2. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹⁵⁹ NZFL, council, 7 July 1921, 2. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹⁶⁰ 'Forestry League,' NZT, 13 May 1921, 7; 'Canterbury forests,' *Press*, 11 June 1921, 11; 'The aims of the League,' *Ashburton Guardian*, 14 June 1921, 5; 'Forestry League,' ODT, 17 June 1921, 7; 'Forestry League,' ES, 17 June 1921, 8; 'Forestry,' *Timaru Herald*, 21 June 1921, 4; 'Our forest wealth,' NZH, 5 October 1921, 7.

¹⁶¹ 'Forestry campaign,' *Waikato Times*, 18 October 1921, 5.

president of the NZFL-Canterbury branch and William Tregear Morrison of the SFS accompanied him in Ashburton.¹⁶² With a Forest Bill to be laid before Parliament later in 1921, forming a strong public opinion that was represented by a powerful body proved of significant importance as the Bill would define the structure, responsibilities, and power of the new forestry department.

The NZFL's role in advocacy is apparent when the Forest Bill was placed before a parliamentary committee. During the committee hearings, NZFL members appeared as witnesses, arguing, as Roche notes, that the SFS ought to manage 'all forests on Crown lands' and resist anything it regarded as a threat to forestry, such as 'permitting grazing in State forests'.¹⁶³ This was a result of a well-planned collaboration between the NZFL and Ellis who had attended two NZFL-council meetings prior to the introduction of the Bill, advising and drawing up resolutions with the group that would appear before the committee.¹⁶⁴ During these meetings Ellis received an offer to sit on the council, which he accepted, thereby bolstering the collaboration and links between the NZFL and the SFS. From 1923, Phillips Turner would act as Ellis's 'substitute' when he was unable to attend, a suggestion the NZFL gladly approved.¹⁶⁵ A former council member, Phillips Turner had relinquished his position in 1920 following the establishment of the SFS, but still enjoyed a high standing within the NZFL.¹⁶⁶ Besides Ellis and Phillips Turner, other members of the SFS also joined the NZFL. This included, Chief Inspector Arnold Hansson, Engineer in Forest Products Alexander Robert Entrican, and Forest Assistant Mary Sutherland. By the start of the 1920s, the SFS and the NZFL enjoyed a close and collaborative relationship.¹⁶⁷

To further influence politicians, the NZFL asked Lawson 'to work up an agitation through the press.'¹⁶⁸ A few days later Lawson gave a lecture on the significance of forestry to members of Parliament, arranged by MP and NZFL member William Hughes Field, and which appeared

¹⁶² 'Forestry,' *Press*, 9 June 1921, 6; 'N.Z. Forestry League,' *Ashburton Guardian*, 22 June 1921, 1.

¹⁶³ Roche, *History of Forestry*, 180.

¹⁶⁴ NZFL, council, 14 November, 1921, 1-4; NZFL, council, 15 December 1921, 1f. A L Hunt Papers, ATL, MS-Papers-0158-297. The committee consisted of William Ferguson, Joseph Orchiston, Will Lawson, and E. C. Jack.

¹⁶⁵ NZFL, council, 18 April 1923, 1. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹⁶⁶ After relinquishing his seat in 1920, and before becoming Ellis's substitute in 1923, Phillips Turner received and accepted invitation to council meetings. See, for example, NZFL, council, 20 September 1920, 1 and NZFL, council, 9 June 1921, 4. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹⁶⁷ For Sutherland, see: Edwards, *A path through the trees*.

¹⁶⁸ NZFL, council, 14 November 1921, 2. A L Hunt Papers, ATL, MS-Papers-0158-297.

in several major newspapers.¹⁶⁹ In addition to seeking to influence the politicians, Lawson also addressed the general public in an interview with the *Evening Post*:

The people of New Zealand, through their representatives in Parliament, should insist that no loopholes shall be left for any further sacrifice of timber on land which will never be good farm land. New Zealand has grown beyond the schoolboy stage, when the gifts of Nature were squandered and despoiled. This country is now a grown-up nation, which is expected to exercise intelligence and foresight in attending to its affairs. In no national matter are these qualities so much needed as in the conserving and judicious utilisation of the remaining native forests of New Zealand.¹⁷⁰

Yet, despite the best efforts of the NZFL and the SFS to stir public opinion, the Forest Act 1921-22 did not include all of Ellis's wants and suggestions. Nevertheless, Ellis appears to have been pleased with the new act, describing it as 'a forest law designed by New Zealanders for New Zealand conditions' and which 'expresses the best of modern experience in the administration of national forests.'¹⁷¹ The Act gave the SFS control over forest policies; State forests – both permanent and provincial; nursery management; timber leases, licenses, and permits; take in rents, royalties and fees; and lastly, the administration of the Act itself.¹⁷²

The efforts to influence public opinion and politicians in the months leading up to the debate on the Forest Bill may have been the first time the NZFL and the SFS collaborated to create a forest conscious public, but it would not be the last. In 1922, Ellis praised the NZFL and the progress of forestry in New Zealand at its annual meeting.¹⁷³ Yet, just as Wilson had warned two years earlier, there was no time for complacency, a fact he stressed by comparing the present situation to a horse race, which offered three lucrative prizes; 'the £35,000,000 Forest Domain' for the winner, 'the perpetual privilege to exact millions from the public in famine timber prices by importation of foreign timber' to the runner up. A third place finish gave:

¹⁶⁹ See for example: 'Claims of forestry,' NZH, 18 November 1921, 6; 'Forestry,' *Press*, 18 November, 1921, 6; 'Trees and land,' EP, 18 November 1921, 4; 'Claims of forestry,' ODT, 19 November 1921, 13.

¹⁷⁰ 'Timber trees,' EP, 15 October 1921, 9. The interview re-appeared in the *Press*, see: 'Timber trees,' *Press*, 17 October 1921, 8.

¹⁷¹ *AJHR*, C3, 1922, 2.

¹⁷² Roche, *History of Forestry*, 181.

¹⁷³ L. M. Ellis, 'Forestry at work. Being a Paper read before the N.Z. Forestry League, at its Sixth Annual Meeting, 1922,' 1-5. ANZ, Wellington, New Zealand State Forest Service. Forestry at work, R20065318.

the privilege of stealing the water of our rivers, our hydro-electric water reservoirs and climatic forest reserves, Municipal water supplies, our game, deer-stalking, and our God-given natural sanctuaries of forestry beauty, and right to holiday in the great open spaces of the 9,000,000 acre National Forests.¹⁷⁴

The race involved plenty of horses. There was, for example, ‘the old stager “National Forest Policy”’; the veteran and familiar “‘The-Public-be-damned”’; the tricky and difficult “‘Greed”’; the dangerous “‘Cut-hack-burn-destroy”’; and “‘Get-something-for-nothing”’, who ran right next to “‘Get-it-Quick”’.¹⁷⁵ Despite the fierce competition, Ellis recognised that “‘National Forest Policy”’ could, and would, win if the NZFL secured “‘Public Approval”’ as its jockey.¹⁷⁶ Ellis urged the attendees to ‘Get busy, put “Public Approval” on your horse and back him to the limit. He is a winner, and the wise ones in the grand-stand are waiting to invest. – Tip them off!’¹⁷⁷ Although the metaphor has its flaws – Ellis does not take into account the second- and third-places in the race – it nonetheless highlights the centrality of public opinion to forestry, and the pivotal task of the NZFL in raising and securing public support through propaganda. Of the tools employed by the NZFL to form public opinion, no other was more important than its magazine, the *Forest Magazine*.

‘[A] very creditable little publication’

From the end of the nineteenth century, periodicals played a major role in shaping public attitudes to nature. A formidable example is the pioneering American weekly *Garden and Forest: A Journal of Horticulture, Landscape Art, and Forestry*. As Shen Hou notes, the magazine functioned as an early focal point for ‘environmental reformers’, such as Pinchot, and ‘called on the government to protect the country’s natural heritage and manage its natural resources, especially forests, through scientific and efficient methods’ during its run, 1888-1897.¹⁷⁸ In his address to the NZFL in 1916, Hutchins heavily emphasised the value of periodicals to educate the public, and urged the audience ‘to establish a New Zealand journal of forestry’.¹⁷⁹ In addition to *American Forestry* issued by the American Forestry Association,

¹⁷⁴ Ellis, ‘Forestry at work,’ 7. ANZ, Wellington, New Zealand State Forest Service. Forestry at work, R20065318.

¹⁷⁵ Ibid., 6f.

¹⁷⁶ Ibid., 7.

¹⁷⁷ Ibid., 7.

¹⁷⁸ Shen Hou, *The City Natural: Garden and Forest Magazine and the Rise of American Environmentalism* (Pittsburgh: University of Pittsburgh Press, 2013), 5.

¹⁷⁹ Hutchins, ‘Scientific National Forestry for New Zealand,’ 392.

Hutchins noted that the English Arboricultural Society, the Royal Scottish Arboricultural Society, and a Belgian forest association, most likely Société Royale Forestière de Belgique, of which he was a member, all published magazines dedicated to forests and forestry.¹⁸⁰

Yet, in spite of Hutchins's encouragement, work to issue a magazine did not commence until late 1921 upon the initiative of Lawson who launched the *Forest Magazine*.¹⁸¹ Published in February 1922, it was the first magazine of its kind in the Dominion. Despite this, the publication has received little scholarly attention. Lochhead provides a brief overview of the magazine's content following its merger with *New Zealand Life* in 1923, observing that it 'regularly carried articles expounding the principles and importance of scientific forestry' as well as other issues related to forests and forestry, like soil erosion and native birds. However, she overlooks how the NZFL and the SFS aimed to use the magazine as a tool to create a forest conscious public, a scholarly gap which this section seeks to fill.¹⁸²

Lawson, who took the position as editor, began the opening issue of the *Forest Magazine* in a celebrative and enthusiastic tone: 'The world-wide movement which aims at the conservation of forests,' he noted, 'has awakened an active response in New Zealand. It has touched a sympathetic chord in the public mind, and has stirred the hearts and fired the imaginations of thoughtful people.'¹⁸³ Indeed, 'never before', he continued triumphantly, 'has the forestry movement been so well organised and supported by all classes.'¹⁸⁴ This he attributed to Hutchins's suggestion to establish a forestry association 'to undertake the task of keeping before the people and the Government the aims of forestry', which was realised by 'public-spirited men.'¹⁸⁵ From a small group in 1916, the NZFL five years later boasted members across New Zealand and branches in Wellington, Canterbury, and Hawkes Bay, with more being formed.¹⁸⁶ A potential merger with the Auckland League of Forestry would see the NZFL grow even bigger.¹⁸⁷

The journal itself, Lawson explained, served two purposes. Firstly, it functioned as 'a means of communication of thought and news concerning forestry between the League's

¹⁸⁰ Hutchins, 'Scientific National Forestry for New Zealand,' 392.

¹⁸¹ NZFL, council, 13 October 1921, 2. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹⁸² Lochhead, 'Preserving The Brownies' Portion,' 256.

¹⁸³ 'Editorial. The Forestry Movement in New Zealand,' *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 3.

¹⁸⁴ Ibid.

¹⁸⁵ Ibid.

¹⁸⁶ Ibid.

¹⁸⁷ Ibid. The Auckland League of Forestry, sometimes referred to as the Auckland Forestry League, was founded in September 1920 upon the initiative of Auckland Mayor James Henry Gunson. Much like the NZFL, it too aimed to educate the public on the necessity of forestry. 'The forestry movement,' AS, 25 September 1920, 6. No evidence indicate a merger of the two organisations.

various centres, and its hundreds of members'.¹⁸⁸ Secondly, it sought 'to disseminate facts on the same subject to the public'.¹⁸⁹ This second objective was reflected in the first article, fittingly titled 'Forestry Facts. Something to Think About' written by Ellis himself. In it, Ellis warned of the crucial junction ahead of New Zealand forestry by confronting the reader with three questions regarding the timber situation in New Zealand and abroad. It is worth quoting at length to convey a sense of the manner in which the forest question was presented to the public:

A careful survey of all oversea sources of timber supply – such as Australia, America and Canada, shows that within 20 years no exportable surpluses will be offering from these countries. Are you aware that an analysis of the total consumption of timber last year indicates that while every man, woman and child consumed the equivalent of 500 superficial feet of timber, there was destroyed by fire and other causes the equivalent of 1,700 feet of merchantable timber? Are you aware that there are between 2,000,000 and 2,500,000 acres of man-made wilderness in New Zealand; and that this wilderness, which now produces nothing of value to humanity, at one time supported the finest timber-bearing forests? Are you aware that the **"leave things as they are" policy** has resulted in the reversion of at least 100,000 acres of productive forests to wilderness and ruin every year?¹⁹⁰

With the ongoing depletion of timber and destruction of forests worldwide, as well as the overconsumption of timber in New Zealand, a timber famine seemed imminent, warned Ellis. But he reassured his readers that avoiding a timber famine still remained possible if New Zealand secured 'a self-supporting timber supply basis by the reasoned utilisation of our God-given forest resources and by the dedication to Tree-farming of all forest-bearing Crown lands **chiefly valuable for forestry**'.¹⁹¹ With the alternative presented – the adoption of a national forest policy or a continuation of a policy based on neglect – Ellis again addressed the readers directly, giving them the responsibility to decide future timber policy:

¹⁸⁸ 'Editorial. The Forestry Movement in New Zealand,' 3.

¹⁸⁹ Ibid.

¹⁹⁰ L. Macintosh Ellis, 'Forestry Facts. Something to Think About,' *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 6. Emphasis in original.

¹⁹¹ Ibid. Emphasis in original.

It is up to you now – to decide. Are you for a practical policy of forest conservation and timber culture, a policy which spells plentiful wood supplies at reasonable prices – or, are you for the perpetuation of the Cut-Hack-Burn policy which spells reckless and improvident wastage, irregular timber supplies at high prices, monopolies, and lessened national production?¹⁹²

To prevent native forests from becoming ‘as extinct as the Moa’ through a ‘laissez-faire-talk policy’, Ellis implored readers to support the former option and to ‘get to grips with forestry and practice it in the woods and not in the armchairs.’¹⁹³ Time yet remained, he argued, to secure New Zealand’s timber demand by placing native forests under a system of scientific forestry instead of the public paying £1,000,000 annually for the next four decades towards the establishment of exotic timber plantations.¹⁹⁴ Having presented the two available paths, Ellis concluded by again emphasising that the future direction of New Zealand forestry policy belonged to readers, writing: ‘**It is for you to decide.**’¹⁹⁵

To assist readers in their choice of timber policy, if the contrasting futures were not persuasive enough, the subsequent page featured an illustration of the ever-diminishing size of native forests at a certain point in time (figure 1). The first box depicts New Zealand forest coverage in 1840, when the Treaty of Waitangi was signed and New Zealand became a colony of the British Empire: in that year, almost half of New Zealand is covered in forests. The second point is 1921, the time of Ellis’s article. By this time, native forests cover only a tenth of the box as a result of reckless clearing and logging,. The final point shows a hypothetical 1950 in which native forests no longer exist following the rejection of scientific forestry and sustained yield management, and New Zealand’s timber comes from artificial plantations.¹⁹⁶ Thus, by using statistical illustrations depicting the destruction of New Zealand’s forests in the past, and the potential impact of decisions made today, Ellis sought to demonstrate to readers the importance and seriousness of the forest question for New Zealand.

¹⁹² Ellis, ‘Forestry Facts,’ 6.

¹⁹³ Ibid.

¹⁹⁴ Ibid.

¹⁹⁵ Ibid. Emphasis in original.

¹⁹⁶ J. G. ‘Going-Going-Gone!’ *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 7.

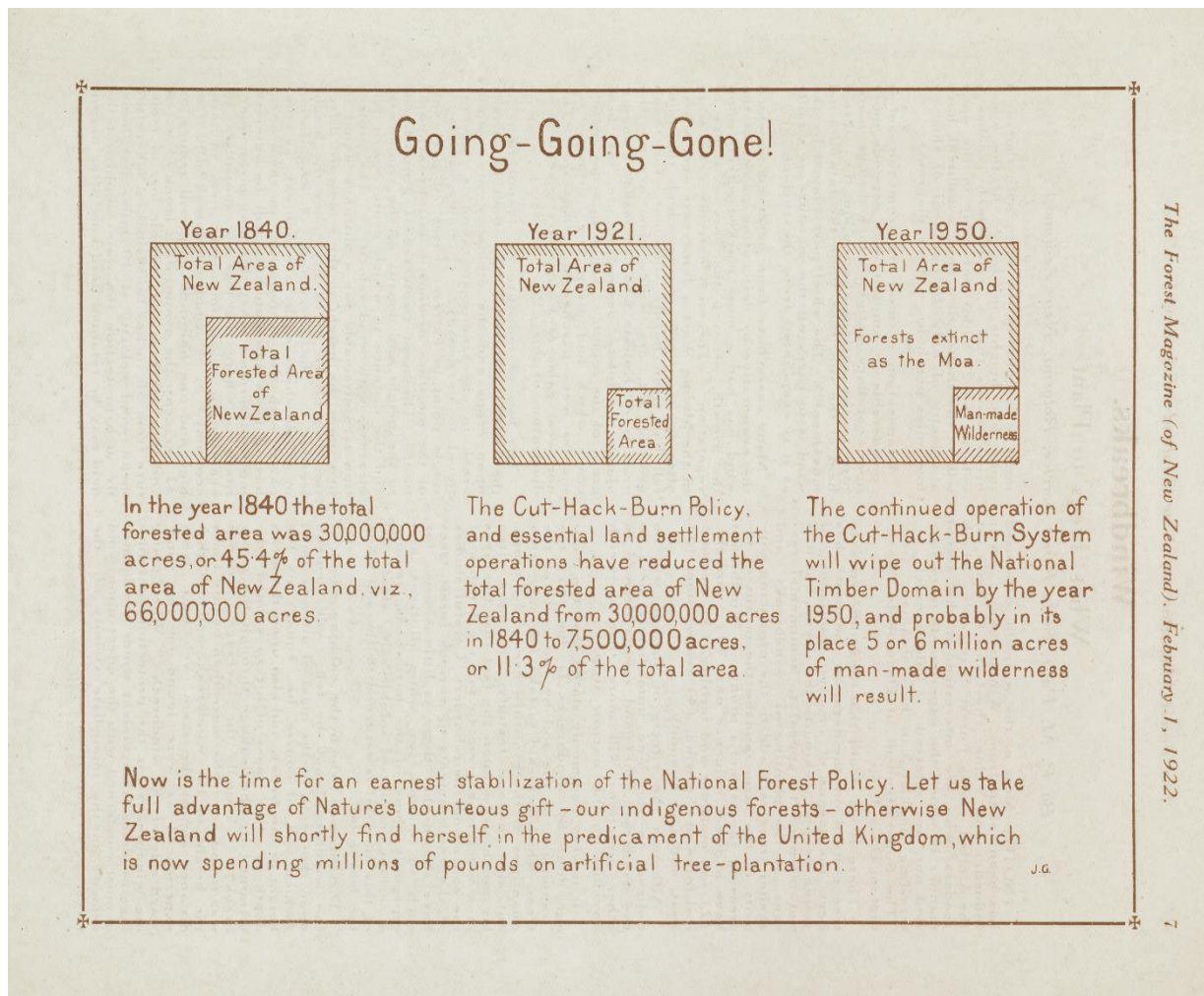


Figure 1. By the beginning of the 1920s, scientific foresters such as Leon MacIntosh Ellis believed that only the implementation of sustained yield management forest policy could save New Zealand's remaining forests. J. G. 'Going-Going-Gone!' *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 7. Hocken Collections, Uare Taoka o Hākena, University of Otago.

The ambition to educate the public was further shown by the publication of an extract from the first part of Pinchot's *A Primer of Forestry*.¹⁹⁷ Written in an elementary style in 1899 to inform the American public about forestry, the United States Department of Agriculture distributed more than a million copies of the bulletin.¹⁹⁸ Extracts from the bulletin appeared in the two subsequent numbers as well.¹⁹⁹ Publishing writings by Pinchot rather than Hutchins or any other British forester demonstrates, as James Beattie and Paul Star suggest, the growing shift towards American forestry at the expense of British, or more precisely, Indian and German, in New Zealand from the 1900s and onwards.²⁰⁰

¹⁹⁷ Gifford Pinchot, 'Elementary Forestry. The World of Trees,' *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 33f.

¹⁹⁸ Harold T. Pinkett, 'Forestry Comes to America,' *Agricultural History* 54, no. 1 (1980): 8f.

¹⁹⁹ Pinchot, 'Elementary Forestry,' 33f.

²⁰⁰ Beattie, *Empire and Environmental Anxiety*, 170-176.

While featuring pieces by both Ellis and Pinchot, neither the issue nor the magazine was confined to writings by professional foresters, featuring contributions from amateur foresters too. The first issue included an article by clergyman and headmaster Joseph Henry Simmonds, a NZFL member interested in eucalypts as a source of timber for poles.²⁰¹ Furthermore, the journal did not limit its scope to forestry, but aimed to cover, as Lawson decreed in the editorial, ‘the bird life and the botanical aspects of the forests’ as well.²⁰² The first issue also contained articles related to natural scenery and bird preservation by individuals like the renowned author and amateur historian James Cowan, and native birds advocate Ernest Valentine Sanderson, who later co-founded the New Zealand Native Bird Protection Society.²⁰³ As such, forest consciousness was not limited to scientific forestry, but included an aesthetic appreciation of forests and their inhabitants (see chapter five).

Newspapers applauded the first number of the magazine. The *Waikato Times*, for example, commended its ‘popular style’ and urged people to ‘enrol themselves as members of the Forestry League, which will be of undoubted benefit to the future welfare of this country.’²⁰⁴ The *Otago Daily Times* suggested that the broad content of the magazine demonstrated its intention ‘to interest a wide circle of readers’.²⁰⁵ Some papers, not content with merely reviewing the magazine, re-published Ellis’s article in its entirety.²⁰⁶ The *Manawatu Evening Standard* praised the ‘illuminating diagram’ of Ellis’s piece.²⁰⁷ According to the paper, it showed ‘in very forcible fashion, the tremendous waste of timber that has been going on in this country since the earliest settlers arrived and began their pioneering labours, of which we are reaping the benefit to-day.’²⁰⁸ While the paper believed that deforestation in the Dominion was no worse than other settlements where ‘the feet of white men trod for the first time a century, or a century and a half ago’, New Zealand – settlers and governments alike – had nonetheless failed ‘to take note of, and warning by, the experience of other countries where the destruction of tree life has materially affected both the climate and the rainfall.’²⁰⁹ Not until the recent establishment of the SFS had New Zealand started to take a much needed interest in

²⁰¹ J. H. Simmonds, ‘Pole Timber,’ *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 29.

²⁰² ‘Editorial. The Forestry Movement in New Zealand,’ 3.

²⁰³ James Cowan, ‘The Urewera Forests. Razorback Ridges and Gorges,’ *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 30f; E. V. Sanderson, ‘The Sanctuary of Kapiti. An Island of Dreams,’ *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 22.

²⁰⁴ ‘Books reviewed,’ *Waikato Times*, 4 February 1922, 9.

²⁰⁵ ODT, 7 February 1922, 6.

²⁰⁶ ‘Timber for New Zealand,’ NZH, 2 February 1922, 4; ‘Forestry facts,’ *Northern Advocate*, 3 February 1922, 7; ‘Supply of timber,’ *Manawatu Daily Times*, 4 February 1922, 4.

²⁰⁷ ‘The “cut, hack and burn” system,’ *Manawatu Evening Standard*, 5 April 1922, 4.

²⁰⁸ Ibid.

²⁰⁹ Ibid.

conservation. ‘Unless,’ the paper warned, repeating Ellis’s caution, ‘New Zealand grows her own wood supplies she will have to go without.’²¹⁰

In addition to enthusiastic comments in the general press, the magazine received high accolade in *New Zealand Journal of Agriculture*, the publication of the Department of Agriculture, which perceived the new journal as a representation of ‘[t]he progress of the forestry movement in the Dominion’ and praised the journal’s ‘usefulness, interest, and brightness of content’.²¹¹ The *New Zealand Journal of Agriculture* detailed the many aims of the NZFL and advised that the journal could be acquired through membership in the association.²¹² Unsurprisingly, the SFS also welcomed the periodical. This ‘very creditable little publication’, Phillips Turner suggested to Sir Heaton Rhodes, Commissioner of State Forests, ‘should be of great assistance to the cause of forestry in this Dominion.’²¹³ Regarded as an excellent channel for propaganda by the SFS, Ellis, Phillips Turner, and Hanson, as well as other staff, would contribute with articles on topics related to forestry.²¹⁴

Following the success of the first number, Lawson acquired full ownership of the journal, and changed its title to *Forest and River – New Zealand Out-of-Doors*, perhaps as a nod to the popular American wildlife magazine *Forest and Stream*, as he sought to include mountaineering and hunting in the periodical. However, he reassured readers that the new and expanded scope would not affect or limit the number of pages dedicated to forestry, but enhance it by depicting forests ‘as the fundamental life-giving source of the streams[,] the home of birds and fish, and the sanctuary of many treasures which constitute separately or collectively the lure that draws the townsman into the open.’²¹⁵ Despite these changes, the magazine remained the official organ of the NZFL since Lawson, as part of the takeover, agreed to continue

²¹⁰ ‘The “cut, hack and burn” system,’ *Manawatu Evening Standard*, 5 April 1922, 4.

²¹¹ ‘The Forestry League and its journal,’ *NZJA* 24, no. 2 (1922): 121.

²¹² *Ibid.*

²¹³ E. Phillips Turner to Commissioner of State Forests, 27 January 1922. ANZ, Wellington, Forest Magazine, R17274917.

²¹⁴ In addition to Ellis’s article in the first issue, the first volume of the magazine featured following articles by SFS-staff: P. M. Page, ‘Windbreaks. What Trees to Plant,’ *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 8-12; A. H. Messenger, ‘Feathered Forest Dwellers. The Sweet-Tongued Tui,’ *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 24f; E. Phillips Turner, ‘New Zealand’s Native Forests. Indigenous Timbers Described,’ *Forest Magazine (New Zealand Out-of-Doors)* 1, no. 2 (1922): 42-47; A. H. Messenger, ‘A Great Game Bird. The Californian Quail in New Zealand,’ *Forest Magazine (New Zealand Out-of-Doors)* 1, no. 2 (1922): 54f; Arnold Hansson, ‘Game and Forests. Their True Relationship,’ *Forest Magazine (New Zealand Out-of-Doors)* 1, no. 2 (1922): 65f; A. H. Messenger, ‘The Sylvan Monarch. The Life Story of the Rimu,’ *Forest Magazine (New Zealand Out-of-Doors)* 1, no. 2 (1922): 78-80; H. A. Goudie, ‘Reclaiming the Sand Dunes. Tree Planting the Objective,’ *Forest Magazine (New Zealand Out-of-Doors)* 1, no. 3 (1922): 125-127; E. Phillips Turner, ‘Pinus Torreyana,’ *Forest and River (New Zealand Out-of-Doors)* 1, no 5 (1922): 187; A. N. Perham, ‘The Opossum in New Zealand,’ *Forest and River (New Zealand Out-of-Doors)* 1, no 5 (1922): 192-194; E. Phillips Turner, ‘New Zealand Forest Trees,’ *Forest and River (New Zealand Out-of-Doors)* 1, no. 6 1923): 220-222.

²¹⁵ ‘Editorial. Open-Air Life in New Zealand,’ *Forest Magazine (New Zealand Out-of-Doors)* 1, no. 2. (1922): 39.

promoting the association and supporting its objectives.²¹⁶ This was particularly noticeable in the July number of 1922. By the time of its publication, New Zealand had entered a depression, and as politicians, including Massey, desperately sought to cut government spending, eyes soon turned to the SFS and its forestry policy.²¹⁷ In the editorial, Lawson mercilessly attacked any idea that would reduce the funding of the SFS and so hamper its work, and urged the NZFL to awaken the public to the dangers such an endeavour entailed:

Never before has there been such a need for united, strenuous action as at the present moment. The forestry movement has progressed substantially, but it is not out of the wood yet. The dismaying statement by the Prime Minister that he contemplates the curtailment of the forestry policy of New Zealand creates a situation which calls for prompt action by the [New Zealand Forestry] League if it is to carry out its trust as an organisation which aims to make a strong forestry policy a permanent and prominent feature of this country's Government.²¹⁸

As a sketch beneath the editorial suggested, curtailing or the killing the policy, symbolised by a hen, would have disastrous consequences (figure 2). The hen incubated four eggs, each representing different aspects of forestry. For example, one of the eggs reads 'plentiful timber supplies' whilst another 'water conservation climatic balance', to reinforce to the public that forestry encompassed more than just timber management. As the politician Thomas Wilford is about to decapitate the hen, and add it to a long line of cadavers symbolising previous attempts to introduce forestry in New Zealand, he is cheered on by three men – the 'fire bug', the 'back block timber thief', and the 'log roller' At the end of the line an unresponsive person, the 'indifferent public', watches carelessly on the spectacle. Meanwhile, an ominous cloud rises in the background threatening fire and waste. The message was clear: an apathetic public would see the death of forestry in New Zealand once again, and in its wake the horrors of deforestation would follow.

²¹⁶ NZFL, council, 24 February 1922, 1f; NZFL, council, 16 March 1922, 1f; NZFL, council, 27 April 1922, 1; NZFL, council, 18 May 1922, 4. A L Hunt Papers, ATL, MS-Papers-0158-297.

²¹⁷ Brooking, 'Economic Transformation', 231; 'The Forestry Service,' *Press*, 26 July 1922, 6.

²¹⁸ 'Editorial. National Forestry Movement,' *Forest Magazine (New Zealand Out-of-Doors)* 1, no. 3 (1922): 87.



Figure 2. As the cartoon to an editorial in the *Forest Magazine* suggested, an indifferent public would mean the death of forestry and conservation in New Zealand. 'If Some M.'sP. Had Their Way —,' *Forest Magazine* (*New Zealand Out-of-Doors*) 1, no. 3 (1922): 87. Hocken Collections, Uare Taoka o Hākena, University of Otago.

Although successful, the magazine constituted a significant financial undertaking. In early 1923, Lawson and the NZFL approached various government departments, including the SFS, for financial support, either ‘by taking a number of copies’, by purchasing advertisement blocks, or ‘by a subsidy.’²¹⁹ In fact, both Ellis and Phillips Turner had unsuccessfully suggested in 1922 that the government subsidise the magazine.²²⁰ However, this time the government proved more enthusiastic. The SFS, together with the Railways and Tourist & Publicity department, expressed interest in transforming the magazine into ‘a Government publication giving an allotted space to the Forestry Department and ... the Forestry League’s propaganda.’²²¹ Yet, before any arrangements between Lawson, the NZFL, and the government could take place, Maurice Hurst, editor of *New Zealand Life*, bought out Lawson with the intention of combining the magazine with his own periodical. However, as part of the takeover, he agreed to have the journal remain the official organ of the NZFL, as well as to promote forestry.²²² This agreement was echoed in the opening statement of the first number of *N.Z. Life and Forest Magazine*, which assured the reader that it would continue the legacy of its predecessor.²²³ To legitimatise Hurst as an advocate of forestry, the statement noted that Hutchins had once praised his writing on the topic.²²⁴

Apart from a handful of pages dedicated to literary topics, the new magazine shared many similarities with its predecessors, containing a range of articles on subjects related to forestry as well as reports of NZFL meetings. Furthermore, staff from the SFS continued contributing articles. In 1923, for example, Morrison wrote a long article portraying the looming timber famine as a public matter and the importance of public support to forestry.²²⁵ According to Morrison, a timber famine could only be avoided, and forestry succeed, if it received support from the public:

We have now ... reached a stage where any further indiscriminate waste or burning of forests constitutes a crime against the nation. It is robbing the people of the Dominion of their heritage, and they must rouse themselves to a realisation that it is time they took an active interest in the preservation of their property. The State is endeavouring to do this,

²¹⁹ NZFL, council, 14 February 1923, 2. A L Hunt Papers, ATL, MS-Papers-0158-297.

²²⁰ E. Phillips Turner to Commissioner of State Forests, 4 April 1922. ANZ, Wellington, Empire Forestry Association, R17277802.

²²¹ NZFL, council, 18 April 1923, 2f. A L Hunt Papers, ATL, MS-Papers-0158-297.

²²² NZFL, council, 17 May 1923, 1f. A L Hunt Papers, ATL, MS-Papers-0158-297.

²²³ ‘To our Readers,’ *New Zealand Life and Forest Magazine*, no. 7 (1923): 1.

²²⁴ *Ibid.*

²²⁵ W. T. Morrison, ‘Need for Forest Conservation. Preventing a Timber Famine,’ *New Zealand Life and Forest Magazine*, no. 8 (1923): 17-20.

but it must have the sympathy of the general public with it; otherwise its efforts are nullified. We who are members of the State Forest Service are convinced that public sympathy and co-operation will come in the course of time through necessity, but we require it right now.²²⁶

As Morrison's plea well demonstrates, the SFS regarded public support as essential if New Zealand was to avoid a timber famine and if forestry was to succeed. The magazine, though under new editorship, continued to function as a platform for forestry propaganda and inculcate a public forest consciousness, including articles, interviews, and reports of NZFL meetings. Throughout the 1920s the *New Zealand Life and Forest Magazine* would, as the official organ of the NZFL, play a prominent role in educating the public about forestry and forests.

Newspapers, forestry, and public opinion

Aside from its own publication, the NZFL, and later the SFS, looked to the press and the magazines of other associations, such as the *Farmers' Union Advocate* published by the Farmers' Union (chapter 2), to promote their message on the importance of forests and forestry. In 1916, when Wilson set out to rally support for the creation of a forestry association, he asked editors across New Zealand 'in a public-spirited way' to publish his letter, telling them that he turned to the press for two reasons.²²⁷ Firstly, he noted that newspapers had long devoted large segments to forestry and deforestation and were thus acquainted with the threat a timber famine posed.²²⁸ Secondly, he believed that only the press allowed him 'to reach the individual interested in this matter'.²²⁹ Fortunately, editors obliged, and the plea appeared in papers throughout New Zealand.²³⁰ In the press Wilson had found a valuable ally in the cause of forestry. This section examines the value attributed to newspapers by the NZFL and the SFS as a tool of arousing public opinion. As such this section does not necessarily analyse the content of the papers nor their actual influence on public opinion, but rather their perceived and credited worth by the NZFL and the SFS in creating a public forest consciousness.

During the late nineteenth and early twentieth century, newspapers devoted ample space in their columns to forestry, not least the prospect of a timber famine. In Australia, as Stephen Legg notes, the press served as 'the largest single forum for information on forest

²²⁶ Morrison, 'Need for Forest Conservation,' 20.

²²⁷ Wilson, 'To the Editor,' 12 April 1916, unnumbered. A L Hunt Papers, ATL, MS-Papers-0158-297.

²²⁸ Ibid.

²²⁹ Ibid.

²³⁰ See footnote 2.

conservation’.²³¹ Surveying the coverage of the forest influence debate – whether forests attracted or stimulated rainfall – in Australasian newspapers, Legg concludes that the press ‘bridged the gap between formal science and the public’ by publishing and referring to popular and scientific lectures and publications, including from overseas, as well as speeches and bills from parliament.²³² This was not unique to the forest influence debate, which faded in the 1920s, but also applied to the prospect of a timber famine. In 1908 several New Zealand papers warned of an imminent timber famine in Australia, citing government reports.²³³ A few years later, in 1913, the *Auckland Star* referred to experts overseas and the *Official Year Book* as evidence of an impending timber famine.²³⁴

As the NZFL embarked on its mission to educate and influence public opinion, its activities and annual meetings received regular coverage in the press. Moreover, newspapers also summarised and reviewed publications distributed by the NZFL. The *Taranaki Herald*, for example, encouraged ‘all who are interested in forestry’ to read Hutchins’s inaugural address in 1916.²³⁵ Commenting on the same pamphlet, the *Otago Witness* hoped that it would help the NZFL ‘in arousing public interest in this important [forest] question.’²³⁶ In addition to writings by the NZFL, newspapers widely reported on Hutchins’s lectures. During his tour of the South Island in 1918, local papers covered his talks extensively. ‘It will be a strange thing,’ the *Southland Times* noted, ‘if the visit of Mr Hutchins is not responsible for the awakening of a lively public interest in this [forest] question and for Government action.’²³⁷ Wilson, aware of the favourable publicity the reporting generated, habitually acknowledged the importance of the press in his annual presidential addresses. In 1920, for example, he concluded by ‘thank[ing] the newspapers of the Dominion, on behalf of the League for assisting ... in spreading the gospel of Forestry.’²³⁸

As New Zealand entered into a financial recession in 1922, and Lawson urged upon the NZFL to prevent any curtailment of the SFS, Wilson penned a pamphlet to mobilise public

²³¹ Stephen Legg, ‘Political agitation for forest conservation: Victoria, 1860-1960,’ *International Review of Environmental History* 2 (2016): 10.

²³² Stephen Mark Legg, ‘Views from the Antipodes: the ‘forest influence’ debate in Australian and New Zealand press, 1827-1956,’ *Australian Geographer* 49, no. 1 (2018): 54.

²³³ ‘New South Wales,’ EP, 30 October 1908, 7; ‘Prospective timber famine,’ NZT, 31 October 1908, 9; ‘Victorian timber supply,’ ODT, 31 October 1908, 9.

²³⁴ ‘Our timber supplies,’ AS, 17 May 1913, 4.

²³⁵ ‘Scientific forestry,’ *Taranaki Herald*, 20 July, 1917, 2.

²³⁶ ‘Publications received,’ *Otago Witness*, 18 July 1917, 47. For additional comments, see: ‘Forestry in New Zealand,’ *Press*, 16 July 1917, 6; ‘National forestry,’ *Star*, 21 July 1917, 8.

²³⁷ ‘Forestry,’ ST, 21 March 1918, 4.

²³⁸ NZFL, annual meeting, 7 July 1920, 2. A L Hunt Papers, ATL, MS-Papers-0158-297.

support in which he outlined the importance of forestry. Concluding, he turned directly to the newspapers for assistance:

I appeal to the newspapers of the Dominion for their help. They are the greatest force in forming public opinion in any country. I once before appealed to them, and they gave generous help. To-day there is danger of a retrograde step which should be avoided. Help is needed.²³⁹

Newspapers, just as they had six years earlier, responded to Wilson's call, many publishing either parts of his presidential address to the NZFL in which he warned of the dangers associated with cutting the expenditure of the SFS, or segments of the pamphlet.²⁴⁰ The *Evening Post* commended Wilson's efforts to protect the SFS: 'When Mr. Massey seems to be leaning towards a cut, abetted, strangely enough, by the Leader of the Opposition, it is good to see a veteran like Sir James Wilson, who is a man above politics, take a clear stand for the [State Forest] Service and the trees.'²⁴¹ Later, the paper called upon its readers to support Wilson in his cause: 'Sir James Wilson's fight for the larger view of forestry already has the moral endorsement. It now needs practical aid.'²⁴²

Much like Wilson, contemporary foresters realised the power of the press and sought to use it for promoting forest conservation to the public. Pinchot, for example, actively used the press to educate the public on forestry, supplying editors with material.²⁴³ Hutchins, in turn, stressed the important contribution of the press to the forestry cause, describing the *Melbourne Age* as '[t]he most consistent advocate of forestry in Australia' in his lecture to the NZFL in 1916.²⁴⁴ Like the two elder foresters, Ellis deemed the support of the press essential to forestry in New Zealand. In 1921 he contrasted the current state of affairs to the 1870s, when deforestation caused environmental anxieties, not least a shortage of timber:

²³⁹ James G. Wilson, *The Importance of Forestry to New Zealand. Our Duty to Ourselves and Posterity* (Wellington: L. T. Watkins Ltd., Printers, 1922), 8.

²⁴⁰ 'The forestry policy,' *Manawatu Evening Standard*, 24 July 1922, 4; 'Build up the forests,' PBH, 27 July 1922, 2; 'The Forestry Service,' ES, 28 July 1922, 4; 'Forestry in New Zealand,' *Stratford Evening Post*, 1 August 1922, 4; 'Forestry policy,' *Stratford Evening Post*, 3 August 1922, 4; 'Forestry. Department's policy,' *Stratford Evening Post*, 5 August 1922, 3.

²⁴¹ 'Defence of the Forest Service,' EP, 21 July 1922, 6.

²⁴² 'Nearly paying its way,' EP, 2 August 1922, 4.

²⁴³ Stephen Ponder, 'Gifford Pinchot Press Agent for Forestry,' *Journal of Forest History* 31, no. 1 (1987): 26-35.

²⁴⁴ Hutchins, 'Scientific National Forestry for New Zealand,' 390.

New Zealand is now in the third “forestry boom,” the first one dating back to the year 1874, when the self-same symptoms and fears of timber famine were expressed as are being voiced at the present time. The positions are parallel, but with the important difference that to-day the Parliament, Press, and people are beginning to appreciate the meaning of timber-conservation and national forestry.²⁴⁵

Newspapers regularly carried articles on forestry and forests, including commentary and reviews of Ellis’s policy proposal presented in 1920, and later the SFS’s annual reports. In 1922, the *Auckland Star*, for example, described the annual report by the SFS as ‘one of the most important public documents of the year’, celebrating the progress made under Ellis.²⁴⁶ However, much work still remained: ‘A great deal of what the Director of Forestry has to say in his report,’ the paper noted, ‘is but a repetition of advice and warning which has been addressed often enough before this to Parliament and the general public, but which has too often fallen on heedless ears.’²⁴⁷ This was an assessment the *Auckland Star* repeated the following year as well:

There is always a danger that the constant reiteration of grave warnings may finally render people in general so familiar with a serious public danger that they come to accept it as a matter of course. It is only in this way that we can offer to explain the apathy which the general public as a whole displays in regard to the great national problem of forestry.²⁴⁸

Therefore, the newspaper deemed the forestry report ‘to rank amongst the most valuable public documents discussed’ in the upcoming parliamentary session. While the *Auckland Star* gladly noted that the report offered some ‘encouraging’ reading in comparison to earlier ones, it also found cause for concern, especially regarding the fact that the expenditure of the SFS fell well below the estimated and dedicated amount.²⁴⁹ ‘Evidently’, the paper concluded, ‘the Government is still far from appreciating at its true value the tremendous national importance of the whole question.’²⁵⁰ Interestingly, while the *Auckland Star* found public opinion lacking in 1923, Ellis observed the contrary. ‘The work of the Service’, he noted, ‘has been generously

²⁴⁵ *AJHR*, C3, 1921, 1.

²⁴⁶ ‘The forestry report,’ *AS*, 26 August 1922, 6.

²⁴⁷ *Ibid.*

²⁴⁸ ‘The forestry report,’ *AS*, 15 August 1923, 4.

²⁴⁹ *Ibid.*

²⁵⁰ *Ibid.*

assisted in this matter by the Press of the Dominion, which has continued to keep public interest centred on the great national questions involved in the carrying-out of a successful forest policy.’²⁵¹ Through newspapers, the public could read and learn about the necessity of scientific forestry, and the achievements of the NZFL and the SFS. As such, the press helped keep the public informed of the activities and achievements of the two organisations. Moreover, with newspapers largely positive to forest conservation in New Zealand they, as Wilson and Ellis realised, helped influence public opinion in favour of forestry.

Exhibiting forestry

Another key means of reaching the public was through exhibitions. In his policy proposal of 1920, Ellis strongly recommended that a forest school be established in New Zealand to teach ‘the science and art of forestry’ to provide the SFS with scientifically trained personnel versed ‘in the many complex problems so peculiar to forestry in New Zealand.’²⁵² Besides educating future staff, Ellis envisioned the school would ‘give instruction and advice by means of lecture, exhibitions, and demonstrations throughout the Dominion’.²⁵³ As the establishment of a forest school was repeatedly delayed due to rivalry between the University of New Zealand’s constituent University Colleges in Auckland, Wellington, and Christchurch regarding where the school ought to be, holding exhibitions instead became the SFS’s task.²⁵⁴ During the 1920s, the SFS partook in several exhibitions, from local agricultural and pastoral shows, occasionally referred to as winter shows, to the New Zealand and South Seas Exhibition in Dunedin, 1925-1926, the largest exhibition in New Zealand during the interwar period. This section examines the SFS’s ambition to foster a forest consciousness through exhibitions and fairs.

From the Great Exhibition in London 1851, to the first decades of the twentieth century, exhibitions symbolised the wonders of modernity, boasting the grandness of the host nation, and offering participating countries a possibility to market their produce, products, and resources to a wide audience.²⁵⁵ As John M. Mackenzie notes: ‘Exhibitions, from 1851 to the 1930s, offered what were in effect museums of global explanation, visual encyclopaedias of knowledge about empire.’²⁵⁶ However, more than simply spectacles, exhibitions also

²⁵¹ *AJHR*, C3, 1923, 21.

²⁵² *AJHR*, C3A, 1920, 13.

²⁵³ *Ibid.*, 14.

²⁵⁴ Michael M. Roche and John Dargavel, ‘Imperial Ethos, Dominions Reality: Forestry Education in New Zealand and Australia, 1910-1965,’ *Environment and History* 14, no. 4 (2008): 532-534.

²⁵⁵ Jeffrey A. Auerbach, *The Great Exhibition of 1851: A Nation on Display* (New Haven: Yale University Press, 1999).

²⁵⁶ John M. Mackenzie, *Museums and empire: Natural history, human cultures and colonial identities* (Manchester and New York: Manchester University Press, 2019), 2.

functioned as vehicles for knowledge communication, although at times the line between spectacle and science could be hard to distinguish.²⁵⁷ In colonial New Zealand, the museum occupied a central role in natural history and ethnography, and following World War I, the creation of a national identity.²⁵⁸ As a large body of scholarship since the 1990s demonstrates, museums and exhibitions served as arenas to promote an identity, often in relation to nation, class, or gender.²⁵⁹ Yet, while there is a rapidly growing body of work by scholars on exhibitions related to the Anthropocene and present environmental issues, historians have largely overlooked exhibitions as events that brought public attention to contemporary environmental issues.²⁶⁰ The small body of overseas scholarship on forestry exhibitions focuses on the marketing of timber and the value of applied botany.²⁶¹

Agricultural and pastoral (A&P) shows, often organised by agricultural and pastoral societies led by established local farmers, played a prominent role in New Zealand from colonisation well into the twentieth century. As Peter Holland notes, the shows helped to build a sense of a local community. Moreover, particularly in the early decades, they also functioned as nexuses of knowledge and product exchange between farmers.²⁶² Initially, these knowledge exchanges occurred without any state involvement, but from 1890 onwards, the state partook evermore in addressing agricultural issues and promoting applied science following the

²⁵⁷ See, for example, Frans Lundgren, 'The politics of participation: Francis Galton's Anthropometric Laboratory and the making of civic selves,' *British Journal for the History of Science* 46, no. 3 (2013): 445-466.

²⁵⁸ Mackenzie, *Museums and empire*, 184-233.

²⁵⁹ Two examples are Tony Bennett, *The Birth of the Museum. History, Theory, Politics* (London; New York: Routledge, 1995), and Carol Duncan, *Civilizing Rituals: Inside Public Art Museums* (London: Routledge, 1995). For a recent overview of museum history, see: Conal McCarthy, 'From histories of museums to museum history: approaches to historicising colonial museums in Aotearoa New Zealand,' *Museum History Journal* 13, no. 1 (2020): 95-110.

²⁶⁰ For scholarship on exhibiting the Anthropocene and climate change, see: Fiona Cameron and Brett Neilson, ed., *Climate Change and Museum Futures* (New York: Routledge, 2014); Libby Robin, et al, 'Three galleries of the Anthropocene,' *The Anthropocene Review* 1, no. 3 (2014): 207-224; Libby Robin with Stephen Boyden, 'Telling the Bionarrative: a Museum of Environmental Ideas,' *Historical Records of Australian Science* 29, no. 2 (2018): 138-152.

²⁶¹ Linden Gillbank, 'Scientific and public duties. Ferdinand Mueller's forest contributions to exhibitions and a museum,' in *Seize the day. Exhibitions, Australia and the world*, ed. Kate Darian-Smith, Richard Gillespie, Caroline Jordan and Elizabeth Willis (Clayton: Monash University Press, 2008), 07.1-07.18; Barton, *Empire Forestry and the Origins of Environmentalism*. However, though overlooked, Barton recognises that the Paris Exhibitions in 1867 and 1878, respectively, and the Edinburgh Exhibition in 1884, in addition to showing 'forest products of European countries, their colonies, and the forest products of participating countries, also 'focused attention on forestry and climate theory, and on the development of forestry innovations in India' as well as 'environmental propaganda and transmission', which, he argues, helped 'the formulation of environmental legislation for British colonies outside of India and for other countries who participated in the exhibitions.' Meanwhile, across the Atlantic, Barton notes that the Chicago Exhibition in 1893 and the St Louis Exhibition in 1904 assisted in 'promot[ing] scientific forestry.' Barton, *Empire Forestry and the Origins of Environmentalism* 75, fn 56.

²⁶² Holland, *Home in the Howling Wilderness*, 178-183.

establishment of a Department of Agriculture.²⁶³ This was done through a range of channels, such as the Department's journal, the publication of bulletins on various topics, and winter show exhibits.²⁶⁴ From 1920, the Field Division of the Department of Agriculture, responsible for educating farmers on various agricultural matters, was joined by the SFS at the exhibits.²⁶⁵ As forest extension officer Percy Morgan Page noted in 1924, exhibiting at these shows served multiple purposes, namely:

to get into touch with the public, to instil the necessity of conservation and reasoned use of our present timber resources; to awaken interest in afforestation; to bring home to farmers the importance of planting shelter to increase production and to advise them as to the best species of trees for shelter purposes and the production of farm timbers. To attract the attention of school children and interest them in our native flora, timbers, tree-planting and forestry generally.²⁶⁶

To achieve these objectives, the SFS's exhibits featured photographs, specimens of valuable seedlings, and publications promoting private tree planting (see chapter two). To generate interest among children, the SFS, together with the winter show organisers, supported school planting competitions (see chapter 3). The exhibits by the SFS received favourable reviews in the press. In 1922, for example, the *Dairyfarmer*, the official publication of the New Zealand Co-operative Dairy Company, noted that the SFS, which exhibited for the first time at the Waikato Winter Show in Hamilton, ought 'to be complimented on the instructive and attractive display by which it introduced itself to many of the visitors', displaying specimens of suitable farm trees and wood specimens of indigenous timber-trees (figure 3).²⁶⁷

For the 1923 Waikato Winter Show, the SFS proved much more ambitious. In May, a month before the show commenced, Page informed readers in the *Dairyfarmer* that the SFS intended 'to make it of even more interest to farmers and the general public than ever before.'²⁶⁸ The exhibit included, amongst other things, a seed section with 'all the main exotic timber

²⁶³ On the history of the Department of Agriculture, see: Tony Nightingale, *White Collars and Gumboots: A History of the Ministry of Agriculture and Fisheries, 1892-1992* (Palmerston North: Dunmore Press, 1992).

²⁶⁴ Paul Star and Tom Brooking, 'The Farmer, Science and the State in New Zealand,' in Brooking, Pawson, et al., *Seeds of Empire*, 159-177.

²⁶⁵ Nightingale, *White Collars and Gumboots*, 67 and 71-74.

²⁶⁶ P. M. Page, 'Remarks on nurserymen's petition,' 3. ANZ, Wellington, Conference New Zealand Nurserymen, R17277819.

²⁶⁷ 'The Waikato Winter Show. Dominion Record. World's Best Dairy Factory Exhibition,' *Dairyfarmer* 2, no. 10 (1922): 19.

²⁶⁸ P. M. Page, 'An Educational Exhibit. The State Forest Service at the Waikato Winter Show,' *Dairyfarmer* 3, no. 9 (1923): 10.

producers and shelter trees', seedling specimens of pines and eucalypts, free leaflets with information on tree-planting, and a display of wood products made from exotic timber trees. For the curious and those seeking to engage in farm forestry, the SFS also hosted live demonstrations two times a day of how to best plant a tree.²⁶⁹ Perhaps most impressive of all, the SFS would show a movie illustrating the steps involved in exotic afforestation as well as 'some beautiful pictures of the native forests', including the logging and hauling of native trees.²⁷⁰

Reviewing the exhibition, the *Dairyfarmer* deemed the display by the SFS as '[p]robably ... the most instructive of the whole show.'²⁷¹ The SFS would go on to regularly partake in the Waikato Winter Show with great success. 'To-day', Ellis noted in his annual report in March 1925, 'a splendid and lively "forest consciousness" is evident in the people of the Dominion, both collectively and individually', a fact he attributed in part to the 'exhibits at agricultural shows'.²⁷²



The Educative Display of the State Forest Service.

Figure 3. By exhibiting seedlings, and putting up signs and photographs, the SFS sought to educate the public on forestry and tree-planting. Photograph of the display of the SFS at the Waikato Winter Show in 1922. 'The Educative Display of the State Forest Service,' *Dairyfarmer* 2, no. 10 (1922): 19.

²⁶⁹ Page, 'An Educational Exhibit. The State Forest Service at the Waikato Winter Show,' 10f. Quote from 10.

²⁷⁰ Ibid., 11.

²⁷¹ 'Waikato Winter Show. Another Splendid Success. Worthy of the Industry and the Province,' *Dairyfarmer* 3, no. 10 (1923): 18.

²⁷² *AJHR*, C3, 1925, 3.

In 1923, the Otago Expansion League, as part of its efforts to bring back the golden days to the city of Dunedin, whose prominence had faded with the population and economic shift to the North Island since the turn of the century, began lobbying for the city to arrange an exhibition.²⁷³ The idea soon gained traction, not least through the architect Edmund Anscombe, who held a strong interest in fairs and exhibits and argued in a public letter that the city ought to host ‘an Exhibition which should eclipse anything previously attempted in New Zealand.’²⁷⁴ Following Anscombe’s convincing letter, work soon began for the hosting of the New Zealand and South Seas Exhibition for the summer of 1925-1926. To the government, which helped finance the project, the Exhibition presented a splendid opportunity to engage with a large segment of the population. Indeed, 22 departments, amongst them the SFS, agreed to partake.²⁷⁵

For the fair, the SFS was given a ‘central “circle” space in the government building of 2,190 feet’ as well as ‘a site outside for demonstration of nurseries and plantations.’²⁷⁶ To show the importance of forestry and forest conservation to the public, Ellis favoured ‘a reviewing’ exhibit, ‘demonstrating all activities of the Service’, but he encouraged ‘all officers’ to contribute with ideas.²⁷⁷ Sadly, the major file concerning the SFS’s court appears lost, prohibiting any insight into the planning of the display. Nevertheless it is clear that following suggestions, the approach to the Exhibition changed. Instead of a ‘usual display made of numberless exhibits and hardly enough space in which to move around comfortably’, the SFS decided on presenting ‘a few bold striking exhibits each with a punch and a compelling thought behind it.’²⁷⁸ As officer Camille M. Malfroy noted: ‘It should be our object to give to every visitor to the Exhibition some thought which will be taken away and pondered over.’²⁷⁹ Reflecting this new direction, the SFS erected a court of ‘unique design’ with the walls decorated with foliage and signs detailing the values of forestry and benefits of tree-planting (figure 4).

²⁷³ G. E. Thompson, *Official Record of the New Zealand and South Seas International Exhibition* (Dunedin: Coulls Sommerville Wilkie for Otago Master Printers Association, 1927), 6-9. See also Griffiths, ‘North American Boosterism in the South Pacific,’ 12.

²⁷⁴ E. Anscombe, ‘National exhibition for Dunedin,’ ES, 27 January 1923, 3.

²⁷⁵ Thompson, *Official Record of the New Zealand and South Seas International Exhibition*, 66-69.

²⁷⁶ Director of Forestry to Conservator of Forests, Whakarewarewa, 14 February 1925. ANZ, Auckland, Dunedin Exhibition, R1856211.

²⁷⁷ Ibid.

²⁷⁸ Camille M. Malfroy, for Director of Forestry, to Conservator of Forests, Rotorua, 12 March 1925. ANZ, Auckland, Dunedin Exhibition, R1856211.

²⁷⁹ Ibid.



Figure 4. The New Zealand and South Seas Exhibition allowed the SFS to set up an elaborate court showcasing the value of forestry and forests to the public. 'Dunedin Exhibition November – April 1926,' ANZ, Wellington, Tree Species – 945.2 Forest Publicity – Signs, Exhibitions, Open Days, R2422556.

Once the Exhibition opened, people across the Dominion and the world came to visit Dunedin and the fair. Indeed, 45,786 people attended the opening and total visits amounted to 3,200,498, a staggering triumph with New Zealand consisting of a population of less than 1,400,000 and Dunedin just over 75,000.²⁸⁰ The Exhibition also received substantial coverage in the press. In the first few days of the Exhibition, newspapers, eager to cover as much as possible, provided primarily brief accounts of the displays and attractions as they sought to cover as much as possible. However, once the novelty faded, papers began to provide their readers with longer descriptions of the pavilions. 'The idea', a reporter from the *Otago Daily Times* noted, reviewing the SFS's exhibit:

is to impress upon the public the necessity of forestry and of the scientific management of native forests in order to conserve the present timber supplies and provide for the future requirements of the Dominion. Both branches of forestry are shown – namely, the utilisation of present native timbers and the perpetuation of indigenous forests, and also the afforestation side. On the whole, the display has been skilfully arranged and adequately equipped, and the lesson it teaches is a valuable and eloquent one.²⁸¹

At the literal centre of this valuable lesson on forestry stood a relief map, portraying 'the vanishing timber resources of the country'.²⁸² Through different colours, the map indicated native forests, of which less than a fifth remained, and the establishment and expansion of exotic timber plantations by both the SFS and private actors to meet future timber demands.²⁸³ Claiming to be the first relief map to show New Zealand forests, it attracted substantial interest amongst visitors and was of great pedagogical value.²⁸⁴ When teachers took local schoolchildren on excursions to the Exhibition, they reportedly used the relief map to demonstrate 'the necessity for retaining the forest colour on the ranges' to the children.²⁸⁵ According to the local press, pupils and teachers showed 'a keen interest in the Forestry Section'.²⁸⁶

In addition to the relief map, the SFS employed statistics to demonstrate the severe deforestation of New Zealand and the threat it posed, with great effect. As one journalist noted:

²⁸⁰ Thompson, *Official Record of the New Zealand and South Seas International Exhibition*, 137.

²⁸¹ 'New Zealand timber,' ODT, 9 December 1925, 6.

²⁸² 'Our timber supplies,' ES, 25 November 1925, 4.

²⁸³ Thompson, *Official Record of the New Zealand and South Seas International Exhibition*, 93f.

²⁸⁴ 'Our timber supplies,' ES, 25 November 1925, 4.

²⁸⁵ 'School children and forestry,' ODT, 5 March 1926, 10.

²⁸⁶ Ibid.

‘Although statistics are often uninteresting, they cannot be ignored. Indeed, the figures supplied by the Forestry Department’s Court in the Government pavilion present a very grave, though happily a not insurmountable problem.’ Truly, as much as the SFS portrayed a grim picture with the use of statistics, it also used statistics to instil the visitor with ‘hope’ of an ample supply of timber through ‘a system of sane afforestation’, with statistics showing the tremendous work undertaken since 1896 – the starting point of organised state involvement in tree-planting – and that the SFS planted 15,000 acres in 1925 alone.²⁸⁷

Besides seeking to educate the public on the dangers of deforestation, and the important and valuable work by the SFS, the display sought to promote current schemes conducted by the SFS, namely farm forestry (see chapter 2) and the “Forestry in Schools Campaign” (see chapter 3). To advertise the former, the SFS displayed various seedlings in an experimental demonstration outside to showcase the best specimens for timber and shelter.²⁸⁸ Amongst the exotic species exhibited was *Pinus radiata*, which, Page told a reporter, ‘will play a very important part in the future timber supply of the [D]ominion,’ not least due to the fact that it reached harvest maturity in thirty years, whereas other exotic species required one or two extra decades.²⁸⁹ To prove the favourable conditions for timber-growing in the Dominion, visitors could inspect and compare cross-sections of spruces grown in Norway and New Zealand. Though the same age, the New Zealand specimen had a diameter five times as big and ‘contained twenty five times as much timber’ as its Norwegian counterpart.²⁹⁰ To promote the “Forestry in Schools Campaign”, in turn, the SFS exhibited trophies won by North Island schools at their local winter show.²⁹¹ Just as he advised farmers, Page also informed teachers on suitable trees to plant and how to establish a school nursery.²⁹² Thus, the Exhibition allowed the SFS to showcase forestry in all its glory to the public. As the *Otago Daily Times* remarked, commenting on the efforts of the SFS to popularise forestry: ‘The very fine display at the Exhibition must have increased the “forest consciousness” of the people of New Zealand.’²⁹³ Ellis shared the conclusion of the *Otago Daily Times*. In his annual report for 1926 he noted that the exhibit had ‘attracted thousands of farmers, landowners, and other interested visitors’, which he attributed to the many features displayed by the SFS.²⁹⁴ A public forest consciousness

²⁸⁷ ‘Our forest assets,’ ODT, 18 March 1926, 10.

²⁸⁸ ‘A unique display,’ ES, 20 November 1925, 9; ‘Forestry plots,’ ES, 21 November 1925, 3.

²⁸⁹ ‘A unique display,’ ES, 20 November 1925, 9.

²⁹⁰ Thompson, *Official Record of the New Zealand and South Seas International Exhibition*, 92.

²⁹¹ ‘School children and forestry,’ ODT, 5 March 1926, 10.

²⁹² ‘State forestry,’ EP, 1 December 1925, 5.

²⁹³ ‘Forestry as school endowment,’ ODT, 5 August 1926, 8.

²⁹⁴ *AJHR*, C3, 1926, 18.

was becoming evident in New Zealand, as Ellis noted in an address delivered at the Exhibition: ‘Individual, public, and political support for the forestry movement, forest-cultivation, and the growing of timber for profit is to-day from the North Cape to Bluff most definite and spontaneous.’²⁹⁵

Conclusion

To imperial forester David Ernest Hutchins and the founders of the NZFL, the major cause of the absence of forestry in New Zealand in 1916 stemmed from a lack of public support, which could only be addressed through propaganda. To educate the public on the values and benefits of forestry, and thereby achieve public support for the creation of a forestry department, Hutchins held lectures across New Zealand while the NZFL published pamphlets, often referring to claims and assessments by Hutchins. Collaborating with and citing Hutchins, an acknowledged and respected forester with a long career in the British Empire, gave scientific weight to the propaganda of the NZFL. Together, the two formed a successful partnership, achieving their goal of the establishment of a forest department under a scientifically trained forester. However, their accomplishments did not allow for complacency.

As Hutchins warned in his inaugural address to the NZFL in 1916, it remained the task of the NZFL to ensure that forestry remained free from political intervention to fully prosper, which could only be secured through a strong public support. Leon MacIntosh Ellis, the newly appointed Director of Forestry, concurred, believing the NZFL essential in stirring public opinion in favour of forestry and the SFS. As such, the two organisations came to develop close collaboration, with Ellis soon serving on the council of the NZFL. Other high-ranking staff of the SFS also joined the NZFL.

In the early 1920s, the NZFL employed the writer Will Lawson as organiser, a task which involved rallying support for the NZFL and forestry in general by sending articles to newspapers and holding lectures for the public. Utilising his literary skills, Lawson, with the NZFL, started the *Forest Magazine*. Though Hutchins had recommended a magazine back in 1916, noticing that forest societies abroad all published journals to stir public opinion, lack of finances had prevented such commitment by the NZFL until then. Featuring not only articles on scientific forestry, but also pieces on the beauty of forests and wonders of birdlife, newspapers praised the magazine. Although Lawson only served as editor for a year before

²⁹⁵ L. MacIntosh Ellis, ‘Our Timber Supplies – What of the Future?’, delivered under the auspices of the New Zealand & South Seas International Exhibition Horticultural Week Committee, 8. ANZ, Wellington, New Zealand State Forest Service. Branch of Forest Products. Our timber supplies – What of the future?, R20065316.

travelling to Australia, resulting in the magazine coming under the editorship of Maurice Hurst, successfully competing against several departments in acquiring ownership of the publication, the new journal continued to serve as the official organ of the NZFL throughout the 1920s.

In addition to its own journal, the NZFL sought to raise public support through the press. Sir James Glenny Wilson, one of the co-founders of the NZFL, regarded the press as a formidable means to raise public opinion. When he first sought to rally support for a forestry league in 1916 he wrote a public letter to the press. Years later, as financial cuts threatened the future of the SFS, he again turned to the press. Realising the value of the reporting of the NZFL's activities by the press, Wilson acknowledged them in his presidential addresses. Ellis and the SFS also placed great value in the press in campaigning for forestry.

The SFS, in its efforts to educate the public about forestry and encourage private tree-planting, partook in winter shows and the New Zealand and South Seas International Exhibition in Dunedin, 1925-1926. With people of all ages and professions visiting the exhibitions, the venue allowed the SFS to educate the public on the need for forestry and the dangers of deforestation. To instil a forest consciousness in the mind of the visitor, the SFS used an array of pedagogical material, including displays of photographs, maps, piles of different seeds, and rows of seedlings. However, as the next chapters will show, fostering a public forest consciousness involved not just creating public support for forestry, but also seeing the public participate in tree-planting and reducing waste.

Chapter Two

Farmers and forest consciousness, 1916-1932

Already the farmer who has neglected to plant is often glad to go and beg or buy a tree or two from his more provident and enterprising neighbour who in due time gave up a reasonable percentage of his land to the production of timber. With the world's supply growing steadily less and prices everywhere rising, the contrast between those who have and those who have not planted will become increasingly acute.¹

Joseph Henry Simmonds, 1917

The problem of the development of forest policy in New Zealand is of peculiar interest to the farmers and settlers, for the success or otherwise of a forward policy vitally depends on their interest and participation in the growing and harvesting of timber trees.²

Leon MacIntosh Ellis, 1921

Farmers and farm forestry occupied a central role in the prevention of a timber famine. Thus, it became a central task of the New Zealand Forestry League (NZFL) and the New Zealand State Forest Service (SFS), the latter in particular, to foster a forest consciousness amongst farmers. This chapter examines the means employed by the two organisations to encourage farmers to plant trees. Furthermore, it explores the developing relationship between forestry and agriculture in New Zealand during the interwar period, arguing that forestry advocates and scientifically trained foresters regarded farm forestry as an important component of their work.

This chapter begins by revealing the links between the NZFL and the New Zealand Farmers' Union in the latter half of the 1910s. Here, the aim was to educate farmers on the value of planting trees. Next, the chapter focuses on Director of Forestry Leon MacIntosh Ellis's perception of farm forestry as a source of timber, and the propaganda employed by the SFS to encourage farmers to plant trees. The chapter also examines the collaborative efforts, and later rivalry, between the SFS and the New Zealand Association of Nurserymen (NZAN), as a result of the growing state presence in the nursery market, highlighting the contested role of the state

¹ J. H. Simmonds, 'Eucalypts for settlers. Further species and where to plant them,' NZJA 14, no. 2 (1917): 124.

² L. MacIntosh Ellis, 'Forestry in New Zealand. The government and private planting,' NZJA 22, no. 2 (1921): 87.

in supplying private individuals with cheap trees and seeds. Lastly, the chapter looks at statistics employed by the SFS as evidence of a growing forest consciousness amongst farmers.

The NZFL and farm forestry

Although imperial forester David Ernest Hutchins devoted the majority of his address at the inauguration of the NZFL in 1916 to the need for scientific forestry, as well as the role and tasks of the newly formed association (chapter 1), he also discussed the possibility and future of farm forestry in New Zealand, which he described as ‘an undeveloped mine of wealth’.³ Indeed, while the poor condition of the state nurseries in the Dominion had limited farmers’ ability to engage in large scale arboriculture, Hutchins believed it held significant potential. ‘In these latitudes in Europe,’ he informed the audience, ‘the trees of the field (not forest or orchard trees) often yield as much as the crops or grass of the ground.’⁴ As further evidence, Hutchins gave the examples of South Australia and South Africa where governments supplied farmers with seeds and trees at a low cost.⁵ In the latter, where he had served most of his career, Hutchins told the attendees: ‘arboriculture for farmers and national forestry have gone hand-in-hand for the last thirty years, each helping the other.’⁶

Whether or not swayed by Hutchins’s promise of riches, the NZFL, as one of its objectives, aimed to encourage private individuals to plant timber trees ‘in odd corners, steep slopes or other areas not well fitted for ordinary farming operations’.⁷ As one of its many arguments for establishing a forestry department led by a professional forester, the NZFL emphasised the advantages it would bring to private forestry, for example by offering advice on tree-planting, supplying seeds ‘at cost price’, and ‘by selling surplus young trees from the Government nurseries’, similar to the practices in South Australia and South Africa.⁸ According to the NZFL, instituting a forestry department would ensure the sustained yield management of native forests, and enable farmers to establish exotic timber plantations.

From the onset of its establishment, the NZFL enjoyed a close connection to the farming community. Of the initial twelve council members of the NZFL, half of them were prominent farmers, including Walter Buchanan and David Buddo, who were also MPs, as well as James

³ D. E. Hutchins, ‘Scientific national forestry for New Zealand,’ NZJA 13, no. 5 (1916): 386.

⁴ Ibid., 386.

⁵ Ibid., 386f.

⁶ Ibid., 386.

⁷ New Zealand Forestry League, *Objects and rules of the New Zealand Forestry League (Incorporated)* (Wellington: Watkins Tyer & Tolan, 1916) 1.

⁸ New Zealand Forestry League, *The New Zealand Forestry League (Incorporated). Reasons for its Establishment. Its Aims and Objects. Motto. “Preservation and Conservation.”* (Wellington: Watkins, Tyer & Tolan, Ltd: 1917), 3f. Quote from 4. A L Hunt, Papers, ATL, MS-Papers-0158-294F.

Deans, Edwin Hall, and perhaps most notably, James Glenly Wilson, co-founder of the NZFL and its first president (see chapter 1).⁹ By the time he was elected president of the NZFL, Wilson also served as president of the Board of Agriculture and the Farmers' Union. Founded in 1902, the Farmers' Union soon became one of the major agricultural interest groups in New Zealand, and under Wilson's presidency, 1902-1920, 'instituted a concerted attack upon inefficiency within the agricultural industry.'¹⁰ Wilson, as Tom Brooking notes, 'passionately believed in a more scientific approach to agricultural production', and particularly aimed to improve agricultural education and knowledge.¹¹ However, as Brooking points out, neither Wilson nor the Farmers' Union limited themselves to agricultural matters, with both repeatedly urging the government to address the matter of afforestation.¹² Wilson's co-foundation of the NZFL met with support from the Farmers' Union, with its journal, the *Farmers' Union Advocate*, publishing Wilson's letter asking people to join the new organisation, commenting:

The Farmers' Union and the Council of Agriculture have consistently urged the extension of our operations in reafforestation; but it is apparent that more is needed, and we need the weight of the general public behind us in this movement. This question is not merely a rural question, it is also of vast importance to our industries, and to our building trades. Our forests are being rapidly depleted, and only a tithe of what ought to be done is being done to make good the wastage. We shall welcome the establishment of a Forestry Association in this Dominion.¹³

The *Farmers' Union Advocate* quickly became a valuable ally to the NZFL, publishing articles on the importance of forestry, including by members of the NZFL. In fact, it briefly advertised itself as the official magazine of the NZFL. In 1918, for example, the journal published a lengthy resolution of the University Senate, moved by NZFL-council member Heinrich Ferdinand Haast, on the importance of forestry and the need to establish a school of forestry in New Zealand.¹⁴ However, more than featuring the occasional article on forestry, the magazine particularly came to promote farm forestry as a solution to a timber famine, publishing articles

⁹ Roche, *Forest policy in New Zealand*, 111.

¹⁰ Tom Brooking, 'Agrarian businessmen organise. A comparative study of the origins and early phases of development of the National Farmers' Union of England and Wales and the New Zealand Farmers' Union, ca 1880-1929' (PhD diss., University of Otago, 1977), 357.

¹¹ *Ibid.*, 356.

¹² *Ibid.*, 359.

¹³ 'Encouraging Forestry,' FUA, 29 April 1916, 6. For Wilson's letter, see 'Encouragement of Forestry,' *The FUA*, 29 April 1916, 4.

¹⁴ 'Our Wasted Wealth,' FUA, 9 February 1918, 23.

and lectures on the topic by members of the NZFL. ‘If the inevitable timber famine is to be controlled to its minimum severity,’ minister Joseph Henry Simmonds, principal at the Methodist Church’s Wesley Training College in Auckland for Māori clergy and catechists, and an amateur botanist with an interest in eucalypts, warned in a lecture to the Wellington Provincial Farmers’ Union in 1918, ‘private owners of land must do their part, and do it without delay.’¹⁵ Meanwhile, afforestation enthusiast and NZFL-council member Ebenezer Maxwell, in an address to the Taranaki Agricultural Society the same year, also reprinted in the magazine, presented three major arguments for engaging in farm forestry and how to plant trees.¹⁶ Firstly, trees, when tall enough, would offer the farmer’s family and the stock protection from sun and winds.¹⁷ Secondly, trees helped beautify the homestead, which he argued would create ‘a love of home and country’, and thereby counteract the population drift into cities – a growing concern amongst farmers, and a number of politicians, from the late 1910s onwards.¹⁸ Thirdly, once mature, trees would provide the farmer with an ample supply of timber for fuel, fences, and other needs, even helping to meet local timber demands as well.¹⁹ Concluding his lecture, Maxwell encouraged the audience to enrol in the NZFL.²⁰

In addition to the Farmers’ Union, the NZFL received assistance from the Department of Agriculture and its publication, the *Journal of Agriculture*, renamed *New Zealand Journal of Agriculture* in 1918. Established in 1910, the journal served to give farmers technical advice from its own experts and set out to replace private publications like the *New Zealand Farmer* and the *Country Journal*, marking the increasing involvement of the state in the development and promotion of agricultural practices and science.²¹ Upon Wilson’s plea for the establishment of a forestry association in 1916, the *Journal of Agriculture* featured a notice detailing the purpose of the supposed organisation and how to join, wishing ‘the movement every success.’²² Helping the newly formed NZFL in its quest to create public opinion in support of forestry, the editor of the journal agreed to published Hutchins’s inaugural lecture in two parts (see chapter 1). The NZFL’s choice of the *Journal of Agriculture* for the publication of Hutchins’s address suggests that it was particularly eager to gain the support of farmers. The Department of Agriculture, also eager to promote farm forestry, had its journal publish a number of articles on

¹⁵ ‘Dominion Forestry,’ FUA, 15 June 1918, 27.

¹⁶ ‘Forestry for Farmers,’ FUA, 6 July 1918, 1f; ‘Forestry for Farmers,’ FUA, 13 July 1918, 1f.

¹⁷ ‘Forestry for Farmers,’ FUA, 6 July 1918, 1

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ ‘Forestry for Farmers,’ FUA, 13 July 1918, 2.

²¹ Wood and Pawson, ‘Flows of Agricultural Information,’ in Brooking, Pawson, et al., *Seeds of Empire*, 157f; Nightingale, *White Collars and Gumboots*.

²² ‘Proposed forestry association,’ JA 12, no. 5 (1916): 391.

forestry in general and farm forestry in particular.²³ This included writings by Hutchins and members of the NZFL.²⁴ For example, between 1916 and 1920, Simmonds, described by the editor 'as the first authority on eucalypts in New Zealand', contributed seven articles to the journal.²⁵ In well-illustrated articles, Simmonds emphasised the importance of tree-planting from the perspective of both the farm and the Dominion. His first article, for instance, connected tree-planting to a concern of many farmers; fencing-posts:

All over New Zealand the question of obtaining an adequate supply of fencing-posts and gate-posts is becoming serious. In many districts the difficulty is already acute. The natural forests that have served us so well and so long have for over half a century been steadily receding before the progress of settlement and now the remnants are everywhere menaced with irreparable exhaustion. The demand increases, the supply declines. Within twenty years from to-day hundreds of thousands of posts that are at present holding up our wires and gates will have fallen with decay. Whence shall we replace them?²⁶

To Simmonds, the looming shortage of timber presented a major issue to the farming community, and though 'ferro-concrete' and iron posts could be used in some instances, their high expense made them 'prohibitive for general purposes'.²⁷ Therefore, Simmonds concluded, the only 'possible remedy' was planting exotic timber trees, to which New Zealand proved

²³ For examples of articles published up to 1919, see: John Macpherson, 'Shelter plantations: Their economic value to agriculture,' JA 7, no. 6 (1913): 600-603; A. H. Cockayne, 'The Monterey pine. The great timber-tree of the future,' JA 8, no. 1 (1914): 1-26; 'Forestry in New. Opinions and recommendations of the royal commission,' JA 8, no. 3 (1914): 266-275; Tasman Smith, 'Forest-trees for settlers. A Canterbury experience,' JA 11, no. 2 (1915): 106-110; W. H. Taylor, 'Tree-planting for farmers,' JA 14, no. 5 (1917): 378-388; 'The native forests and forestry matters,' NZJA 17, no. 6 (1918): 376-380; 'A forestry policy for New Zealand. Address by the commissioner of state forests,' NZJA 18, no. 5 (1919): 313-318.

²⁴ 'Forestry in New Zealand,' JA 15, no. 6 (1917): 344; D. E. Hutchins, 'The Waipoua forest. Its demarcation and future management,' JA 16, no. 3 (1918): 136-141; E. Phillips Turner, 'Reclamation of sand-dunes,' NZJA 18, no. 3 (1919): 148-154.

²⁵ Editor's note, J. H. Simmonds, 'Eucalypts for fencing-timber. Some suitable species and how to grow them,' JA 12, no. 4 (1916): 253. For articles by Simmonds published in the *Journal of Agriculture* and the *New Zealand Journal of Agriculture*, 1916-1919: J. H. Simmonds, 'Eucalypts for fencing timber. Some suitable species and how to grow them,' JA 12, no. 4 (1916): 253-278; J. H. Simmonds, 'Eucalypts for settlers. Further species and where to plant them,' NZJA 14, no. 1 (1917): 1-21; J. H. Simmonds, 'Eucalypts for settlers. Further species and where to plant them,' NZJA 14, no. 2 (1917): 116-124; J. H. Simmonds, 'Wind-breaks for fruit-farms. The native shrubs specially commended,' NZJA 15, no. 5 (1917): 253-262; J. H. Simmonds, 'Private forestry. The Wairarapa, Manawatu, Rangitikei, and Wanganui districts,' NZJA 16, no. 6 (1918): 334-353; J. H. Simmonds, 'Private forestry. The Marlborough district,' NZJA 19, no. 3 (1919): 152-171; J. H. Simmonds, 'Private forestry. "Homebush," Canterbury,' NZJA 21, no. 5 (1920): 271-282.

²⁶ Simmonds, 'Eucalypts for fencing timber,' 253f.

²⁷ Ibid., 254. On fencing practices in nineteenth-century New Zealand, see: R. P. Hargreaves, 'Farm Fences in Pioneer New Zealand,' *New Zealand Geographer* 21, no. 2 (1965): 144-155.

‘eminently suitable’.²⁸ Regarding what exotic trees to plant, Simmonds recommended ‘the great genus Eucalyptus’ due to its quick growth and the timber’s durability to weather and soil. To help farmers plant the most suitable species of eucalyptus, Simmonds listed twelve species, detailing their preferable climate as well as different methods of planting, and protection.²⁹ The article sparked plenty of interest and inquiries, leading Simmonds to write a subsequent article, covering thirteen additional species of eucalyptus.³⁰

However, Simmonds did not limit his writing to tree-planting advice, but included observations on private forestry in New Zealand in general. Following a visit through the southern and central parts of the North Island, where he noticed ‘many plantations of valuable timber-trees’, he could not help but speculate on the reasons for their establishment around a half a century ago:

Were those early settlers home-makers in a sense and in a degree which we of to-day with all our lavish expenditure cannot quite understand or emulate? Did they appreciated [sic] the majesty and beauty of great trees as we do not? Or were they keenly practical men who realized the comfort and benefit of shelter for themselves and their stock. Did the same practical instinct tell them that indigenous forest would rapidly disappear, and that a day would inevitably come when timber for all purposes would be scarce and dear? We may well suppose that the tree-planting spirit of those early times found strength in a combination of all these motives.³¹

To Simmonds, the settlers of old, by establishing timber plantations on their farms, had demonstrated forest consciousness, an understanding of trees’ contribution to agriculture, the economic and applicational value of timber, and an appreciation of trees’ beauty. Nonetheless, these plantations held one major flaw, as many of them contained ‘too many trees ... of secondary economic value’.³² Although the plantations provided shelter, the trees themselves yielded only a ‘scant economic return for the land they occupy.’³³ Farm forestry, he argued, needed to consider both shelter and economic yield. Thus, apart from eucalypts, which provided the farmer with fuel, fence posts, and hardwood for railway sleepers, he also recommended

²⁸ Simmonds, ‘Eucalypts for fencing timber,’ 254.

²⁹ Ibid., 256-278.

³⁰ Simmonds, ‘Eucalypts for settlers,’ 1-21; Simmonds, ‘Eucalypts for settlers,’ 116-124.

³¹ Simmonds, ‘Private forestry,’ 334.

³² Ibid., 334.

³³ Ibid., 334.

conifers due to New Zealand's demand for softwood.³⁴ Planting eucalypts and conifers proved paramount for the national supply of timber, and not just the farm. 'It is obvious', Simmonds noted, 'wherever one turns that the needs of a growing population must be met by the assiduous and extensive cultivation of rapid-growing exotics. Failing this, timber famine is inevitable.'³⁵

As the addresses and articles by Simmonds and Maxwell suggest, farm forestry primarily concerned quick-growing exotic timber species. However, native species, too, played a significant role in farm forestry. For orchards, Simmonds, rather than recommending his beloved eucalypts, advocated the planting of native shrubs, as shelter plants as they would not inflict the same level of damage upon the fruit trees as exotics.³⁶ Furthermore, indigenous vegetation added better ornamental value to the farm than exotic pines, as Simmonds rhetorically asked: 'to an orchard or garden what could possibly be better than our beautiful subforest ever-green shrubs?'³⁷ He shared this opinion with fellow-member Joseph Orchiston. In a paper presented at a meeting of the NZFL, and later published in a pamphlet in 1918, Orchiston claimed that New Zealand not only possessed one of the world's most magnificent flora, but one with 'some of the finest material for the production of both ornamental and shelter hedges or break-winds.'³⁸ Yet, Orchiston bemoaned recording a 'callous indifference' towards the native vegetation amongst settlers.³⁹ This he attributed to a sentiment arising from the early days of settlement, when 'the chief aim of most settlers seemed to be to destroy everything of native origin, both flora and fauna, and to replace the same with exotics.'⁴⁰ To farm forestry advocates, native species held ornamental and utilitarian values, and encouraged settlers to plant them, providing advice on how to grow them.

In 1920, Wilson commended Simmonds on his 'untiring and unselfish work' in promoting farm forestry.⁴¹ However, the NZFL's farm forestry propaganda was not limited to the individual work of its members. The NZFL, having achieved its goals of the establishment of a forestry department under a scientifically trained forester, expanded its propaganda activities to farm forestry by distributing a pamphlet on the subject.⁴² 'The afforestation of waste spaces', the NZFL argued, 'is a most important phase of the forestry campaign in New

³⁴ Simmonds, 'Private forestry,' 336.

³⁵ Ibid., 335.

³⁶ Simmonds, 'Wind-breaks for fruit-farms,' 253-262, especially 253 and 259f.

³⁷ Ibid., 260.

³⁸ J. Orchiston, 'Native Trees as Hedges,' in *The New Zealand Forestry League (Incorporated). Practical Observations on Forestry*, ed. New Zealand Forestry League (Wellington: Watkins Print, 1918), 10.

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ NZFL, annual meeting, 7 July 1920, 4. A L Hunt Papers, ATL, MS-Papers-0158-297.

⁴² New Zealand Forestry League, *Timber Trees. Their Cultivation and Value* (Wellington: Warnes & Stephenson, [1921-1922]), 2-7.

Zealand, and one in which the individual citizen can actively assist the cause of forestry, while it is an established fact that tree-planting can be made a profitable enterprise.⁴³ Regarding which tree to plant, the NZFL suggested a range of exotic species, detailing their preferred climate and areas of usage. Paradoxically, while the list only featured exotic trees, the front page showcased a kauri (*Agathis australis*), an indigenous tree to New Zealand. The pamphlet also functioned as an advertisement for the NZFL with the last page detailing its objectives, and asking the reader to enrol in the association. However, the pamphlet would be the only publication by the NZFL on farm forestry. Just as the NZFL had argued in its campaigning for the creation of a forestry department, asserting that it would assist the planting efforts of individuals, the SFS came to take a significant interest in farm forestry, quickly making the NZFL's efforts to encourage farm forestry superfluous.

The SFS and farm forestry

Farm forestry constituted a central aspect of Leon MacIntosh Ellis's vision for New Zealand forestry. In his 1920 policy proposal, the newly appointed Director of Forestry boldly claimed 'that 30 per cent. of the national requirements in timber may be easily met by private and semi-public enterprise', an assumption he based on two factors.⁴⁴ Firstly, existing public interest in private forestry, which he had witnessed in the 'very large and definite investments in private forest plantations' undertaken by 'municipalities, County Councils, fruitgrowers' associations, and agriculturists'.⁴⁵ Secondly, 'the remarkable sustained performance of exotic trees' enabled individuals to establish timber plantations and harvest the trees within their lifetime due to the trees' short rotation of somewhere between 25 and 35 years.⁴⁶ Moreover, because of 'the extraordinarily long growing-season', Ellis considered New Zealand an 'exception' to the otherwise orthodox view amongst foresters 'that timber-growing is the function of the State'.⁴⁷ In New Zealand, he claimed, timber-growing was nothing but 'a sound and remunerative business'.⁴⁸ Though expecting a variety of actors to undertake private forestry, farmers constituted a primary group of interest to Ellis, who wanted the SFS to undertake investigations on 'the best procedure for the farmer to use in developing in his [sic] 5-acre or 10-acre woodlot'.⁴⁹

⁴³ New Zealand Forestry League, *Timber Trees*, 2.

⁴⁴ *AJHR*, C3A, 1920, 34.

⁴⁵ *Ibid.*, 34.

⁴⁶ *Ibid.*, 34.

⁴⁷ *Ibid.*, 34.

⁴⁸ *Ibid.*, 34.

⁴⁹ *Ibid.*, 15.

State and provincial encouragement of private tree-planting as a solution to a timber famine in New Zealand long pre-dated Ellis's directorship. In 1858, politicians in the forest-scarce province of Canterbury had introduced a tree-planting encouragement act.⁵⁰ Canterbury hosted some of the most enthusiastic tree-planters in the early decades of British settlement, amongst them runholder and naturalist Thomas Potts, who planted a range of exotic trees on his estate, including *Pinus radiata*.⁵¹ In 1871, the New Zealand Parliament implemented a colony wide version of the act, the Forest Trees Planting Encouragement Act.⁵² The act 'enshrined the principles of tree-planting for fuel, construction, climatic control and soil quality'.⁵³ However, despite rewarding planters with either two acres for every acre planted, or a piece of land valued at £4 maximum, the ambitious act, as Michael Roche shows, only enjoyed moderate success. Most private planting efforts during the late nineteenth century took place outside or without any consideration of it.⁵⁴

The Forestry Branch of the Department of Lands and Survey, in 1916, commenced a scheme in which it sold trees to farmers as a means to encourage the establishment of shelter-belts and woodlots.⁵⁵ 'It is not', the Branch stressed, 'expected that the planting of trees by farmers ... will add to the supply of timber that will be required for building and construction purposes.'⁵⁶ Advertisements for the scheme appeared in the *New Zealand Journal of Agriculture*, 'weekly papers', and via 'County Councils'.⁵⁷ The scheme proved much appreciated. In 1918, the Branch recorded selling 487,500 trees, claiming that more farmers began to realise 'the great value of farm plantations for the purposes of shelter, firewood, and farmers' timber requirements' thanks to 'the public Press' and the *New Zealand Journal of Agriculture*.⁵⁸ Thus, by the time Ellis arrived, New Zealand had a relatively long history of private tree-planting endeavours.

Shortly after presenting his policy proposal, Ellis penned an article in the *New Zealand Journal of Agriculture*, in which he detailed the objectives and tasks of the SFS, and the three

⁵⁰ Roche, *Forest policy in New Zealand*, 49.

⁵¹ On tree-planting efforts by Potts, and in Canterbury in general, see: Star, 'Tree Planting in Canterbury, New Zealand, 1850-1910,' 563-582; Star, 'Thomas Potts and the Forest Question,' 196-201; Star, 'Regarding New Zealand's environment,' 104-107; Michael M. Roche, 'Reactions to Scarcity: The Management of Forest Resources in Nineteenth-Century Canterbury, New Zealand.' *Journal of Forest History* 28, no. 2 (1984): 82-91, especially 87-91.

⁵² Roche, *Forest policy in New Zealand*, 49.

⁵³ Beattie and Star, 'Global Influences and Local Environments,' 206.

⁵⁴ Roche, *Forest policy in New Zealand*, 49-57.

⁵⁵ *AJHR*, C3, 1916, 2.

⁵⁶ *Ibid.*, 2.

⁵⁷ *AJHR*, C3, 1917, 2.

⁵⁸ *AJHR*, C3, 1918, 2.

future timber sources of New Zealand. These were: indigenous forests under state management, state plantations, and private plantations.⁵⁹ Just as in policy proposals, Ellis portrayed New Zealand as supremely suited for tree-growing.⁶⁰ To meet the timber demand, Ellis calculated that private planters would need to plant an aggregate area of 150,000 to 200,000 acres of timber – a considerable area, but Ellis was optimistic that the goal lay within reach:

Is it possible to induce the establishment of this big cumulative area within a generation? It is well worth trying for. Keeping continually at it by lecture, demonstration, education, and instruction, supported by reasonably priced planting-stock, expert advice, and the employment of co-operative profit-sharing schemes, should result in the establishment and operation of thousands of small and large plantations throughout the Dominion.⁶¹

These measures tied in well with Ellis's vision of the SFS as 'the leader of public thought' regarding private tree-planting, which he thought 'should be one of the principal duties of this Service'.⁶²

Reflecting Ellis's ambition, the SFS expanded its advertising of its stock of trees and seeds by, for example, putting up posters and advertising in the official organ of the NZFL, whilst continuing to use its previous channels too. This increased propaganda had the desirable effect: in 1923, the SFS sold 1,475,581 trees, almost three times as many as in 1918. Yet, Ellis recognised that the SFS needed to 'sell at least five to ten million trees per annum' if private planters were to supply a third of New Zealand's timber demand.⁶³ To achieve that, advertising in *The New Zealand Journal of Agriculture* and other 'farming journals' would simply not suffice.⁶⁴ Therefore, Ellis asked Heaton Rhodes, the Minister for Forestry, to approve the cost of advertising at railway stations across New Zealand in 1924.⁶⁵ Rhodes did after some suggestions to the layout, and later that same year travellers and visitors at railway stations across New Zealand could observe posters featuring neat rows of tall trees together next to logs laying on the forest floor with little to no undergrowth.⁶⁶ At the top, text in large capital letters

⁵⁹ Ellis, 'Forestry in New Zealand,' 87-89.

⁶⁰ Ibid., 88f.

⁶¹ Ibid., 89.

⁶² *AJHR*, C3A, 1920, 34.

⁶³ L. MacIntosh Ellis to Minister for Forestry, 16 February 1924, 1. ANZ, Wellington, Posters re Planting, R17272902.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ For input and approval by Rhodes, see: E. Phillips Turner to Commissioner of State Forests, 23 February 1924; E. Phillips Turner to Commissioner of State Forests, 18 March 1924. ANZ, Wellington, Posters re Planting, R17272902. For the poster, see: 'Plant Trees and Grow Money' in ANZ, Wellington, Posters re

read: 'PLANT TREES AND GROW MONEY'. Meanwhile, the lower half of the poster detailed the profitability of tree-planting, informing the reader that trees at the cost of £10 could be worth as much as £500 in 33 years. The bottom, in turn, encouraged anyone interested to contact 'the State Forest Service "Tree Man"' in either Rotorua or Christchurch to acquire the booklets and price lists (figure 5). By having the 'Tree Man' as the point of contact, the SFS aimed to study the efficiency of the advertisement since the term was exclusive to the poster.⁶⁷ Later during the year, to increase exposure and encourage more people to plant trees, Ellis asked regional officers to put up the poster in 'conspicuous places' like garages and libraries.⁶⁸ Although the SFS recorded selling 2,831,512 – far more than the previous year – few applicants must have contacted the 'Tree Man' as the SFS discontinued its arrangement with the Railway Department after just under a year.⁶⁹

Planting, R17272902. The poster appeared at following railway station in the North Island: Henderson, Helensville, Wellsford, Maungaturoto, Drury, Cambridge, Morrinsville Jn., Te Awamutu, Taumarunui, Taihape, Aramoho Junc., Hawera, Pahiatua, Dargaville, Te Karaka, Eltham, Stratford Junc., New Plymouth, Palmerston North Jn., Dannevirke, Waipukurau, Waipawa, Otane, Hastings, Featherston, Carterton, Masterton, Whangarei, Gisborne, and Motuhora. In the South Island the poster appeared at: Christchurch, Rangiora Jn., Waipara Jn., Hornby Jn., Rolleston Jn., Ashburton, Timaru, Studholme Jn., Oamaru, Palmerston Jn., Dunedin, Middlem'rch, Milton, Balclutha Jn., Clinton, Gore Jn, Edendale Jn., Invercargill, Blenheim, Greymouth Jn., 'Poster advertisements at Railway Stations in the North Island,' ANZ, Wellington, Posters re Planting, R17272902; 'Poster advertisements at Railway Stations in the South Island,' ANZ, Wellington, Posters re Planting, R17272902.

⁶⁷ E. Phillips Turner to Commissioner of State Forests, 23 February 1924. ANZ, Wellington, Posters re Planting, R17272902.

⁶⁸ Director of Forestry to Conservator of Forest, Christchurch, 14 May 1924. ANZ, Wellington, Posters re Planting, R17272902; Director of Forestry, to All regions except Christchurch, 14 May 1924. ANZ, Wellington, Posters re Planting, R17272902.

⁶⁹ *AJHR*, C3, 1925, 3.



Figure 5. In 1924, the SFS put up this poster at railway stations across New Zealand seeking to demonstrate the gains that awaited those who planted trees. "Plant Trees and Grow Money". ANZ, Wellington, Posters re Planting, R17272902.

The message of 'PLANT TREES AND GROW MONEY' was echoed in the booklets advertised on the poster.⁷⁰ In *Tree Planting for Profit*, the SFS, whilst describing New Zealand's demand for timber as a 'problem of a national character' and providing a range of information on tree-planting, simultaneously painted it as a financial possibility, highlighting the profits that awaited the tree-planter: for example, an acre of 33 year old *Pinus radiata* could yield £250 to £500.⁷¹ For the more patient planter, an acre of redwood could, after 50 years, yield a revenue of up to £1,500.⁷² These estimates, the SFS assured the planter, were 'fairly conservative'.⁷³ The coming shortage of timber put the Dominion in severe trouble, but promised the farmer a hefty profit, as one paragraph in the *Tree-planter's guide* suggested:

The demands for timber for housebuilding and commercial purposes are increasing by leaps and bounds, and the prospects of supplies of farm timber such as were available in the old days are nil. There is, therefore, a great opportunity before the farming community as a whole to grow their own requirements, and while doing so to grow for sale to others as a profitable side line. In most cases they are in possession of the land and facilities, and the market is at their doors.⁷⁴

With guaranteed riches awaiting any farmer who planted timber-trees, the SFS, in another pamphlet, compared the timber plantation to 'an insurance or savings-bank account'.⁷⁵

However, the SFS did not limit its arguments to financial gains when seeking to encourage private tree-planting. It also highlighted the positive benefits for the farm: timber plantations' ability to eradicate noxious weeds, like blackberry, and to protect stock from sun and wind in their capacity as shelter belts.⁷⁶ To demonstrate the effectiveness of timber plantations as shelter, the SFS used photographs of sheep grazing in the lee of trees, and diagrams to illustrate how timber plantations sheltered sheep and cattle from the elements.⁷⁷

⁷⁰ See, for example: New Zealand State Forest Service, *New Zealand State Forest Service. Circular No. 3. The Insignis Pine (the remarkable pine)*, revised edition (Wellington: Government printer, 1925), backside.

⁷¹ W. T. Morrison and P. M. Page, *Tree Planting for Profit* (Wellington: Government printer, 1922), 3-20. Quotes and estimates from 1 and 9.

⁷² *Ibid.*, 9.

⁷³ *Ibid.*, 9

⁷⁴ SFS, *Tree-planter's guide: A handbook of information issued by the New Zealand State Forest Service* (Wellington: Government printer, 1924), 3.

⁷⁵ A. N. Perham, *New Zealand State Forest Service. Circular No. 2. Forestry on the Farm* (Wellington: Government printer, 1923), 1.

⁷⁶ *Ibid.*, 1-15.

⁷⁷ See, for example: SFS, New Zealand State Forest Service. Circular No. 25. *Farm Shelter* (Wellington: Government printer, 1928).

The timber from the plantation could also be used to improve or repair the farm, or as firewood. Lastly, the publications included advice on general planting, maintenance, and species to plant. With a timber famine looming, even if farmers just intended to establish shelter belts for sheep, the SFS particularly encouraged the planting of eucalypts and *Pinus radiata*, issuing special publications detailing their cultivation, upkeep, and benefits.

Circulars enabled the SFS to reach and educate a large audience at a relatively low cost. Secretary of Forestry, Edward Phillips Turner calculated that 2,000 copies of the booklet *Forestry on the Farm* would only cost the SFS around £26 whilst offering ‘useful hints and instructions re the growing, handling and marketing of farm timber products’ and would ‘stimulate interest’ amongst ‘farmers and others in the establishment of wood-lots’.⁷⁸ The leaflets proved incredibly popular. In 1923, the SFS headquarters in Wellington received a telegram from its Hokitika office, requesting more copies of *Forestry on the Farm* after the local stock had been depleted during the British and Intercolonial Exhibition (figure 6).⁷⁹ Aside from distributing the leaflets on request, or at exhibitions to intended planters, the NZFL also assisted the SFS in their distribution.⁸⁰ The publications enjoyed huge success, some proving so popular that it became necessary to issue new copies. For example, after publishing 2,000 copies of the pamphlet *The Insignis Pine (the remarkable pine)* in 1924, the SFS printed an additional 5,000 copies shortly afterwards.⁸¹ In addition to circulars and booklets, the SFS supplied articles on forestry and tree-planting, especially to farming journals such as the *New Zealand Dairyman*. Throughout the first half of the 1920s, forest extension officer Percy Morgan Page contributed pieces to the journal on various trees and their values. In one article, for example, Page detailed the best means of planting trees (figure 7).⁸²

⁷⁸ E. Phillips Turner to Commissioner of State Forests, 6 December 1922. ANZ, Wellington, Circular number 2 Forestry on the Farm, R17274929.

⁷⁹ Telegram, Hokitika to Wellington, 27 December [1923]. ANZ, Wellington, Circular number 2 Forestry on the Farm, R17274929.

⁸⁰ L. MacIntosh Ellis to C. J. Treleaven, Secretary Canterbury Forestry League, 19 July 1923. ANZ, Wellington, New Zealand Forestry League Co-op with SF [State Forestry] Service, R17277825.

⁸¹ *AJHR*, C3, 1924, 17; *AJHR*, C3, 1926, 28.

⁸² P. M. Page, ‘Tree planting,’ *Dairyfarmer* 3, no. 7 (1923): 17f.

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NEW ZEALAND STATE FOREST SERVICE.

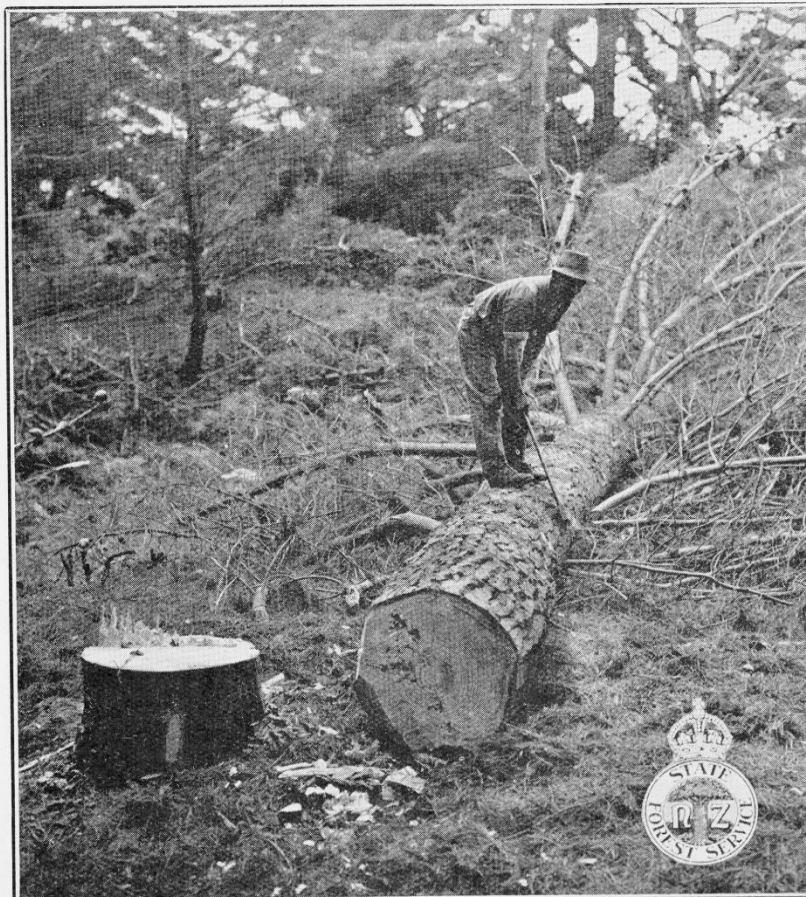
L. MacIntosh Ellis, Director of Forestry.

Circular No. 2.



FORESTRY ON THE FARM.

By A. N. PERHAM, Forest Assistant.



MAKING MONEY FROM WASTE LANDS.

I206—23]

W. A. G. SKINNER, GOVERNMENT PRINTER, WELLINGTON, N.Z.

Figure 6. The popular booklet *Forestry on the Farm* by forester A. N. Perham, one of many publications issued by the SFS seeking to encourage farmers to engage in farm forestry and establish timber plantations. A. N. Perham, *New Zealand State Forest Service. Circular No. 2. Forestry on the Farm* (Wellington: Government printer, 1923).

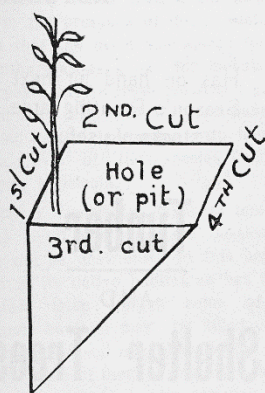
TREE PLANTING

By P. M. Page, Forest Extension Officer, Rotorua.

A discussion upon several methods commonly employed by the State Forest Service.

PITTING.

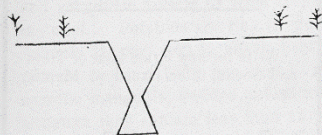
The formation of holes or pits for the reception of the trees: Open pits have the soil taken out with the fourth cut of the spade. This is deposited alongside of the hole, and replaced when planting the tree. A modification of this system, which has been prac-



ticed to a great extent in the State Plantations, is to turn over the soil into the hole when making the fourth cut, and chop it up with spade. When planting takes place the spade is inserted vertically into the loosened soil, and the tree inserted in the slit. This style of pitting may be otherwise expressed as preparing (or cultivating) a small spot for each tree.

NOTCHING.

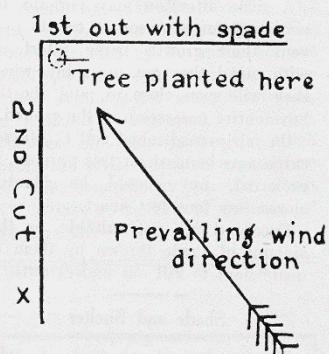
Notching aims at cutting out the cost of pitting by planting the trees on land without any previous preparation, except, of course, the necessary clearing. There are several methods of notching practiced, all based on the



Hole made by drawing spade backward and forward, the bottom of which is very hard to fill up after planting of tree.

crudest method of all, of simply inserting a spade into the soil, and moving it backwards and forwards to make an opening in which the tree is inserted. The weakness of this method is that

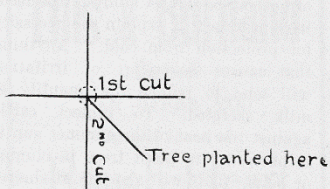
NOTCHING - I



Press spade backward, thus opening soil at space for tree.

the backward and forward movements of the spade makes an opening the shape of an hour glass, and it is not possible to eliminate the air space at

NOTCHING - II



By forcing spade backward after second cut an opening is made at centre of two cuts where tree is planted.

the bottom of the cut. This difficulty is satisfactorily eliminated by one of the three following methods:—

1. Two cuts are made in the soil with the spade, the second cut being at right angles to the first and joining it at one end, thus forming two adjacent sides of a square, like the letter L. Before the spade is removed, when making the second cut the handle is drawn backward, thus lift-

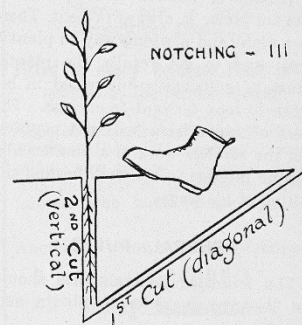
ing up the soil in a roughly triangular piece, and leaving an opening in the angle formed by the two cuts in which the tree is inserted. After the tree is placed in position the spade is withdrawn, and the tree firmed by tramping the sod back into position.

2. Another similar method is to make the two cuts in the form of a cross or letter X, or like the letter T.

3. In the third method the first cut of the spade is made diagonally; the second cut vertically. After inserting the spade to its full depth (9 ins.) the second time, the operator pushes the handle away from him, with the result that a wedge-shaped block of soil is pushed outward. The tree is inserted against the vertical face, and soil pushed back against it with the heel of the boot. This method in very satisfactory on heavy clay land.

A careful perusal of the above instructions will show:—

1. That in each case the objective is to provide a vertical face against which the tree can be planted.



Opening made for tree by moving spade so as to displace triangular piece of soil, afterwards replaced by heel of boot.

2. That the opening must be made in such a way as to ensure a proper firming of the soil, and that no air spaces are left.

Where the wind is a serious factor the upright face against which the tree is to be planted should be opposite to the prevailing wind.

METHODS COMPARED.

The pros and cons of the various methods may be thus summarised:—

PITTING.

1. An open pit is "Fool Proof," and an inexperienced or careless planter cannot avoid getting the roots

Figure 7. To the SFS and its forest extension officers, tree-planting was not just a question of putting a stick in the ground; it required the most precise and accurate cuts. P. M. Page, 'Tree planting,' *Dairyfarmer* 3, no. 7 (1923): 17.

The SFS did not limit its tree-planting propaganda to publications and articles. In late 1920, Ellis, when discussing the possibility of ‘the private individual’ supplying a third of the Dominion’s timber with superintending nurseryman Halbert Alexander Goudie (later Conservator of Forests for Rotorua), concluded that its success would rest on the SFS’s ability ‘to make it possible for him to carry on private forestry successfully and profitably.’⁸³ Therefore, in addition to offering farmers trees and seeds at affordable prices, Ellis suggested that an officer from the SFS visit and assess the land on which the farmer sought to plant trees.⁸⁴ Goudie welcomed the idea, claiming that the ‘personal touch’ would allow the SFS to recommend the most suitable tree for the farm and the Dominion.⁸⁵ Indeed, due to ‘comparatively few’ farmers being able to provide useful information on the land on which they intended to grow trees, Goudie confessed to Ellis that he, when giving advice through correspondence, only recommended hardy species of Eucalyptus.⁸⁶ While certain that these species would thrive and provide timber suitable for fences, they would not be good for much else, such as sleepers or for bridge construction.⁸⁷ ‘If’, on the other hand, he noted optimistically, ‘this planting [of eucalyptus] is intelligently directed, private individuals could probably grow the great bulk of the hardwood requirements of the Dominion.’⁸⁸

Although no record seems to exist regarding exactly when the position of forest extension officer – initially tree-planting Inspector – was established, the dialogue between Ellis and Goudie offers a good starting point. In March 1921 Ellis emphasised the SFS’s role in leading tree-planting efforts through education and demonstration.⁸⁹ At the same time, Goudie and D. J. Buchanan, Conservator of Forests for Canterbury-Otago, reported the intention of having two officers, each touring one island, to hold lectures and give advice on tree-planting to private planters.⁹⁰ ‘In this way,’ Goudie noted, ‘it is hoped to stimulate an interest in tree-growing and induce every land-owner to devote at least a portion of his land to the growing of a timber crop’.⁹¹ Ellis, reviewing the work of the extension officers the following year, issued nothing

⁸³ L. MacIntosh Ellis to H. A. Goudie, 15 September 1920. ANZ, Wellington, Publications, Newspaper Clippings, Library – Farm Forestry, R20060492.

⁸⁴ Ibid.

⁸⁵ H. A. Goudie to The Director, 20 September 1920, 1. ANZ, Wellington, Publications, Newspaper Clippings, Library – Farm Forestry, R20060492.

⁸⁶ [H. A. Goudie], ‘Private afforestation,’ [1920], 3f. ANZ, Wellington, Publications, Newspaper Clippings, Library – Farm Forestry, R20060492.

⁸⁷ Ibid., 3f.

⁸⁸ Ibid., 4.

⁸⁹ Ellis, ‘Forestry in New Zealand,’ 89.

⁹⁰ *AJHR*, C3, 1921, 15 and 17.

⁹¹ Ibid., 15.

but praise for their work in promoting tree-planting as a profitable activity to the private individual:

The Service, through its two tree-planting Inspectors, supported by the splendid tree-nursery facilities at Rotorua, Hanmer, and Tapanui, and the expert knowledge of its afforestation staff, was able to take a leading part in the stimulation of private tree-planting. Sixty-one tree-planting demonstration lectures were delivered by the two forest-extension officers to nearly two thousand interested planters, and nearly five thousand memoranda, letters, and reports giving advice and instruction were prepared for private planters. Surely that is a distinct community service!⁹²

Thus, rather than just inspecting planting sites, as initially discussed, the forest extension officers became proselytisers of the gospel of forestry, preaching the message of private tree-planting as they travelled across New Zealand. To reach farmers, sermons were often organised via the Farmers' Union, or similar associations, and advertised in the local paper.⁹³ Furthermore, newspapers often summarised lectures, and at times even interviewed the extension officer, thereby carrying the message of forestry in general, and the importance of planting exotic timber-trees in particular, well beyond the meeting hall.⁹⁴

In 1925, Ellis remapped his forestry policy for New Zealand as data indicated an imminent exhaustion of significant native timber species, such as kauri (*Agathis australis*) and kahikatea (*Dacrycarpus dacrydioides*).⁹⁵ Instead of relying on native forests for the Dominion's timber supply, Ellis envisioned state plantations to constitute the major timber source. By 1965, he calculated that half of the country's timber would come from state plantations.⁹⁶ However, private forests remained an integral part of the new policy. By 1965, he estimated that '[l]ocal body, proprietary, and private plantations' would produce slightly more than 20 percent.⁹⁷ Although not as high a percentage as in his initial policy from 1920, private forests would remain New Zealand's second-largest source of timber.⁹⁸ Moreover, according to Ellis, 16.1 million cubic feet of finished timber – almost 20 percent of New Zealand's consumption –

⁹² *AJHR*, C3, 1922, 2.

⁹³ *AJHR*, C3, 1922, 9; *AJHR*, C3, 1923, 11. For advertisement, see, for example, 'New Zealand Farmers' Union (Whangarei Branch),' *Northern Advocate*, 1 April 1922; PBH, 13 March 1928, 8.

⁹⁴ See, for example, 'Tree-planting pays,' *Waikato Times*, 3 March 1922, 7; 'State nursery and planting operations,' NEM, 27 August 1924, 3; 'Farm notes,' *Matamata Record*, 13 August 1925, 6.

⁹⁵ *AJHR*, C3, 1925, 7.

⁹⁶ *Ibid.*

⁹⁷ *Ibid.*

⁹⁸ *Ibid.*

related to fencing and farming, therefore making it imperative to impress upon farmers the necessity to plant trees.⁹⁹ As such, farm forestry remained an integral part of preventing a timber famine. In 1926, Ellis reported with delight the strides made in encouraging private forestry: 'Increased inquiries for advice upon tree-growing problems, increased sales of tree-seeds and nursery stock, and an increase in the number of examinations made for intending planters, all point to the Dominion's ever-widening interest in the business of tree-growing.' This development, he noted, stemmed from the successful propaganda machinery of the SFS. 'Forest-extension activities', he claimed, 'has brought forestry prominently before a very large portion of the population of the Dominion.'¹⁰⁰

From collaborators to competitors - the SFS and private nurserymen, 1920-1930

Promoting farm forestry to such an extent that it could supply close to a third of New Zealand's timber supply involved more than just propaganda and the offering of advice. As Goudie noted in his response to Ellis's inquiry in 1920, the SFS lacked the capacity to supply the trees and seeds necessary alone.¹⁰¹ As a solution, he suggested that the SFS formulate a collaborative scheme with 'the commercial nurseryman to cater for the demands of the private tree-planter' in which he 'agree[d] to sell trees at a reasonable rate' and the SFS in exchange would receive control of the seed market.¹⁰² Albeit not quite in the manner outlined by Goudie, the SFS and the New Zealand Association of Nurserymen (NZAN) did nevertheless enter into an agreement to sell timber trees and seeds 'at reasonable rates' in December 1920.¹⁰³ This section examines the subsequent co-operation between the SFS and the NZAN in encouraging private forestry, in particular farm forestry, and highlights the complex relationship between private actors and the SFS.

Following the agreement between the SFS and NZAN, a period of close partnership began. Attending the annual conference of the NZAN in January 1921, Ellis outlined his vision for New Zealand forestry and the important role of private nurserymen in ensuring a stable timber supply.¹⁰⁴ Because of the favourable climate, Ellis informed the audience, private tree-

⁹⁹ *AJHR*, C3, 1925, 7

¹⁰⁰ *AJHR*, C3, 1926, 5.

¹⁰¹ [H. A. Goudie], 'Private afforestation,' 2. ANZ, Wellington, Publications, Newspaper Clippings, Library – Farm Forestry, R20060492.

¹⁰² *Ibid.*, 2f.

¹⁰³ *AJHR*, C3, 1921, 15.

¹⁰⁴ L. MacIntosh. Ellis, 'The State Forest Service – and its relation to the Nurserymen of New Zealand,' January, 1921, 1-4. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818. The speech would later be modified for his already quoted article in the February number of *New Zealand Journal of Agriculture* the same year. Ellis's speech also appeared in New Zealand Nurserymen's Association (Incorporated), *Official report of*

planting could play a much larger role in New Zealand than in other countries. Ellis envisioned farmers, local bodies, and other private planters establishing up to ‘an aggregate private acreage of 150,000 to 200,000 acres of plantations’, and thereby supply 30 percent of New Zealand’s timber.¹⁰⁵ ‘Is it possible’, he rhetorically asked the audience, ‘to induce the establishment of this enormous cumulative area within a generation? It is well worth trying for, and with your co-operation it can be easily attained, for money talks.’¹⁰⁶ While the SFS did supply ‘cheap forest trees’ to farmers, Ellis reassured attendees that it did not seek to compete with private nurserymen.¹⁰⁷ On the contrary, he expected that the SFS, by stimulating ‘the extension of private forests’, would increase their business.¹⁰⁸ Ellis also thought that ‘the larger interest of good-citizenship and the public welfare will always align you and your Association with the State in its effort to safeguard the wood-supplies of the Nation.’¹⁰⁹ George A. Green, secretary of the NZAN and member of the Auckland League of Forestry, concurred. Green noted that nurserymen ‘could greatly help the Department in regard to propaganda, not only by inculcating the need for planting but by showing the people how to plant to the best advantage.’¹¹⁰ Some private nurserymen had a long experience of selling trees to farmers. Nurseryman Alfred Buxton, for example, most famous for his landscape gardening, sold trees suitable for shelter and windbreaks to farmers in the first decade of the 1900s.¹¹¹ Another nurseryman, H. G. Kingsland, who specialised in timber-trees, penned an article in the *Journal of Agriculture* on the forthcoming need of timber and value of tree-planting in 1917.¹¹²

However, Ellis’s promise of a golden future ‘along Afforestation lines’, or a ‘larger interest of good-citizenship and the public welfare’, seems to have encouraged private nurserymen, as well as the NZAN, to increase the marketing of exotic afforestation. In 1922, an issue of *Forest and River (New Zealand Out-of-Doors)*, featured advertisements for trees

the fourteenth annual meeting and conference of the New Zealand Association of Nurserymen 1921 (Auckland: Brett, 1921), 21-23.

¹⁰⁵ MacIntosh. Ellis, ‘The State Forest Service – and its relation to the Nurserymen of New Zealand,’ 4. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹⁰⁶ *Ibid.*, 4.

¹⁰⁷ *Ibid.*, 4.

¹⁰⁸ *Ibid.*, 4.

¹⁰⁹ *Ibid.*, 4.

¹¹⁰ New Zealand Nurserymen’s Association (Incorporated), *Official report of the fourteenth annual meeting and conference of the New Zealand Association of Nurserymen* 1921 (Auckland: Brett, 1921), 23.

¹¹¹ Rupert Tipples, *Colonial landscape gardener: Alfred Buxton of Christchurch, New Zealand, 1872-1950* (Lincoln: Lincoln College, 1989), 48-63, especially 48 and 58.

¹¹² H. G. Kingsland, ‘Economical afforestation in Nelson. The fruit-case timber supply,’ *NZJA* 15 (1917): 145-150.

from four nursery firms: Buxton; Nairn & Sons; Duncan & Davies; and Kingsland.¹¹³ Of these, only Duncan & Davies would continue to advertise regularly in the journal and its successors. Kingsland also issued a well-illustrated booklet, which, similar to the publications of the SFS, highlighted the profits that awaited those who planted *Pinus radiata*.¹¹⁴ The NZAN, too, around the time of the agreement with the SFS to sell trees at reasonable rates, launched a tree-planting propaganda campaign.¹¹⁵ Ellis welcomed these efforts by the NZAN, claiming that its work had resulted in the SFS receiving ‘several enquiries’ related to exotic afforestation.¹¹⁶ In 1922, Ellis reported that ‘the two main sources of supply’, namely the SFS and a group named the Dominion Federated Nurserymen – most likely the NZAN as no organisation with that name appears to have existed – had distributed more than four million trees combined.¹¹⁷ Of the four million, the SFS had sold around a quarter, demonstrating the importance of the NZAN in supplying private planters with trees.¹¹⁸ In his report Ellis regarded the nurserymen as indispensable in the promotion of private forestry:

In any review of national forest extension, the important activities of the Dominion Nurserymen’s Federation must be recorded. This group of private nurserymen has been very active during the year in pushing the sale of trees for the planting of tree plantations and shelter-belts, and the Federation, with a sincere desire to widen planting interest, during the year undertook to supply trees at the same prices as sold by the Forest Service.¹¹⁹

Ellis would have been pleased that the arrangement continued for the season of 1922 as well. However, whereas Ellis welcomed the collaboration, the NZAN held a different opinion.

In September and October 1922, Green, in a series of letters to Ellis, claimed that the SFS had endangered the businesses of private nurseries and therefore ought ‘to with-draw from the

¹¹³ *Forest and River (New Zealand Out-of-Doors)* 1, no. 4 (1922): 144, 146, 152, and 161. Although major advertisement occurred in the early half of the 1920s, only Duncan & Davies would regularly advertise their products in the official organ of the NZFL at the end of the decade.

¹¹⁴ H. G. Kingsland, *Money in trees: how waste land may be made productive and valuable: a golden future for the Dominion’s progressive planters: pinus insignis: some convincing facts about afforestation* (Wellington: Goldberg Advertising Agency, [1921?]).

¹¹⁵ George A. Green to L. MacIntosh Ellis, 27 January 1921. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹¹⁶ L. MacIntosh Ellis to George Green, 2 February 1921. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹¹⁷ *AJHR*, C3, 1922, 2.

¹¹⁸ *Ibid.*, 2 and 9.

¹¹⁹ *Ibid.*, 9.

active State propagation and sale of forest lines to the general public.’¹²⁰ According to Green, the NZAN had been promised that the state would withdraw from the private market once they could meet the demand, which the numbers from the previous season suggested.¹²¹ Ellis dismissed the NZAN’s claims and declared that the SFS had no intention of ending its ‘great community service’.¹²² Nonetheless, eager to resolve the matter and continue the co-operation, Ellis agreed to meet a deputation from the NZAN.¹²³

Prior to the meeting, to justify SFS’s position to the delegates, Ellis requested the Conservators of Forests for Rotorua and Canterbury-Otago, Halbert Alexander Goudie and William Tregear Morrison respectively, to provide him with arguments and data justifying the policy of selling trees and seeds to the public.¹²⁴ As Conservators for the centres of tree and seed distribution on the respective islands, both knew the importance of the policy in promoting private forestry and developing a forest consciousness. Like Ellis, Morrison and Goudie rejected the suggestions by the NZAN that the SFS hampered nurserymen’s business. ‘We are’, Morrison noted, ‘selling at the same price and if their stock is of equal quality, why do not the public b[u]y from them? It is up to them to make good.’¹²⁵ Goudie expressed a similar opinion: ‘In brief it would appear that the Nurserymen have not earned the confidence of the forest-tree planters.’¹²⁶ Thus, according to the Conservators, the reason tree-planters bought from the SFS rather than private nurseries was simple: the former offered better trees.

To support this claim, Morrison and Goudie presented Ellis with correspondence extracts praising the trees from the SFS.¹²⁷ Amongst the people lauding the condition of the SFS’s trees was James Deans, from a prominent Canterbury farming family and an avid tree-planter. Deans

¹²⁰ Geo. A. Green to The Director, 25 September 1922; Geo. A. Green to L. M. Ellis, 27 September 1922, 1-2; Geo. A. Green to Ellis, 27 September 1922; Geo. A. Green to Director of State Forest Service, 3 October 1922, 1-2. Quote from Geo. A. Green to L. M. Ellis, 27 September 1922, 1. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹²¹ Geo. A. Green to Ellis, 27 September 1922. ANZ, Wellington, Conference New Zealand Nurserymen, 1921-1924, R17277818.

¹²² L. MacIntosh Ellis to Geo. A. Green, 29 September 1922, 2. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹²³ L. MacIntosh Ellis to Geo. A. Green, 5 October 1922. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹²⁴ L. MacIntosh Ellis to H. A. Goudie and W.T. Morrison, 7 October 1922, 1. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹²⁵ W. T. Morrison to Director, 16 October 1922, 2. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹²⁶ H. A. Goudie, ‘Case for the sale of forest trees by the state,’ 1922, 5. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹²⁷ ‘Extracts from correspondence,’ 1-8. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818; ‘Extracts from correspondence, 1921-22,’ 1-4. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

would later serve as president of the NZFL.¹²⁸ Morrison told Ellis about a farmer who had bought *Pinus radiata* seedlings ‘of nice appearance’ for £50 from a private nursery, but since they were ‘too drawn and delicate for transplanting’, they did not survive the harsh climate of Central Otago.¹²⁹ The next year, unwilling to surrender the prospect of a plantation, the farmer ordered seedlings from the SFS instead with successful results.¹³⁰ Although nurserymen supplied species suitable for farm forestry, such as *Pinus radiata*, their stock lacked the hardiness required. In addition to offering superior seedlings, Goudie and Morrison pointed out that even though the SFS and the NZAN had agreed upon prices, nurserymen added fees for packing, labour, material, and freight, while the SFS only charged extra for the latter.¹³¹ Furthermore, if the SFS ceased its policy, both feared that prices would rise and deter any prospective planter. In light of these circumstances, Goudie concluded:

Can the State Forest Service, as the leader of thought in Forestry matters refuse assistance? It cannot. As a Department of State, entrusted with the important duty of solving the problem presented by the fast diminishing timber supplies, it has a public duty to perform, which should not be side-tracked for reasons such as are now presented by the N. Z. Nurserymen’s Association.¹³²

The reports by Morrison and Goudie, in particular the conclusion of the latter, encapsulate why the SFS saw its policy as a community service. Firstly, it set to address the looming shortage of timber through the establishment of private plantations and so guarantee the Dominion a stable source of timber. Secondly, it guaranteed private planters quality seedlings at affordable prices; both imperative to convince farmers and other actors to establish plantations. As such, to the SFS, terminating the policy would seriously hamper forestry in the Dominion and increase the risk of a timber famine.

The subsequent meeting between the SFS and the NZAN did little to solve the disagreement. Although the SFS shared advice and commented on planting efforts by private

¹²⁸ ‘Extracts from correspondence,’ 1. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818. While the name for the person in the extract is James Dean, and not Deans, the address of Homebush ascribed next to it makes it highly likely that the absence of an ‘s’ is a typo. On James Deans, see: Gordon Ogilvie, *Pioneers of the plains: the Deans of Canterbury* (Christchurch: Shoal Bay Press, 1996), 194f.

¹²⁹ W. T. Morrison to Director, 16 October 1922, 2. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹³⁰ Ibid.

¹³¹ Ibid.; Goudie, ‘Case for the sale of forest trees by the state,’ 1922, 1-3. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹³² Goudie, ‘Case for the sale of forest trees by the state,’ 1922, 4. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

nurserymen, and the NZAN supported the SFS in other aspects of its work, dissatisfaction lingered amongst nurserymen who considered themselves unfairly treated.¹³³ At the annual conference of the NZAN in 1924, two years after the meeting, Buxton reportedly expressed ‘real hostility’ when claiming that the SFS should only be allowed to sell trees to the public in lots of 5,000 trees minimum, and that ‘Government competition should be stopped at once.’¹³⁴ This sentiment was shared by other nurserymen.¹³⁵ To address the unfair competition, the president of the NZAN put forward two suggestions, first: “‘That the Forestry Service be asked to limit their sales to orders of 1000 and above in any one lot’, and secondly “‘[t]hat the conference expresses its disapproval of the State Forest Service selling trees for any other purpose than genuine afforestation purposes.’”¹³⁶

Ellis, upon hearing of the NZAN remits, once again instructed Morrison and Goudie to provide reports justifying the SFS’s policy as well as to include the number of sales orders below 500 trees, between 500 and 1,000, and above 1,000.¹³⁷ In addition to delivering similar arguments as two years earlier, the Conservators informed Ellis that the SFS primarily received orders in lots fewer than 500 trees.¹³⁸ Ellis, in his recommendations to Rhodes, confidently dismissed the claims and suggestions by the NZAN and urged against any sales restrictions due to the policy’s importance to both individual farmers and the Dominion’s timber supply:

I might say that the average small farmer settlers and back-block “cockies” [farmers in the hinterland] are catered for particularly and if they are to be deprived of the privilege of buying forest trees from the State a great injustice indeed will be done to them and also

¹³³ After attending the annual conference of the NZAN in 1923, Goudie reported to Ellis that apart from an interesting paper on the planting distance of *Pinus radiata* the conference offered little of value and that NZAN seemed eager to stop the SFS from selling trees to the public. Conservator of Forests, Rotorua, to Director, 18 January 1923, 1-2. Goudie, ‘Case for the sale of forest trees by the state,’ 1922, 1-3. Conference New Zealand Nurserymen, R17277818.

¹³⁴ S. A. C Darby to Director, State Forest Service, 18 January 1924, 1. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹³⁵ In a paper presented at the conference, forest-tree nurseryman Kingsland regarded the notion that private nurseries competed against the SFS on equal grounds as ‘the gravest indictment that can be levelled against any business’ and expressed hope for more business in Government and less Government in business. Kingsland, ‘Mass production in the nursery,’ in *Official report of the seventeenth annual meeting and conference of the New Zealand Association of Nurserymen* (Auckland: Brett, 1924), 27. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816.

¹³⁶ *Official Report of the Seventeenth Annual Meeting and Conference of the New Zealand Association of Nurserymen* (Auckland: Brett, 1924), 32. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816.

¹³⁷ L. MacIntosh Ellis to W. T. Morrison, 18 January 1924; L. MacIntosh Ellis to H. A. Goudie, 18 January 1924; L. M. E to Conservator of Forests, Whakarewarewa, 4 February 1924. All of the correspondence can be found in: ANZ, Wellington, Conference New Zealand Nurserymen, R17277818

¹³⁸ W. T. Morrison to Director, 23 January 1924, 1f.; W. T. Morrison to Director, 1 February 1924; H. A. Goudie to Director, 4 February 1924, 1-3; H. A. Goudie to Director, 8 February 1924, 1f. All of the correspondence can be found in: ANZ, Wellington, Conference New Zealand Nurserymen, R17277818

to the interests of forestry and the national conservation of forest resources throughout New Zealand.¹³⁹

Persuaded by Ellis, Rhodes informed the NZAN that the government intended to continue the policy.¹⁴⁰ Refusing to surrender, Green and the president of the NZAN wrote to both Rhodes and Prime Minister Massey, but in vain.¹⁴¹ Massey, who, the NZAN claimed had promised to avoid any state interference in the businesses of nurserymen in 1916, responded ‘that it would be detrimental to the interests of forestry and a hardship to the small farmer, were the sale of small lots of trees from the State nurseries discontinued’. Clearly, Massey had swayed in his view on the necessity of state involvement in the promotion of farm forestry.¹⁴²

With letters proving fruitless, the NZAN presented a petition to parliament, which listed the many injustices and disadvantages brought upon its members by state competition.¹⁴³ Ellis, now forced to defend the policy to a parliamentary committee, contextualised the necessity of the SFS selling trees and seeds to the public by asking: ‘Why does the Forest Service foster an interest in tree planting by the general public and by local bodies?’¹⁴⁴ To which he answered:

Because our country has become seriously denuded of its great forests on the head waters of its streams and rivers ... because our civilization needs wood for its prosperity and

¹³⁹ L. MacIntosh Ellis to Minister for Forestry, 4 February 1924, 1. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹⁴⁰ Commissioner of State Forests to G. A. Green, 8 February 1923. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818. The dating of the letter to 1923 is an administrative typo.

¹⁴¹ For letters to and responses from Commissioner of State Forests, see: Geo. A. Green to Commissioner of State Forests, 23 February 1924, 1f. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818; Commissioner of State Forests, to G. A. Green, 5 March 1924. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818; Geo. A. Green to Minister in charge State Forests, 8 April 1924, 1-3. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816; Geo. A. Green to Commissioner of State Forests, 28 April 1924. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816; F. H. D. Bell, for the Commissioner of State Forests, to G. A. Green, 23 May 1924. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816. For letters to and responses from Massey, see: Geo. A. Green to Prime Minister, 8 April 1924. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816; W. F. Massey to Geo. A. Green, 14 April 1924. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816; T. D. Lennie, President, New Zealand Association of Nurserymen, to Prime Minister, 12 May 1924. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816; W. F. Massey to T. D. Lennie, 14 May 1924. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816; W. F. Massey to T. D. Lennie, 23 May 1924, 1f. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816.

¹⁴² W. F. Massey to T. D. Lennie, 23 May 1924, 2. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816.

¹⁴³ ‘The petition of Thomas Waugh and Others of Wellington Nurserymen,’ 1f. ANZ, Wellington, Conference New Zealand Nurserymen, R17277819. For the presentation of the petition to Parliament, see: ‘State competition’ NZT, 7 August 1924, 5.

¹⁴⁴ L. MacIntosh Ellis, ‘Sale of Forest Trees to Farmers, Settlers, Local Bodies, and Others, by the State Forest Service and The Petition of Thomas Waugh, and Others. (N. Z. Association of Nurserymen, Incor.) asking for the stopping of this policy.’ 1. ANZ, Wellington, Conference New Zealand Nurserymen, R17277819.

continued existence: because forests stabilize local climate and provide recreational playgrounds for the people: because forests are essential to the conservation of our wild life: for all these and many other essential reasons.¹⁴⁵

Albeit dramatic in tone, the response highlighted both old and new reasons to plant trees, such as the notion of influencing climate through tree-planting, and the ecological value of forests. Ellis also stressed the importance of tree-planting to ensure secure sources of timber for farmers, which he noted 'is of paramount importance in any country, namely that local demands for timber and firewood should be locally met.'¹⁴⁶ Since establishing plantations involved a sizeable financial undertaking with little, if any, immediate profits, he claimed that state involvement guaranteed affordable prices. In fact, the SFS, Ellis argued, 'in its duty to the public at large, and more especially the farmer, is morally bound to do all in its power to reduce tree-plant prices to a satisfactory level.'¹⁴⁷ In addition to justifying the policy itself, Ellis rebutted claims presented by the NZAN, not least that the SFS hampered the trade of private nurserymen. He pointed out that the SFS, in 1923, sold around 1,500,000 trees while private nurseries had sold 7,000,000.¹⁴⁸ Ellis successfully persuaded the Committee of the necessity of the policy, or at least dissuaded it from favouring the nurserymen. The Committee recommended that the policy's future be determined by the government, which suggested a continuance of the policy in light of Massey's letter to the NZAN earlier.¹⁴⁹ The recommendation prompted a series of statements in the House of Representatives by members from all parties with hopes of improved co-operation between private nurseries and the SFS as well as substantial praise for the fine work done by the latter.¹⁵⁰

Despite Ellis, the Minister of Forestry, the Prime Minister, a parliamentary committee, and a number of politicians rejecting its demands, the NZAN continued its fight. In 1925, at its annual conference, the NZAN acquired the support of the New Zealand Welfare League, an anti-socialist organisation created in 1919 by conservatives as a response to the formation of the Labour Party three years earlier.¹⁵¹ Speaking at the conference, the secretary of the Welfare

¹⁴⁵ Ellis, 'Sale of Forest Trees to Farmers, Settlers, Local Bodies, and Others, by the State Forest Service and The Petition of Thomas Waugh, and Others,' 1. ANZ, Wellington, Conference New Zealand Nurserymen, R17277819.

¹⁴⁶ Ibid., 1.

¹⁴⁷ Ibid., 2.

¹⁴⁸ Ibid., 5.

¹⁴⁹ *New Zealand Parliamentary Debates*, vol 205, 163.

¹⁵⁰ Ibid., 163-171.

¹⁵¹ Alexander Trapeznik, 'New Zealand's perceptions of the Russian revolution of 1917,' *Revolutionary Russia* 19, no. 1 (2006): 69.

League, businessman and mountaineer Arthur Paul Harper, claimed that the competition from the SFS demonstrated that New Zealand marched towards state socialism.¹⁵² Later, the nurserymen also received support from the 1928 Committee, which, like the Welfare League, strived for less government in business.¹⁵³ Even newspapers began advocating against the policy, accusing Gordon Coates, who had succeeded Massey as Prime Minister in 1925, of suffocating private enterprise by state involvement in the market.¹⁵⁴ Meanwhile, the SFS enjoyed the support of the NZFL and the Farmers' Union, with the latter believing the policy essential to 'the small farmer'.¹⁵⁵ The support each organisation received highlights the many different interpretations of the policy. To the NZAN it reeked of unfair competition, its supporters even comparing it to socialism. To the SFS, however, it constituted an essential tool in preventing a timber famine, and to the Farmers' Union the policy assisted and benefited farmers in their work to improve their farms.

In August 1925, as the NZAN yet again approached the government to protest the policy, Ellis referred to the matter as 'a hardy annual' and Green's letter as 'of the usual reckless character'.¹⁵⁶ His comments sum up the next few years of the debate, with the NZAN (renamed the New Zealand Horticultural Trades Association in 1928) repeatedly failing to persuade the SFS and government to end the policy. However, in early 1928, Ellis unexpectedly resigned, leaving the future of the policy uncertain. The *Otago Daily Times*, commenting on the director's departure, speculated that it could end the policy of selling trees to private planters, a speculation that proved correct.¹⁵⁷ Following political directives, Edward Phillips Turner, the new Director of Forestry, held several discussions with a number of private nurserymen to reach an agreement of withdrawal. Amongst the nurserymen was Goudie, who had left the SFS to join an afforestation company.¹⁵⁸ After a drawn-out process, Phillips-Turner finally reported in

¹⁵² New Zealand Nurserymen Association, *Official report of the eighteenth annual meeting and conference of the New Zealand Association of Nurserymen* (Auckland: Brett, 1925), 23.

¹⁵³ 'Notes of an Interview between the Hon. W.B. Taverner (Commissioner of State Forests) and Messrs. A.O. Harper, Paterson and Acland, representing the 1928 Committee, at Wellington, on the 9th July, 1929,' 1-4. ANZ, Wellington, Conference New Zealand Nurserymen, R17277821.

¹⁵⁴ 'Reform's state socialism,' ES, 20 June 1928, 6.

¹⁵⁵ For the NZFL, see: NZFL, council, 18 September 1924, 3. A L Hunt Papers, ATL, MS-Papers-0158-299. For the Farmers' Union, see: J. Pow, Dominion Secretary, Farmers' Union, to Director of Forestry, State Forest Service, 11 March 1924. ANZ, Wellington, Conference New Zealand Nurserymen, R17277818.

¹⁵⁶ Director of Forestry to Secretary to the Treasury, 27 August 1925, 1f. ANZ, Wellington, Conference New Zealand Nurserymen, R17277816.

¹⁵⁷ 'State Forestry,' ODT, 28 April, 12.

¹⁵⁸ See, for example: 'Report of deputation which met the Hon. O.J. Hawken (Commissioner of State Forests) at Eltham, November 1, 1928, in regard to the sale of trees by the State Forest Service,' 1-17. ANZ, Wellington, Conference New Zealand Nurserymen, R17277820; 'Note for file,' 15 December 1928, 1f. ANZ, Wellington, Conference New Zealand Nurserymen, R17277820; 'Report of deputation which met Hon. W.B. Taverner (Commissioner of State Forests) at Wellington on February 6, 1929,' 1-5. ANZ, Wellington, Conference New Zealand Nurserymen, R17277820.

1930 that the SFS ‘in accordance with Government policy to engage as little as possible in business competition with private interests’ would cease selling trees to private planters.¹⁵⁹ The decision proved far from popular, with the Farmers’ Union objecting strongly to the termination of the policy.¹⁶⁰ The Auckland branch, the largest of the Union’s branches, even accused the government of prioritising ‘the Horticultural Society’s profits’ over ‘the shelter of stock’.¹⁶¹ However, attempts to have the policy reinstated failed. Ironically, while the New Zealand Horticultural Trade Association cheered the end of state competition at its annual conference in 1932, it ‘regretted’ that the SFS had ‘ceased public advocacy of Forest planting by farmers, Local Bodies, and others’, which had increased their businesses.¹⁶²

Sales as a measurement of forest consciousness

This section reviews the SFS’s usage of sale figures, for trees especially, as a measurement of public forest consciousness and evaluation of the progress of farm forestry in New Zealand. In 1924, after reviewing the number of trees and the amount of seed sold by the SFS to private planters the previous planting season – 1,839,512 and 618lb (278kg) respectively – Ellis claimed in his annual report: ‘It is now nationally accepted that “To plant trees and grow money” is good business.’¹⁶³ To Ellis, the high sales demonstrated the popularity of the policy.

The use of statistics to measure the popularity of trees and seeds sold in New Zealand predated Ellis’s arrival, with the Forestry Branch of the Lands Department keeping a close eye on its sales when it started selling trees to farmers in 1916. In its first year, the Forestry Branch sold only 285,539 trees, albeit to just 128 applicants, which it attributed to the lateness of the season when the policy was implemented.¹⁶⁴ This was a seemingly correct assessment as the Forestry Branch sold all of the allotted 310,967 trees the next coming year.¹⁶⁵ ‘From the continued increase in the demand for trees’, Goudie noted in 1918, ‘it is justifiable to conclude that the scheme is both popular and successful.’¹⁶⁶ In the North Island alone the Branch had sold

¹⁵⁹ *AJHR*, C3, 1930, 9.

¹⁶⁰ J. Pow, Dominion Secretary, Farmers’ Union, to Minister in Charge, 12 September 1930. ANZ, Wellington, Conference New Zealand Nurserymen, R17277821.

¹⁶¹ A. E. Robinson, Secretary, Farmers’ Union, Auckland province, to Commissioner of State Forests, 10 October 1930. ANZ, Wellington, Conference New Zealand Nurserymen, R17277821; A. E. Robinson, Secretary, Farmers’ Union, Auckland province, to Acting Prime Minister, 10 October 1930. ANZ, Wellington, Conference New Zealand Nurserymen, R17277821.

¹⁶² New Zealand Horticultural Trades Association, *Official report of the twenty-fifth annual meeting and conference of the New Zealand Horticultural Trades Association* (Auckland: Hutt and Petone Chronicle Print, 1932), 20.

¹⁶³ *AJHR*, C3, 1924, 9. For trees and seeds sold, see *AJHR*, C3, 1924, 10.

¹⁶⁴ *AJHR*, C3, 1916, 2.

¹⁶⁵ *AJHR*, C3, 1917, 2.

¹⁶⁶ *AJHR*, C3, 1918, 7.

261,000 trees, almost equalling the total figure for the first year.¹⁶⁷ In total, the Forestry Branch recorded selling 487,560 trees in 1918.¹⁶⁸ Based on sales, the scheme was nothing but a success.

In 1921, the first year of Ellis's directorship, the SFS distributed more than 456,000 trees and 240lb (108kg) of seeds to farmers.¹⁶⁹ This was an increase from the previous season, which, due to railway carriage restrictions and bad weather in the South Island, had resulted in only 277,235 trees being sold. Thus, the SFS needed to increase its sales even more if farmers and other private planters were to provide almost a third of New Zealand's timber demand.¹⁷⁰ The introduction of forest-extension officers generated a boost the following season as the SFS broke both sales records by tremendous margins in 1922 with almost 900,000 trees and 435lb (196kg) of seeds.¹⁷¹ However, the record did not last long, with the SFS shattering it the very next season, selling 1,475,581 trees and 746lbs of seed, to which Ellis remarked:

Timber-growing has now become an important branch of agriculture in New Zealand, for now that timber-growing pays farmers and settlers are taking much wider interest in it, and the Forest Service through its forest-extension officers and such educational channels are open to it has over-looked no opportunity of impressing the facts on the agricultural community – with what results, reference need only be made to the graph of trees and seed sales from the State forest-tree nurseries at Rotorua, Hanmer Springs, Ranfurly, and Tapanui.¹⁷²

The graph Ellis referred to appeared below and depicted the sales of trees and seeds from 1919 to 1923. The graph also featured a projection for the next year, which Ellis placed at 3,000,000 trees and 1,250lb (563kg) of seeds (figure 8).¹⁷³ The projection proved somewhat optimistic as the SFS only sold around half of what it had forecast in 1924, with the sale of seeds even decreasing.¹⁷⁴ Nonetheless, Ellis, as quoted in the introduction of this section, proved utterly optimistic, presenting a new graph that estimated significant increase in sales for trees and seeds alike in 1925 (figure 9).

¹⁶⁷ *AJHR*, C3, 1918, 7.

¹⁶⁸ *Ibid.*, 2.

¹⁶⁹ *AJHR*, C3, 1921, 8.

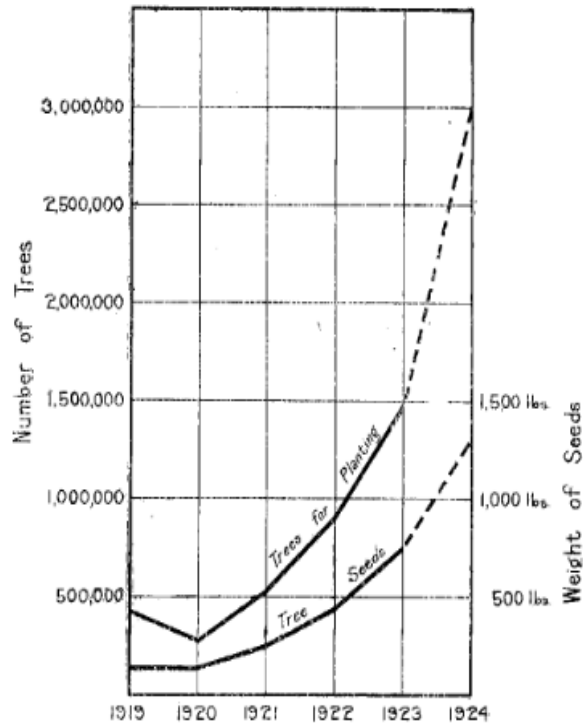
¹⁷⁰ *AJHR*, C3, 1920, 6.

¹⁷¹ *AJHR*, C3, 1922, 9.

¹⁷² *AJHR*, C3, 1923, 11.

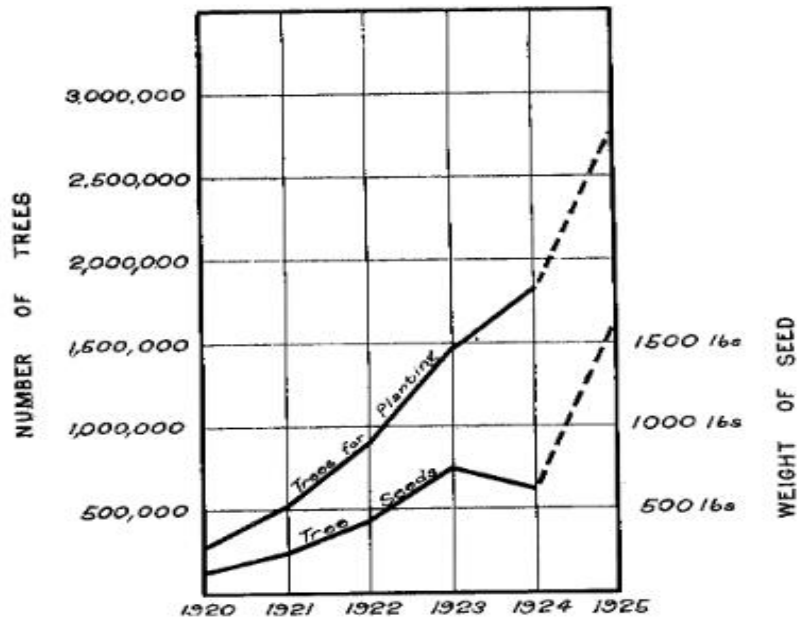
¹⁷³ *Ibid.*

¹⁷⁴ *AJHR*, C3, 1924, 10.



GRAPH SHOWING INCREASE IN STATE FOREST SERVICE SALES OF TREES AND TREE SEEDS, PERIOD 1919-24.

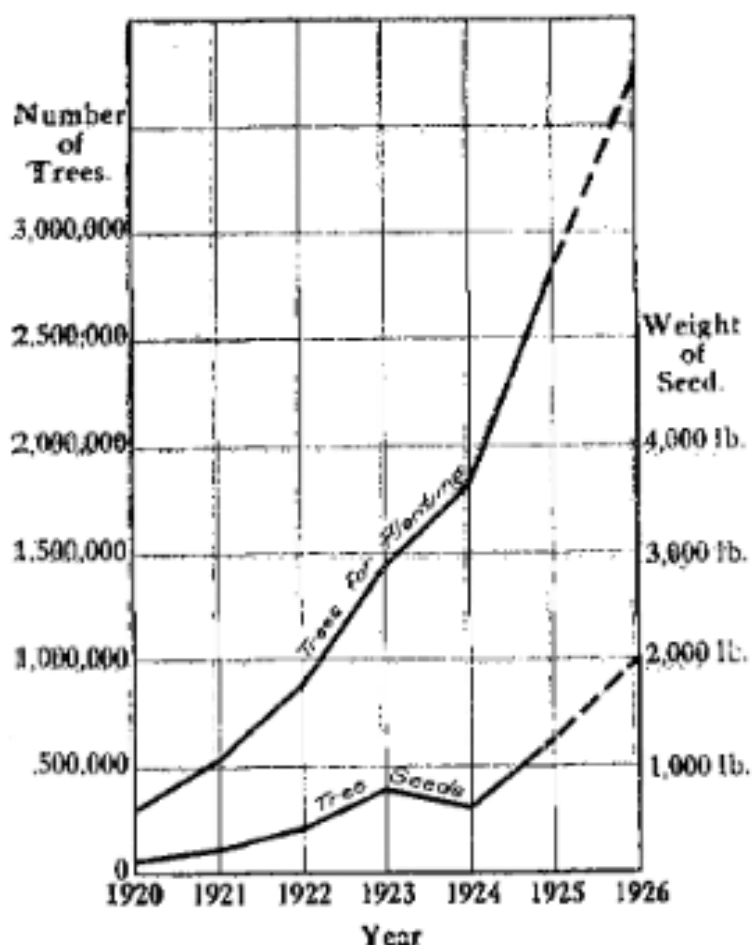
Figure 8. In 1923, Ellis optimistically expected the sales of trees to double the next year as a result of the propaganda conducted by the SFS. 'Graph showing Increase in State Forest Service Sales of Trees and Tree seeds, Period 1919-24,' *AJHR*, C3, 1923, 11.



GRAPH SHOWING STATE FOREST SERVICE SALES OF TREES AND SEEDS, PERIOD 1920-25.

Figure 9. Although Ellis's assessment from 1923 proved too optimistic, the SFS did increase its sale of trees, though the sale of seeds declined. 'Graph showing State Forest Service Sales of Trees and Seeds, Period 1920-25,' *AJHR*, C3, 1924, 10.

This time the SFS managed to produce a much more accurate estimate, selling 2,831,932 trees, and 1,220lbs (549kg) of seeds.¹⁷⁵ ‘Tree-planting for profit’, Ellis reported, ‘is a habit now in the Dominion, and there is probably no country in the world that lends itself so admirably to timber farming.’¹⁷⁶ Confident from the previous year’s prediction, Ellis issued another which reflected his belief in the enthusiasm for tree-planting in New Zealand. Yet, the third projection, much like the first one, ended up inaccurate (figure 10). However, on this occasion it was because the SFS had underestimated the number of trees it would distribute as the number of trees sold reached the impressive total of 4,540,176.¹⁷⁷



STATE FOREST SERVICE SALES OF TREES AND SEEDS, PERIOD 1920-26.

Figure 10. In 1925, the SFS sold more than 2.5 million trees, demonstrating a growing interest in private tree-planting in New Zealand. ‘State Forest Service Sales of Trees and Seeds, Period 1920-26,’ *AJHR*, C3, 1925, 3.

¹⁷⁵ *AJHR*, C3, 1925, 3.

¹⁷⁶ *Ibid.*, 11.

¹⁷⁷ *AJHR*, C3, 1926, 17.

In addition to tracking the progress of farm forestry, the annual reports in which the graphs and figures appeared were publicly available and allowed the SFS to showcase the policy to the public. As newspapers reviewed and summarised the reports, the public could read about the success of the policy. A review appearing in multiple papers in 1922, for example, read:

The Government has been amply repaid for its initiation of a forest extension scheme in the farming communities in both islands. The results of the efforts of its two field experts by lectures, demonstration and advice are evident on comparing the two years' deliveries of trees and seeds from State nurseries. Nearly twice as many trees (about 900,000) were disposed of to farmers and private tree planters during the year, and almost twice as many pounds of seeds were disposed of.¹⁷⁸

In 1925, the *Otago Daily Times*, though finding Ellis's assessment that New Zealand had embraced the notion of plant trees and grow money 'somewhat optimistic', noted the progress of the SFS with 'much satisfaction'.¹⁷⁹ 'The policy of popularising forestry, a love of trees and of nature, and of developing a wide appreciative knowledge of the benefits to be secured from tree culture,' the *Manawatu Standard* commented, 'has during the past few years been steadily pursued by the State Forest Service'.¹⁸⁰ Amongst the evidence of this trend the paper pointed to the graph and figures demonstrating the increase in sales of trees and seeds to private tree-planters.¹⁸¹ By detailing to its readers the success of the SFS's policy, newspapers helped showcase its worth to the community.

The significant increase, more than a result of a growing interest in farm forestry amongst farmers, also reflected the rising number of afforestation companies in New Zealand during the 1920s. While the SFS's propaganda may have targeted farmers, it soon attracted what Roche describes as 'entrepreneurially inclined members of the business community', who regarded the prospect of rising timber prices as 'a wonderful opportunity for profitable investment'.¹⁸² Afforestation companies soon became the SFS's biggest consumer in the North Island. Therefore, the total sale of trees does not necessarily reflect the SFS's promotion of farm forestry. Looking at seeds is even more problematic as the figure also included seeds sold to

¹⁷⁸ 'State Forest Service,' *Press*, 19 August 1922, 12. See also: 'The timber industry,' ODT, 19 August 1922, 2; 'State Forest Service,' NZH, 19 August 1922, 10; 'The timber industry,' *Otago Witness*, 22 August 1922, 27.

¹⁷⁹ 'The Forest Service,' ODT, 21 September 1925, 6.

¹⁸⁰ 'Education in forestry,' *Manawatu Evening Standard*, 15 September 1925, 11.

¹⁸¹ *Ibid.*

¹⁸² Roche, *History of Forestry*, 224.

overseas buyers. While the SFS did not record acres planted in its annual reports, the Census and Statistics Office did, in 1930-1931 estimating the total area of farm timber plantations as 341,591 acres (table 1).¹⁸³

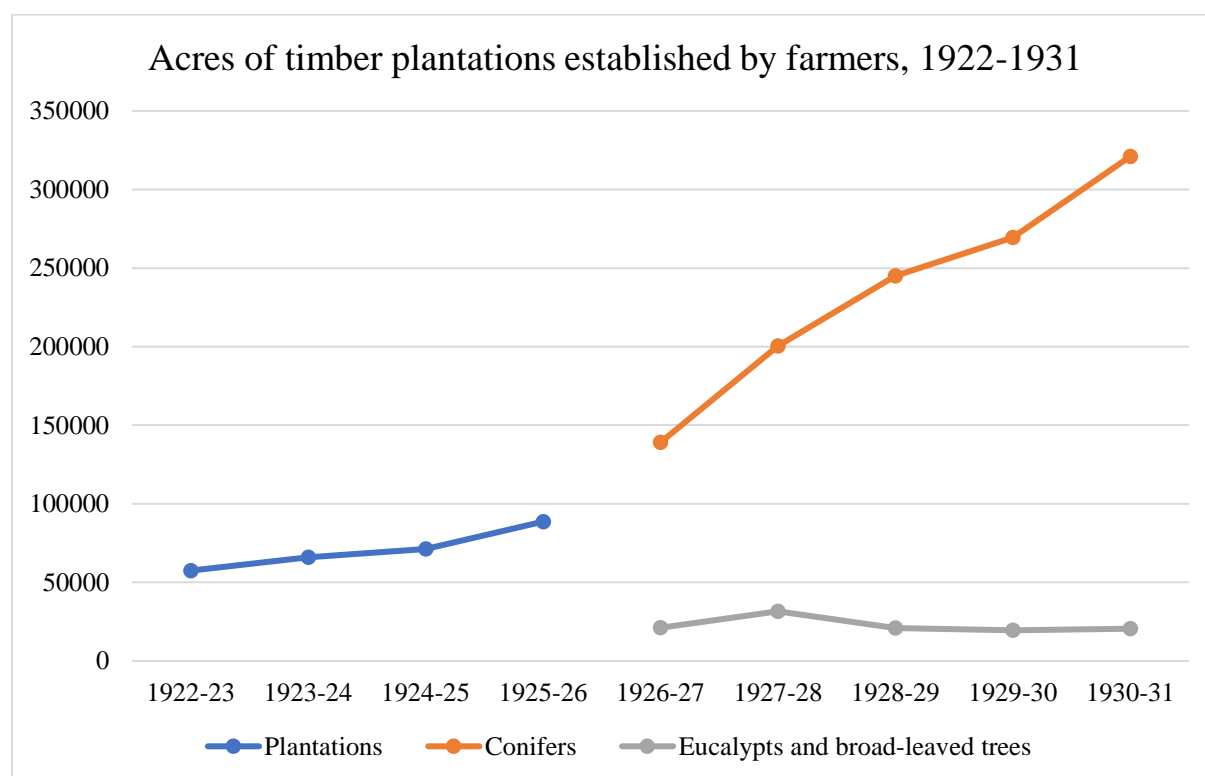


Table 1. While the exact number of acres dedicated to farm forestry is difficult to estimate, the Statistics office recorded a steady increase of timber plantations, in particular of plantations consisting of conifers, such as *Pinus radiata*, a tree heavily advertised by the SFS in its propaganda material.

While the data from the Statistics office suggests a devoted effort amongst farmers to plant trees, as Roche notes, the high number was a result of the definition of what constituted a plantation, with other surveys yielding a much lower number.¹⁸⁴ The Statistics office defined plantations as ‘areas planted with trees or shrubs for shelter, ornament, or afforestation, but not areas of virgin bush or areas of orchard’, allowing a rather wide interpretation of what could be regarded as plantation.¹⁸⁵ This was a fact of which the SFS proved acutely aware. In 1932, A. D. McGavock, recently appointed Director of Forestry, estimated the total area planted by ‘farmers and others’ to be ‘approximately 64,000 acres’ after combining the data from the Statistics office as well as ‘the co-ordination of various returns’ from plantations, giving a much lower area dedicated to farm forestry.¹⁸⁶ ‘This area,’ McGavock continued, ‘cannot be regarded

¹⁸³ Census and Statistics Office, *Statistical Report on the Agricultural and Pastoral Production of the Dominion of New Zealand for the Season 1929-30* (Wellington: Government printer, 1930), 3.

¹⁸⁴ Roche, *Forest policy in New Zealand*, 60f.

¹⁸⁵ Census and Statistics Office, *Statistical Report on the Agricultural and Pastoral Production of the Dominion of New Zealand for the Season 1929-30*, xvi.

¹⁸⁶ *AJHR*, C3, 1932, 5.

in its entirety as available for the production of timber for commercial purposes, as its establishment is, no doubt, largely in the nature of farm shelter-belts and ornamental plots.’¹⁸⁷ Although that meant even less timber available, McGavock remained positive of the tree-planting efforts of farmers, believing that they demonstrated a realisation ‘of the important bearing that adequate shelter has on primary production.’¹⁸⁸

Conclusion

During the nineteenth century, farmers played a leading role in transforming New Zealand’s forests into pastures, in particular in the North Island. Politicians, in turn, either farmers themselves or dependent on their farming constituents to hold their seats, heavily favoured settlement over forestry. However, as a timber famine seemed ever more imminent by 1900, farmers came to occupy a leading role in advocating forest conservation and afforestation. Of the twelve initial council members of the NZFL, six boasted a background in farming. The NZFL also received support from farming organisations such as the Farmers’ Union, which published material on the necessity of scientific forestry as well as the writings and lectures by NZFL-members promoting farm forestry. In his address at the inauguration of the NZFL, imperial forester David Ernest Hutchins lauded the possibilities of conducting profitable farm forestry in New Zealand with the establishment of a forestry department. The NZFL fully embraced Hutchins’s message in its propaganda.

While the Forestry Branch of the Lands and Survey Department had maintained a tree and seed distribution policy for farmers before the arrival of Canadian forester Leon MacIntosh Ellis in 1920, the new Director of Forestry envisioned a much more prominent role for farm forestry. Based on the favourable performance of exotic trees in New Zealand, together with an already apparent interest in tree-planting, Ellis believed that private forestry, of which farm forestry constituted a major part, could supply 30 percent of the Dominion’s timber demand. To increase interest in farm forestry, the SFS developed a significant propaganda apparatus, holding lectures, putting up posters, and publishing booklets. In its propaganda, the SFS highlighted two benefits of farm forestry in particular. Firstly, the guaranteed financial profit that awaited, claiming that the timber famine would see timber prices rise significantly. Secondly, the advantages trees offered the farm, especially as windbreaks and shelter for stock, or as a source of timber for local needs, for example as fence posts. The propaganda certainly proved effective, as the SFS increased its sales of trees and seeds throughout most of the 1920s.

¹⁸⁷ *AJHR*, C3, 1932, 5.

¹⁸⁸ *Ibid.*

To reach the aim of having almost a third of New Zealand's timber supply stem from private tree-planting, the SFS cooperated with the New Zealand Nurserymen's Association on reasonable prices. The latter also distributed its own propaganda. Initially successful, the collaboration soon fell apart as the NZAN perceived the competition from a state department unfair, causing an ideological battle to ensue regarding whether the State ought to compete against private actors. In repeated defence of the policy, Ellis highlighted the threat of a timber famine and that the presence of the SFS guaranteed both affordable prices and quality products for farmers. The government eventually discontinued the practice, much to the dismay of farmers. Indeed, while the SFS never reached its objective of private tree-planting supplying close to a third, and from 1925 a fifth, of New Zealand's timber, the policy proved popular amongst farmers. As statistics by the Census and Statistics Office show, many farmers took advantage of the policy to improve their farms, reflecting a growing forest consciousness in the farming community. However, as the next chapter will show, farmers were not the only group of the wider public that the NZFL and the SFS targeted specifically in their efforts to encourage private tree-planting.

Chapter Three

Inculcating children with a love of trees and forests, 1920-1935

The boys and girls of yesterday are the men and women of to-day. With what pride we learnt of our boundless forests, our fertile plains and wonderful rivers. But to-day most of our childhood forests are only memories. Now, the land is cleared and often scarred with ugly landslides, the plains become flooded, and the rivers are silted up. What of the rising generation? Are they not to profit by our experience? We must inculcate in them a love and interest in the forests. No longer shall the bush be wantonly destroyed.¹

Alexander Robert Entrican, 1924

[T]he inculcation in the young idea of a love of the beautiful and a greater interest in the world of Nature must raise public opinion in the future to a higher plane in the matter of tree-consciousness.²

Leon MacIntosh Ellis or Edward Phillips Turner, 1928

As vital as it was to educate the adult population about forestry and the necessity of planting fast growing exotic timber trees to avoid a timber famine, it remained essential to educate the future generation about forestry as well. Such an education campaign would secure the future of forestry and forests in New Zealand. This chapter examines the efforts by the New Zealand Forestry League (NZFL) and the New Zealand State Forest Service (SFS) to instil in children a forest consciousness.

This chapter largely focuses on the “Forestry in Schools Campaign”, a cooperative campaign between the SFS and the Education Department, which lasted from 1924 to 1934 and was directed towards state primary schools. The chapter begins by contextualising the campaign in relation to earlier school tree planting campaigns, most notably Arbour Day, which was introduced in New Zealand in the 1890s. Thereafter, the chapter explores the burgeoning collaboration between the SFS and the Education Department, as well as the objectives of the

¹ A.R.E., ‘Forestry and the Young,’ *New Zealand Life and Forest Magazine*, 3, no. 6 (1924): 5.

² *AJHR*, C3, 1928, 14. By the time the report was submitted, Phillips Turner was interim Director of Forestry after Ellis had left New Zealand for a position in Australia. The quote can most likely be attributed to Ellis as Phillips Turner informed readers in the introduction of the report ‘that the highly satisfactory results herein recorded were obtained whilst the Service was under the control of the late Director of Forestry (Mr. L. MacIntosh Ellis)’.

campaign. How the SFS and the Education Department sought to achieve these aims is subsequently examined in closer detail by looking at the means through which the two departments introduced forestry into the classroom. Lastly, in addition to the “Forestry in Schools Campaign”, the chapter investigates competitions and contests for children, arranged by the NZFL.

Arbor Day – gone but not forgotten

Arbor Day ‘had died away’, Alexander Bathgate, co-founder of the NZFL, remarked in the *Forest Magazine of New Zealand (New Zealand Out-of-Doors)*, 1922.³ Though ‘spasmodic efforts’ to observe the holiday still occurred in the Dominion, these celebrations did not reflect the grandeur and scale of the celebration of the day decades earlier when whole townships gathered to celebrate and plant trees.⁴ According to Bathgate, the decline stemmed from the government choosing a specific date for observing Arbor Day, usually sometime in the middle of winter. Therefore, because of New Zealand’s diverse climate, the possibility of a successful Arbor Day depended almost entirely on location. ‘A day late enough in season for Auckland’, he noted, ‘might find the soil frost-bound in Central Otago’, which rendered many efforts doomed to fail before even the first shovel of dirt.⁵ Introduced in New Zealand in the 1880s, Arbor Day was celebrated under pomp and circumstance with orchestral performances and prominent figures giving speeches and planting trees. As research notes, early conservationists, amongst them Bathgate, believed that Arbor Day, which held patriotic and religious connotations, would teach children manners, promote good morals, and encourage a stewardship of nature.⁶ This was not unique to New Zealand: as research notes, conservation advocates across the English speaking world readily promoted Arbor Day as a means to inculcate in children a love for trees, secure future timber supplies, prevent erosion, control climate, and encourage city beautification.⁷

³ A. Bathgate, ‘Can Arbor Day be Revived. Suggestions and Reasons,’ *Forest Magazine (New Zealand Out.-of-Doors)* 1, no. 3 (July 1922): 114.

⁴ Ibid., 114.

⁵ Ibid., 114.

⁶ For the early history of Arbor Day in New Zealand, see: David Young, *Our islands, Our selves: A History of Conservation in New Zealand* (Dunedin: University of Otago Press, 2004), 95f; Ross, *Going Bush*, 19-26; Beattie and Star, ‘Global Influences and Local Environments,’ 210.

⁷ For Arbor Day in the United States, England, Australia, and Ireland respectively see: Shaul E. Cohen, *Planting Nature: Trees and the Manipulation of Environmental Stewardship in America* (Berkley: University of California Press, 2004), 26-47; Julie Hipperson, “‘Come All and Bring Your Spades’: England and Arbor Day, c. 1880-1914,” *Rural History* 23, no. 1 (2012): 59-80; David Jones, “‘Plant trees’: the foundations of Arbor Day in Australia,” *Studies in the History of Gardens & Designed Landscapes* 31, no. 1 (2010): 77-93; Mary Forrest, “‘To further planting of trees’: Arbor Day in 20th century Ireland,” *Irish Geography* 51, no. 1 (2018): 45-74.

Bathgate's assessment of the declining interest in Arbor Day by the beginning of the 1920s has long dominated historical research on the holiday in New Zealand. Colin McGeorge suggests that the death of Arbor Day in the Dominion coincided with that of its founder, American politician and editor Julius Sterling Morton, who passed away in 1902.⁸ By then, McGeorge argues, 'most schools were well-supplied with shelterbelts and as many ornamentals as local taste dictated', thus diminishing the need for the holiday.⁹ Kirstie Ross, in turn, suggests that interest in Arbor Day waned 'following its removal from the schedule of public service holidays' during the Great War, and that it would remain in stasis until the Department of Internal Affairs reintroduced it in 1932.¹⁰ In contrast to McGeorge and Ross, I argue that both individuals and organisations continued to advocate for commemorating Arbor Day during the 1920s. Indeed, far from remaining 'in an ad hoc way since the First World War' until 1932 when it was revitalised by the Department of Internal Affairs, as Ross claims, Arbor Day, and school children planting trees, remained prominent in the 1920s.¹¹

Bathgate, as a staunch advocate of Arbor Day, refused to accept the holiday as passed, and suggested it be revived by combining it with another holiday; Empire Day.¹² Created in 1903 with the ambition to instil a sense of imperial patriotism and unity, Empire Day had by the 1920s fallen in popularity in New Zealand, its observation limited only to schools.¹³ By uniting the two holidays, he hoped to emulate the festive Arbor Day celebrations in the United States, whose citizens recited poems, sang songs, and dedicated trees to prominent Americans.¹⁴ Such a commemoration offered an opportunity to inculcate children with patriotism and reverence for nature alike.¹⁵ Moreover, as Empire Day occurred on 24 May – the birthday of Queen Victoria – it allowed for better planting conditions than the harsh winter days of July and August.¹⁶ Concluding the article, Bathgate appealed to the council of the NZFL to resurrect Arbor Day, claiming that ensuring a return of the holiday fell well within its 'desirability of cultivating a love of nature, and especially trees'.¹⁷ Amongst the earliest advocates of Arbor

⁸ Colin McGeorge, 'The Presentation of the Natural World in New Zealand Primary Schools 1880-1914,' *History of Education Review* 23, no. 2 (1994): 40.

⁹ *Ibid.*, 40f.

¹⁰ Ross, *Going Bush*, 26 and 98.

¹¹ *Ibid.*, 98.

¹² Bathgate, 'Can Arbor Day be Revived,' 115.

¹³ Roger Openshaw, 'The Highest Expression of Devotion: New Zealand Primary-Schools and Patriotic Zeal during the Early 1920s,' *History of Education* 9, no. 4 (1980): 333-344, especially 335; John Griffiths, *Imperial Culture in Antipodean Cities, 1880-1939* (Basingstoke: Palgrave Macmillan, 2014), 153-160 and 162-171.

¹⁴ Bathgate, 'Can Arbor Day be Revived,' 114f.

¹⁵ *Ibid.*, 114f.

¹⁶ *Ibid.*, 115.

¹⁷ *Ibid.*, 114f.

Day in the 1890s, Bathgate, thirty years later, still clung to ideals of the holiday as he sought to revive it.¹⁸

The NZFL-council seemingly adhered to Bathgate's appeal as shortly after the article's publication it suggested 'that schools and colleges be circularised with a view to stressing the importance of Arbor Day planting'.¹⁹ However, encouraging schools to celebrate Arbor Day did not necessarily guarantee that any tree planting would occur. In 1923, Arthur Leigh Hunt, who had seconded the efforts of the previous year to promote Arbour Day, suggested that the holiday be renamed 'Forestry Day' as a means of revitalisation. The name change, he argued, would generate 'a greater interest in one of the Dominion's really great needs,' namely, 'the conservation and preservation of its forests' amongst 'the public, and particularly the children'.²⁰ Unfortunately, Leigh Hunt appeared to have encountered few, if any, responses to his proposal as no evidence indicates further discussion.

Whereas Leigh Hunt emphasised the need for Arbor Day to stir an interest in conservation and preservation, Bathgate, as a prominent member of the Dunedin and Suburban Reserves Conservation Society, emphasised the value of having children planting 'handsome trees' alongside city streets and country roads.²¹ In the city, the trees would 'add to the beauty of the place, and in some cases supply it where it was lacking.'²² Meanwhile, along country roads, 'deciduous trees' would enhance the countryside and offer 'a grateful shade in summer' while preventing the roads from turning 'unduly damp' during winter.²³ With few native trees being deciduous, Bathgate emphasised utility rather than just patriotic sentiment, though he never explicitly stated whether he favoured exotic or native trees himself. While Leigh Hunt and Bathgate stressed different reasons to celebrate Arbor Day, both believed in the intrinsic value of children planting trees.

Calls to revive Arbor Day did not only come from members of the NZFL. In 1922, the same year in which Bathgate appealed for the resurrection of Arbor Day, Frederic Truby King, health reformer and founder of the Plunket Society, claimed in the *Evening Post* that parents as well as society had failed teaching children 'the habit and consideration for the rights of others'.²⁴ As an example, he pointed to reports that denizens of Wellington had given up

¹⁸ On Bathgate and Arbor Day, see: Young, *Our islands, Our selves*, 96; Ross, *Going Bush*, 21f; Beattie and Star, 'Global Influences and Local Environments,' 201.

¹⁹ NZFL, council, 20 July 1922, 4. A L Hunt Papers, ATL, MS-Papers-0158-297.

²⁰ 'Progress of N.Z. Forestry League. Annual Meeting and Report,' *Life and Forest Magazine New Zealand*, no. 9 (1923): 16.

²¹ For Bathgate's role in early conservation history, see: Lochhead, 'Preserving The Brownies' Portion,' 86-103.

²² Bathgate, 'Can Arbor Day be Revived,' 115.

²³ *Ibid.*, 115.

²⁴ Truby King, 'Home Training,' EP, 23 December 1922, 4.

growing fruit trees due to boys filching the fruit.²⁵ Meanwhile, he noted that children in ‘America, France, Germany, and Japan’ displayed exemplary behaviour with ‘flowers and fruit grow[ing] in the open, unfenced, safe, and untouched’.²⁶ The last country, James Beattie shows, deeply influenced King’s ideas regarding health, gardening, and child-raising.²⁷ Arbor Day, King argued, presented a terrific opportunity to instil a similar culture in New Zealand. As evidence of the holiday’s nurturing and educating influence on children, King informed the reader that one Arbor Day he had children in the township of Seacliff plant and tend shrubs and flowers with great success.²⁸ As previous research notes, King believed strongly in the influence of the environment on mental and physical health. During his tenure as Superintendent of Seacliff mental asylum, he had the patients work regularly on its farms.²⁹ However, the idea that Arbor Day could improve the behaviour of children was not unique to King. As Lynne Lochhead points out, early New Zealand environmentally focused societies, such as the Dunedin and Suburban Reserves Conservation Society, promoted tree-planting as an antidote to larrikinism amongst youngsters during the 1890s.³⁰

In addition to the NZFL and individuals like King, newspapers, too, promoted the reinstitution of Arbor Day, often as a countermeasure to ‘child vandals’.³¹ According to the *Evening Post*, the resurrection of the holiday ‘would quickly make vandalism an unpopular occupation’.³² Similar to Bathgate, newspapers reminisced the time when the holiday ‘was celebrated in an enthusiastic manner by adults and children’, but how it nowadays was ‘scarcely recognised in any part of the Dominion’.³³ To bring Arbor Day back to its former glory, newspapers called upon the Farmers’ Union to promote it.³⁴ Thus, though no longer commemorated in the same fashion as earlier, Arbor Day remained in public discourse through the NZFL, newspapers, and prominent people, such as King, all emphasising its importance. Unfortunately, none of them possessed the ability, or power, to bring it back to life. Indeed, the NZFL could only encourage schools to celebrate Arbor Day, while some newspapers put their hope in the Farmers’ Union.

²⁵ King, ‘Home Training,’ 4.

²⁶ Ibid.

²⁷ James Beattie, ‘Scientific agriculture, health and gardening: Japan, New Zealand and Bella and Frederic Truby King,’ *New Zealand Journal of Asian Studies* 16, no. 2 (December 2014): 47-76.

²⁸ King, ‘Home Training,’ 4.

²⁹ Beattie, ‘Scientific agriculture, health and gardening,’ 47-76.

³⁰ Lochhead, ‘Preserving The Brownies’ Portion,’ 90f and 140f.

³¹ “‘Child vandals,’ *Marlborough Express*, 6 May 1920, 4. See also: ‘Domain Improvement,’ AS, 3 June 1920, 10.

³² ‘Trees for the city,’ EP, 6 January 1923, 4.

³³ ‘Arbor day,’ *Manawatu Daily Times*, 14 June 1921, 4.

³⁴ ‘Forestry and the Farm,’ *Press*, 10 June 1921, 6; ‘Arbor Day,’ *Manawatu Daily Times*, 14 June 1921, 4.

Forestry in Schools - Arbor Day revived?

In the first years following its establishment in 1919, the SFS expressed little interest in reviving Arbor Day, though it did welcome local initiatives to observe the holiday, and did sell trees to a handful of schools.³⁵ However, returning from the second British Empire Forestry Conference in Canada in 1923, Director of Forestry Leon MacIntosh Ellis acknowledged that the SFS needed to ‘develop a forest spirit in the boys and girls’ if New Zealand were to avoid a timber famine.³⁶ Back in the Dominion, news of a collaborative ‘State school tree-planting scheme’ by the Victorian Education Department and the Forest Commission of Victoria, Australia, reached Ellis.³⁷ The campaign had two objectives: First, to arouse an ‘intelligent interest in our forests amongst both parents and children’; second, to establish school plantations with ‘trees of commercial value’ and thereby provide schools with a future income.³⁸ Encouraged by the campaign’s apparent success with nine schools planting 6,000 trees in the first year and more schools expressing an interest, Ellis, in February 1924, suggested to John Caughley, Director of Education, that a similar scheme be organised by the two departments in New Zealand.³⁹

While Caughley does not seem to have sent a written reply to the proposal of a school forestry campaign, he appears to have expressed an interest in the matter verbally, with Ellis sending him a report and a summary detailing the scheme in July.⁴⁰ The SFS, Ellis suggested, would provide schools with trees and seeds, educational literature for pupils and teachers alike, award prizes, and assist in finding suitable areas for school plantations.⁴¹ In exchange, Ellis wanted the Education Department to have schools educate children on various aspects of

³⁵ For praise of local Arbor Day celebrations, see: E. Phillips Turner to The Secretary, Education Office, Wanganui, 21 November 1921. ANZ, Wellington, Planting by School Children – Arbours Day, R17277256. For the supply of trees and seeds, see: *AJHR*, C3, 1922, 19.

³⁶ L. MacIntosh Ellis, ‘The Empire Forestry Conference. Some impressions,’ *New Zealand Life and Forest Magazine* 3, no. 1 (1923): 6.

³⁷ The campaign had previously received attention in an article in the official organ of the NZFL, see: ‘School plantations of soft timber,’ *Life and Forest Magazine* no. 8 (1923): 14. It is also possible that Ellis acquired information of the scheme from Owen Jones, chairman of the Victoria Forest Commission, who also partook at the conference in Canada. For an overview of Jones, see: Michael Roche, ‘Practice in place in empire forestry: Owen Jones in Ceylon, Australia and New Zealand, 1911-1955,’ *International Review of Environmental History* 6, no. 2 (2020): 113-132.

³⁸ Forests Commission of Victoria, *Fourth Annual Report. Financial Year, 1922-1923* (Melbourne: Government Printer, 1924), 3. ANZ, Wellington, Forestry in Schools, R17277831.

³⁹ L. MacIntosh Ellis to The Director of Education, 14 February 1924. ANZ, Wellington, Forestry in Schools, R17277831. For the upcoming year the Victorian Forest Commission expected 13 additional schools to join the scheme, adding the total to 22, which would result in children planting a minimum of 10,000 trees a year. Forests Commission of Victoria, *Fourth Annual Report*, 3.

⁴⁰ Ellis informed the Commissioner of Forests that most of the communication between the SFS and the Education Department been verbal. L. MacIntosh Ellis to Francis Bell, 12 September 1924. ANZ, Wellington, Forestry in Schools, R17277831.

⁴¹ Director of Forestry to Director of Education, 17 July 1924, 2. ANZ, Wellington, Forestry in Schools, R17277831.

forests, including ‘their relation to the communal life’, arrange forestry competitions, actively encourage the establishment of school plantations, and enable agricultural instructors to visit the SFS’s operation sites to learn about forestry.⁴² Ellis optimistically claimed that a scheme as outlined would generate ‘a deep and lively appreciation in trees, forests, and forest life, by the oncoming generation’.⁴³ Furthermore, instilling a “‘forest sense’” in pupils, he argued, would assist the SFS in its work to conserve New Zealand’s forests as it required ‘an active public support and appreciation’, which could ‘best be developed through the children.’⁴⁴ Moreover, once forest conscious, the children would hopefully influence their parents as well.

In September 1924, the *Education Gazette* announced a collaborative initiative between the Education Department and the SFS. ‘The [Education] Department’, the article started, ‘would like to draw the attention of teachers to the work of the Forestry Department and to ask them to encourage by every means in their power the planting of trees throughout the Dominion.’⁴⁵ Tree-planting, as the article declared, was a task of utmost importance to New Zealand:

Not only does the prosperity of a people depend upon an ample supply of wood to carry on its activities, but their health, wealth, and happiness depend upon forests, plantations, wind-breaks, shade and shelter trees. In fact, our civilization is built upon a foundation of wood, there being no single industry which is not dependent upon it in some form or other. This being so, it is imperative that the tree-planting spirit be fostered and encouraged in the school-children of to-day, so that not only will the future timber-supply be perpetuated, but the home-building spirit be instilled into the young minds; for the trees, shrubs, and plants planted by them gradually convert what they now term the “farm” into a home in the true sense of the word.⁴⁶

To inculcate a tree-planting spirit in children, the Education Department informed teachers that the SFS would supply schools with trees and seeds for children to plant in the school garden, or at a reserve or domain. Planting trees, the department claimed, ‘should have a far-reaching effect on the minds of the young’ and transform them into ‘a better type of citizen.’⁴⁷ In addition

⁴² Director of Forestry to Director of Education, 17 July 1924, 2. ANZ, Wellington, Forestry in Schools, R17277831.

⁴³ *Ibid.*, 3.

⁴⁴ *Ibid.*, 1.

⁴⁵ ‘Forestry in schools,’ *Education Gazette* 3, no. 9 (1924): 141.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*

to raising and nurturing trees, children should receive lessons in such subjects as ‘forest culture, economy of the forest and trees, and in wild life, and their relation to the communal life.’⁴⁸ To any teacher overwhelmed by the scope of their new and imposed duties, the department assured them that the SFS would help by providing educational material for teachers and pupils alike.⁴⁹

Because the Education Department had never responded to the proposal laid forward by Ellis in July, and the fact that the campaign had yet not been officially approved, the announcement of the campaign came as a surprise to the SFS and educators alike.⁵⁰ Nonetheless, the scheme received a warm welcome, both within the SFS and the educational sector, with agricultural instructors eagerly applying for trees and seeds.⁵¹ At the beginning of 1925, the SFS recorded that 765 schools had established school nurseries.⁵² However, to better incorporate forestry into the syllabus and improve the organisation of the campaign, forest extension officers Percy Morgan Page and F. H. Grace, together with forest assistant Mary Sutherland, attended a conference for school inspectors and agricultural instructors, organised by the Education Department, in February 1925.⁵³ During the conference, the three delegates discussed a number of ideas with agricultural instructors and school inspectors on the best ways to create forest conscious children. This included, amongst other issues, the celebration of Arbor Day, the idea of a ‘Fire Protection Day’, the education of teachers in forestry, and the arrangement of school competitions.⁵⁴ Following the conference, Ellis expressed nothing but optimism for the campaign as he presented the annual report for the SFS, declaring: ‘An effort

⁴⁸ ‘Forestry in schools,’ *Education Gazette* 3, no. 9 (1924): 141.

⁴⁹ Ibid.

⁵⁰ W. T. Morrison to Director, 9 September 1924; L. MacIntosh Ellis to Conservator of Forests, Christchurch, 12 September 1924; Ellis to Conservator of Forests, Rotorua, 12 September 1924; Ellis to Conservator of Forests, Christchurch, 12 September 1924. ANZ, Wellington, Forestry in Schools, R17277831.

⁵¹ For response to the scheme within the SFS, see: S. A. C. Darby to Director, 29 September 1924, Forestry in Schools, 1924. ANZ, Wellington, R17277831; D. Macpherson to Director, 30 September 1924. ANZ, Wellington, Forestry in Schools, R17277831; R. D. Campbell to Director, 1 October 1924. ANZ, Wellington, Forestry in Schools, R17277831; A. D. McGavock to Director, 1 October 1924. ANZ, Wellington, Forestry in Schools, R17277831; T. Douglas to Director of Forestry, 9 October 1924. ANZ, Wellington, Forestry in Schools, R17277831. For agricultural instructors welcoming the initiative and, or, applying for seeds and trees, see James Bruce to Secretary, Forestry Department, 2 September 1924. ANZ, Wellington, Forestry in Schools, R17277831; H. G. Cork to Director, State Forestry Dept, 9 September 1924. ANZ, Wellington, [Trees for Schools], R17272895; L. W. McCaskill to Conservator of Forests, Rotorua, 19 September 1924. ANZ, Wellington, Forestry in Schools, R17277831; J. Brown to Director, State Forest Service, 23 September 1924. ANZ, Wellington, [Trees for Schools], R17272895; W. H. Johnston to Secretary, State Forest Service, 23 September 1924. ANZ, Wellington, [Trees for Schools], R17272895; W. M. Dill-Macky to Supervisor, State Forests Rotorua, 2 October 1924. ANZ, Wellington, Forestry in Schools, R17277831.

⁵² *AJHR*, C3, 1925, 21.

⁵³ [Unreadable signature] for the Director of Forestry to Conservator of Forests, Rotorua, 26 January 1925. ANZ, Wellington, Forestry in Schools, R17277829; [Unreadable signature] for the Director of Forestry to Conservator of Forests, Christchurch, 26 January 1925. ANZ, Wellington, Forestry in Schools, R17277829.

⁵⁴ M. Sutherland to Director of Forestry, 9 February 1925, 1-4. ANZ, Wellington, Forestry in Schools, R17277829. For ‘Fire Protection Day’, see 2f.

is being made, with the help of the schools and forestry societies, to revive the observance of Arbor Day'.⁵⁵

Educating educators

The first step in instilling children with a forest consciousness was to ensure that agricultural instructors and teachers received an insight into forestry so that they, in turn, could introduce children to the importance and joy of forestry, especially tree-planting. Since the beginning of the 1900s, Education Boards across New Zealand employed agricultural instructors to provide teachers with advice and assistance in teaching nature study and elementary agriculture to children within their district.⁵⁶ As previously noted, agricultural instructors expressed great enthusiasm for the scheme; in fact, a few instructors already included tree-planting in their lesson plans prior to the campaign.⁵⁷

Nevertheless, in November 1924 seeking to acquaint the instructors with forestry, Halbert Alexander Goudie, Conservator of Forests for Rotorua, invited all instructors in the North Island to Whakarewarewa plantation, one of the largest in New Zealand, to partake in 'a short course of instruction'.⁵⁸ The conference would also allow for the opportunity to discuss 'the best means of increasing the interest of both teachers and scholars in forestry subjects.'⁵⁹ Unfortunately, due to short notice, only four instructors participated, among them a young Lancelot William McCaskill, who later became a major advocate for soil conservation in the 1940s and post-war era.⁶⁰

While few attended the hastily arranged conference, it received praise a few months later when Page, Grace, and Sutherland discussed the coordination of the scheme with school inspectors and agricultural instructors in Wellington. Attendees even expressed hope and desire that the SFS would arrange similar gatherings in the future.⁶¹ The SFS, happy to oblige, hosted

⁵⁵ *AJHR*, C3, 1925, 21.

⁵⁶ Ross, *Going Bush*, 42-44.

⁵⁷ E. H. Lange, Instructor in Agriculture, to Conservator of Forests, Rotorua, 7 October 1924. ANZ, Wellington, Forestry in Schools, R17277831; J. Moodie, Agr. Instructor, to Conservator of Forests, Christchurch, 17 November 1924. ANZ, Wellington, Forestry in Schools, R17277830.

⁵⁸ H. A. Goudie to Director, 14 November 1924. ANZ, Wellington, Forestry in Schools, R17277831. This included inspecting nurseries and plantation, measuring the height of trees, and study various species.

⁵⁹ *Ibid.*

⁶⁰ H. A. Goudie to Director, 1 December 1924. ANZ, Wellington, Forestry in Schools, R17277830. On McCaskill and soil conservation in post-war New Zealand, see: Michael Roche, "The land we have we must hold": soil erosion and soil conservation in late nineteenth- and twentieth-century New Zealand, *Journal of Historical Geography* 23, no. 4 (1997): 447-458.

⁶¹ M. Sutherland to Director of Forestry, 9 February 1925, 2 and 4. ANZ, Wellington, Forestry in Schools, R17277829.

two conferences in April 1926, one at Whakarewarewa and one in Hanmer in the South Island.⁶² In contrast to the previous conference, these saw huge participation with a combined total of 31 instructors attending.⁶³ The conferences included a range of activities such as lectures on forestry, and tours of nurseries as well as plantations, which successfully demonstrated to the visitors ‘the importance of forestry as a national movement’.⁶⁴ As Page reported, the instructors and inspectors, until visiting the plantations and nurseries, ‘had no idea of the magnitude of the work being done by the Forest Service’.⁶⁵ In addition to educating, and impressing, the visitors, the conferences offered an opportunity for coordination and consolidation. With the instructors and inspectors exercising great influence on the education conducted in their region, acquiring them as an ally was essential.⁶⁶ Yet, while instructors and inspectors expressed support for the scheme, believing it important for agriculture and nature study, they warned of making it ‘too comprehensive’ so as not to encounter resistance from teachers.⁶⁷

Just as the SFS needed the support of the agricultural instructors, it also needed that of teachers and, contrary to instructors, they appeared less excited about teaching yet another subject. Merely a month after the announcement of the campaign in September 1924, William Tregear Morrison, Conservator of Forests for Canterbury-Otago, noted that teachers complained about the additional work the scheme laid on top of pupils, and by extension, themselves.⁶⁸ Morrison disagreed with this sentiment, claiming that forestry could ‘quite conveniently’ form a part of instruction in agriculture, and thus added little, if any, extra work.⁶⁹

⁶² [Unreadable signature] for the Director of Forestry to Conservator of Forests, Christchurch, 25 March 1926. ANZ, Wellington, Forestry in Schools, R17277828; [Unreadable signature] for the Director of Forestry to Conservator of Forests, Rotorua, 25 March 1926. ANZ, Wellington, Forestry in Schools, R17277828.

⁶³ 21 inspectors and instructors attended the conference at Whakarewarewa and ten at Hanmer. P. M. Page, ‘Forestry in Schools. Names of Officers attending Conference of School Inspectors and Instructors in Agriculture, Whakarewarewa 1926,’ ANZ, Wellington, Forestry in Schools, R17277828; R. B. Steele, ‘Forestry in Schools. Course of Instruction for and Conference of Inspectors of Schools and Agricultural Instructors, South Island. Hanmer: April 7th to 9th, 1926,’ 1. ANZ, Wellington, Forestry in Schools, R17277828.

⁶⁴ P. M. Page, ‘Forestry in Schools. Conference of School Inspectors in Agriculture at Whakarewarewa, April 7th. to 10th. 1926,’ 1. ANZ, Wellington, Forestry in Schools, R17277828. For programmes, see: ‘Forestry in Schools. Conference of Instructors in Agriculture and Inspectors of Schools, Whakarewarewa 1926,’ ANZ, Wellington, Forestry in Schools, R17277828; Steele, ‘Forestry in Schools. Course of Instruction for and Conference of Inspectors of Schools and Agricultural Instructors,’ 1f. ANZ, Wellington, Forestry in Schools, R17277828. Quote from Page, ‘Forestry in Schools. Conference of School Inspectors in Agriculture at Whakarewarewa, April 7th. to 10th. 1926,’ 1.

⁶⁵ Page, ‘Forestry in Schools. Conference of School Inspectors in Agriculture at Whakarewarewa, April 7th. to 10th. 1926,’ 1. ANZ, Wellington, Forestry in Schools, R17277828.

⁶⁶ On the role of agricultural instructors, see: Ross, *Going Bush*, 39-46.

⁶⁷ R. B. Steele, ‘Forestry in Schools. Course of Instruction for and Conference of Inspectors of Schools and Agricultural Instructors, South Island. Hanmer: April 7th to 9th, 1926,’ 2. ANZ, Wellington, Forestry in Schools, R17277828.

⁶⁸ Conservator of Forests, Christchurch, to Director, 6 October 1924, 1. ANZ, Wellington, Forestry in Schools, part 1, R17277831.

⁶⁹ *Ibid.*, 1.

To help teachers instil in children a forest consciousness, in 1924 the SFS published 5,000 copies of a circular entitled *Schools Forestry and Plantations*, and 2,000 copies of a leaflet regarding the planting of eucalypti in 1924.⁷⁰ The former included brief, but precise, instructions of various methods of planting trees, from ground preparation to sowing, as well as maintenance.⁷¹ The SFS and the Education Department also had articles related to the scheme published in the *Education Gazette* with advice and information for teachers. In 1925, T. B. Strong, Chief Inspector of Primary Schools, encouraged all teachers to give ‘special attention’ to the upcoming Arbor Day as part of the new campaign.⁷² To help teachers celebrate the holiday in proper fashion, he presented an elaborate programme, featuring activities like flag saluting, reading speeches, and singing the national anthem as well as lesson plans for nature-study, geography, reading, and history, all in one way or another focusing on trees, forests, and forestry.⁷³ For history, for example, Strong suggested, amongst other topics, that teachers taught students about the colonisation of New Zealand with an emphasis on ‘the difficulties of the early settlers in making a home in forest areas’, the use of forests by Māori, or ‘the enemy’ as he labelled them, and the climatic consequences of deforestation in China and Mesopotamia.⁷⁴ In regard to tree-planting, the classic Arbor Day activity, Strong asserted: ‘Nothing is worse than for a school to engage in the planting of a large number of young trees and then straight-way forget about them. Character-building does not lie in that direction.’⁷⁵ While tree-planting may occur on Arbor Day, the nursing of the tree should feature on the schedule every other school day to ensure the survival of the trees and to produce good responsible citizens.

School gardens and tree-planting

Around the start of the twentieth century, educationalists across the world, inspired by Friedrich Fröbel and his *Kindergarten*, as well as other early pedagogical thinkers, embraced the importance of the garden in education.⁷⁶ In addition to educationalists, progressive conservationists, too, emphasised the value of the school garden to inculcate in children a love

⁷⁰ *AJHR*, C3, 1925, 25.

⁷¹ P. M. Page, *New Zealand State Forest Service. Circular No. 16. Schools Forestry and Plantations* (Wellington: Government Printer, 1924).

⁷² T. B. Strong, ‘Observance of Arbor Day,’ *Education Gazette* 4, no. 7 (1925): 98.

⁷³ *Ibid.*, 98f.

⁷⁴ *Ibid.*, 99.

⁷⁵ *Ibid.*, 98.

⁷⁶ Susan Herrington, ‘The garden in Fröbel’s kindergarten: beyond the metaphor,’ *Studies in the History of Gardens & Designed Landscapes* 18 no. 14 (1998): 326-338.

for nature.⁷⁷ ‘A garden’, Libby Robin notes, during the first decades of the twentieth century ‘was seen as an ideal place to combine morally uplifting contemplation of nature and worthy hard work.’⁷⁸ However, school gardens, though united by a common aim to instil a love for nature and the value of work, could differ widely in design and content due to a number of factors such as climate, whether in a rural or urban setting, government directives, departmental directives, and not least the interest of the teacher; whilst some had their pupils cultivating flowers, others had them grow vegetables.⁷⁹ In New Zealand, school gardens—initially called cottage gardens—became a part of the primary school syllabus in 1900, and, as Ross demonstrates, had strong connections to ruralism. Indeed, the Department of Agriculture and even members of the Farmers’ Union supplied schools with material to stimulate an interest in farming amongst children.⁸⁰ By the 1920s, the school garden became central in the “Forestry in Schools Campaign” as the SFS and the Education Department sought to instil a forest consciousness among children.

In the circular, *Schools Forestry and Plantations*, Page described the current work occurring in school gardens as ‘[e]xcellent’.⁸¹ Yet, despite the constructive work taking place, he found cause for concern due to schools’ tendency of ‘growing common garden vegetables and flowering-plants’.⁸² As a majority of these species matured during the summer break, he feared that pupils would eventually lose interest due to missing out ‘their most interesting stage’.⁸³ Moreover, since students had to start over once returning to school, they could not compare the growth of the species over time.⁸⁴ Tree-planting, on the other hand, addressed these drawbacks and represented ‘an interesting variation from the usual type of gardening’.⁸⁵ By planting trees, students, rather than starting over each year, could measure and study the tree over time. Once too big for a garden, students could replant the trees on a lawn or the school ground itself where the trees, as they grew, ‘become permanent evidence of the work and a

⁷⁷ Kevin. C. Armitage, *The Nature Study Movement. The Forgotten Popularizer of America’s Conservation Ethic* (Lawrence: University Press of Kansas, 2009), 111-136.

⁷⁸ Robin, ‘School gardens and beyond’, 87.

⁷⁹ For example: Brian Trelstad, ‘Little Machines in Their Gardens: A History of School Gardens in America, 1891 to 1920,’ *Landscape Journal* 16, no. 2 (1997): 161-173; Robin, ‘School gardens and beyond,’ 87-92; Mary Forrest and Valerie Ingram, ‘School Gardens in Ireland, 1901-24,’ *Garden History* 31, no. 1 (2003): 80-94; Sally Gregory Kohlstedt, “‘A Better Crop of Boys and Girls’: The School Gardening Movement, 1890-1920,” *History of Education Quarterly* 48, no. 1 (2008): 58-93; Kay Whitehead, ‘James Greenlees’ school garden and the suburban dream in colonial Australia,’ *Studies in the History Gardens & Designed Landscapes* 38, no. 4 (2018): 342-352.

⁸⁰ Ross, *Going Bush*, 39-46.

⁸¹ Page, *New Zealand State Forest Service. Circular No. 16*. 1.

⁸² *Ibid.*, 1.

⁸³ *Ibid.*, 1.

⁸⁴ *Ibid.*, 1.

⁸⁵ *Ibid.*, 2.

lasting tribute to the enterprise of the scholars and teachers.’⁸⁶ However, in regard to which species trees students should grow, native or exotic species, teachers received conflicting messages.

When announcing the scheme in 1924, the Education Department informed teachers ‘that children should learn to know and love their native country, and to study the native flora, and the propagation of trees and shrubs in the school-grounds and about the home.’⁸⁷ Page, too, stressed the role of the school garden in educating children about New Zealand’s native flora, of which ‘the average man’ currently exhibited ‘deplorable ignorance’ despite it being ‘one of the most beautiful in the world’.⁸⁸ The link between school gardening and patriotism was also repeated by Leonard Cockayne, the Dominion’s leading botanist and an avid adherent of the emergent science of ecology in his two books, *New Zealand plants and their story*, which saw several editions, and *The cultivation of New Zealand plants*.⁸⁹ ‘The love of trees, the value of forests, the reverence for Nature; and, not least, the love of country,’ he claimed in the former, ‘can sink deep into the minds of children from their school gardens of native plants’.⁹⁰ This objective, he argued, could not be achieved ‘by planting a row of the insignis-pine [*Pinus radiata*]’.⁹¹ While climatic conditions dictated which native plants a school could grow, Cockayne believed that every school ought to have either a kauri (*Agathis australis*) or a tōtara (*Podocarpus totara*) growing in its garden, two of the most renowned native trees.⁹² Cockayne imagined school gardens functioning as ‘sanctuaries’ for New Zealand’s unique but reduced flora following European settlement.⁹³

The SFS, while encouraging schools to plant native species, supplied neither indigenous seedlings nor seeds. Schools willing to fill their gardens with native flowers and trees would have to acquire their own. In the circular, Page recommended that children should search and obtain desired specimens from the bush. The knowledge children would acquire ‘while collecting plants’, he argued ‘will make them better citizens in later life.’⁹⁴ Cockayne concurred: ‘plant hunting’, he claimed in *The Cultivation of New Zealand Plants*, ‘is one of the finest, most exciting, and healthy sports in the world. It brings the collector into the presence

⁸⁶ Page, *New Zealand State Forest Service. Circular No. 16, 2*.

⁸⁷ ‘Forestry in schools,’ *Education Gazette* 3, no. 9 (1924): 141.

⁸⁸ Page, *New Zealand State Forest Service. Circular No. 16, 2*.

⁸⁹ Leonard Cockayne, *New Zealand plants and their story* (Wellington: Government printer, 1910), 167-171, in particular 167 and 170; Leonard Cockayne, *The Cultivation of New Zealand Plants* (Auckland: Whitcombe & Tombs, 1923), 113-118. The latter received a glowing review in the *Education Gazette* 4, no. 5 (1925): 72.

⁹⁰ Cockayne, *The Cultivation of New Zealand Plants*, 115.

⁹¹ *Ibid.*, 114.

⁹² *Ibid.*, 116.

⁹³ Cockayne, *New Zealand plants and their story*, 167.

⁹⁴ Page, *New Zealand State Forest Service. Circular No. 16, 2*.

of Nature'.⁹⁵ Since plant-hunting limited schools to growing local species, the *Education Gazette* announced the intention to start an exchange column through which teachers could trade native seeds and cuttings from other parts of New Zealand, a suggestion first ventured during the conference in Wellington in 1925.⁹⁶ Thereby, schools 'situated in urban districts', for example, could still grow native trees in their small gardens.⁹⁷ In addition to seeds and seedlings, schools could also exchange foliage, allowing children to study and learn to recognise trees exclusive to other regions of the Dominion. 'How many children outside the Auckland Province', the *Education Gazette* asked, 'have seen the leaves or fruit of a kauri, that tree which is symbolical all over the world of the timber wealth of the Dominion? Recognition of this national emblem is now within possibility for every school-child'.⁹⁸

Again, though the SFS urged schools to grow and procure native trees, the Forestry in Schools Campaign was first and foremost concerned with the planting of exotic timber species in order to establish school plantations. Unfortunately, schools displayed far less interest in exotic species, much to the frustration of the SFS, which had to remind teachers that they did not provide native seeds or seedlings.⁹⁹ As Grace remarked in 1925, the campaign aimed to teach children the necessity of planting timber trees for the future:

At this critical period of our history, when we in New Zealand are threatened with the complete destruction of our forests, it is most important to impress on the rising generation the necessity for preserving our forests for more economic use, and for keeping the acreage under trees maintained by constant planting. It is the school forest-tree nursery that is going to instil into the minds of our future city fathers the love and regard that are due towards our forests, which are so necessary for the welfare of the country.¹⁰⁰

While the scheme sought to instil in all primary school children in the Dominion a forest consciousness, it particularly targeted rural children. The campaign hoped to see 'a tree nursery at every country school' where pupils acquired a 'practical knowledge of tree-growing' by planting conifers, such as *Pinus radiata*, to serve as windbreaks and eucalyptus 'for farm

⁹⁵ Cockayne, *The Cultivation of New Zealand Plants*, 13.

⁹⁶ M. Sutherland to Director of Forestry, 9 February 1925, 1-3. ANZ, Wellington, Forestry in Schools, R17277829.

⁹⁷ 'Exchange of seeds, cuttings, etc., of plants and trees,' *Education Gazette* 4, no. 7 (1924): 100.

⁹⁸ Ibid.

⁹⁹ F. H. Grace, 'The State Forest Service and school forestry,' *Education Gazette* 4, no. 9 (1925): 134

¹⁰⁰ F. H. Grace, 'The school nursery and the garden,' *Education Gazette* 4, no. 7 (1925): 102.

timbers'.¹⁰¹ Once big enough, children would then take the seedlings home and transplant them onto the farm of their parents, thereby transforming their home 'a bleak, ugly dwelling placed in the middle of a wind-ridden paddock' to 'a haven of comfort'.¹⁰² In addition to beautifying the homestead, Page expressed hope that children, by taking home and planting trees, would impart a lesson to their parents, 'great majority' of whom did not realise the value of trees on the farm.¹⁰³ Thus, the Forestry in Schools Campaign, by having children in rural areas plant exotic timber trees, would instil in both present and future farmers a forest consciousness.

Nature study and forestry

The subject of nature study emerged in the United States in the late nineteenth century as part of the progressive educational movement, consisting of two aims: on the one hand, as Sally Gregory Kohlstedt argues, to introduce children to the natural sciences, and on the other, Kevin C. Armitage suggests, to instil in children a reverence for nature. As Kohlstedt and Armitage note, the subject enjoyed close links with school gardening.¹⁰⁴ From the United States, nature study spread across the world, for example to Australia where progressive educationalists and conservationists used the subject to promote conservation and preservation alike.¹⁰⁵ In New Zealand the subject was officially introduced in 1904, and much like in its country of origin, it enjoyed strong support from progressive educationalists, most notably George Hogben.¹⁰⁶ In New Zealand, nature study, while loosely defined, served to instil in children a curiosity and love for all things related to nature, from agriculture to native flora and fauna.¹⁰⁷ As a result, nature study gave teachers the opportunity to employ unique tools in their teaching, such as the ability to take the pupils out of the classroom on bush walks.¹⁰⁸ Because of its flexibility and versatility, the SFS and the school inspectors and instructors when planning the Forestry in

¹⁰¹ 'Forestry in schools,' *Education Gazette* 3, no. 9 (1924): 141.

¹⁰² Ibid.

¹⁰³ Page, *New Zealand State Forest Service. Circular No. 16*, 2.

¹⁰⁴ Sally Gregory Kohlstedt, *Teaching Children Science: Hands-On Nature Study in North America, 1890-1930* (Chicago; London: University of Chicago Press, 2010); Armitage, *The Nature Study Movement*. It is worth emphasising that Kohlstedt and Armitage are aware of, and discuss, the aspect highlighted by the other author.

¹⁰⁵ Sally Gregory Kohlstedt, 'Nature Study in North America and Australasia, 1890-1945: International Connections and Local Implementations', *Historical Records of Australian Science* 11 no. 3 (1997): 439-454; Dorothy Kass, *Educational Reform and Environmental Concern: A History of School and Nature Study in Australia* (Abingdon and New York: Routledge, 2018).

¹⁰⁶ Kohlstedt, 'Nature Study in North America and Australasia, 1890-1945,' 448; Ross, *Going Bush*, 29-32.

¹⁰⁷ Ross, *Going Bush*, 27-39.

¹⁰⁸ P. M. Lynch, 'Enterprise, Self-Help and Cooperation: A History of Outdoor Education in New Zealand Schools to 1989' (PhD diss., University of Canterbury, 1999), 59 and 90f.

Schools Campaign in February 1925 deemed nature study as the most suitable subject ‘to inculcate [sic] a Forestry interest in the children.’¹⁰⁹

Following the conference, Sutherland drew up a forestry syllabus, which encompassed, amongst other things, learning to identify native and exotic trees, knowing various types of forests, and the importance of forests to prevent erosion.¹¹⁰ A few months later, an expanded version was published in the *Education Gazette*.¹¹¹ The syllabus, it decreed, ‘shall be followed in part or in whole in the public schools.’¹¹² To achieve this, teachers were recommended to incorporate it into existing subjects, for example nature study or geography.¹¹³ To assist teachers with ‘the more educational side of school forestry’, which excluded tree-planting, Page offered an overview of what the forestry lesson ought to accomplish in the *Education Gazette*.¹¹⁴ ‘Every young New-Zealander’, he noted, ‘should know what a forest is’.¹¹⁵ This included not merely knowing the names of the trees that the students would encounter ‘in the bush’ or ‘along the streets of towns and cities’, but ‘to know the forest shrubs and plants, and everything else relative to our forests.’¹¹⁶ While most certainly ‘a heavy task to the young student’, the exercise, Page believed, ‘will be a source of pleasure through life [for the students], and assist in the making of good citizens.’¹¹⁷

To achieve the best result in teaching children about forests and trees, Page recommended that teachers undertook ‘excursions into the bush’, to allow students to explore and experience the forest:

This is nature-study of the best type, as it not only teaches the children the beauties of their native country, but unfurls to their gaze the botanical treasures that are scattered throughout our native bush, the magnificence of the bird-life, and the mysteries of the myriad insects to be found.¹¹⁸

¹⁰⁹ M. Sutherland to Director of Forestry, 9 February 1925, 3. ANZ, Wellington, Forestry in Schools, R17277829.

¹¹⁰ M. Sutherland, ‘Syllabus of forestry teaching in schools,’ [1925]. ANZ, Wellington, Forestry in Schools, R17277829.

¹¹¹ ‘Forestry instruction in public schools,’ *Education Gazette* 4, no. 8 (1925): 122.

¹¹² *Ibid.*

¹¹³ *Ibid.*

¹¹⁴ P. M. Page, ‘The school forestry lesson,’ *Education Gazette* 4, no. 9 (1925): 133.

¹¹⁵ *Ibid.*, 134.

¹¹⁶ *Ibid.*, 134.

¹¹⁷ *Ibid.*, 134.

¹¹⁸ *Ibid.*, 134.

As pupils became ever more familiar with the bush, they were to collect flowers and foliage for a herbarium in which they recorded the common and scientific names of the specimen acquired, its habitat, and other kinds of information.¹¹⁹ According to Page, assembling a herbarium constituted an excellent pedagogical exercise since the pupil had to explore the forest as well as learn to identify what they observed.¹²⁰

Although Page advocated the typical botanical practices of collecting and naming specimens of flora, he emphasised that the goal of the activity was not to turn the students into little botanists running around in pursuit of new plants to name.¹²¹ Rather, the aim of the activity was 'to interest them in the native flora and fauna so that they may better know their native land.'¹²² The SFS, in its ambition to incorporate forestry into nature study, promoted the already overarching goal of the subject, namely the inculcation of a love of nature and the fostering of good citizenship.

Forestry in the *School Journal*

Inculcating children with a forest consciousness was not limited to physical activities such as planting trees, or embarking on excursions in the bush, but could also be achieved through reading. As an alternative for school children unable to plant and cultivate trees due to the setting of the school, Sutherland suggested at the conference that the SFS supplied the *School Journal* with 'a few articles on Forestry.'¹²³ The idea met with great support amongst the attendees, who believed that the *School Journal* 'offered a wide field for propaganda among children.'¹²⁴ This section examines the usage of the *School Journal* to instil a forest consciousness in children.

First issued by the Education Department in 1907 to provide teachers with a uniform set of education material across the Dominion, the *School Journal* was made mandatory in public schools in 1914, and soon became frequently used in the classroom for a range of subjects.¹²⁵ Research estimates that children spent 'about half an hour a day' using it for various purposes, and continued too once at home for homework during the interwar period.¹²⁶ During this period,

¹¹⁹ Page, 'The school forestry lesson,' 134.

¹²⁰ Ibid., 134.

¹²¹ Ibid., 134.

¹²² Ibid., 134.

¹²³ M. Sutherland to Director of Forestry, 9 February 1925, 1. ANZ, Wellington, Forestry in Schools, R17277829.

¹²⁴ Ibid., 3.

¹²⁵ E. P. Malone, 'The New Zealand School Journal and The Imperial Ideology,' *New Zealand Journal of History* 7, no. 1, (1973): 12f.

¹²⁶ Ibid., 13.

each issue of the *School Journal* comprised three parts; the first to meet the requirements of standards one and two, the second to suit standards three and four, and the last targeted standards five and six.¹²⁷

Because of its widespread, and later obligatory, use, the *School Journal* has received substantial scholarly attention, not least as a tool in shaping the attitudes of children, in particular citizenship and loyalty to the British Empire.¹²⁸ According to Edmund Penn Malone, the journal fired ‘a heavy barrage of imperialist propaganda’ onto the children well into the 1920s.¹²⁹ In terms of portraying nature, or the natural world, McGeorge notes that nature in the *School Journal* prior to the outbreak of the Great War conveyed ‘a muted conservationist conclusion’, namely, that the destruction of forests was a part of the settlement process, but that native remnants ought to be protected.¹³⁰ Ross, in turn, suggests that the *School Journal*, until 1918, portrayed tree-planting as a remedy for past deforestation, while also seeking to instil a love for native flora amongst pupils.¹³¹ As this section shows, these themes emphasised by Ross, carried on into the 1920s as the SFS sought to impress upon children the importance of afforestation and forest preservation.

The articles contributed by the SFS, all of them written by Sutherland and the forest extension officers, who were already used to preaching the gospel of forestry – albeit to an older audience – appear to have achieved a high standard. In 1925, the editor of the *School Journal* applauded Sutherland for her ‘very interesting’ piece “The power of the forests”.¹³² Published in the part for standards five and six, Sutherland thoroughly explained the importance of preserving forests to prevent floods as it ensured a regular water flow in rivers by soaking up rain, thereby stabilising the soil.¹³³ To demonstrate the stabilising power of forests, Sutherland pointed to the extensive deforestation occurring in New Zealand in the past, which, she noted, today ‘results in the hillside “slip” so familiar to New Zealanders in all parts of the country.’¹³⁴

¹²⁷ Malone, ‘The New Zealand School Journal and The Imperial Ideology,’ 13.

¹²⁸ Malone, ‘The New Zealand School Journal and the Imperial Ideology,’ 12-27; Maria Perreau and Lynette Kingsbury, ‘The Anzac Iliad: Early New Zealand *School Journals* and the development of the citizen-child in the new dominion,’ *Citizenship, Social, and Economics Education* 16, no. 3 (2017): 157-173; Rosemary Jean Bingham, ‘The ‘making of a soldier’: Masculinity and soldierhood in the *New Zealand School Journal*, 1907-1925,’ *Citizenship, Social, and Economics Education* 16, no. 3 (2017): 174-183; Vivien van Rij, ‘The Changing Face of Literacy in New Zealand’s *School Journal*. Part One, 1907 to 1938: From Imperialism to Romanticism and Security,’ *New Zealand Journal of Educational Studies* 52, no. 1 (2017): 233-254.

¹²⁹ Malone, ‘The New Zealand School Journal and The Imperial Ideology,’ 12.

¹³⁰ McGeorge, ‘The Presentation of the Natural World in New Zealand Primary Schools 1880-1914,’ 39.

¹³¹ Ross, *Going Bush*, 46-50.

¹³² The Editor, *School Journal*, to Director of Forestry, 21 May 1925. ANZ, Wellington, Forestry in Schools, R17277829.

¹³³ N. Sutherland, ‘The power of the forests,’ *School Journal* 19, no. 6, part 3 (1925): 166-171. The misspelled name is a typo on behalf of the publisher.

¹³⁴ Sutherland, ‘The power of the forests,’ 168f. Quote from 168.

This was not unique to the Dominion. As further evidence of the consequences of deforestation, Sutherland highlighted the deforestation in central Spain and China that had created denuded landscapes ‘unable to support vegetation’ following the rivers ‘carrying away all moisture’.¹³⁵ Meanwhile, countries around the alps, she noted, had all set up “‘protection forests’” with minimal logging and new trees planted wherever necessary as ‘to preserve the forest cover intact over the surface of the land’, and thereby prevent floods.¹³⁶ ‘If every one of us realizes the threatening danger and takes steps not only to prevent bush destruction but also to plant trees,’ Sutherland noted, ‘we shall be carrying out a work of national importance’.¹³⁷ Indeed, ‘every New-Zealander’ she concluded, ‘can help to combat the menace of deforestation’, including children.¹³⁸

In addition to Sutherland’s article, the issue included a piece by F. H. Grace, one of the extension officers, on the history and importance of Arbor Day.¹³⁹ Since the holiday’s introduction, Grace bemoaned to students the fact it had fallen in popularity ‘despite the fact that we are faced with a timber famine.’¹⁴⁰ However, by planting quick-growing exotic species, like those given to schools by the SFS, he recognised that students could, together with their teachers, return the holiday to its former glory and create ‘an intelligent interest in trees and forests’ amongst the public.¹⁴¹ It remained up to the future generation to pick up their spades, and observe Arbor Day by planting exotic timber trees, or, as Grace concluded: ‘Hitherto the task of providing for our future needs has been left to a very few. Now all must take their share, and children should set an example that their elders would do well to emulate.’¹⁴²

Although the SFS only contributed to the section geared for the oldest pupils, those for younger students also aimed to foster a forest consciousness. The section targeted for standards three and four featured a shorter piece on the priceless beauty of New Zealand’s native forests and the importance of protecting them, both for their aesthetical uniqueness and for their role in preventing floods.¹⁴³ ‘The white settler’, children learnt, exercised but little restraint when ‘burning and felling our beautiful forest’ when transforming the land into farms.¹⁴⁴ ‘Wise men’, the article continued, ‘see to-day that destroying the forest has in many cases been a grave

¹³⁵ Sutherland, ‘The power of the forests,’ 169.

¹³⁶ Ibid., 170.

¹³⁷ Ibid., 171.

¹³⁸ Ibid., 171.

¹³⁹ H. F. H. Grace, ‘What Arbor Day means,’ *School Journal* 19, no. 6, part 3 (1925): 161-164. The misspelled name is another typo by the publisher.

¹⁴⁰ Ibid., 162.

¹⁴¹ Ibid., 164.

¹⁴² Ibid., 164.

¹⁴³ See, for example: ‘Green mansions,’ *School Journal* 19, no. 6, part 2 (1925): 82-84.

¹⁴⁴ Ibid., 83.

mistake' as hills became prone to erosion and river to flooding once the forest was removed, and now sought to re-plant the land with exotic trees.¹⁴⁵ However, while the efforts would restore verdure to the land, prevent floods, and 'be most useful in growing timber for the future', the article highlighted a stark difference between the new forest growing and what had once been in terms of wonder: 'These new forests will not have the lovely mosses, ferns, and creepers, and the trees of so many beautiful kinds that grow in the native bush.'¹⁴⁶ In addition to the article, the issue also included poems and words of wisdom as well as two legends of the poplar praising the magnificence of trees, the noble act of tree-planting, or the glory of nature in general.¹⁴⁷ Meanwhile, the part for the youngest pupils, standards one and two, contained a few poems and two children's stories about trees.¹⁴⁸ Ellis, impressed by the number, congratulated the editor, claiming that it would 'very materially assist in inculcating and fostering in the younger generation a love for New Zealand's beautiful forest flora and Nature Study generally.'¹⁴⁹

Subsequent Arbor Day numbers in the *School Journal* published during the Forestry in Schools campaign all shared similar content with the issue of 1925. The SFS continued to provide detailed articles on forestry and tree-planting for the oldest students on the splendour of New Zealand's native bush, the importance of protecting forests, as well as the necessity and joy of planting trees, while the younger children received lighter material. In 1927, for example, forest extension officer C. H. Reece stressed the importance of forests to standards five and six by pointing to the many ways in which forests benefited humans: by providing timber for industries, offering shelter to crops and animals from scorching summer sun and icy winter winds, preventing floods and erosion, but most of all providing companionship and joy.¹⁵⁰ 'The man who counts trees among his friends', he told the students, 'is never lonely'.¹⁵¹ According to Reece, studying trees offered a source of pleasure in life, especially in such a forested land as New Zealand and even more when considering the beginnings of each tree – as a small seed, which would grow for hundreds of years.¹⁵² To study the start of this 'most wonderful process', pupils could raise seeds provided by the SFS, and thereby 'gain an insight into the elements of

¹⁴⁵ 'Green mansions,' *School Journal* 19, no. 6, part 2 (1925): 84.

¹⁴⁶ *Ibid.*, 84.

¹⁴⁷ *School Journal* 19, no. 6, part 2 (1925): 81-89 and 92.

¹⁴⁸ *School Journal* 19, no. 6, part 1 (1925): 81-89.

¹⁴⁹ Director of Forestry to Editor, *School Journal*, 15 July, 1925. ANZ, Wellington, Forestry in Schools, R17277829.

¹⁵⁰ C. H. Reece, 'Trees and what they mean,' *School Journal* 21, no. 6, part 3 (1927): 164-170.

¹⁵¹ *Ibid.*, 164.

¹⁵² *Ibid.*, 164f and 169.

the greatest study and the most delightful hobby in the world.’¹⁵³ To convince students that tree-planting was far from a dull pastime, he informed them that ‘many of the finest men in this country’, such as lawyers and architects, indeed, ‘men from every profession’ enjoyed the hobby, all being ‘practical tree-lovers and tree-planters.’¹⁵⁴ The following year, in 1928, he elaborated on the wonders of tree-planting regarding seed-selection, and the influence of climate or soil on the tree planted.¹⁵⁵ ‘There is,’ Reece concluded in a recruiting fashion:

A wonderful fascination in studying and working among trees, and when once started we always want to learn more and more. Every boy and girl should learn to appreciate the beauty of those lovely trees with which Nature has so lavishly endowed our country, and surely there can be no better way of learning to love them than by planting the seeds and nursing the tender shoots until in the years to come they develop into mature and stately trees.¹⁵⁶

As the article by Reece shows, the *School Journal*, in addition to educating children unable to explore the bush or plant trees in the school garden about forestry, also sought to popularise the activity amongst the children that could. Since usage of the *School Journal* was mandatory, it allowed the SFS to reach rural and urban children alike on the importance of forestry and the dangers of deforestation.

School competitions in forestry

In November 1923, L. O. Hooker, Secretary of the South Taranaki Winter Show in Hawera, informed the SFS of his intention to arrange a local school forestry contest as part of the exhibit’s school section, and asked for advice on what the competition ought to include.¹⁵⁷ In his reply, Ellis commended Hooker’s efforts to introduce ‘a love and interest in the forest to the rising generation’. Noticing that the outline for the competition already featured a range of events such as best display of seedlings and best essay on Arbor Day, he gave only minor suggestions. Nonetheless, Ellis, intrigued by the idea of school forestry competitions, contacted the Royal Scottish Arboricultural Society for advice on ‘the method of exhibiting’ forestry and

¹⁵³ Reece, ‘Trees and what they mean,’ 170.

¹⁵⁴ Ibid., 170.

¹⁵⁵ C. H. Reece, ‘Harvesting the seeds of trees,’ *School Journal* 22, no. 3, part 3 (1928): 90-96.

¹⁵⁶ Ibid., 96.

¹⁵⁷ L. O. Hooker to Officer in Charge, Forestry [sic] Dept., 23 November 1923. ANZ, Wellington, [Trees for Schools], R17272895.

on prizes, recalling attending a successful exhibit arranged by the society during his time in Edinburgh.¹⁵⁸ A few weeks later, Ellis received lists of prizes and competitions, which he forwarded to an elated Hooker.¹⁵⁹

By the start of the 1920s, the SFS came to express a strong belief in school forestry competitions as a means of inculcating children with a forest consciousness. In May 1924, as the winter show in Hawera approached, Alexander Robert Entrican, engineer in forest products, praised the scheme in *Life and Forest Magazine*. ‘This is’, he noted, ‘a practical method of giving school children a working acquaintance with forestry.’¹⁶⁰ Ellis, when presenting the proposed structure of the Forestry in Schools campaign to Caughley, included the arrangement of school competitions.¹⁶¹ Later, when the Education Department surprisingly revealed the scheme in the *Education Gazette*, the announcement, amid its emphasis on the national and pedagogical need to instil in children a tree-planting spirit, informed teachers of a recent ‘afforestation competition’ between eight schools at the Hawera Winter Show.¹⁶²

Yet, by the time the Education Department announced the campaign, no plan on the organisation and design of competitions existed, a task Ellis then assigned to Page, who, in turn, adapted many aspects of the Hawera competition. However, instead of merely exhibiting a single tray of seedlings from a selection of various timber trees, Page suggested four distinct classes. In the first class, children would display ‘[t]hree species of open rooted eucalypti seedlings suitable for the production of fencing posts, firewood and general farm timbers.’ In the second class the students would also raise three species of eucalypti, but these were to be open rooted and suitable for sleepers, poles and bridges.¹⁶³ The third class, in turn, involved exhibiting ‘[f]our species of shelter trees’, these being two designated species of cypresses and pines respectively. In the fourth and last class, children would present a tray of *Cupressus macrocarpa* (*Hesperocyparis macrocarpa*), ‘containing not less than 25 live seedling trees’. While the three first classes all rewarded twenty points, the fourth rewarded only five due to

¹⁵⁸ L. MacIntosh Ellis to R. Galloway, Secretary, Royal Scottish A[r]boricultural Society, 4 December 1923. ANZ, Wellington, Forestry in Schools, R17277831. Ellis served briefly in the Forestry Division, a part of the Scottish Board of Agriculture after World War One. For an overview of Ellis’s career, see: Mike Roche, ‘Latter Day ‘Imperial Careering’: L.M. Ellis – A Canadian Forester in Australia and New Zealand, 1920-1941,’ *ENNZ: Environment and Nature in New Zealand* 4, no. 1 (2009): 58-77.

¹⁵⁹ L. MacIntosh Ellis to R. Galloway, 15 March, 1924; L. MacIntosh Ellis to L. Hooker, Manager South Taranaki Winter Show, 15 March 1924; L. Hooker to L. MacIntosh Ellis, 19 March 1924. ANZ, Wellington, Forestry in Schools, 1924, R17277831.

¹⁶⁰ A. R. E., ‘Forestry and the Young,’ 5.

¹⁶¹ Director of Forestry to Director of Education, 17 July 1924, 2. ANZ, Wellington, Forestry in Schools, R17277831.

¹⁶² ‘Forestry in schools,’ *Education Gazette* 3, no. 9 (1924): 141.

¹⁶³ P. M. Page, ‘Forestry in Schools,’ [1924], 2. ANZ, Wellington, Forestry in Schools, R17277830.

‘being rather difficult to transplant’.¹⁶⁴ Page reinforced that the competition served to establish school nurseries, not the decoration of the school ground, in the judging criteria:

In awarding marks the following points will be taken into consideration: The suitability of the trees for transplanting for the production of timber, for which purpose the trees must: (1) Have a well developed root system with plenty of fibrous roots. (2) Have a leading shoot. (3) Be of uniform size. (4) Be sufficiently hardened off to ensure of the trees being successfully transplanted.¹⁶⁵

In addition to raising trays of different timber trees, schools would present a ‘Life history chart’, detailing the progress and growth of the exhibited seedlings. However, not all proposed classes related to the growing of exotic trees. Again similar to the South Taranaki Winter Show, Page suggested two individual classes, one for best essay on the subject “‘The Value of Forests to the Dominion’”, and one for best herbarium specimen collection of native flora, which were to contain at least six species with foliage and bark, and their names in Latin and Māori.¹⁶⁶ As for prizes, Page recommended the first prize for the display of seedlings to be ‘an enlarged photograph’ of a nursery or plantation, ‘a collection of cones and foliage of the principal exotic coniferous species growing in the Dominion’ and ‘a collection of hand specimens of the main native timbers.’ Second prize would be identical to the first, minus the photograph, whilst third prize consisted solely of a collection of cones and foliage. The winner at each winter show would also qualify for a national competition, with the best school receiving a national trophy and a monetary contribution for books to its library.¹⁶⁷ For the individual competitions, Page proposed books on botany, native avifauna, and early New Zealand history, subjects that would certainly instil a love for the Dominion, its history, and its flora and fauna.¹⁶⁸

The suggested competition classes received a mixture of support within the SFS. Entrican, for example, who had applauded the competition in Hawera, claimed that the proposal disclosed ‘two weaknesses of fundamental importance.’¹⁶⁹ Firstly, it only concerned afforestation, while overlooking ‘[t]he economic, recreational, climatic, utilisation and other aspects of forestry’.¹⁷⁰

¹⁶⁴ Page, ‘Forestry in Schools,’ [1924], 2. ANZ, Wellington, Forestry in Schools, R17277830.

¹⁶⁵ Ibid., 2.

¹⁶⁶ Ibid., 2.

¹⁶⁷ Ibid., 4.

¹⁶⁸ Ibid., 2f.

¹⁶⁹ Alec. R. Entrican, ‘Forestry in Schools. Criticism of Extension Officers’ Scheme of Operation’, [unknown date], 1. ANZ, Wellington, Forestry in Schools, R17277829.

¹⁷⁰ Ibid., 1.

Secondly, because of its sole focus on tree-planting, it prevented urban schools from participating in any major extent, thus limiting the fostering of a nationwide “forestry sense” amongst children:

“Trees have no votes,” but all school children will have, and it is a matter of no small importance that equal attention should be paid to the children of urban districts. A tree saved is a tree grown, and an appreciation of how timber may be used and saved is fully as important as the growing end of the business.¹⁷¹

As such, Entrican proposed several changes and additions to the competition classes, like displaying collections of timber specimens and wood by-products, which he argued, would ‘allow both urban and rural schools to compete.’¹⁷² Page, in turn, claimed that more classes would result in fewer schools participating.¹⁷³ Prizes, too, attracted major criticism. Entrican, though supportive of the idea of a Dominion trophy, deemed the school prizes ridiculous. ‘Wood and herbarium specimens’, he noted, ‘cannot be considered suitable prizes.’ Instead, he suggested money for group exhibits, and a book or a magnifying glass to individuals.¹⁷⁴ Chief Inspector Arnold Hansson held a similar opinion: ‘A collection of hand specimens of wood or a collection of cones of exotic trees growing in New Zealand will have very little value or be of very little permanent interest to the average youngster at school.’¹⁷⁵ Hansson, like Entrican, favoured books.¹⁷⁶ Page, defending his suggestions, remarked that he had consulted with agricultural instructors and teachers, and both were in favour of the prizes he proposed. Moreover, the photograph and the collection of cones, in contrast to the books which would be forgotten and collect dust, Page argued, ‘would always be visible to the scholars on the walls of the school, consequently they would absorb [a] “forest sense” unconsciously while sitting in the school.’¹⁷⁷

At the conference in Wellington in 1925, prizes and competitions constituted two of its many talking points. Page’s prize suggestions did enjoy support amongst the inspectors and instructors, who argued that displays of cones and foliage would not only instil a forest

¹⁷¹ Entrican, ‘Forestry in Schools,’ 1. ANZ, Wellington, Forestry in Schools, R17277829.

¹⁷² Ibid.

¹⁷³ P. M. Page, ‘Forestry in Schools. Remarks on the Engineer’s in Forest Products Criticism,’ [unknown date], 1. ANZ, Wellington, Forestry in Schools, R17277829.

¹⁷⁴ Entrican, ‘Forestry in Schools,’ 1f. ANZ, Wellington, Forestry in Schools, R17277829. Quote from 2.

¹⁷⁵ Arnold Hansson to Director, 4 November 1924. ANZ, Wellington, Forestry in Schools, R17277830.

¹⁷⁶ Ibid.

¹⁷⁷ Page, ‘Forestry in Schools,’ 1. ANZ, Wellington, Forestry in Schools, R17277829.

consciousness in children, but would also ‘be of propagandist importance to parents also who would use it for identifying their own trees.’¹⁷⁸ Furthermore, while the SFS had exclusively focused on children, the inspectors and instructors proposed that the SFS present the schools attaining ‘a certain standard with regard to Forestry work’ with ‘a Certificate of Merit.’¹⁷⁹ Yet, though inspectors and instructors preferred Page’s prizes, some expressed hesitation towards the notion of competing, especially with the pedagogical ‘effects being transient’.¹⁸⁰ Moreover, the competition the SFS envisioned required work and preparation well beyond school hours. Others, however, voiced support and excitement over the work and effort competitions could stir in the students as they pointed to ‘[t]he splendid result from the Hawera Show Competition’.¹⁸¹

In contrast to the divided stance amongst instructors and inspectors, winter show organisers, just like the SFS, exhibited a great interest in school forestry competitions. In 1925, nine winter shows, including the South Taranaki Winter Show in Hawera, hosted forestry contests for schools. The timber sector, too, supported the competitions, with Ellis recording that three companies and one association rewarded the winning school in their region with a shield in 1926, and thereby ‘assisted in popularizing [sic] the movement amongst the school-children.’¹⁸²

Initially, the competitions seem to have been a great success. Page, judging the entries at the Waikato Winter Show in 1926, noted that the result and quality achieved by the students ‘explodes the idea that only nurserymen can raise young trees from seed and that it is only a waste of time and money for others to attempt it.’¹⁸³ However, in the following year only two schools exhibited at the Waikato Winter Show and Manawatu Winter Show respectively, and at the Wellington Winter Show one school had entered the competition since it started in 1925.¹⁸⁴ Only at the South Taranaki Winter Show in Hawera did entries increase.¹⁸⁵ A huge factor in the success of Hawera’s winter show was Hooker, an avid afforestation advocate, and

¹⁷⁸ M. Sutherland to The Director of Forestry, 9 February 1925, 3. ANZ, Wellington, Forestry in Schools, R17277829.

¹⁷⁹ Ibid.

¹⁸⁰ Ibid.

¹⁸¹ Ibid.

¹⁸² *AJHR*, C3, 1926, 18. The three companies and the one association that supported the competitions were G. Symes and Co. (Limited), Ellis and Burnand (Limited), Wellington Timber Merchant’s Association, and Otago Brush Company.

¹⁸³ P. M. Page, ‘School Forestry. School Exhibits at Winter Shows,’ [unknown date], 1. ANZ, Wellington, Forestry in Schools, R17277827.

¹⁸⁴ P. M. Page to Director, 22 June 1927, 1f. ANZ, Wellington, Forestry in Schools, R17277827.

¹⁸⁵ Ibid., 2.

who had continued to correspond with Ellis, even offering advice on the SFS's competition proposal.¹⁸⁶

The overall failure of the competition caused doubt within the SFS regarding the benefits of competitions. Reece, for example, suggested in 1927 that competitions, since they only engaged a handful of pupils, and as such '[do] not materially assist in the achievement of the results so earnestly desired by this Service', should no longer be supported.¹⁸⁷ Page, however, who noted 'a great improvement' at the Hawera Winter Show with children exhibiting 'well grown' seedlings and charts detailing their growth together with herbaria and 'collections of wood specimens of many of the native and exotic timber trees', still believed in the pedagogical value of competitions.¹⁸⁸ With herbaria and wood collections seemingly 'appeal[ing] more to educationalists than the mere growing of trees', Page, to encourage more schools to exhibit, drafted a new competition scheme which increased their points.¹⁸⁹ Others within the SFS, like Sutherland, remained convinced about the value of competitions.¹⁹⁰ A. D. McGavock, Conservator of Forests for the Westland region, believed that they would 'go a long way to foster the "Forestry Sprit" among the teachers and children.'¹⁹¹ Ironically, no schools in the forested Westland region had yet reached such a stage in its tree-planting efforts that they could participate in any school forestry contest.¹⁹² By the end of the 1920s it became abundantly clear that school forestry competition would not become a prominent part of winter shows other than in Hawera. Phillips Turner, who succeeded Ellis as Director of Forestry in 1928, omitted any information related to them in his annual reports. This raises the question, did the overall failure of school forestry competition reflect the Forestry in Schools Campaign as a whole?

National failure and a regional success?

In 1925, merely a year after the Forestry in Schools campaign started, and despite a polio epidemic hampering planting efforts, Ellis reported in triumphant fashion that 765 schools had established school nurseries.¹⁹³ 'The schools Forestry Scheme', Ellis informed Caughley in December 1925, 'has now reached the second stage of development'; the establishment of

¹⁸⁶ L. O. Hooker to Director, 15 January 1925, 1f. ANZ, Wellington, Forestry in Schools, R17277829.

¹⁸⁷ C. H. Reece to Director, 10 August 1927, 1. ANZ, Wellington, Forestry in Schools, R17277827.

¹⁸⁸ P. M. Page to Conservator, Rotorua, 18 July 1927, 1. ANZ, Wellington, Forestry in Schools, R17277827.

¹⁸⁹ Ibid., 1f. Quote from 1.

¹⁹⁰ M. Sutherland to Director of Forestry, 13 August 1927, 1f. ANZ, Wellington, Forestry in Schools, R17277827.

¹⁹¹ Conservator of Forests, Hokitika, to Director of Forestry, 4 August 1927. ANZ, Wellington, Forestry in Schools, R17277827.

¹⁹² Ibid.

¹⁹³ *AJHR*, C3, 1925, 12. The number of schools appears to have been an exaggeration as Ellis reported the total of 518 school nurseries the following year. *AJHR*, C3, 1926, 18.

school plantations, which would add to New Zealand's timber supply.¹⁹⁴ Ellis deemed '[t]he creation of schools forest endowments' essential as he shifted the forestry policy to focus on exotic afforestation rather than sustained yield management of indigenous forests since the envisioned expansion of state plantations to 300,000 acres would only secure 'the minimum national requirement.'¹⁹⁵ In addition to providing the Dominion with timber, the trees, when harvested, would provide the school with a hefty revenue, a fact the *Education Gazette* had emphasised when announcing the campaign, informing teachers that an acre of *Pinus radiata* could in thirty years yield £200, and thus secure 'a splendid endowment for the school.'¹⁹⁶

'The second stage' received support in newspaper articles across the Dominion. The *Otago Daily Times*, for example, asserted in 1926 that establishing school plantations involved several benefits, imparting upon children a 'love of trees' and improving their morals since 'the work is largely done unselfishly for the benefit of future generations.' The paper also played on the phrase "'Plant Trees and Grow Money'", suggesting that it, at least for country schools, be changed to "'Plant Trees and give your school an endowment for all succeeding generations.'"¹⁹⁷ The *New Zealand Herald*, in turn, praised the SFS for developing a 'forest sense in young New Zealand', and wanted all schools, urban and rural, to plant trees.¹⁹⁸

Caughley and the Education Department did not share the enthusiasm of Ellis or the newspapers, deeming the work involved 'too comprehensive' and 'too laborious', and as such, rejected the notion, much to Ellis's regret.¹⁹⁹ However, this did not necessarily mean the end of the Forestry in Schools campaign. In 1927, 858 schools in New Zealand, 401 in the North Island and 445 in the South Island, and twelve in Niue, participated.²⁰⁰ Furthermore, in contrast to the Education Department, an interest existed on a local level to establish school plantations. By the end of 1927, the SFS recorded that 37 schools in the Taranaki education district had planted slightly more than 30 acres.²⁰¹ Commenting on the planting efforts in Taranaki, the SFS reported:

¹⁹⁴ 'Proposals for a School Plantation Endowment Scheme,' 1, attached to memorandum Director of Forestry to Director of Education, 15 December 1925. ANZ, Wellington, Forestry in Schools, R17277828.

¹⁹⁵ *AJHR*, C3, 1926, 8.

¹⁹⁶ 'Forestry in schools,' *Education Gazette* 3, no. 9 (1924): 141

¹⁹⁷ 'Forestry as school endowment, ODT, 5 August 1926, 8.

¹⁹⁸ "'Plant a tree.'" NZH, 26 July 1927, 6.

¹⁹⁹ T. B. Strong for Director of Education to Director of Forestry, 10 December 1926; Director of Forestry to Director of Education, 24 December 1926. ANZ, Wellington, Forestry in Schools, R17277827. Why the Education Department did not respond to the proposal until a year later is unclear. The SFS does not appear to have sent any reminders.

²⁰⁰ Unfortunately I have been unable to find any material of the SFS discussing tree-planting in Niue bar this report.

²⁰¹ 'List of schools in Taranaki education district that have established plantations and approximate area planted to 31/12/27,'. ANZ, Wellington, Forestry in Schools, R17277826.

In many instances the areas planted were small patches of waste or weed-infested ground lying near the school, and eventually a beautiful and valuable plantation will replace a plot which was formerly not only a blot on the landscape, but a menace to adjoining land as well.²⁰²

The success of the scheme in Taranaki was due to two factors. First, enthusiasts such as Hooker helped to promote school forestry through competitions, as did the region's agricultural instructors, who possessed a strong interest in forestry and nature (figure 11).²⁰³ Indeed, one of the instructors, Rod Syme, chaired the Parks and Reserves Committee of the Hawera Borough Council and later served on the reserves committee of the Federated Mountain Clubs.²⁰⁴ Second, Pākehā in the region were well aware of the dangers of deforestation. Prior to British colonisation, Taranaki was dominated by dense forests. Upon arriving in increasing numbers following the Treaty of Waitangi in 1840, settlers eager to improve the land cleared the thick bush by fire and axe. By the 1920s, the lowland forests had been transformed, bar the forests adjacent to Mount Taranaki, gazetted in 1900 as Egmont National Park.²⁰⁵ Oswald James Hawken, who briefly served as Commissioner of State Forests and represented the Egmont electorate, which covered Hawera, emphasised the economic importance of tree-planting and the need to educate the future generation about its value when addressing his constituents in 1927.²⁰⁶ As the *Hawera Star* noted one year earlier: 'the spirit of the rising generation will be so enthused with the love of trees that the plantings of the next fifty years may do much to atone for the terrible wastage of the last fifty.'²⁰⁷

²⁰² *AJHR*, C3, 1928, 14.

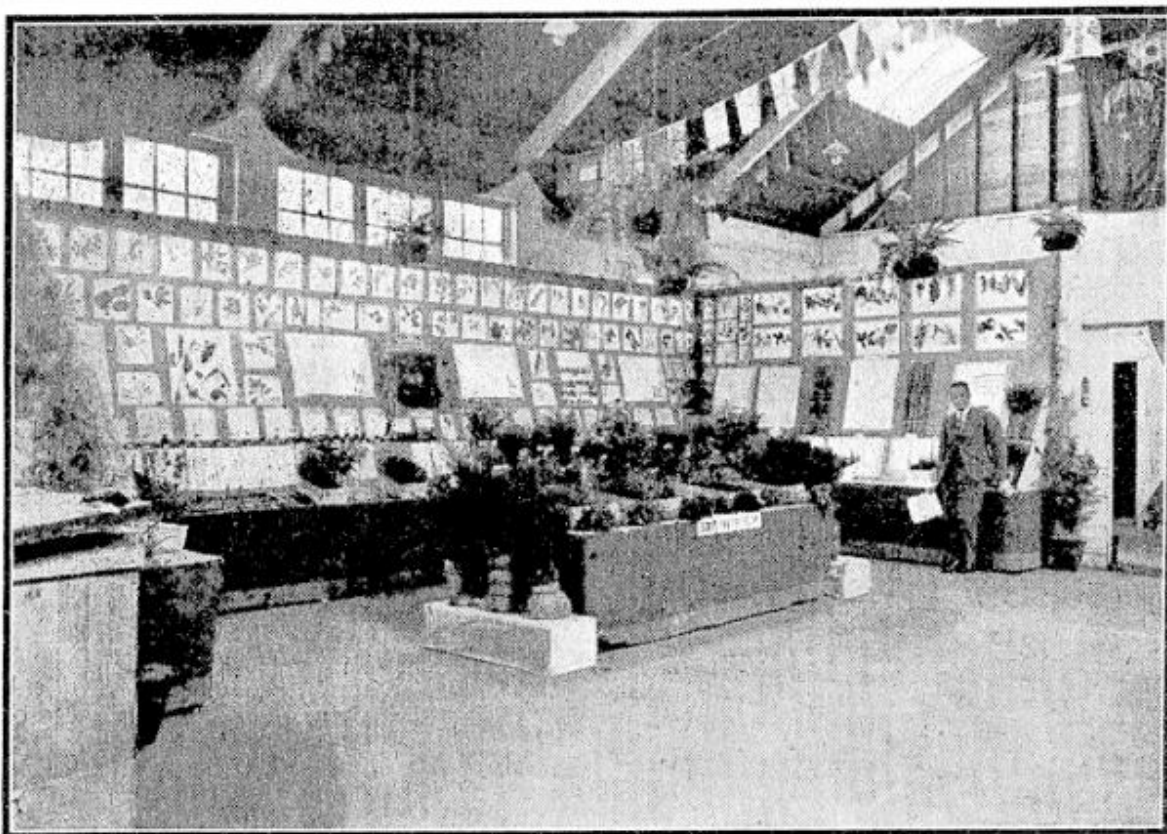
²⁰³ L. O. Hooker to Mackintosh Ellis, 29 January 1925, 1f. ANZ, Wellington, Forestry in Schools, R17277829. As example of the enthusiasm of the Taranaki agricultural instructors, three attended the conference in the North Island arranged by the SFS in 1926, more than any other district (not counting school inspectors). Forest Extension Officer P. M. Page, 'Forestry in Schools. Names of Officers attending Conference of School Inspectors and Instructors in Agriculture, Whakarewarewa 1926. ANZ, Wellington, Forestry in Schools, 17277828. The agricultural instructors also corresponded with the SFS, which gladly assisted their efforts see, for example: Conservator of Forests, Palmerston North, to Director, 5 October 1927. ANZ, Wellington, Forestry in Schools, R17277827. Newspapers also reported on the work of the agricultural instructors and their collaboration with the SFS, see, for example: 'Afforestation,' *Stratford Evening Post*, 25 October 1923, 5; 'Agriculture,' *Hawera Star*, 19 August 1924, 3; 'Arbor Day,' *Hawera Star*, 14 October 1926, 10.

²⁰⁴ Young, *Our Island, Our Selves*, 128.

²⁰⁵ For the environmental transformation of Taranaki in the late 1800s, and New Zealand in general, see Rollo Arnold, *New Zealand's burning: the settler's world in the mid 1880's* (Wellington: Victoria University Press, 1994).

²⁰⁶ 'Trees for Taranaki,' *New Zealand Life* 6, no. 7 (1927): 14.

²⁰⁷ 'A worthy Arbor Day,' *Hawera Star*, 14 October 1926, 4.



SCHOOL FORESTRY SECTION. Mr R. Syme, agricultural instructor to South Taranaki Schools, and last year's display of work by primary schools' pupils.

Figure 11. A source of pride: Agricultural instructor Rod Syme with the work undertaken by students in South Taranaki. 'School Forestry Section,' *Hawera Star*, 26 June 1929, 12.

While a general interest in tree-planting existed amongst teachers and agricultural instructors in Taranaki, this does not mean that educators outside of the region overlooked the benefits of having children planting trees. Rather, the difference lay in the scale of the tree-plantations, with schools in Taranaki truly embracing the idea of school plantations as future endowments.

Even though few schools succeeded in establishing the plantations Ellis envisioned, the SFS did believe in the pedagogical value of tree-planting. The SFS regularly supplied schools with exotic timber-trees, albeit in a decreasing amount as schools were expected to raise trees from seeds. As the great depression hit, the SFS ceased supplying schools regularly with trees free of charge. Seeds, on the other hand, being far less expensive to transport were still offered (table 2 and 3).²⁰⁸ Sadly, the annual reports do not always give exact numbers, the reports of 1928 and 1929 only accounted for trees distributed in the North Island.²⁰⁹ The 1933 annual report, in turn, simply states: 'The usual free distribution of small quantities of trees and seeds

²⁰⁸ Sources for the graphs are: *AJHR*, C3, 1926, 18; *AJHR*, C3, 1927, 18; *AJHR*, C3, 1928, 14; *AJHR*, C3, 1929, 28; *AJHR*, C3, 1930; *AJHR*, C3, 1931; *AJHR*, C3, 1932, 5; *AJHR*, C3, 1933, 13; *AJHR*, C3, 1934, 15; 16.

²⁰⁹ *AJHR*, C3, 1928, 14; *AJHR*, C3, 1929, 28.

was made to schools.²¹⁰ Even worse, the annual reports of 1930 and 1931 offer no information on trees distributed to schools.

While the policy proved popular, with the SFS receiving a regular enquiry about trees and seeds, the SFS began to abandon the policy in 1935 for two reasons.²¹¹ First, the value of the trees gifted that year alone was £141.²¹² Second, McGavock noted that the SFS, during the campaign, had supplied ‘trees and seeds sufficient to plant more than 13,000 acres’, and that schools ought to have reached the full capacity in terms of ‘care and maintenance’.²¹³ The Department of Internal Affairs, and in particular its under-secretary Joseph William Allan Heenan, as Ross shows in *Going Bush*, did not share McGavock’s assessment and expressed great interest in supplying trees to schools, promoting a range of tree-planting schemes for children to participate in.²¹⁴ Thus, where the SFS’s chapter in the promotion of Arbor Day in New Zealand concluded, the chapter of the Department of Internal Affairs, which is outside the scope of this thesis, was about to begin.

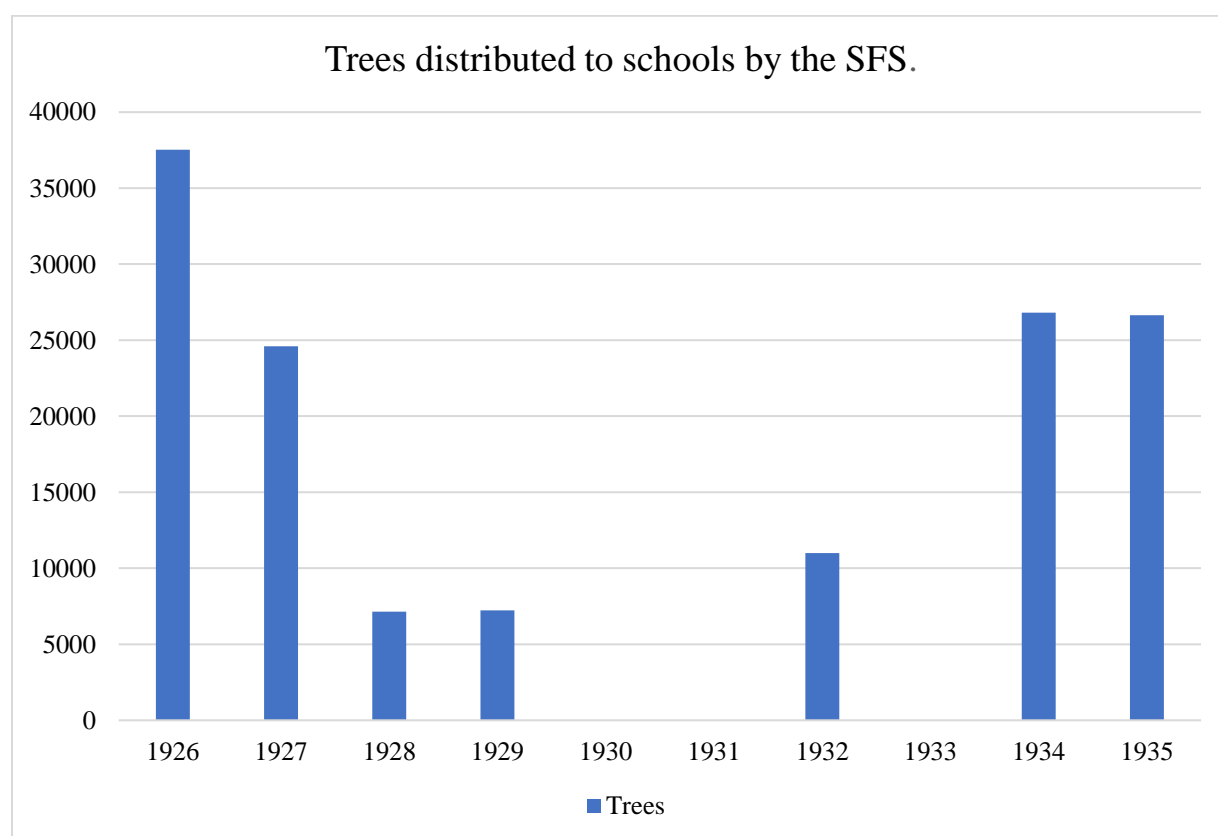


Table 2. Trees distributed by the SFS during the “Forestry in Schools Campaign”.

²¹⁰ *AJHR*, C3, 1933, 13.

²¹¹ *AJHR*, C3, 1935, 17.

²¹² *Ibid.*, 16.

²¹³ *Ibid.*, 17.

²¹⁴ Ross, *Going Bush*, 97-123.

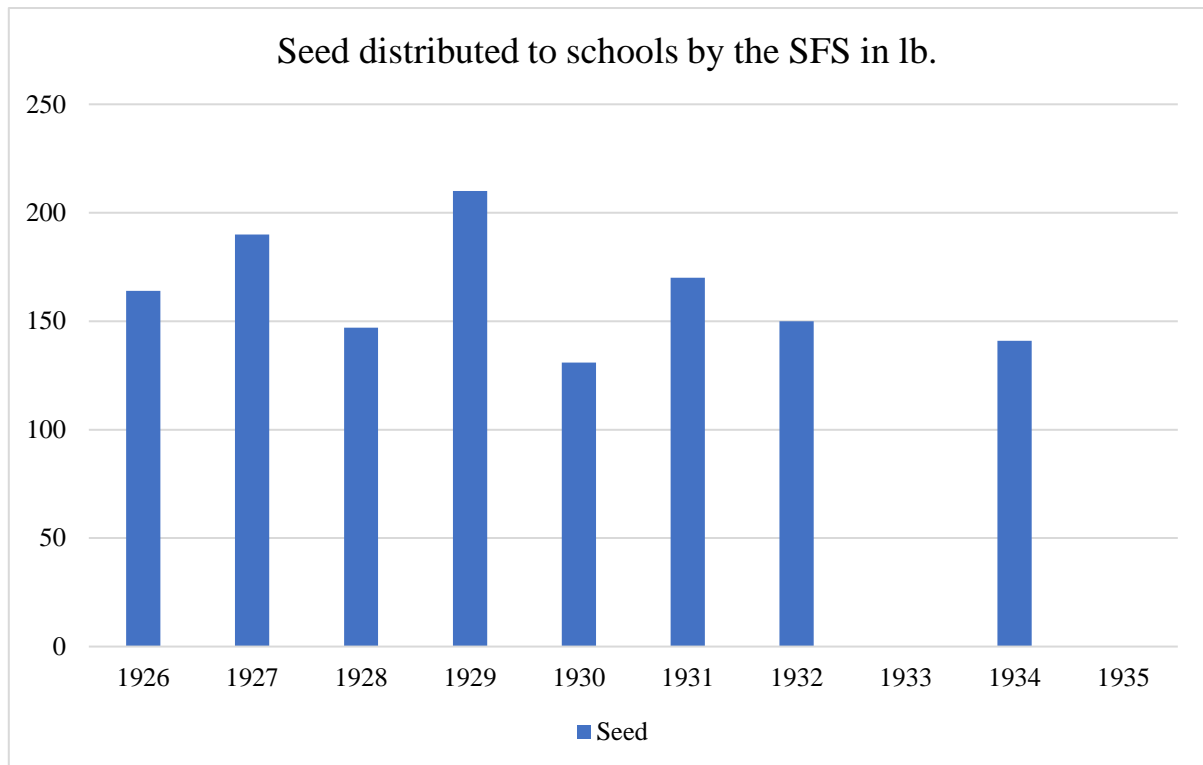


Table 3. Seed distributed by the SFS during the “Forestry in Schools Campaign”.

The New Zealand Forestry League and its efforts

In 1925, James Deans, newly elected president of the NZFL, welcomed the ‘progressive step’ by the SFS and the Education Department of introducing school children to ‘the first principles in growing trees and planting them’ in his speech at the annual meeting of the NZFL.²¹⁵ ‘By these means’, he noted, ‘it should be possible to instil in the coming generation a love of trees that will never be forgotten’, and as such expressed his and the NZFL’s ‘full consideration and support’ for the scheme.²¹⁶ However, the NZFL, far from being just a supporting character merely endorsing the work of the SFS, also undertook its own efforts to inculcate children with a forest consciousness. This section examines those attempts.

The NZFL, having achieved its initial objective with the establishment of a forestry department led by a scientifically trained forester in 1920, expanded its work in educating the public, including children, on the importance of forestry and forests (chapter 1). In 1921, NZFL president Sir James Glenly Wilson penned a well-illustrated article in the *School Journal* on the creation of the NZFL as a response to the widespread deforestation of New Zealand, forestry, the importance of conservation, and the planting of exotic timber species.²¹⁷ To inspire

²¹⁵ President’s address, annual Meeting, 2 July 1925, 4. A L Hunt Papers, ATL, MS-Papers-0158-299.

²¹⁶ Ibid.

²¹⁷ James Wilson, ‘Forestry,’ *School Journal* 15, no. 6, part 3 (1921): 162-170.

and invoke the children to plant trees, he told two stories. The first detailed when the mining tycoon and imperialist Cecil Rhodes observed an old man planting trees for future generations, leading him to realise the unselfish act of tree-planting. Combining forest and imperial propaganda, Wilson linked Rhodes's "founding" of Rhodesia to the planting of a seed, which had grown to an impressive tree in the garden of the British in the Empire.²¹⁸ The second story concerned a man who planted a tree in his childhood and, nearing death, cut it down to have its wood serve as his coffin.²¹⁹ 'Doubtless', Wilson noted, 'he rested in peace.'²²⁰ Concluding, he urged children and adults to plant trees:

A tree cannot be grown in a short space of time, and by planting *now* we are conferring inestimable benefits on the future generations. Let us all make a start, old and young, and undertake the work without delay, and we shall be doing something that will, in the years to come, be of great benefit to our State.²²¹

In 1922, Lawson further impressed upon children the necessity of forestry and forests as a source of prosperity, with forests providing timber, preventing erosion and floods, and hosting beautiful birds.²²² 'To-day', he warned the pupils, 'only a fraction remains of the extensive timber resources which were ours fifty years ago', a depletion which, he continued, stemmed from the recklessness of Anglo-Saxons, who had rightfully 'earned the name of being not only bad foresters but vandals in the destruction of valuable timber forests.'²²³ To prove the poor forest management of the British, Lawson informed the children that 'throughout the British Empire', as well as in America, Anglo-Saxons had left a trail of destruction.²²⁴ However, the recent establishment of the SFS, rising public awareness of the dangers of deforestation, and a possible timber famine, he noted optimistically, gave 'an indication that forestry is not to be neglected in this Dominion.'²²⁵ Similar to Wilson, Lawson too concluded with a call to plant trees, while also emphasising the need to protect existing forests, both for their utilitarian and aesthetic value:

²¹⁸ Wilson, 'Forestry,' 162-164.

²¹⁹ Ibid., 164f.

²²⁰ Ibid., 165.

²²¹ Ibid., 170.

²²² Will Lawson, 'What the forest means,' *School Journal* 16, no. 6, part 3 (1922): 164-170.

²²³ Ibid., 164f.

²²⁴ Ibid., 164.

²²⁵ Ibid., 164.

Let us look upon our forests with love and veneration, and as the sources of beauty, life, and comfort. How much they meant to us we cannot estimate, for how should we fare without timber? Let every boy and girl do something to prevent the destruction of our remaining forests and to plant young trees to take the place of those that have gone. Then in the course of even a generation we shall be living in a better country, and in one that will be more prosperous and more beautiful.²²⁶

In addition to articles, the *School Journal* also published poems by members of the NZFL, two by Lawson, and one by E. J. Smith from Gisborne. The poems by Lawson, “The song of the saws” and “Rata tree”, appeared in 1923 and 1924 respectively, and focused on two opposite aspects of forests. The former, which followed an article on logging, romantically described the act of cutting down gigantic trees but how they would rise again as spars, planks, and masts.²²⁷ The latter, in turn, told the tragic story of a beautiful old rātā (*Metrosideros*) that perished during the clearing and transformation of the land from forest to fields.²²⁸ The poems must have been appreciated as Strong, when outlining recommendations for commemorating Arbor Day in the *Education Gazette* in 1925, suggested that children, in addition to articles in the *School Journal*, read ‘appropriate poetry’; for example poems, by Lawson.²²⁹ Smith’s poem, “Old and unafraid”, praising the majestic stature of an old kauri, appeared in the *School Journal* in 1927 upon a suggestion to the editor by Leigh Hunt the previous year.²³⁰ According to him, the poem, if accompanied with notes, would ‘give an interesting discourse on the qualities and history of the Kauri.’²³¹ Adhering to the advice, an introduction before the poem explained to students that Tāne, the god of forests and birds in Māori cosmology, was ‘the god of man and forests, who looked with special favour on the kauri’, and gave a tutorial on how his name was to be pronounced. It also explained the technical terms bukau as ‘the collection of decayed leaves, cones, bark, and seed’, and bast as ‘the strong, woody fibre of the tree’ and that the bast of the kauri had ‘a sweet juice.’²³² Forest consciousness, as the diverse topics of the poems together with the forewords show, included not merely an enthusiasm for tree-planting, but an

²²⁶ Lawson, ‘What the forest means,’ 170.

²²⁷ Will Lawson, ‘The songs of the saws,’ *School Journal* 17, no. 6, part 3 (1923): 170.

²²⁸ Will Lawson, ‘The rata tree,’ *School Journal* 18, no. 6, part 3 (1924): 161f.

²²⁹ Strong, ‘Observance of Arbor Day,’ 99.

²³⁰ E. J. Smith, ‘Old and unafraid,’ *School Journal* 21, no. 6, part 3 (1927): 162f. A. Leigh Hunt to Editor, *School Journal*, 11 November 1926. A L Hunt Papers, ATL, MS-Papers-0158-294E.

²³¹ Leigh Hunt to Editor, *School Journal*, 11 November 1926. A L Hunt Papers, ATL, MS-Papers-0158-294E.

²³² Foreword to E. J. Smith, ‘Old and unafraid,’ *School Journal* 21, no. 6, part 3 (1927): 162.

understanding of forests' value as timber, yet regret over wasteful practices in the past, as well as an aesthetic appreciation enshrined in romanticism.

The NZFL was not limited in its propaganda to the *School Journal*. It also approached, and collaborated, with leisure organisations like the Scout movement, which enjoyed great popularity amongst children in the interwar years.²³³ In 1923, the NZFL, together with the Boy Scouts Association, established both 'Rangers' and Conservators' badges.²³⁴ In 1927, one member proposed that the NZFL 'should take up the question of the destruction of noxious weeds by Boy Scouts'.²³⁵ Certainly much to the delight of the NZFL, the Boy Scouts Association advised that to acquire 'a Gardener's badge' boys needed 'to recognise certain noxious weeds and certain means for their eradication.'²³⁶ However, most of all, to instil in children a forest consciousness during their leisure hours the NZFL arranged competitions. In April 1926, Leigh Hunt moved that the NZFL arrange a herbarium competition, an idea that received unanimous support.²³⁷ Subsequent advertisement of the competition, explaining the rules and conditions of entering appeared in *New Zealand Life* and the *New Zealand Journal of Agriculture*.²³⁸ Though few participated, the entries came from across the Dominion and with the NZFL finding the submissions of good quality it deemed the competition 'very satisfactory'.²³⁹ Spurred on by the success, the NZFL arranged a new contest only seven months later under similar conditions.²⁴⁰ In 1927, at the annual meeting of the NZFL, Leigh Hunt, who served as acting president, elaborated on the importance of educating and raising public opinion, listing competitions for children that involved collecting and identifying native plants or displaying a knowledge of indigenous birds as an excellent means to expose children to the wonders of nature and awaken them to the importance of forestry.²⁴¹ This was an opinion Leigh Hunt, and the NZFL for that matter, shared with other organisations. Indeed, the New Zealand Native Bird Protection Society, too, hosted competitions, which they advertised in the *Education Gazette*.²⁴²

²³³ Helen Dollery, 'From Wild Child to Future Citizens? Children and Youth in Interwar New Zealand,' in *New Zealand between the wars*, ed. Bell, 240-251.

²³⁴ 'Progress of N.Z. Forestry League. Annual Meeting and Report,' *New Zealand Life and Forest Magazine* no. 9 (1923): 16.

²³⁵ NZFL, council, 29 September 1927, 2. A L Hunt Papers, ATL, MS-Papers-0158-299.

²³⁶ NZFL, council, 24 November 1927, 1. A L Hunt Papers, ATL, MS-Papers-0158-299.

²³⁷ NZFL, council, 22 April 1926, 2. A L Hunt Papers, ATL, MS-Papers-0158-299.

²³⁸ 'Forestry League competition for juveniles,' *NZJA* 32, no. 5 (1926): 362.

²³⁹ 'News of the day,' *EP*, 24 June 1926, 8.

²⁴⁰ NZFL, council, 20 January 1927, 2. A L Hunt Papers, ATL, MS-Papers-0158-299.

²⁴¹ Chairman's address, annual meeting 29 June 1927, 5-7. A L Hunt Papers, ATL, MS-Papers-0158-299.

²⁴² 'Native bird and tree competition,' *Education Gazette* 7, no. 9 (1928): 167.

While the NZFL, and Leigh Hunt especially, expressed enthusiasm for the competitions, few children appeared to have shared his excitement, as the *Evening Post* reported that a mere three children entered the contest in 1927.²⁴³ However, the NZFL refused to admit that the rising generation was not interested in devoting their leisure time to making herbaria and continued to arrange competitions, starting to advertise them in both *New Zealand Life* and the *Education Gazette*.²⁴⁴ An advertisement of the competition in the February issue of *New Zealand Life* in 1929, for example, suggested that ‘the summer days make an excellent opportunity for the boys and girls to get out into the bush and obtain’ specimens for their herbarium as well as a ‘an excellent opportunity of acquiring personal knowledge of the beautiful trees and shrubs which give to our country a world-wide fame’.²⁴⁵ The persistent advertising bore fruit with sixty children participating in 1932.²⁴⁶

Following a donation from Phillips Turner, the NZFL instituted an essay contest in 1933, later named after its donor.²⁴⁷ The annually designated essay topics all emphasised the importance of forestry and conservation. In contrast to the herbarium contest, the essay competition never struggled with low entries, perhaps since it allowed children living in urban areas and thus unable to access a vast amount of different foliage, to participate.²⁴⁸ The arrangement of another competition illustrates the importance the NZFL placed on educating children about the indigenous environment and forestry. In addition to individual competitions, which, by the start of the 1930s proved rather successful, the NZFL announced that it sought to award the school undertaking ‘the best effort in celebrating Arbour [sic] Day’ with £5 in 1931.²⁴⁹ However, few schools expressed any interest. In fact, of all the Education Boards, only the one in Wellington chose to participate. Competitions, obviously, were best suited as incitement for individuals, not schools.

Lord Bledisloe, the Governor-General, speaking at the annual meeting of the NZFL in July 1934 in his capacity as its patron, commended the association for its work in creating what he called: ‘an enlightened attitude on the part of the public generally, and of the children in particular, towards the maintenance and appreciation of New Zealand’s outstanding and once

²⁴³ ‘Spread of its doctrine,’ EP, 30 June 1927, 16.

²⁴⁴ NZFL, council, 23 February 1927, 2. A L Hunt Papers, ATL, MS-Papers-0158-299. The NZFL originally agreed to advertise in the *School Journal* but it must have changed to the *Education Gazette*. For the advertisement, see ‘Forestry competition for boys and girls,’ *Education Gazette* 12, no. 3 (1933): 33.

²⁴⁵ ‘For Boys and Girls. Forestry Competition,’ *New Zealand Life* 2, no. 2 (1929): 2.

²⁴⁶ ‘Forestry Competition for Boys and Girls,’ *Education Gazette* 12, no. 3 (1933): 33.

²⁴⁷ ‘Forest Preservation,’ EP, 5 August 1933, 12; ‘An appreciation,’ EP, 21 July, 1937, 18.

²⁴⁸ In 1938, 62 children partook; in 1941, 88 pupils partook. Sources: ‘Forestry League,’ EP, 17 December 1938, 15; ‘Forest study,’ EP, 24 October 1941, 6.

²⁴⁹ NZFL, council, 26 March 1931, 2; NZFL, council, 25 June 1931, 1. A L Hunt Papers, ATL, MS-Papers-0158-299.

unrivalled forestal [sic] equipment.’²⁵⁰ An avid supporter of conservation, Lord Bledisloe shared the NZFL’s goal in inculcating children with a forest consciousness. Indeed, Bledisloe expressed delight over the arrangement of competitions, which he boldly predicted ‘will stimulate the rising generation to appreciate the wealth and beauty of their native flora’.²⁵¹ His only objection lay with the competition requirement of using Latin names.²⁵² First, he believed that children could neither pronounce nor spell them correctly. Second, he argued that because Latin names changed, it risked making the knowledge obsolete. Instead, Bledisloe preferred English or Māori names, in particular the latter as it evoked ‘an atmosphere of romantic Maoridom [sic]’.²⁵³ ‘What prettier name’ he rhetorically asked the audience, ‘could there be for one of New Zealand’s commonest and loveliest flowers than “Koromiko” [*Pimelea longifolia*]?’²⁵⁴ Together with the essay competitions, these two contests, he asserted, ‘will in due course substantially augment the number of zealous and active supporters of forest conservation in this Dominion.’²⁵⁵

Conclusion

A day after speaking to the NZFL, on Arbor Day Bledisloe addressed the students of Wellington College and prominent guests on the need to develop a “tree sense” in New Zealand and especially amongst its youth.²⁵⁶ To Bledisloe, tree sense was ‘the genuine love of trees and the consciousness of the gap in life’s happiness and profit which the lack of trees involves’.²⁵⁷ In his opinion, no better day than Arbor Day offered such opportunity, ‘to awaken in the youth of the nation a love of trees’ and realise the need to plant trees, and preserve and protect forests.²⁵⁸ Reporting on the commemoration, the *Evening Post* noted with pleasure that ‘Arbor Day ... was revived with much of its old-time atmosphere’ similar to before the Great War when the holiday was ‘marked by enthusiastic planting of trees and addresses on forestry matters’.²⁵⁹ This did not mean that the paper overlooked the activities during the past decade, noting that the SFS ‘always helped to keep alive the observance of Arbor Day by supplying trees or tree-seeds for

²⁵⁰ Lord Bledisloe, ‘New Zealand’s timber. A great national asset (Wellington: Blundell, 1934), 1f. A L Hunt Papers, ATL, MS-Papers-0158-294F.

²⁵¹ *Ibid.*, 17.

²⁵² *Ibid.*, 17.

²⁵³ *Ibid.*, 17.

²⁵⁴ *Ibid.*, 17f.

²⁵⁵ *Ibid.*, 18.

²⁵⁶ Lord Bledisloe, ‘The glories and peculiarities of New Zealand forest vegetation (Wellington: Blundell, 1934), 3. A L Hunt Papers, ATL, MS-Papers-0158-294F.

²⁵⁷ *Ibid.*

²⁵⁸ *Ibid.*

²⁵⁹ ‘Arbor Day,’ EP, 2 August 1934, 5.

schools willing to use them and also by supplying suitable articles of tree-planting for inclusion in the “School Journal.”²⁶⁰

Prior to the Great War, as the *Evening Post* noted, Arbor Day had been a day widely celebrated in New Zealand, especially in schools, with conservationists seeking to impress upon children the value of trees and forests. However, following its removal from the public holiday calendar, the grand commemorations faded, much to the regret of tree-planting enthusiasts like Bathgate who urged the NZFL to revive the old festive spirit of Arbor Day to instil in children a love for tree. Others echoed Bathgate’s call, including prominent figures like King and newspapers. To proponents of Arbor Day, the holiday held several pedagogical benefits, such as teaching discipline and the duty of citizenship. Though no longer observed, Arbor Day very much remained in public discourse.

While figures like Bathgate, and to a lesser extent the NZFL, hoped to see Arbor Day revived, the SFS initially expressed little interest in the holiday. However, inspired by events overseas and domestically, it launched the “Forestry in Schools campaign” together with the Education Department, which came to serve multiple purposes. First, it aimed to educate children, specifically those in rural areas on the advantages of tree-planting, just as in a similar fashion the SFS educated the current generation of farmers. Second, it sought to educate children on the importance of forestry and inculcate in them with a love of trees and forests, thereby ensuring a strong public opinion in favour of the SFS and its activities in the future. Successful forestry depended on public support. Third, it wanted to secure a local source of timber by having school children establish school plantations. To achieve these objectives, the SFS educated and coordinated efforts with agricultural instructors through conferences and supplied teachers with material by pamphlets and the *Education Gazette*. As the time devoted to forestry depended on the enthusiasm of instructors and teachers, it proved essential to ensure that they too realised the importance of forestry, conservation, and the imminent danger of a timber famine. To incorporate forestry into the syllabus, the SFS, much like conservationists overseas, used school gardening and nature study to instil in children a love of trees and forests. To agricultural instructors and the SFS the two subjects allowed young students to explore the bush and experience joy as well as learn responsibility when growing seeds into seedlings that grew into majestic trees. To further promote tree-planting, the SFS designed competitions meant to be held at winter exhibitions, though these saw only regional success. Since not all schools lay in proximity to nature, nor possessed a school garden, the SFS also contributed

²⁶⁰ ‘More trees,’ EP, 31 July 1934, 7.

articles to the *School Journal*, a mandatory magazine distributed to all schools by the Education Department. The articles submitted by the SFS imposed upon the children the dangers of deforestation, with descriptions and images of floods and erosion, and the need to keep New Zealand forested. It also stressed the value of planting timber as well as the wonders of tree-planting.

Despite the many efforts, the scheme saw limited success in terms of school plantations. Only in Taranaki did the SFS record any major progress, with several schools possessing school plantations measuring at least an acre. A previously forested area prior to British colonisation, zealous educators, some with a strong interest in preservation, sought to redeem the destruction of forests by teaching the young the value of tree-planting. Schools in other regions, too, of course, did plant trees under the watchful eye of agricultural instructors, though often of a smaller scale than in Taranaki.

The “Forestry in Schools Campaign” may have been the most ambitious effort to instil in children a forest consciousness, but it was not the only one. The NZFL sought to inculcate children with a love of nature and a realisation of the value of tree-planting, first by submitting articles to the *School Journal*, and later by arranging competitions. While the herbaria competitions met with seemingly little enthusiasm amongst children, if judging by the low number of entries, a relaxation of rules and increased advertisement through its official journal and the *Education Gazette* saw an rise in submissions. Meanwhile, the essay competition, which had children write on different aspects of forestry, proved an immediate success, perhaps because it did not require access to the country side. With children eagerly participating, a forest consciousness in the future generation seemed secured.

Chapter Four

Transforming a wasteful Dominion, 1920-1930

[I]t is poor business to go to the expense of timber growing if the country is to persist in losing a large part of the crop by unsatisfactory ways of manufacturing and using it. A tree saved is a tree grown. And whereas it takes generations for trees to grow, elimination of wood waste gives immediate results.¹

Alexander Robert Entrican, 1926

Forestry, in general, comprises not only the management of timber resources and the selected growing of future supplies, but also includes their conservation by wise use when the time of cutting arrives.²

Leon MacIntosh Ellis, 1927

Samuel P. Hays, in his pioneering work *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920*, notes that the early American conservation movement ‘above all, was a scientific movement’ that enthusiastically advocated ‘rational planning’ to ensure ‘efficient development and use of all natural resources.’³ The United States Forest Service (USFS), and its director Gifford Pinchot, while primarily seeking to implement scientific forest policies, also devoted attention to the issue of timber utilisation and waste elimination.⁴ In 1910, the USFS, together with private businesses and the University of Wisconsin, established a forest products laboratory in Madison seeking to reduce waste through utilisation and improvements in manufacturing processes.⁵

As the quotes above demonstrate, timber utilisation and waste elimination were concerns not unique to the USFS. In his 1920 forest policy proposal, Leon MacIntosh Ellis described the establishment of a forest products laboratory as central to ‘the execution of a modern forest

¹ A. Entrican, ‘Timber Thrift. A Talk on the Wood Waste Problem,’ Lecture to Auckland Chamber of Commerce, 16 December, 1924, 1. ANZ, Wellington, Administration – Extension Lectures, R17278558.

² *AJHR*, C3, 1927, 4.

³ Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920* (Pittsburgh: University of Pittsburgh Press, 1959), 2.

⁴ *Ibid.*, 31f.

⁵ *Ibid.*, 32. Charles A. Nelson, *History of the U.S. Forest Products Laboratory (1910-1963)*, (Madison: United States Department of Agriculture, Forest Products Laboratory, 1971).

policy’.⁶ A year later, in 1921, the SFS employed Alexander Robert Entrican, a then 23-year-old engineer to whom Ellis later came to function as mentor, to lead the Branch of Forest Products of the SFS as Engineer in Forest Products.⁷ This chapter examines the efforts by the New Zealand Forestry League (NZFL) and the New Zealand State Forest Service (SFS), in particular the latter, to promote improved timber utilisation and waste elimination amongst timber-users. It demonstrates that the creation of a forest conscious public involved just as much the growing of timber as ensuring a wise usage of the timber itself.

This chapter begins by looking at early concerns expressed about waste, highlighting that the fear of a timber famine did not solely stem from deforested landscapes, but poor timber utilisation as well. Next, the chapter examines the efforts of the NZFL, which, though primarily concerned with forest management, realised the necessity of changing consumption patterns to avoid a timber famine. The chapter then explores attempts by the SFS to address the issue of public consumption behaviour through a timber exchange programme, as well as the promotion of applied science within the timber industry. This is further examined by looking at the Building Conference in 1924, which the SFS organised to address the matter of timber utilisation and waste within house construction, a pressing issue at the time.

A history of waste

Settlers arriving in New Zealand in the first decade following the Treaty of Waitangi, with few exceptions, found themselves in what seemed to be a land of endless forests. Gigantic kauri (*Agathis australis*) with trunks measuring over 5 metres in diameter, and towering kahikatea (*Dacrycarpus dacrydioides*) stretching up to 60 metres into the sky, to mention but two trees, promised plentiful timber. As the colony grew, so did the demand for timber, resulting in sawmillers advancing ever deeper into forest lands and expanding the settlement frontier, especially in the North Island.⁸

Fears of a timber shortage prompted a growing call for conservation and tree-planting. Already in the 1860s, amateur naturalist, runholder, and politician Thomas Potts bemoaned wasteful cutting practices and poor timber utilisation.⁹ Imperial forester Inches Campbell

⁶ *AJHR*, C3A, 1920, 16.

⁷ Roche, ‘An interventionist state,’ 215.

⁸ Wynn, ‘Destruction under the guise of improvement?’, 122-138. For the development of the timber industry in the first decades following Treaty of Waitangi in 1840, see also: Roche, *History of Forestry*, 45-82. See also Knight, *Ravaged Beauty*, 80-111 and 118-129; Rollo Arnold, ‘The Virgin Forest Harvest and the Development of Colonial New Zealand,’ *New Zealand Geographer* 32, no. 2 (October 1976): 105-126.

⁹ Star, ‘Thomas Potts and the Forest Question,’ 183f.

Walker expressed similar concerns during his brief tenure as Chief Conservator (1875-1877).¹⁰ According to Campbell Walker, the ‘great waste, or more properly speaking neglect, in utilizing timber’ in the Dominion stemmed from the idea of ‘an abundant and seemingly inexhaustible supply’ together with ‘high rates of labour, and very low rates of sale’. As a result, the sawmiller used ‘only the best portion of the best trees in the most accessible localities’ while leaving the rest to vanish in flames.¹¹ Appalled, the imperial forester described ‘the present system of waste, burning, and devastation’ as ‘suicidal’.¹²

Wasteful practices remained a source of frustration for conservationists and foresters in the early twentieth century. In 1922, Leon MacIntosh Ellis noted that ‘only 10 per cent. of the exploited forest reache[d] the consumer in the form of square-edged lumber’ whilst the amount of waste produced equalled ‘eight times as much ligneous material as [was] utilized.’¹³ To make matters worse, previously timber rich regions, such as Auckland, now relied on State Forests and other areas of New Zealand for timber.¹⁴ ‘It is only a question of time’, Ellis warned:

when the country will face a real and actual timber famine; and it behoves this agency of Government to solve the problem of a balanced Dominion-wide supply and demand by the elimination of waste, more efficient conversion, better conditioning of timber, and the utilisation of our substitute timbers, such as beeches, tawa, kamahi, rata, and others [sic].¹⁵

Forest conscious consumption

Assessing the cause of the deforestation in New Zealand, which now threatened to cause a timber famine, Ellis blamed decades-long excessive consumption of timber. ‘Because the first settlers in this Dominion found here more forests than they needed or could use’, he concluded in 1920, ‘they soon lost the habit learned in Europe, of using forests sparingly.’¹⁶ With the lesson never passed on to future generations, New Zealanders, by the start of the twentieth century, consumed ‘several times the amount of wood *per capita per annum*’ in comparison to ‘many of the older nations of Europe.’¹⁷ Although the latest statistics suggested a hefty decrease

¹⁰ On Campbell Walker, see Beattie, ‘Environmental Anxiety in New Zealand, 1840-1941,’ 383-385; Beattie, *Empire and Environmental Anxiety*, 155-157; Roche, *History of Forestry*, 88-93.

¹¹ *AJHR*, C3, 1877, 46.

¹² *Ibid.*, 47.

¹³ *AJHR*, C3, 1922, 10.

¹⁴ *Ibid.* The other previously forest-rich regions mentioned by Ellis were Hawke’s Bay, Marlborough, and upper Nelson.

¹⁵ *Ibid.*

¹⁶ *AJHR*, C3A, 1920, 4.

¹⁷ *Ibid.*, 4.

in timber consumption in the previous few years, from about 400 feet of timber per person to 150, it remained a significant threat to New Zealand's decreasing supply of timber unless addressed.¹⁸ This section examines the work of the NZFL and the SFS, in particular the latter, in promoting forest conscious consumption to encourage more efficient utilisation of timber.

While the NZFL was primarily concerned with afforestation and conservation (see chapters 2, 5 and 6), its members also expressed concerns about timber utilisation. At its annual meeting in 1920, council-member and politician William Hughes Field, who usually expressed support for various conservation schemes in parliament, suggested that the NZFL encourage the government 'to investigate' the utilisation of 'maire timber ... for furniture or other purposes', and if useable, 'that every tree of millable size shall be sawn and the timber thus saved from destruction.'¹⁹ The owner of a sawmill, Field certainly saw an opportunity for profits if the government could find new uses for 'maire timber'. However, his apparent thirst for profit should not disguise his genuine interest in conservation.²⁰

At the same meeting, businessman and council-member Arthur Leigh Hunt argued in a speech for the wider use and appreciation of furniture made from native species. Despite the fact that New Zealand possessed an 'unrivalled flora', wonderful scenery and climate, 'political freedom', and 'beneficent institutions', all which 'should make us proud of our land and its gifts', Leigh Hunt found '[a] proud love of country' lacking in 'the present generation of native born New Zealanders.'²¹ As an example he pointed to the fact 'that even people of limited means' purchased expensive 'furniture made from the inferior, coarse-grained oak timber of America and Japan'.²² In addition to private individuals, banks, public buildings, and state departments all decorated their rooms with furniture made from imported timber. Besides an evident absence of patriotism, Leigh Hunt attributed the lack of furniture made from New Zealand timber to 'a want of true artistic taste'.²³

While describing himself as 'a lay-man', Leigh Hunt proceeded to list several native species suitable for various pieces of furniture.²⁴ At one stage, he even asked the attendees to touch the furniture and panelling in the conference hall of the Dominion Farmers' Institute.

¹⁸ *AJHR*, C3A, 1920, 4.

¹⁹ NZFL, annual meeting, 7 July 1920, 8. A L Hunt Papers, ATL, MS-Papers-0158-297. On Field and forest conservation, see: James John Beattie, 'Environmental Anxiety in New Zealand, 1850-1920: Settlers, Climate, Conservation, Health, Environment' (PhD diss., University of Otago, 2004), 235-239.

²⁰ Shaun Barnett and Chris Maclean, *Leading the Way: 100 years of the Tararua Tramping Club* (Wellington: Tararua Tramping Club in conjunction with Potton & Burton, 2019), 41.

²¹ A. Leigh Hunt, 'The uses of New Zealand timber for furniture,' paper read at New Zealand Forestry League, annual meeting, 7 July 1920, 11. A L Hunt Papers, ATL, MS-Papers-0158-297.

²² *Ibid.*, 12.

²³ *Ibid.*, 12.

²⁴ *Ibid.*, 12-14.

These he informed them, were made from heart wood of rimu (*Dacrydium cupressium*), ‘probably the most beautiful and useful of all woods in the wide world for this purpose.’²⁵ By detailing the beauty and superiority of native species, he hoped to bring ‘attention to the good things close at hand as against the inferior ones imported from foreign countries at high cost to both the purse and patriotism of New Zealand citizens.’²⁶ Yet, while Field’s motion was ‘carried without dissent’, and Leigh Hunt’s address ‘was much appreciated’, few, if any, results followed. Nevertheless, they encapsulate the NZFL’s view of conservation, namely that native timber, unless of scenic value, should be utilized in the wisest possible manner.²⁷ Instead, the task of promoting forest conscious consumption fell upon the SFS.

In May 1921, almost a year after Leigh Hunt bemoaned the public’s lack of taste in the origins of the dominion’s furniture, Entrican, recently appointed as Engineer in Forest Products and in charge of the Branch of Forest Products within the SFS, delivered a lecture on forest utilisation before the Wellington Philosophical Society. After opening by detailing timber consumption projections and the improvement of timber utilisation through technological innovations, Entrican turned his attention to the role of ‘the general public, the ultimate consumer’ in the deforestation of New Zealand.²⁸ This was an involvement, he noted, often ignored, not least by the public itself, which instead ‘charged the sawmillers with a long series of high crimes and misdemeanours’ in the destruction of New Zealand’s forests.²⁹ However, focusing on the sawmiller overlooked the relationship between the consumer and the market.³⁰ ‘The consumer of forest products’, he explained to the audience, ‘has the last say – his is the final and deciding influence’.³¹ While ‘the ultimate consumer may say “What part have I in this matter but to take just what is handed out to me”’, such a response demonstrated nothing but ignorance since ‘the consumer’, by ‘pick[ing] and choos[ing]’ the products available, shaped the timber market just like in any other business.³² The result of ‘this acute system of selection

²⁵ Leigh Hunt, ‘The uses of New Zealand timber for furniture,’ paper read at New Zealand Forestry League, annual meeting, 7 July 1920, 13. A L Hunt Papers, ATL, MS-Papers-0158-297.

²⁶ Ibid., 14.

²⁷ NZFL, annual meeting, 7 July 1920, 8. A L Hunt Papers, ATL, MS-Papers-0158-297.

²⁸ Alec. R. Entrican, ‘The Closer Utilisation of the Forest Resources of New Zealand’, paper read before the Wellington Philosophical Society, 21 August 1924, 1-18, quote from 3. ANZ, Wellington, New Zealand State Forest Service. The closer utilisation of the forest resources of New Zealand, R20065269. Though the title of the paper dates the lecture to August, Entrican does not seem to have appear before them at that date. Newspaper reports further strengthen that the lecture was scheduled to an earlier date.

²⁹ Ibid., 1.

³⁰ Ibid., 3.

³¹ Ibid., 3.

³² Ibid., 3-4.

on the part of the consumer', Entrican concluded, 'has been the rapid depletion of our most valuable forests.'³³

Yet, just as the consumer had contributed to, if not caused, the deforestation of New Zealand, Entrican suggested that the consumer also could help to conserve forests by utilising timber better. 'The average consumer,' he noted, wants timber free from any defects, such as knots or splits when 'selecting timber for a dwelling, barn, fence, or for whatever purpose he may need it,' and as a result often chooses 'a quality of timber ... far beyond his actual requirements'.³⁴ However, by accepting 'short and odd lengths of timber', and of lower quality, 'the average consumer' would acquire cheaper timber for himself, and utilise material otherwise wasted.³⁵ In fact, rising timber prices in the last two decades had already led to a wider usage of low grade timber, 'tending to a greater degree of forest conservation'.³⁶ Nevertheless, much remained to be done before New Zealand could celebrate. As Entrican noted: 'we have not yet reached the point where nearly all of the useful, valuable timber of the lower grades will be accepted by the consumer.'³⁷

While the audience thanked Entrican, his speech, not least the segment on the consumer, received mixed reviews from the press. Merely summarising the lecture, the *Evening Post* stressed the shared responsibility and obligation of consumers and sawmillers alike to reduce waste.³⁸ Indeed, 'instead of buying the best bulk material', the paper noted that industries like 'the furniture and toy trades', which used 'small-sized timber', should acquire it 'direct from the sawmiller' to save money and reduce waste.³⁹ Meanwhile, the *Hokitika Guardian*, a prominent newspaper in the timber-rich Westland, called the idea that consumers should only 'use timber of a quality which would meet his actual requirements and no more' a 'platitudinous strain'.⁴⁰ 'Imagine', the paper implored its readers, 'a furniture maker going round the mills seeking short, and odd lengths. Then gathering it up, and taking it to his factory, to work up piece by piece.'⁴¹ Besides the ridiculousness of having people searching the mills for ideal pieces amongst piles of timber, the paper warned that it would see more expensive products because of the time involved in the hunt for good chunks.⁴² To the *Hokitika Guardian*, the

³³ Entrican, 'The Closer Utilisation of the Forest Resources of New Zealand', 4. ANZ, Wellington, New Zealand State Forest Service. The closer utilisation of the forest resources of New Zealand, R20065269.

³⁴ Ibid., 4.

³⁵ Ibid., 4.

³⁶ Ibid., 4.

³⁷ Ibid., 4.

³⁸ 'Use of timber,' EP, 19 May 1921, 8.

³⁹ Ibid.

⁴⁰ 'The timber trade,' *Hokitika Guardian*, 25 May 1921, 2.

⁴¹ Ibid.

⁴² Ibid.

points presented in the lecture suggested ‘that the timber trade can be turned into a more scientific groove than the average sawmiller, worried about labor and orders, would stop to think about.’⁴³ Going beyond Entrican’s talk, the paper noted that the ‘new forestry policy’ rather than providing jobs, seemed to have as its goal to employ ‘folk with titles more or less impressive’, referring to Entrican’s title, Engineer in Forest Products.⁴⁴ The resistance, even hostility towards Entrican’s ideas, and the SFS, from a newspaper circulating in a timber rich region, reflected the fact that the domestic sawmilling industry had entered a recession.⁴⁵

The duty of both the sawmiller and consumer in the national policy of forest conservation was advocated [in the lecture by Entrican], and as if to give point to that, the consumer at the moment is a minus quantity, and conservation is ensured at the present just because there is a lack of orders! This stagnation should thus meet the wishes of the forestry policy – ensuring greater longevity to the forests.⁴⁶

Though the notion that manufacturers ought to use more timber of odd sizes and lower quality to reduce waste attracted heavy criticism, Ellis, Entrican, and the SFS remained firm in seeking to change what they perceived as wasteful consumption patterns. As Ellis had suggested in his forestry policy in 1920, fuller utilisation of timber required ‘stimulating the use by the public of the low grades wherever possible.’⁴⁷ A few months after Entrican’s lecture, the SFS partook in the Tariff Exhibition in Wellington. Organised by the Wellington Industrial Association, the exhibition aimed to promote tariffs beneficial to New Zealand industries and the consumption of New Zealand made articles.⁴⁸ Together with the Dominion Federated Sawmillers’ Association (DFSA), the SFS, at its display, presented a range of products made from New Zealand timber, showcasing its versatility and quality.⁴⁹ In addition, the SFS distributed a circular by Entrican that warned of a timber famine, detailing the vast destruction of New Zealand’s forests and the extensive consumption of timber, past, present and future. ‘These facts’, he noted:

⁴³ ‘The timber trade,’ *Hokitika Guardian*, 25 May 1921, 2.

⁴⁴ *Ibid.*

⁴⁵ M. M. Roche, ‘The New Zealand timber economy, 1840-1935,’ *Journal of Historical Geography* 16, no. 3 (1990), 302f.

⁴⁶ *Ibid.*

⁴⁷ *AJHR*, C3A, 1920, 3.

⁴⁸ ‘New Zealand-made,’ *EP*, 13 July 1921.

⁴⁹ *AJHR*, C3, 1922, 11.

afford for very grave concern to all persons with interests in the timber trade and in wood-using industries, and to all consumers of forest products – in short, to the man in the street – for it may be stated without fear of contradiction that, outside of food products, no material is so universally used and so indispensable in human economy as wood.⁵⁰

Besides the economic value of forests, Entrican also stressed their protective abilities, in preventing erosion and floods as well as influencing ‘rainfall and other regional climatic conditions’.⁵¹ To conserve remaining forests, Entrican listed three alternatives: importation, timber plantations, or the adoption of a forestry policy based on ‘proper management and development of our annual forests resources’, namely, sustained yield management. Of these, only the last proved economically feasible, thereby eliminating the other options. Contrary to the ‘common misconception’ that such a policy would ‘lock up the forest against use’, Entrican explained that the policy merely aimed ‘to replace heedless and wasteful exploitation by rational management of the forests and of their products.’⁵² However, forest management constituted only a part of averting a timber famine. Extravagant use of forest resources by ‘engineers, architects, and other consumers of timber’ had resulted in tremendous wastage ‘of perfectly good material’, which, he noted, ‘might have been saved by the equally effective use of less valuable species, lower grades, or smaller sizes.’⁵³ Solving this problem of waste, Entrican argued, ‘can only be secured through the co-operation of the wood-using industries and the public in a much greater degree than has been the practice hitherto.’⁵⁴

To bring the two spheres together, Entrican presented the development of a wood waste exchange programme by the SFS, which aimed ‘to inform manufacturers and consumers of each other’s requirements’. All that was required to participate involved submitting a questionnaire detailing the material for sale, or desired, to the SFS, which would then compare it with other submissions. ‘The exchange’, Entrican informed the reader of the circular, seeking to advertise the scheme, ‘is conducted solely as a forest-conservation measure and its service is free to the public.’⁵⁵ Ellis expressed great hopes for the programme in 1922 and 1923.⁵⁶ However, the scheme proved short-lived, never featuring in any subsequent annual reports.

⁵⁰ A. R. Entrican, *New Zealand State Forest Service. Circular No. 1. Our Forest Resources* (Wellington: Government printer, 1922), 3.

⁵¹ *Ibid.*, 4.

⁵² *Ibid.*, 4.

⁵³ *Ibid.*, 11.

⁵⁴ *Ibid.*, 8.

⁵⁵ Entrican, *New Zealand State Forest Service. Circular No. 1*, 10.

⁵⁶ *AJHR*, C3, 1922, 10; *AJHR*, C3, 1923, 17.

Forestry and applied science

During the late nineteenth century and early twentieth, the wood industry was subject to a range of technological advances; for example, the development of plywood and pulp-wood, as well as new methods to preserve and season timber, ensuring better durability.⁵⁷ Technologically smitten, Ellis held high hopes for what applied science offered forestry: 'In the past, wood was wood only: to-day it is known as a structure of countless cells filled with valuable materials for the use of man.'⁵⁸ As such, he wanted the forest products laboratory to examine 'the properties and constituents of wood' in order to find new markets and areas of usage.⁵⁹ Two of the more ambitious projects included the possibility of transforming 'waste wood' into either paper or 'a cheap motor-fuel'.⁶⁰ Elaborating on the importance of the latter, Ellis wrote:

The high price of petrol, together with early exhaustion of the big oilfields, will soon make possible the development of the wood-distillation industry having for its main objective the production of alcohol. This problem is now being aggressively investigated in the United States, and it is hoped in a very short time that an economical method may be worked to utilize at the mill the waste in all the great timber-producing centres for this purpose[.]⁶¹

Others in New Zealand shared Ellis's hope of transforming wood waste into petrol. In 1918, agricultural scientist Bernard Cracroft Aston, quoting several international sources, expressed optimism for the possibility of manufacturing fuel from timber waste.⁶²

In the first decades of the twentieth century, state involvement in applied science increased rapidly in New Zealand. The Department of Agriculture, founded in 1892, undertook from the 1910s several investigations into the means of improving pastures and grasslands.⁶³ In 1926, the government established the Department of Scientific and Industrial Research. While

⁵⁷ Joachim Radkau, *Wood: A History*, trans. Patrick Camiller (Cambridge & Malden: Polity Press, 2012), 256-260.

⁵⁸ *AJHR*, C3A, 1920, 3.

⁵⁹ *Ibid.*, 15.

⁶⁰ *Ibid.*, 15. The notion of the possibility of transforming wood waste as petrol occupied foresters, scientists, industrialists, and politicians in several countries during the first decades of the twentieth century, Marcin Krasnodębski, 'Upscaling Forest Waste: The French Quest for Fuel Autarky after World War I,' *Technology and Culture* 62, no. 2 (2021): 105-127; Tom McCarthy, *Auto Mania: Cars, Consumers, and the Environment* (New Haven: Yale University Press, 2007), 16-21 and 47-53.

⁶¹ *AJHR*, C3A, 1920, 15.

⁶² B. C. Aston, 'The manufacture of fuel alcohol from sawdust and timber waste,' *JA* 16, no. 5 (1918): 286f.

⁶³ Star and Tom Brooking, 'The Farmer, Science and the State in New Zealand,' in Brooking, Pawson, et al., *Seeds of Empire*, 159-177; Tom Brooking and Paul Star, 'Remaking the Grasslands: the 1920s and 1930s,' in Brooking, Pawson, et al., *Seeds of Empire*, 178-199.

primarily an administrative body in its early years, it would, as Ross Galbreath notes, ‘become synonymous with science in New Zealand’, developing a number of research divisions carrying out a range of investigations.⁶⁴ Applied science also received a more prominent role at universities with the establishment of two, albeit short lived, schools of forestry at Auckland University College and Canterbury University College respectively and the formation of Massey Agricultural College in 1927 (joining Canterbury Agricultural College, at Lincoln, established in 1877).⁶⁵ Despite this research, the role of applied science in New Zealand forestry has received limited attention from historians, especially studies of attempts to share, or contribute, to industrial practices. This section, in addition to demonstrating the prominent role of applied science in preventing a timber famine by improving timber utilisation, also highlights the SFS’s efforts to educate the sawmilling industry on matters related to timber management, in particular storage and seasoning.

While some of the more elaborate enterprises Ellis envisioned, most notably the prospect of creating petrol from wood waste, were never pursued, Entrican and the Branch of Forest Products did, in association with Auckland University College, conduct a range of tests on largely neglected timbers, with immediate and promising results. In 1922, Ellis reported that investigations into Southland-beech (*Nothofagus menziesii*) and tawa (*Beilschmiedia tawa*) revealed ‘a wide potential application in commerce’. To demonstrate the value of these timbers and bring them ‘before the consuming public’, Ellis sought to publish bulletins with the data of the tested species, detailing their values and potential areas of usage to manufacturers, and to a lesser extent the public, in the hopes of ensuring a wider utilisation of timber and thereby reduced waste. As Ellis noted in 1923, a widespread scepticism existed towards timber classified as low-grade: ‘The average New-Zealander usually looks askance at secondary timbers of the Dominion. That prejudice is probably due to lack of knowledge regarding the exact properties of these timbers.’⁶⁶ Entrican shared Ellis’s opinion. Speaking at the Australasian Association for the Advancement of Science conference in Wellington, 1923, Entrican listed ‘the dissemination of the secured information to the public through

⁶⁴ Ross Galbreath, *DSIR: Making Science Work for New Zealand: Themes from the History of the Department of Scientific and Industrial Research, 1926-1992* (Wellington: Victoria University Press in association with the Historical Branch, Department of Internal Affairs), 9.

⁶⁵ On the two schools of forestry, see: Peter McKelvey, ‘Earlier Professional Schools of Forestry in New Zealand,’ *New Zealand Journal of Forestry* 43, no. 4 (February 1999): 30-32; Roche and Dargavel, ‘Imperial Ethos, Dominions Reality,’ 523-543, in particular 532-534.

⁶⁶ *AJHR*, C3, 1923, 16.

correspondence, publications and other channels opened by presenting an overview of forest utilisation' as an essential aspect of forest products research.⁶⁷

In 1924, the SFS published "Utilization of Red-Beech", its first of many publications detailing the value and properties of trees regarded as secondary. 'A better balanced consumption of softwoods and hardwoods', Entrican declared in the introduction, 'is necessary if our forests are to be used to their best advantage.'⁶⁸ Recent statistics, he noted, suggested that New Zealand consumed 'twice as much softwood timber ... but only half as much hardwood timber ... as the forests grow.'⁶⁹ A wider usage of red beech (*Nothofagus fusca*), which he described as 'one of the most valuable hardwoods grown in New Zealand', would thus see a more even consumption of New Zealand's forest resources, reducing the strain on softwood, and furthermore, offering a viable alternative to imported hardwoods.⁷⁰ To demonstrate the versatility of red beech, Entrican, after detailing the botanical aspect and the properties of the timber, listed a range of possible uses.⁷¹ These included flooring, box making, clothes pegs, toys, but perhaps most importantly, railway sleepers, which would allow New Zealand to reduce the need to import hardwood, primarily from Australia.⁷² Subsequent leaflets published by the SFS on the value of less common native trees would all emulate this bulletin in style and tone, especially marketing them as cheaper and better domestic alternatives to imported timber. The leaflet on kawaka (*Libocedrus plumosa*), for example, marketed it as ideal for telegraph poles. According to the SFS, the wood enjoyed 'many unique advantages' to other timbers, and '[would] outlast most of the Australian hardwood poles at present used'.⁷³ Meanwhile, the SFS claimed that pukatea (*Laurelia novae zelandiae*), in addition to its already common usage in boat building, could through 'well-directed propaganda' see a wider usage, for example, as furniture, wharf piles, and boxes.⁷⁴

⁶⁷ A. R. Entrican, 'Forest Products Research in New Zealand, 1921-1922,' 1. ANZ, Wellington, New Zealand State Forest Service – Branch Of Forest Products – Forest Products Research in New Zealand 1922-1922 By A R Entrican – [Paper Presented at Australasian Association For The Advancement Of Science], 1923-1923, R24344097.

⁶⁸ A. R. Entrican, *New Zealand State Forest Service. Branch of Forest Products. Circular No. 9. Utilization of red beech* (Wellington: Government printer, 1924[?]), 1.

⁶⁹ *Ibid.*, 1.

⁷⁰ *Ibid.*, 1.

⁷¹ *Ibid.*, 2-12.

⁷² *Ibid.*, 1. For New Zealand timber trade during this period, see Brett J. Stubbs, 'Forest Conservation and the Reciprocal Timber Trade between New Zealand and New South Wales, 1880s-1920s,' *Environment and History* 14, no. 4 (2008): 497-522.

⁷³ W. C. Ward, *New Zealand State Forest Service. Branch of Forest Products. Leaflet No. 4. The properties and uses of kawaka (New Zealand Cedar) (Libocedrus Bidwillii and L. Doniana)* (Wellington: Government Printer, 1926?), 3f.

⁷⁴ A. R. Entrican, *New Zealand State Forest Service. Branch of Forest Products. Leaflet No. 1. The properties and uses of Pukatea* (Wellington: Government Printer, 1926), 1-4. Quote from 1.

The SFS did not limit its investigations and publications to native timbers. In 1926, it issued a bulletin on the exotic species *Pinus radiata*, commonly known as radiata pine, insignis pine, or Monterey pine; its first such research on an introduced timber tree. The publication demonstrated the wider shift occurring in New Zealand state forestry from sustained yield management of native forests to exotic afforestation.⁷⁵ A year earlier, 1925, Ellis, in light of calculations suggesting the imminent exhaustion of major native softwoods, such as kauri and kahikatea, turned to quick growing exotics, amongst them *Pinus radiata*, to meet the Dominion's growing timber demand.⁷⁶ By 1965, he expected state plantations to be supplying more than half of New Zealand's timber.⁷⁷ Thus, destined to become a dominant timber tree of New Zealand, with the SFS as well as private actors planting *Pinus radiata*, it proved essential to further knowledge of the species and its many uses. While emphasising the need for further research in the introduction, Entrican believed that the publication 'will assist operators to develop both existing and new markets for their timber.'⁷⁸ It featured a range of facts on *Pinus radiata*, including annual production, markets and prices, and timber properties.⁷⁹ Regarding usage and potential application, Entrican highlighted three industries: box-manufacturing, construction, and chemical utilisation.⁸⁰

The first of these, box-manufacturing, he noted, consumed more than half the annual production of *Pinus radiata*.⁸¹ However, poor cutting practices together with 'excessive blue-stain' had resulted in a preference for imported spruce boxes.⁸² Moreover, boxes made of *Pinus radiata* could not be used for transporting butter, a major New Zealand export, since the wood tainted it. Instead, producers used kahikatea, of which supplies were rapidly diminishing, making it imperative to find an alternative, something Ellis had stressed from his arrival.⁸³ Implementing several reforms in the production process to eliminate poor cutting practices, such as 'improved nailing', and by coating the inside the inside of the box with a non-tainting

⁷⁵ Roche, *History of Forestry*, 189-191, and 213-218; Roche, '(Re)Interpreting exotic plantation forestry in 1920s New Zealand,' 163-167.

⁷⁶ *AJHR*, C3, 1925, 7.

⁷⁷ *Ibid.*, 7.

⁷⁸ A. R. Entrican, *New Zealand State Forest Service. Branch of Forest Products. Bulletin No. 5. The properties and uses of insignis pine (pinus radiata)* (Wellington: Government printer, 1926), 4.

⁷⁹ *Ibid.*, 4-16.

⁸⁰ *Ibid.*, 12-16.

⁸¹ *Ibid.*, 12.

⁸² *Ibid.*, 12.

⁸³ *AJHR*, C3A, 1920, 16. In 1925 butter accounted for almost a fifth of New Zealand's export earnings. By 1930, it contributed to a fourth. Frances Steel "'New Zealand is Butterland": Interpreting the Historical Significance of a Daily Spread,' *New Zealand Journal of History* 39, no. 2 (2005): 186.

wood or a layer of shellac, Entrican suggested, addressed these issues, allowing a much wider usage of *Pinus radiata* boxes, including for butter boxes.⁸⁴

In terms of construction usage, Entrican pointed to the versatility of *Pinus radiata*, featuring most notably in house building. In the forest-sparse regions of Canterbury and Otago, houses built out of *Pinus radiata* had produced a ‘satisfactory result’ due to the dry climate of the regions and the local practice of seasoning the timber, thereby giving it better durability.⁸⁵ ‘Application of wood-preserved’, Entrican prophesied, would allow for the use of the timber for house construction in the more humid regions of New Zealand as well.⁸⁶

Whilst minor improvements like better storage of the timber and the use of wood preservatives would see a wider usage of *Pinus radiata* in box construction and house building respectively, it offered little compared to the chemical possibilities of the timber. ‘The chemical utilization of insignis pine’, Entrican claimed, ‘presents a promising field of research, and offers a practical solution to the problem of disposing of slabs and other material at present wasted, and of plantation thinnings.’⁸⁷ Of the potential areas of chemical utilisation, Entrican was particularly interested in the possibility of making pulp and paper. His mentor, Ellis, also held hopes of establishing a pulp and paper industry in New Zealand to utilise waste, recommending it in 1920.⁸⁸ Michael Roche suggests that Ellis’s early ideas of a pulp and paper industry stemmed from ‘his buoyant optimism’ and previous work in Canada in the industry.⁸⁹ Nonetheless, his hopes would be reignited by a visit from William Adamson, a technical director at a British pulp and paper company, who convinced Ellis and Entrican about the possibilities of an industry in New Zealand based on primarily exotic species for pulp and paper.⁹⁰ While early investigations concluded kahikatea and rimu were the most suitable species, tests throughout the 1920s suggested that paper made of *Pinus radiata* produced promising results.⁹¹ However, despite the favourable data, a radiata-based pulp and paper industry would not be developed in New Zealand until the 1950s.⁹²

Preventing a timber famine, and ensuring a fuller utilisation of New Zealand’s forest resources, whether native or exotic, required not only finding new markets and areas of usage,

⁸⁴ Entrican, *New Zealand State Forest Service. Branch of Forest Products. Bulletin No. 5*, 12.

⁸⁵ *Ibid.*, 13.

⁸⁶ *Ibid.*, 13.

⁸⁷ *Ibid.*, 13.

⁸⁸ *AJHR*, C3A, 1920, 15.

⁸⁹ Roche, *History of Forestry*, 288.

⁹⁰ *Ibid.*, 290f.

⁹¹ *Ibid.*, 285-290.

⁹² Astrid Baker, ‘Government, Firms, and National Wealth: A New Pulp and Paper Industry in Postwar New Zealand,’ *Enterprise & Society* 5, no. 4 (2004): 669-690; Roche, *History of Forestry*, 290-314.

but also, as demonstrated in the case of *Pinus radiata*, the development of methods to improve the timber's durability, most notably through seasoning, also known as conditioning. In 1877, Walker lamented the widespread usage of unseasoned timber. He bemoaned seeing 'warping, contraction, and rapid deterioration' in timber everywhere, from houses to wharves. In addition to contributing to waste, with the products not lasting long enough, it '[gave] the timbers of New Zealand a bad name'.⁹³ Decades later, Ellis, in 1920, believed that developing seasoning methods occupied a central role in eliminating waste in New Zealand, and as such, wanted the SFS to conduct investigations into various methods of seasoning.⁹⁴

In late 1921, a golden opportunity to further seasoning research and practices in New Zealand presented itself in the form of dry-kilning expert Harry D. Tiemann of the USFS.⁹⁵ While undertaking a tour of Australia, the SFS seized upon the chance to invite him to New Zealand and to extend his tour before returning home.⁹⁶ During Ellis's directorship, the SFS regularly invited foreign experts to conduct surveys and investigations into various forestry matters.⁹⁷ Although Tiemann agreed to come to New Zealand, the government refused to approve the visit due to the associated costs.⁹⁸ This refusal occurred despite Ellis's endorsement of Tiemann as 'the world's authority on the conditioning of wood and its conversion'.⁹⁹ Ellis also claimed that the visit would save 'thousands of pounds' in return, since New Zealand lost 'hundreds of thousands of tons of wood, and millions of feet of timber' due to a '[l]ack of technique and knowledge in the efficient manufacture and conversion of our sawn timber, waste products, and weed trees'.¹⁰⁰ With the Commissioner of Forests, Sir Francis Henry Dillion Bell, refusing to approve the necessary funding, the SFS approached the Dominion Federated Sawmillers' Association (DFSA) for financial assistance, claiming that the visit 'would be of

⁹³ *AJHR*, C3, 1877, 46.

⁹⁴ *AJHR*, C3A, 1920, 15.

⁹⁵ For an overview of Tiemann's research, see: Nelson, *History of the U.S. Forest Products Laboratory (1910-1963)*, 17f, 72 and 77.

⁹⁶ Engineer in Forest Products, for the Director, to H. D. Tieman [sic], 6 December, 1921. ANZ, Wellington, Kiln Drying Survey in New Zealand, R17278590.

⁹⁷ In 1926, for example, the SFS employed the Swedish lichenologist G. Einar Du Rietz to examine lichens during his stint in New Zealand, for Du Rietz time in New Zealand, see Anton Sveding, 'Providing guideline principles. Botany and ecology within the State Forest Service of New Zealand during the 1920s,' *International Review of Environmental History* 5, no. 1 (2019): 113-128.

⁹⁸ H. D. Tiemann to A. Entrican, 15 December 1921. ANZ, Wellington, Kiln Drying Survey in New Zealand, R17278590; Engineer in Forest Products, for the Director, to H. D. Tiemann, 18 January 1922. ANZ, Wellington, Kiln Drying Survey in New Zealand, R17278590.

⁹⁹ L. MacIntosh Ellis to Minister for Forestry, 23 December 1921, 2. ANZ, Wellington, Kiln Drying Survey in New Zealand, R17278590.

¹⁰⁰ *Ibid.*, 1.

undoubted benefit to the industry.’¹⁰¹ Equally as eager to have Tiemann visit, the DFSA agreed to pay half of the sum needed.¹⁰² Following the DFSA’s contribution, Bell found the endeavour much more financially agreeable and in early May, 1922, Tiemann arrived in New Zealand.¹⁰³

During his brief stay, Tiemann gave lectures on dry-kilning and reviewed numerous kiln-sites, offering advice regarding their design and operations.¹⁰⁴ Seeking to have as many as possible come to hear Tiemann, the SFS, with the help of the NZFL, invited sawmillers and others working in other timber-related fields to attend.¹⁰⁵ Tiemann’s lectures also attracted the attention of the press.¹⁰⁶ Even after departing, Tiemann continued to assist the SFS by submitting a report detailing his observations on the state of seasoning in the Dominion. However, much to the disappointment of the DFSA, which expected to receive the report too, the SFS only had it mimeographed and sent to a handful of operators, deeming widespread publication and distribution too expensive.¹⁰⁷ Instead, the SFS published a circular based on Tiemann’s lectures edited by Entrican, who stressed the importance of seasoning as consumption of timber increased: ‘The forestry situation in most parts of the civilized world is at present characterized by an ever-increasing consumption of wood products and a still greater depletion of timber supplies.’¹⁰⁸ ‘Unless a timber can be properly seasoned’, Entrican warned, ‘it will prove of little commercial value. The seasoning of wood is therefore a problem of fundamental importance in the more efficient utilization of the forest.’¹⁰⁹

In addition to reducing waste, Entrican noted that seasoning offered other significant advantages, for example better resistance against insects and fungi, increased strength of the

¹⁰¹ Engineer in Forest Products, for the Director, to A. Seed, Secretary, Dominion Federated Sawmillers’ Association, 17 January, 1922. ANZ, Wellington, Kiln Drying Survey in New Zealand, R17278590; Arthur Seed to Director, 18 January, 1922. ANZ, Wellington, Kiln Drying Survey in New Zealand, R17278590.

¹⁰² Arthur Seed to Director, 18 January, 1922. ANZ, Wellington, Kiln Drying Survey in New Zealand, R17278590.

¹⁰³ A. E. Entrican for the Director to A. Seed, 19 January 1922. ANZ, Wellington, Kiln Drying Survey in New Zealand, R17278590.

¹⁰⁴ *AJHR*, C3, 1922, 16.

¹⁰⁵ See, for example, A. E. Entrican for the Director, to C. E. Otley, Timber Merchant, 29 April 1922; A. E. Entrican for the Director, to G. W. Skellerup, Secretary, Canterbury Forestry League, 3 May 1922; Engineer [most likely Entrican] for the Director, to H. St. A. Murray, Secretary, Christchurch Branch, New Zealand Institute of Architects, 3 May 1922, Engineer [most likely Entrican] for the Director, to D. Reece, Timber Merchant, 3 May 1922. ANZ, Wellington, Kiln Drying Survey in New Zealand, R17278590.

¹⁰⁶ See, for example, ‘Timber problems,’ EP, 8 May 1922, 8; ‘Timber Expert,’ *Press*, 12 May 1922, 8; ‘Timber conservation,’ NZH, 24 May 1922, 8.

¹⁰⁷ Arthur Seed to Director, 26 April 1923. ANZ, Wellington, Kiln Drying Survey in New Zealand, R17278590; Engineer for the Director to A. Seed, 27 April 1923. ANZ, Wellington, Kiln Drying Survey in New Zealand, R17278590.

¹⁰⁸ A. R. Entrican, *New Zealand State Forest Service. Branch of Forest Products. In co-operation with the School of Engineering, Auckland University College. The kiln-drying of New Zealand timbers and their better utilization. Circular No. 11* (Wellington: Government printer, 1924), 1.

¹⁰⁹ *Ibid.*, 1.

timber, and lowered freight charges since it reduced the weight of timber by lowering its water content.¹¹⁰ To season timber, Entrican detailed two methods: air seasoning and kiln-drying. The former and more common method consisted of letting the timber dry in a yard under a roof. Thus, its efficiency primarily depended on the weather. While offering some recommendations on how to improve the practice, Entrican still described it as ‘wasteful, unreliable, and hazardous’ since it exposed timber to the elements, insects, and fungi.¹¹¹ The latter method involved putting the timber inside a dry-kiln, of which many designs and classes existed, and allowed the operator to control the circulation of air, humidity, and temperature in the room the timber was stored in.¹¹² Of these factors, Entrican favoured circulation as the most important one, employing the following: ‘The housewife knows that, other things being equal, a windy day is the best for drying clothes.’¹¹³ Yet, kiln-drying, too, had its problems. First, it required significant knowledge of the apparatus as well as of various timber since the wrong settings inside the kiln risked causing serious damage to the timber. Second, because each timber required its own settings, and little data existed on native timber, the dry-kilning of native timber remained in the experimental phase. Nonetheless, despite these challenges, Entrican heavily favoured kiln-drying over air seasoning, providing extensive information to promote the practice, including building and operating instructions and costs.¹¹⁴

According to the SFS in the early 1920s, educating the timber industry about the benefits of seasoning proved imperative to avert a timber famine and ensure a fuller utilisation of New Zealand’s timber resources. In 1923, Ellis reported a growing tendency amongst manufacturers to import timber from North America and northern Europe rather than using domestic alternatives due to the poorer quality of the latter.¹¹⁵ While he, as Roche notes, cherished foreign competition, believing that it would reduce waste by promoting better manufacturing and utilisation, Ellis still recognised the disadvantageous position of New Zealand timber producers.¹¹⁶ Contrary to popular belief, that imported timber outrivalled domestic timber due to ‘the employment of sweated and Asiatic labour’, Ellis instead attributed it to the ability of foreign operators to utilize ‘timbers from every species in the forest’ through efficient seasoning.¹¹⁷ This, he argued, ‘the New Zealand sawmiller is frequently unable to do’.¹¹⁸

¹¹⁰ Entrican, *New Zealand State Forest Service. Branch of Forest Products. Circular No. 11*, 1-3.

¹¹¹ *Ibid.*, 6f. Quote from 7.

¹¹² *Ibid.*, 7-16.

¹¹³ *Ibid.*, 7.

¹¹⁴ *Ibid.*, 7-16.

¹¹⁵ *AJHR*, C3, 1923, 21.

¹¹⁶ Roche, *History of Forestry*, 247f.

¹¹⁷ *AJHR*, C3, 1923, 21.

¹¹⁸ *Ibid.*

Rather, he found that domestic producers aimed ‘to stimulate the use of lower grades by price-reductions.’¹¹⁹ Though ‘very commendable’, Ellis regarded the measure as futile since low grade timber ‘require[d] the most careful manufacture and seasoning’.¹²⁰ To Ellis, the only way for New Zealand timber to become competitive was improved seasoning. ‘Unless this is recognised,’ he warned ‘the effort is doomed to failure.’¹²¹

As such, the SFS continuously and vigorously promoted seasoning throughout the 1920s, to combat what Ellis perceived as ‘an inertia’ to applied science within the timber industry.¹²² In 1926, two years after the first publication on seasoning, the SFS issued another circular by Entrican on the topic. ‘With the ever-increasing scarcity of seasoned wood’, he warned, ‘greater attention should be directed towards the improvement of drying practices.’¹²³ As Ellis had noted three years earlier, he too observed a ‘growing tendency to look abroad for supplies of seasoned timber’; a tendency he believed could be countered by domestic manufacturers providing ‘the community an efficient drying service.’¹²⁴ As in the previous circular, Entrican stressed the stark contrast in quality between air-seasoning and kiln-drying.¹²⁵ Yet, despite the superiority of the latter method, he recorded ‘[a]n unreasoned prejudice’ against kiln-drying, which he attributed to ‘isolated attempts to dry wood by the use of dry air and high temperatures’, damaging the timber.¹²⁶ To eliminate the prejudice, he set out to thoroughly explain dry-kilning, its various methods, the financial advantages, drying schedules for different timber, and assured readers that the SFS would assist with advice upon application.¹²⁷

The offering of advice and the educative propaganda had a desirable effect. In 1928, the SFS recorded huge improvements in air-seasoning across New Zealand as a result of its ‘propaganda’.¹²⁸ In terms of dry-kilning, the SFS recorded an increasing interest in the practice, with a merchant in the South Island set to establish ‘the first modern scientifically-controlled kiln’ in the Dominion, and others expressing a hope to follow. Nevertheless, the SFS still found cause for concern, observing unsanitary conditions at timber yards, making the timber susceptible to damage as it was being air-seasoned. Commenting on the situation in 1930, Phillips Turner wrote:

¹¹⁹ *AJHR*, C3, 1923, 21.

¹²⁰ *Ibid.*

¹²¹ *Ibid.*

¹²² *AJHR*, C3, 1925, 9.

¹²³ A. R. Entrican, *New Zealand State Forest Service. Branch of Forest Products. Circular No. 21. The air-seasoning and kiln-drying of timber* (Wellington: Government printer, 1926), 20.

¹²⁴ *Ibid.*, 20.

¹²⁵ *Ibid.*, 4f.

¹²⁶ *Ibid.*, 7.

¹²⁷ *Ibid.*, 1-20.

¹²⁸ *AJHR*, C3, 1928, 20.

Viewed from the practical standpoint, the consumer can purchase well-seasoned imported timber, whereas the local product, even when so-called “dry,” ... carries no guarantee that it is properly air-seasoned, but may further dry out and shrink after delivery. Obviously, the responsibility for the condition of his timber does not concern the consumer. His one consideration is that it be delivered for use in a satisfactory condition, and the ultimate responsibility for ensuring this must logically rest with the producer.¹²⁹

To Phillips Turner, propaganda could only improve seasoning to a certain extent. As long as the consumer proved happy to purchase poorly seasoned domestic timber at their own expense, and turn to imported timber if necessary, the timber industry had little reason to change its ways in seasoning timber, making it an uphill battle for the SFS to implement reform.

However, seasoning and finding new uses for largely overlooked timber trees, constituted but two areas of the Branch of Forest Products. In 1926, Ellis reported that the SFS conducted ‘over thirty major investigations’, which, in addition to seasoning and timber utilisation, included strength and stress tests, grading, and paper making, to mention but a few.¹³⁰ By the end of the decade, the employment of applied science to solve the matters of waste and utilisation had become a cornerstone in New Zealand forestry, and with some success. In 1929, Phillips Turner noted, for example, that ‘many brewers’ used tawa for their barrels, a usage the SFS and the DFSA, had promoted eight years earlier at the Tariff Exhibition in Wellington.¹³¹

House building and waste elimination,

From the middle of the 1910s, housing demand was soaring as people flocked to cities at an ever-increasing rate. Meanwhile, urban dwellers struggled to meet rising living costs, leading to over-crowded houses.¹³² The question of housing soon became a national issue, one subject to conferences, committees, and the press as various professionals, including foresters, eagerly voiced their opinion on the matter.¹³³ According to imperial forester Sir David Ernest Hutchins, the high timber prices, adding to high building costs, stemmed from ruthless deforestation and poor forest management.¹³⁴ Ellis, in turn, attributed the shortage to a number of issues. In 1920,

¹²⁹ *AJHR*, C3, 1930, 17.

¹³⁰ *AJHR*, C3, 1926, 24.

¹³¹ *AJHR*, C3, 1929, 19.

¹³² Gael Ferguson, *Building the New Zealand Dream* (Palmerston North: Dunmore Press with the assistance of the Historical Branch, Dept. of Internal Affairs, 1994), 71.

¹³³ For an overview of New Zealand during the first decades of the twentieth century, see Ferguson, *Building the New Zealand Dream*, 59-115.

¹³⁴ ‘Wealth going to waste,’ *Dominion*, 8 June 1920, 4.

in his policy proposal, he echoed Hutchins's conclusion, blaming reckless forest management.¹³⁵ Two years later, as the timber industry went into a recession, he blamed the costs of labour and other material than timber.¹³⁶ He also attributed the favouring of imported timber within the building industry, most notably Douglas fir, over native species to the poor quality of the latter in terms of seasoning as a cause of waste.¹³⁷ 'No architect or engineer', Ellis claimed in 1923, 'will allow lower grades than are at present specified to be included in building codes unless protection is given the wood by thorough seasoning and by rigorous cleaning up of timber-yards'.¹³⁸ While inefficient timber practices in New Zealand led builders to import timber, present building codes prevented a fuller utilisation of the Dominion's timber resources. To address the issues of housing and waste utilisation, the SFS hosted a national building conference in June 1924 'to consider ways and means whereby waste of timber in the building industry may be eliminated'.¹³⁹

To get as many perspectives as possible on construction and timber production, the SFS invited engineers, architects, sawmillers, and others to attend.¹⁴⁰ As Ellis pointed out in the invitations issued to various town boards not necessarily acquainted with timber and forestry, the matter was one 'affecting the public welfare'.¹⁴¹ The initiative, in addition to meeting with support from the invited, received praise from the press. The *Evening Post*, for example, noted that current bylaws stemmed from days past 'when timber was so cheap that there was no need to worry about economies in its use' and prohibited the use of lower grade timber, 'which could otherwise be used with advantage without impairing the soundness of the structure' and thereby help reduce building costs.¹⁴²

Opening the conference, former Commissioner of Forests, Bell, acting as a stand in for the sick Sir Heaton Rhodes, impressed upon the attendees the importance of conservation and timber utilisation in a time of dwindling timber supplies across the world.¹⁴³ Although organised

¹³⁵ *AJHR*, C3A, 1920, 4.

¹³⁶ *AJHR*, C3, 1922, 16.

¹³⁷ *AJHR*, C3, 1921, 10; *AJHR*, C3, 1922, 16; *AJHR*, C3, 1923, 21.

¹³⁸ *AJHR*, C3, 1923, 21.

¹³⁹ *AJHR*, C3, 1924, 13.

¹⁴⁰ For a list of invitees, see, 'Send Circular Letter, 24 May 1924,' ANZ, Wellington, Building Conference, R17278856.

¹⁴¹ L. MacIntosh Ellis to City Engineer, Auckland City Council, 23 January 1924, 2. Also sent to Blenheim, Christchurch, Dunedin, Gisborne, Hamilton, Hastings, Hokitika, Invercargill, Napier, Nelson, New Plymouth, Palmerston N., Timaru, Wanganui, Wellington, and Whangarei. ANZ, Wellington, Building Conference, R17278856.

¹⁴² 'Timber and building,' EP, 2 February 1924, 6.

¹⁴³ 'New Zealand State Forest Service. Branch of Forest Products. Proceedings and Papers Presented at Building Conference. 1924,' A1-A4. ANZ, Wellington, New Zealand State Forest Service. Branch of Forest Products. Proceedings and Papers Presented at Building Conference, R20065352.

by the SFS, William Meek Page, President of the New Zealand Institute of Architects, served as chairman of the conference. While neither a forester nor associated with the timber industry, Page shared Bell's view on the national importance of conservation as a result of decades of deforestation and its impact on the building industry: 'The high rise in the price of timber during the last twenty years is but a reflection of the rapid forest-depletion that has been taking place and it is only by the close co-operation of all concerned that economy and conservation can be effected.'¹⁴⁴ To Page, the building industry could play a huge role in ensuring better timber consumption. 'Of the 300,000,000 superficial feet of timber used in the country every year,' he noted, 'two-thirds of the total, are consumed by the building and constructional industry. The opportunities for effecting economies in the utilization of timber are therefore greater than in any other industry.'¹⁴⁵ Like Hutchins and Ellis, Page recognised that intense deforestation had affected building costs, and that old building regulations prevented a fuller and better utilisation. However, in a hopeful manner, Page expressed optimism that the conference would result in a standardisation of building laws, better use of overlooked timber, improved seasoning practices, better use of wood preservation, and improved fire preventive measures.¹⁴⁶ Improvements in these areas, all of them subjects of the conference, would provide 'well-designed houses ... within the reach of all classes of workers', and thereby add 'to the general welfare of the people and the prosperity of the country.'¹⁴⁷

As preparation for the conference, and to facilitate discussion, the SFS distributed a circular by Entrican and F. A. Duncan, the latter an engineer at the Branch of Forest Products. The circular outlined building recommendations that ranged from suitable timbers for flooring to fire safety for the delegates to consider.¹⁴⁸ 'With a balanced consumption of all grades and species of timber,' the two noted optimistically:

the forests will be conserved, the sawmiller will win greater profits, and the consumer receive cheaper and better timber; with the use of seasoned wood free from decay, and the application of modern building construction sizes of timber may be reduced; and with

¹⁴⁴ SFS, *New Zealand State Forest Service. Branch of Forest Products. Circular No. 14. Recommendations of Building Conference Relating to the Use of Timber in Building-construction* (Wellington: Government printer), 9.

¹⁴⁵ *Ibid.*, 9.

¹⁴⁶ *Ibid.*, 8-11.

¹⁴⁷ *Ibid.*, 10-11.

¹⁴⁸ A. R. Entrican and F. A. Duncan, *The use of timber in building-construction* (Wellington: State Forest Service, 1924). ANZ, Wellington, New Zealand State Forest Service. Branch of Forest Products. The use of timber in building construction. R20065334.

the life of the structure materially improved, the financing of homes will be placed upon a better basis.¹⁴⁹

As evidence of the urgent need to eliminate waste and utilise the forest better, Entrican and Duncan pointed to the markedly increased cost of 100 superficial feet of timber, from an average of 8s 7d in 1905 to 21s 8d in 1921, a rise well above the rate of inflation. 'It will', the authors warned, 'go much higher in the immediate future unless greater economy in the utilisation of the forests is effected.'¹⁵⁰

To review the SFS's recommendations, the delegates were divided into three committees. Committee A would focus on timber species and grades. Committee B would discuss seasoning and other measures to stop decay. Committee C, the only one without a delegate from the SFS, would examine various aspects related to construction, like fire prevention.¹⁵¹ Whereas some of the recommendations met little opposition, others caused lengthy debates. One such issue concerned whether black beech (*Nothofagus solandri*) and mangeao (*Litsea calicaris*) be included in a resolution of recommended timber for foundation blocks.¹⁵² While Entrican informed the conference that the SFS would not go against the resolution, if the species were included, it would advise against it if appearing before the government since it deemed both 'unsuitable' for such a purpose.¹⁵³ Prominent sawmiller J. Butler contested this statement, finding mangeao entirely fit for such usage since it featured in several houses in the upper part of the North Island, and as such ought to be included.¹⁵⁴ Even though Entrican managed to convince a few delegates, a majority voted in favour of including mangeao in the resolution.¹⁵⁵

Another issue that sparked significant debate was seasoning. 'All timber used for wooden framed construction', Entrican and Duncan suggested in the circular, 'shall be thoroughly seasoned to a moisture content of not more than 15 per cent based on the oven-dry weight of the wood.'¹⁵⁶ Committee B deemed the recommendation 'impossible', not least due to a lack

¹⁴⁹ Entrican and F. A. Duncan, *The use of timber in building-construction*, 1f.

¹⁵⁰ *Ibid.*, 5.

¹⁵¹ 'New Zealand State Forest Service. Branch of Forest Products. Proceedings and Papers Presented at Building Conference. 1924,' C2. ANZ, Wellington, New Zealand State Forest Service. Branch of Forest Products. Proceedings and Papers Presented at Building Conference. R20065352.

¹⁵² *Ibid.*, C5-E5.

¹⁵³ *Ibid.*, E2f.

¹⁵⁴ *Ibid.*, E4.

¹⁵⁵ *Ibid.*, E5.

¹⁵⁶ Entrican and Duncan, *The use of timber in building-construction*, 16. ANZ, Wellington, New Zealand State Forest Service. Branch of Forest Products. The use of timber in building construction. R20065334.

of ‘information ... regarding a satisfactory system of kiln-drying’ for native timbers.¹⁵⁷ Entrican, in response, emphasised that the purpose of the resolution was not to see ‘kiln-drying being applied to the whole of the timber used for houses’, but rather to prevent the usage of unseasoned timber in house construction.¹⁵⁸ Moreover, the initial recommendation did not even specify kiln-drying. ‘Now, it is not our [the SFS’s] concern who does that seasoning’, he continued, ‘except that we say it is not the consumer’s job to do the seasoning. It is either the sawmiller’s job or the timber merchant’s job.’¹⁵⁹ Lastly, he emphasised that the SFS did not aim to see it made mandatory through government regulations, but merely to see improved utilisation of timber. Therefore, he remained prepared to drop the idea of a certain percentage as long it was ‘thoroughly seasoned’, which he defined as ‘in conformity with the humidity of the air’.¹⁶⁰ Indeed, what primarily mattered was that the timber was seasoned, as Entrican pointed out by reminding the delegates of Page’s opening address, that the aim of the conference was ‘the housing of the people’:

Unless you can ensure that the timber put into a house is properly seasoned beforehand you will not get any effective reduction in the cost of house building. A man may put half his life-savings into the purchase price of a house, but if it is built of green timber he will not get his 50 years use of it.¹⁶¹

While W. J. Butler, who, like his brother, operated in the timber industry, did not question the value of seasoning, he nonetheless questioned that sawmillers should season the timber, an opinion echoed by other sawmillers as well.¹⁶² City and borough delegates, in turn, largely regarded the need for seasoning timber for framing as unnecessary. T. Bloodworth from Auckland, who styled himself ‘as a practical carpenter’, for example, claimed that he would ‘prefer to have timber unseasoned, direct from the bush rather than kiln-dried timber’ since the framing would enjoy ‘a considerable amount of seasoning before it is covered up.’¹⁶³ Meanwhile, J. Barras of the Building Trades Federation wanted timber to dry for an entire year, pointing to the practice in Europe. ‘European timbers’, he noted, ‘are stacked for two years

¹⁵⁷ ‘New Zealand State Forest Service. Branch of Forest Products. Proceedings and Papers Presented at Building Conference. 1924,’ S2. ANZ, Wellington, New Zealand State Forest Service. Branch of Forest Products. Proceedings and Papers Presented at Building Conference. 1924. R20065352.

¹⁵⁸ Ibid., S2.

¹⁵⁹ Ibid., S2f.

¹⁶⁰ Ibid., S4 and U1.

¹⁶¹ Ibid., S3.

¹⁶² Ibid., S5 and T1.

¹⁶³ Ibid., S6. For other city and borough delegates, see: S7f.

before being used. Here it is used straight from the bush. That is why our buildings are not lasting as they should.’ The difference in drying time was due to New Zealand timber being evergreen, while European timber was not.¹⁶⁴ Regarding who should season the timber, it appeared to him incomprehensible as why this responsibility did not lie with the sawmiller, ‘having cheap land and plenty of room.’¹⁶⁵ J. Butler disagreed, deeming such responsibility impossible, not least for operators along the coast where ‘timber would rot sooner than it would season’, a fact he knew all too well, operating in the rain prone Westland.¹⁶⁶ The delegates eventually agreed on the value of seasoning, but did not settle on who ought to do it. On the one hand it proved a victory to the SFS, with the conference accepting seasoning, and on the other hand, with no actor seeing it as their responsibility, much work remained.

Overall, Ellis regarded the conference as a huge success, reporting in 1925: ‘The Conference brought to the attention of the public as never before the necessity of eliminating waste in the utilization of timber.’¹⁶⁷ The press had covered the conference extensively, detailing speeches and discussions on the various matters.¹⁶⁸ Moreover, the resolutions, Ellis confidently proclaimed, ‘will have far-reaching effects in preventing waste in the building industry.’¹⁶⁹ To ensure that builders, engineers, and architects, as well as others in the field of construction could take part of the recommendations, the SFS published a circular of the agreed upon resolutions, delivered speeches, additional comments by the SFS, and responses from various Ministers on questions related to construction and town planning.¹⁷⁰

In 1927, Ellis noted with satisfaction the better utilisation of timber in the building industry, both in terms of seasoning and in the use of less common, but equally useful, species.¹⁷¹ This development, he concluded, stemmed from two factors. First, a slump in demand that resulted in mills ‘carrying stocks previously unthought-of, and, with ample supplies of seasoned timber to draw upon’, which, in turn, led to customers ‘accepting sap grades which would otherwise be unacceptable.’¹⁷² Second, an ‘enormous increase in the

¹⁶⁴ ‘New Zealand State Forest Service. Branch of Forest Products. Proceedings and Papers Presented at Building Conference. 1924,’ T2. ANZ, Wellington, New Zealand State Forest Service. Branch of Forest Products. Proceedings and Papers Presented at Building Conference. 1924. R20065352.

¹⁶⁵ *Ibid.*, U1.

¹⁶⁶ *Ibid.*, U1.

¹⁶⁷ *AJHR*, C3, 1925, 22.

¹⁶⁸ ‘Use of timber,’ EP, 18 June 1924, 8; ‘Timber conservation,’ AS, 19 June 1924, 4; ‘Building timbers,’ EP, 20 June 1924, 10; ‘Builders’ conference,’ *Press*, 21 June 1924, 15; ‘Use of timber in building construction,’ EP, 21 June 1924, 11.

¹⁶⁹ *AJHR*, C3, 1925, 22.

¹⁷⁰ SFS, *New Zealand State Forest Service. Branch of Forest Products. Circular No. 14.*

¹⁷¹ *AJHR*, C3, 1927, 31.

¹⁷² *Ibid.*

number of ferro-concrete buildings' allowed for a wider usage of ordinary building timber and even 'inferior timber', especially in comparison to wooden buildings, which, due to by-laws, were required to be of 'heart-wood.'¹⁷³ While described 'as a detriment to the timber trade', Ellis considered concrete buildings an improvement in terms of timber utilisation and waste elimination as they used timber otherwise disregarded.¹⁷⁴ Economic trends and new construction methods, not conference recommendations, led to a wider use of seasoned timber and lesser regarded species.

In addition, the conference had failed in its efforts to promote better use of native species. In the late 1920s, New Zealand continued to import timber for building purposes at the expense of the domestic timber industry.¹⁷⁵ However, more than just a cheaper alternative, New Zealanders seemed to have a taste for overseas timber products. In 1930, Phillips Turner noted 'a new fashion in flooring', namely '[s]uper-machined, kiln-dried, and secret-nailed oak, maple, birch, and beech floor-strips', a trend he deemed superfluous, remarking that New Zealand already possessed tawa and beech, 'two woods of excellent value as hardwood flooring.'¹⁷⁶ Turning to native timbers, instead of imported alternatives, he noted 'will assist to offset the fall in demand resulting from decreased building activities in the future.'¹⁷⁷ Despite the threat imported timber posed, Phillips Turner remained optimistic, claiming that 'the consumer' proved 'prepared to pay a little more for the local article than for an imported timber' as long as it met his requirements.¹⁷⁸ Thus, it remained a question of forest conscious consumption.

Conclusion

In the first decades of British colonisation, settlers perceived the forest as endless, and as such, much to the dismay of early conservationists and foresters, only logged the very best timber trees, leaving remaining trees to perish in flames. This behaviour continued into the twentieth century, with recently appointed Director of Forestry Leon MacIntosh Ellis, in 1922, estimating that solely a fragment of the timber logged reached the consumer. As such, avoiding a timber famine by creating a forest conscious public required not merely raising public support for scientific forestry, nor encouraging private tree-planting by farmers and school children, but also promoting a wise use of existing resources.

¹⁷³ *AJHR*, C3, 1927, 31.

¹⁷⁴ *Ibid.*

¹⁷⁵ *Ibid.*

¹⁷⁶ *AJHR*, C3, 1930, 21.

¹⁷⁷ *Ibid.*

¹⁷⁸ *Ibid.*

Although the NZFL and the SFS expressed concern over wasteful usage, the former primarily dedicated its efforts to afforestation, conservation, and preservation, and as such, waste elimination fell almost exclusively to the SFS. In seeking to eliminate waste, the SFS focused on two areas in particular: public consumption and industrial practices. According to the SFS, the public, in its role as a consumer, played a significant role in contributing to waste by choosing only the finest timber and not the best timber for the intended purpose, thereby forcing sawmillers and timber merchants to log trees of the highest value while leaving perfectly fine and suitable timber to rot. To encourage more forest conscious consumption the SFS aimed to implement a waste exchange programme that would see the SFS coordinate the demands of consumers with the supply of timber merchants and sawmills. The scheme, for whatever reason, was never realised. Instead, the SFS came to dedicate full attention to eliminate waste amongst timber merchants.

Since the late nineteenth century an array of new uses for wood and means to improve it emerged with the rise of applied science, reducing waste through further utilisation. Full of technological optimism, Ellis believed these strides essential in preventing a timber famine and successfully argued for the creation of a forest products laboratory in his policy proposal in 1920. The formation of the Branch of Forest Products reflected broader state involvement in applied science. Together with Auckland University College the Branch of Forest Products conducted a series of investigations into exotic and native timber species. The results of the tests were then published as bulletins available to sawmillers and timber merchants that detailed the timber species' properties and its potential areas of usage. By making the data easily accessible, Ellis and the SFS sought to eradicate what it perceived as prejudices towards lesser used species.

In addition to promoting a wider utilisation of timber trees, the SFS also published pamphlets on seasoning, seeking to demonstrate the superiority of artificial seasoning, also known as kiln-drying, to the common method of air-seasoning. To the SFS, the latter method held several disadvantages that risked damaging the timber, and thereby contributing to waste. This included the impossibility of reducing moisture below a certain level and the exposure of timber to elements, insects, and fungi, especially if stored improperly. An interest in artificial seasoning proved apparent, with a number of sawmillers and timber merchants attending the lectures of the American kiln-drying expert Harry D. Tiemann during his tour of New Zealand in 1922. The distribution of propaganda certainly proved effective. By the end of the 1920s, the SFS recorded a great interest in artificial seasoning amongst timber merchants and sawmillers, and it also noted improvements in air-seasoning practices as a result of its propaganda. Yet, at

the same time it also observed that large parts of the public still purchased green and unseasoned timber. Clearly, much work remained.

An excellent case study of how the SFS sought to promote a fuller utilisation of timber resources through the use of less common species and through techniques such as seasoning is the Building Conference on housing, organised by the SFS in 1924. To foresters, a timber famine equalled disaster for the construction industry as timber prices would skyrocket. With a housing shortage already plaguing New Zealand, which Ellis attributed to a number of factors, the SFS invited timber merchants, sawmillers, architects, and builders to discuss means to improve the utilisation of timber in house construction to eliminate waste. While attendants unanimously concurred with the aim of the conference, opinions diverged on how best to reduce waste, not least regarding seasoning with the SFS pushing for a more prominent use of seasoned timber whereas others expressed major doubt on the need for seasoning at all. Although the conference did not result in any changes regarding building by-laws, a wider use of largely neglected timber species and of seasoned timber did follow, much to the enjoyment of the SFS, which had published a pamphlet detailing the recommendations of the conference.

As this chapter shows, preventing a timber famine by instilling a public forest consciousness was not just a question of encouraging the public, in particular farmers and children, to plant trees, but to promote a wise use of New Zealand's rapidly depleting forest resources by finding new uses for overlooked species and adopting new technologies.

Chapter Five

Protection forests and forest protection, 1916-1932

With the destruction of the forest river-floods become more severe, and there is waste of good land near the river-beds. With the destruction of the forest erosion tends to tear the soil from the mountain-side and send it out to sea.¹

David Ernest Hutchins, 1916

The primary focus of foresters and forestry advocates in New Zealand at the beginning of the twentieth century was the prevention of a timber famine. Thus, efforts to create a forest conscious public largely focused on educating the public about forestry and promoting tree-planting. However, the large-scale deforestation of New Zealand sparked not only fears of a timber shortage, but an anxiety that the denuded and cleared hills would cause floods and soil erosion. As such, forest consciousness also came to include an understanding of the utilitarian value of forests, such as their protection against floods and prevention of erosion, and the need to protect them from destruction, be it by axe, saw, or fire. Efforts to protect forests soon expanded to include their native bird inhabitants as well, which by the 1920s were becoming increasingly rare. This chapter examines the efforts by the New Zealand Forestry League (NZFL) and the New Zealand State Forest Service (SFS), to foster a wider knowledge and enjoyment of forests, and nature in general, demonstrating that public forest consciousness incorporated more than just the planting of exotic timber trees.

This chapter starts by looking at the utilitarian value of forests emphasised by the NZFL and the SFS, focusing on the concerns of erosion and flooding, and the necessity of establishing protection forests. Next, the chapter examines measures to protect indigenous forests and exotic timber plantations from fire, which was perceived as the greatest threat to forests. Educating the public on the dangers of fire encompassed a major aspect of creating a public forest consciousness. Lastly, the chapter explores the relationship between forest protection and native bird preservation, highlighting the collaboration between the Native Bird Protection Society (NBPS) and the NZFL and the SFS respectively.

¹ D. E. Hutchins, 'Scientific National Forestry for New Zealand,' NZJA 13, no. 4 (1916): 296.

Guarding against erosion and floods

‘The people of New Zealand’, *New Zealand Life*, the official organ of the NZFL, remarked in 1925, ‘are gradually learning the lesson of afforestation – the need for planting trees in order to meet the timber demands of the future’.² However, while a tree-planting spirit had taken root, ‘the public’, the journal noted, still exhibited little interest in another, even ‘more important branch of forestry’, namely, ‘the preservation of the indigenous forest.’³ Indeed, while ‘the public’ appreciated the beauty of native forests, it proved ‘lamentably backwards recognising’ forests’ protection against ‘floods, erosion, and silting’. Each of these results elicited huge expenditure to the New Zealand government ‘due to the destruction of the natural forest-covering of hills and watersheds’ in the past.⁴ A forest conscious public, as suggested by the article, planted not only exotic timber trees, but realised the importance of protecting native forests because of their role in preventing erosion and floods.

Calls for conserving, or protecting, forests on mountain ridges and along rivers to prevent floods and erosion constituted an early theme in New Zealand forestry. Almost immediately after organised colonisation commenced in 1840, German explorer and scientist Ernst Dieffenbach expressed anxiety over increased erosion following the conversion of forests to farmland.⁵ From the 1860s, as James Beattie and Paul Star note, alongside the primary concerns of ensuring a long-term timber supply, worries about soil, erosion, and climate remained strong arguments for forest conservation. Climatic arguments would fade by the 1900s, at least among scientists. Early advocates of forest conservation in New Zealand referred to local and international examples and writings, most notably the American George Perkins Marsh and his work *Man and Nature*, but also those from foresters, some of whom had served in the Indian Forest Service.⁶ It was from India that New Zealand secured its first Conservator of Forests, Inches Campbell Walker. A firm believer in forests’ influence on climate, Campbell Walker put a heavy emphasis on the need to protect existing forests. Though only briefly serving as Conservator of Forests, from 1874 to 1876, he would leave a lasting influence in the New Zealand forestry debate, with many subsequent conservationists either referring to him or

² “‘Keep our forests green”,’ *New Zealand Life* 4, no. 4 (1925): 1.

³ Ibid.

⁴ Ibid.

⁵ Beattie, ‘Environmental Anxiety in New Zealand, 1840-1941,’ 381; Beattie, *Empire and Environmental Anxiety*, 143f.

⁶ Beattie and Star, ‘Global Influences and Local Environments,’ 191-218. See also: Wynn, ‘Pioneers, politicians and the conservation of forests in early New Zealand,’ 171-188; Peter McKelvey, *Steepland forests: a historical perspective of protection forestry in New Zealand* (Christchurch: University of Canterbury Press, 1995), 31-35; Star, ‘Thomas Potts and the forest question,’ 173-206.

recycling his arguments.⁷ In 1909, one such ‘conservation zealot’ and academic, Joseph Penfound Grossmann, wrote *The Evils of Deforestation*, which had first appeared as a series in *Auckland Weekly*.⁸ In contrast to the ‘scholarly and restrained’ writings preceding it, Peter McKelvey notes that Grossman aimed ‘to inform his fellow citizens’, making him ‘the first of the New Zealand forest propagandists’.⁹ The 1913 Royal Commission on Forestry, as Beattie shows, drawing upon American expertise, ‘recommended extensive upland forest reservations for water and soil conservation purposes as well as for shelter’.¹⁰ From the conclusions of the 1913 Royal Commission on Forestry, research on protection forests in New Zealand either leap to the Esk Valley disaster in April 1938, when heavy rain caused slips and floods in Hawke’s Bay, or the establishment of the Soil Conservation and Rivers Council in 1941. They skip the important work undertaken from the middle of the 1910s and throughout the 1920s.¹¹ By examining arguments and propaganda for protection forests by the SFS and the NZFL, this section, focusing in particular on the 1920s, fills the gap between left by previous research on protection forests in New Zealand.

In 1916, speaking at the inauguration of the NZFFL, Hutchins commended Grossman’s *The Evils of Deforestation* for providing the reader with ‘some striking illustrations of the mischief caused by floods in New Zealand’.¹² Hutchins, though first and foremost concerned with placing New Zealand’s forests under a system of sustained yield management so as to avoid a timber famine, occasionally highlighted the importance of protecting forests to prevent erosion.¹³ Reporting from a lecture by Hutchins, Maurice Hurst, later editor of the official journal of the NZFL, urged the immediate protection of forests due to their climatic significance. ‘In rainy weather’, he warned, ‘the lack of forest cover causes the water to flow off quickly and flood the rivers’.¹⁴

Ellis strongly shared Hutchins’s belief regarding the importance of protection forests. ‘The economic value of our forests from a climatic and protective standpoint’, he stressed in

⁷ Roche, *Forest Policy in New Zealand*, 80-92; Beattie, ‘Environmental Anxiety in New Zealand, 1840-1941,’ 383-385; Beattie, *Empire and Environmental Anxiety*, 155-157.

⁸ Beattie, ‘Environmental Anxiety in New Zealand, 1840-1941,’ 387.

⁹ McKelvey, *Steepland forests*, 34f.

¹⁰ Beattie, *Empire and Environmental Anxiety*, 170.

¹¹ Catherine Knight, ‘The Paradox of Discourse Concerning Deforestation in New Zealand: A Historical Survey,’ *Environment and History* 15, no. 3 (2009): 323-342; Ross, *Going Bush*, 93-95; Michael Roche, *Land and Water: Water and Soil Conservation and Central Government in New Zealand 1941-1988* (Wellington: Department of Internal Affairs, Historical Branch, 1994).

¹² Hutchins, ‘Scientific National Forestry for New Zealand,’ 297.

¹³ ‘Forestry,’ *Taranaki Herald*, 27 April 1916, 7.

¹⁴ Maurice Hurst, ‘The Friendly Forest,’ NZH, 16 December 1916, supplement, 1.

his policy proposal in 1920, ‘cannot be too highly emphasised.’¹⁵ To ensure ‘the regularity of water-supply’, which he deemed ‘[t]he greatest indirect value of the State forests’, Ellis wanted to establish ‘a continuous protective forest’ along mountain ranges throughout the Dominion.¹⁶ To achieve this goal, Ellis sought the newly created SFS to collaborate with the Department of Agriculture and the Department of Lands and Survey in surveying all forest lands to determine ‘whether the land is agricultural or non-agricultural’.¹⁷ According to Ellis, any forest land that either controlled ‘stream-flow’ or prevented ‘erosion’ should remain ‘as a protective forest’.¹⁸

Thus, in the first half of the 1920s, the SFS conducted a large-scale cataloguing of New Zealand’s forests. ‘The forest-inventory work’, Ellis reported in 1922, ‘is bringing clearly to light the intimate relation between agricultural settlement, water-conservation, and stream-flow.’¹⁹ According to Ellis, data from the Rotorua region suggested that almost all of the remaining forest lands should be classified as ‘unfitted [sic] for settlement’ and that, instead of agriculture, their best utilisation lay in ‘soil-protective purposes.’²⁰ Upon its completion, the survey, Michael Roche notes, ‘revealed that 12.5 million acres – or nearly 20 per cent of the country – could be classified as forest land’.²¹ In the first half of the 1920s, Ellis identified land across New Zealand that he believed ought to be classified as State forests in his annual reports.²² However, much to his disappointment and frustration, not all of it came under the administration of the SFS. In 1925, for example, he noted that ‘large areas of forest lands’ from Urewera to Southland remained ‘unconserved [sic] and undedicated as State forests, which should be proclaimed’, something Ellis deemed of utmost risk to New Zealand.²³ According to him, ‘the public safety – essentially and urgently demands that the control and protection of all these flood-preventing and timber-producing forests be placed in the hands of the Forest Service.’²⁴

The NZFL shared Ellis’s concern. While Wilson remarked jubilantly in his presidential address to the NZFL in 1923 that the SFS now controlled more than seven million acres, he also noted that plenty of New Zealand’s forestland remained in the hands of either Māori or the Crown and that they should be better managed by the SFS. While most of the land in question

¹⁵ *AJHR*, C3A, 1920, 22.

¹⁶ *Ibid.*, 22.

¹⁷ *Ibid.*, 17.

¹⁸ *Ibid.*, 17.

¹⁹ *AJHR*, C3, 1922, 4.

²⁰ *Ibid.*

²¹ Roche, *History of Forestry*, 184.

²² *AJHR*, C3, 1921, 2-4; *AJHR*, C3, 1922, 4; *AJHR*, C3, 1923, 5; *AJHR*, C3, 1924, 4 and 6; *AJHR*, C3, 1925, 8.

²³ *AJHR*, C3, 1925, 8.

²⁴ *Ibid.*, 8.

was ‘mountain forests of little direct commercial value’, he argued that these forests held other commendable properties, namely ‘moderating climate’, preventing floods and erosion, as well as offering recreation, and ‘should therefore’, he concluded ‘be administered by the State forest Service.’²⁵ James Deans expressed similar sentiment in his first address as president of the NZFL in 1925, suggesting that the SFS ought to administer ‘at least ten million acres of forests’ to secure ‘river protection, and conservation of water supplies, and scenic reserves.’²⁶ Four years later Deans went even further. He argued that any forest owned by the Crown, ‘whether reserved for river protection purposes, National Parks, Scenic Reserves or those to be maintained primarily for the supply of timber’, ought to be placed in the hands of the SFS.²⁷

The protective value of forests constituted a recurring theme in the official journal of the NZFL as it sought to educate the public on the dangers deforestation posed in terms of flooding. In 1923, the *New Zealand Life and Forest Magazine* warned its readers of rising water-levels of the Whanganui and Ongarue rivers due to deforestation.²⁸ ‘Throughout the water-sheds of these rivers’, the magazine noted, ‘large areas of deforested lands are reverting to secondary growth and fern, and serious erosion has already set in on the denuded hill slopes.’²⁹ The magazine noted that this danger was not limited to these rivers, with rivers across New Zealand exhibiting similar behaviour.³⁰ To impress upon readers the need to protect and preserve forests, in 1924 the magazine published a sketch ‘made in the vicinity of Wellington’, which featured a few barren trees in a desolate landscape, a result of deforestation (figure 12).³¹ ‘When the forest is destroyed on steep hills or at the headwaters of creeks and rivers,’ the magazine warned, ‘many evils result.’³² Although depicting the Wellington landscape, the minimalistic style portrayed very much a generic scene, a point the magazine stressed, noting that ‘the scene may be duplicated in many parts of New Zealand.’³³ To prevent the rest of New Zealand becoming like the landscape of Wellington, and many other parts, the journal concluded with a

²⁵ President’s address, annual meeting, 18 July 1923, 4. A L Hunt, Papers, ATL, MS-Papers-0158-297. Extracts of Wilson’s address also appeared in *New Zealand Life and Forest Magazine*, see: James Wilson, ‘Forests and The Nation,’ *New Zealand Life and Forest Magazine*, no. 10 (1923): 11f.

²⁶ President’s address, annual Meeting, 2 July 1925, 6. A L Hunt Papers, ATL, MS-Papers-0158-299. Just as Wilson’s address, extracts of Deans’s speech also appeared in *New Zealand Life*, see: ‘Annual meeting of N.Z. Forestry League, Inc,’ *New Zealand Life* 4, no. 3 (1925): 14-16.

²⁷ President’s address, annual Meeting, 28 June 1929, 3. A L Hunt Papers, ATL, MS-Papers-0158-299.

²⁸ ‘The Forestry Movement,’ *New Zealand Life and Forest Magazine*, no. 7 (1923): 12.

²⁹ Ibid.

³⁰ Ibid.

³¹ ‘When the Bush Goes,’ *New Zealand Life and Forest Magazine* 4, no. 3 (1924): 3.

³² Ibid.

³³ Ibid.

plea to its readers: 'SAVE THE FOREST while there is yet time! The New Zealand native bush is unique – let us safeguard its beauty and usefulness for ourselves and our children.'³⁴

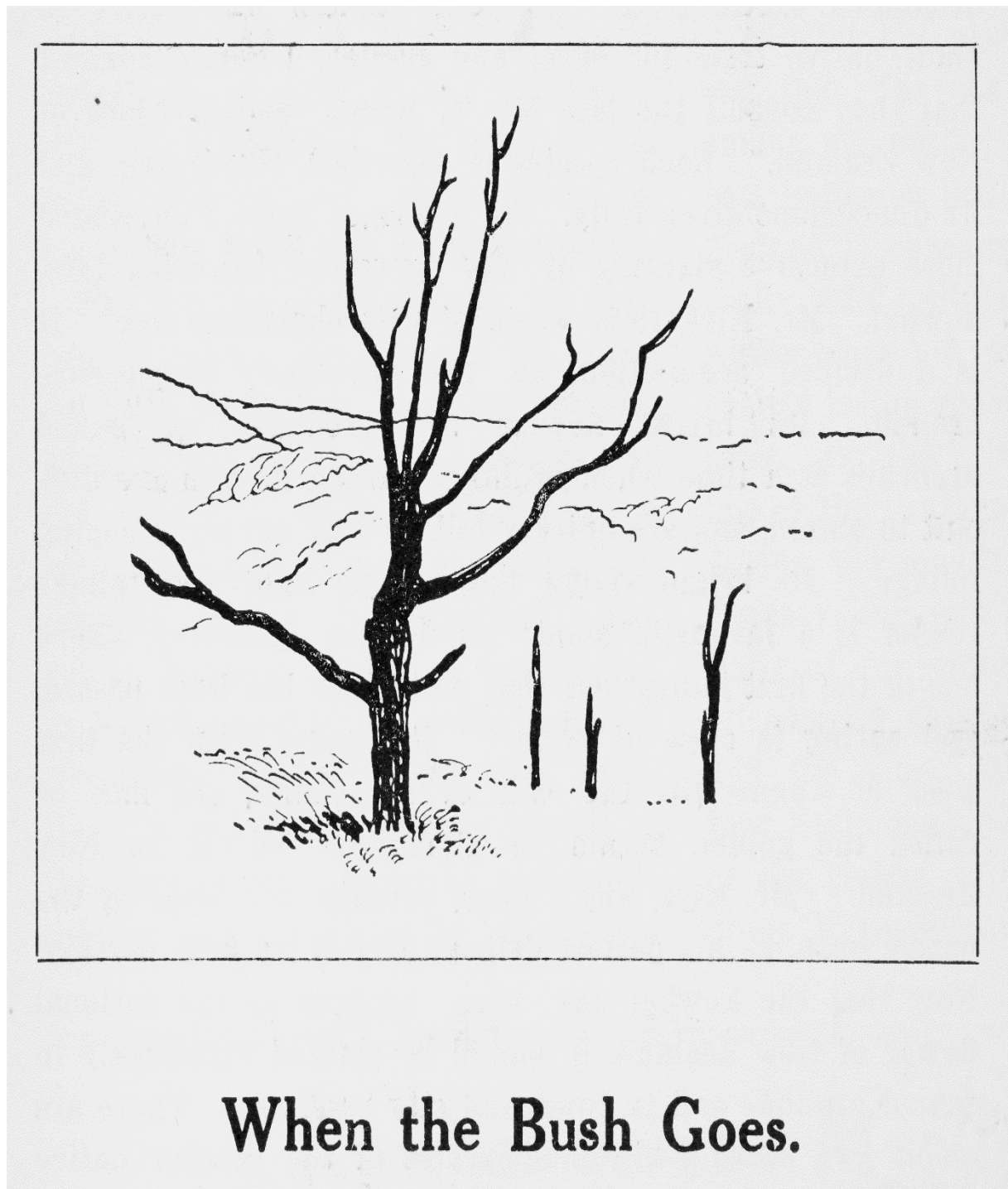


Figure 12. This minimalistic sketch of a scene in the vicinity of Wellington reinforced the image of a denuded landscape, stressing the importance of protecting forests to prevent New Zealand from becoming a barren land. 'When the Bush Goes,' *New Zealand Life and Forest Magazine* 3, no. 4 (1924): 3.

³⁴ 'When the Bush Goes,' *New Zealand Life and Forest Magazine*, 3

A year later, in July 1925, *New Zealand Life* published a more detailed, but humorous, cartoon (figure 13). First appearing in the *Sydney Bulletin*, the sketch featured people escaping up a tree following a disastrous flood, leaving in its wake submerged houses and drowned livestock.³⁵ To the magazine, the scene applied as much to New Zealand as Australia. ‘*The frequent and destructive floods that have occurred lately*’, it argued below the comic, ‘*should concern everybody that forests on watersheds and high ranges should be preserved and that steep slopes stripped of trees should be replanted. This is the ideal of the Forestry movement.*’³⁶ The magazine also published articles from Australia, featuring an article on forest and water conservation previously printed in *The Gum Tree*, the Australian Forestry League’s magazine.³⁷ As Beattie and Star note, arguments in favour of forest conservation during the late nineteenth century, such as the prevention of flooding, travelled back and forth over the Tasman Sea.³⁸ This exchange continued into the 1920s through the re-publication of articles and cartoons.

Warning the public of the dangers of deforestation, and showing the utilitarian value of forests other than as a source of timber, through articles and comics proved essential in creating a public forest consciousness and rallying more people to the forestry movement. As an editorial in *Life and Forest Magazine* suggested in 1923: ‘It is only by constant “preaching” at the public, that the forests which remain can be saved from axe, saw, and fire. Support the Forestry League – support the State Forest Service: only thus may the spoilers be outwitted and the bush preserved for the benefit of the nation.’³⁹

³⁵ ‘When the Forest Goes,’ *New Zealand Life* 4, no. 3 (1925): 14.

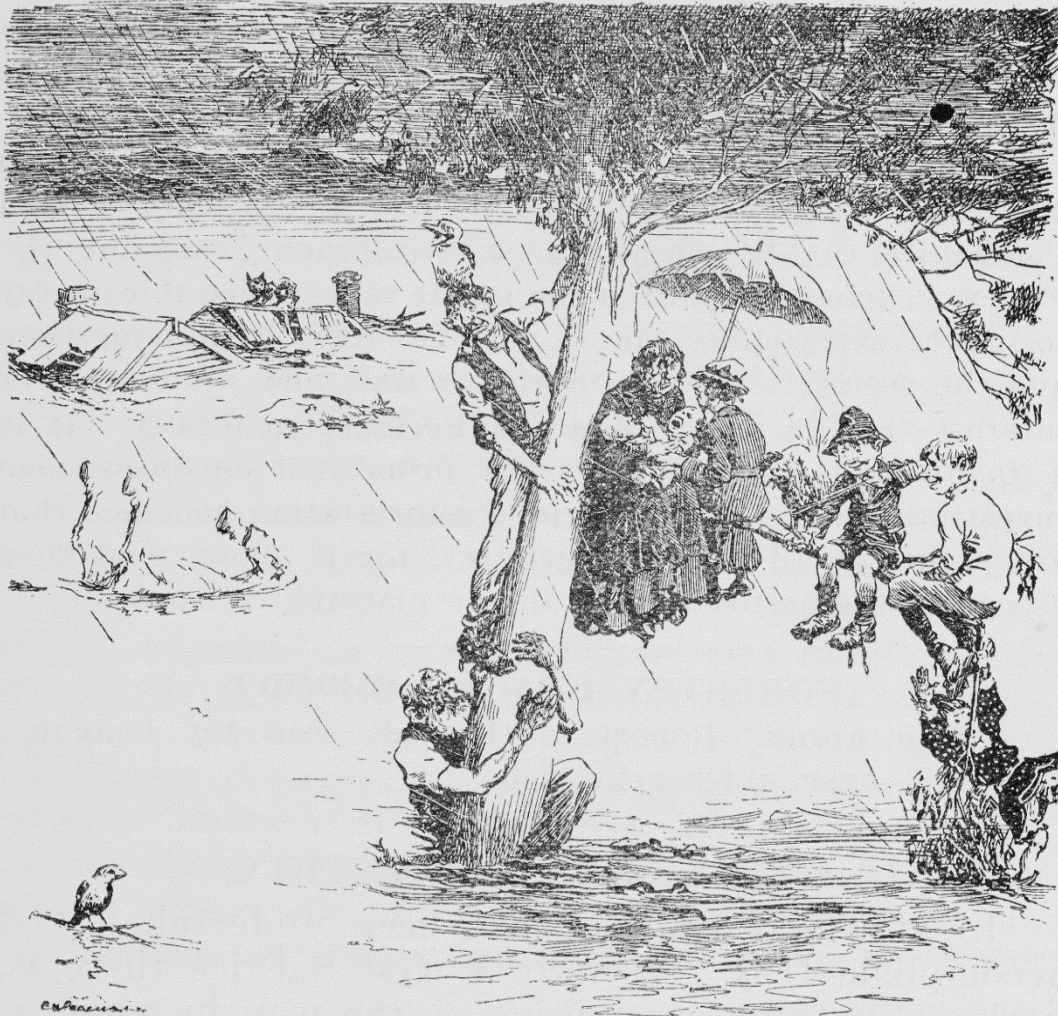
³⁶ Ibid. Italics in the original text.

³⁷ ‘Forests and Water Conservation,’ *New Zealand Life and Forest Magazine* 3, no. 3 (1924): 11.

³⁸ Beattie and Star, ‘Global Influences and Local Environments,’ 191-218; Beattie, *Empire and Environmental Anxiety*.

³⁹ ‘Editorial notes. A stirring plea,’ *Life and Forest Magazine*, no. 10 (1923): 5.

When the Forest Goes



THE MESSAGE OF THE FLOODS.

COCKY (to the tree): "Well, thank God for you, old man."

SPIRIT OF THE TREE: "Hm! If you hadn't destroyed so many of my brothers you mightn't have had to come to me for help."

In this magazine we have frequently published articles dealing with the relationship between Floods and Deforestation. The above cartoon (from the Sydney "Bulletin," of July 2nd) points the moral in a striking fashion. The frequent and destructive floods that have occurred lately should convince everybody that forests on watersheds and high ranges should be preserved, and that steep slopes stripped of trees should be replanted. This is the ideal of the Forestry movement.

Figure 13. Preserving forests prevented future disasters. 'When the Forest Goes,' *New Zealand Life* 4, no. 3 (1925): 14.

Te Urewera, 1921-1925

In the east of the North Island lies Te Urewera, the home of Ngāi Tūhoe. A land of dense forests and steep ridges, few Europeans but the exceptional missionary ventured into the land during the first half of the nineteenth century. This did not mean that Tūhoe was isolated, nor isolationists. As Judith Binney notes in *Encircled Lands: Te Urewera, 1820-1921*, Tūhoe kept themselves updated of political affairs through extensive networks, seized economic possibilities that followed growing settlement in the early nineteenth century, and adopted new ideas.⁴⁰ During the New Zealand Wars – a series of conflicts from 1845 to 1872, and culminating in the 1860s – several battles occurred between Ngāi Tūhoe and other iwi against the British army and its allied iwi.⁴¹ After the wars, the region remained sparsely settled by Pākehā, in large parts due to its inaccessibility. In 1896, parliament passed the Urewera District Native Reserves Act, which sought to grant Tūhoe self-government under a commission consisting of Pākehā and Tūhoe. However, due to a range of failures of the commission, but also opposition to the notion, the self-governing native reserve was never actualised.⁴² Instead, from around 1910, the government began purchasing land in Te Urewera, hoping to open up the region for European settlement, a direction widely supported by the press and the Farmers' Union.⁴³

By 1921, the government had attained 330,000 acres of Te Urewera, and with two roads underway, believed the time was ripe to divide and sell the land to settlers.⁴⁴ However, not all shared the view that the best use of the land acquired in Te Urewera lay in farming. Of the 330,000 acres, Ellis suggested in his annual report in August 1921 that 250,000 acres be transferred to the SFS 'in the interest of the depending agricultural communities, as well as in the interest of subordinate timber-supplies'.⁴⁵ To Ellis, the acquisition of the Te Urewera forests proved imperative in the interest of forestry and New Zealand as a whole. This section, with the forests of Te Urewera as a case study, examines how the NZFL and the SFS, the latter in particular, sought to raise public opinion and foster a public forest consciousness.

⁴⁰ Judith Binney, *Encircled Lands: Te Urewera, 1820-1921* (Wellington: Bridget Williams Books, 2009), 30.

⁴¹ For an overview of the New Zealand Wars, see Vincent O'Malley, *The New Zealand Wars – Ngā Pakanga o Aotearoa* (Wellington: Bridget Williams Books, 2009).

⁴² For the history of Te Urewera during the nineteenth century up to the 1920s, see Binney, *Encircled Lands*.

⁴³ See for example: 'Opening the Urewera country, PBH, 15 March 1915, 2; 'The Urewera country,' NZH, 9 August 1918, 4; 'The Urewera country,' NZH, 27 August 1918, 4; 'Soldier farmers,' NZT, 19 September 1919, 6; 'Soldier settlement,' *Dominion*, 25 November 1919, 9. For the process of the land purchases of Te Urewera, see Binney, *Encircled Lands*, 537-569. For the land purchases under the Liberal Government during this time period in general, see: Tom Brooking, 'Busting Up' The Greatest Estate of All. Liberal Maori Land Policy, 1891-1911,' *New Zealand Journal of History* 26, no. 1 (1992): 78-98.

⁴⁴ Binney, *Encircled Lands*, 596.

⁴⁵ *AJHR*, C3, 1921, 4.

In September, a month after Ellis submitted his annual report, the SFS and the Department of Agriculture sent out a survey expedition consisting of Halbert Alexander Goudie, Conservator of Rotorua, accompanied by a SFS ranger and Hugh Munro of the Department of Agriculture with the task to determine ‘the best economic use of [Te Urewera]’.⁴⁶ Expecting the future of Te Urewera ‘to be thoroughly ventilated’ in Parliament, Ellis instructed Goudie in a confidential memo to include ‘[a] comparison between the Urewera country functioning as a State Forest and as an area given over to settlement with the consequent denudation of forests’ in his report once he returned from the survey.⁴⁷ Such emphasis, Ellis believed, would sway any politician favouring settlement.⁴⁸

Goudie’s report certainly did not disappoint Ellis. Based upon his observations from the five days long journey the company undertook, Goudie estimated the total area of Te Urewera to be 95% forest.⁴⁹ Regarding the types of forests, Goudie stated encountering a mixture of tōtara (*Podocarpus totara*), mataī (*Prumnopitys taxifolia*), and rimu (*Lepidothamnus laxifolius*).⁵⁰ However, in addition to his own observations, he also drew upon information he acquired from local Māori. ‘From the Maoris,’ he reported:

I learned that practically the whole of the Te Whaiti block, containing about 70,000 acres, carried a dense stand of millable timber of the type mentioned. If the whole block even approaches in density, the parts near Te Whaiti P. O. there must be a total stand of approximately 1000 million feet of timber on it. Good forest of apparently this type extends down the West of the Whakatane river as far as the Ohaua block whence it gradually merges into a Tawa-Rimu mixture. The mountain tops are generally clothed with Beech and I was informed that this was especially plentiful at Maungapohatu.⁵¹

To Goudie the intelligence he had gained from Māori suggested that large tracts of Te Urewera possessed some of the most prized timber species, which made a strong case for the land to be placed under the management of SFS. At the same time, Goudie expressed high hopes for the

⁴⁶ Ellis to Director General, Department of Agriculture, 29 July 1921. ANZ, Auckland, Provisional State Forest – Urewera Country, R1853921.

⁴⁷ L. Macintosh Ellis to H. A. Goudie, 21 July, 1921. ANZ, Auckland, Provisional State Forest – Urewera Country, R1853921.

⁴⁸ Ibid.

⁴⁹ [H. A. Goudie] ‘Report upon Uriwera [sic] Country,’ [1921], 3f. ANZ, Auckland, Provisional State Forest – Urewera Country, R1853921.

⁵⁰ Ibid., 3.

⁵¹ Ibid., 3.

potential riches that scientific forestry could yield, though he was doubtful of the possibility of settlement:

As a whole the Uriwera [sic] area is a land of high mountains, very steep slopes and deep gorges, in altitude ranging from 2000 to 4000 feet. With the exception of two comparatively small areas, one situated between Ruatahuna Post Office and the Ohaua block, and another near Te Whaiti, I saw no land that could be ploughed and these areas are I understand being retained by the Maori owners. Our Maori guide assured us that there was very little arable land anywhere within this territory and my experience goes to show that the Maoris usually locate their Kaingas where arable land is available for growing their potato and other crops.⁵²

Drawing upon his own observations with support from Māori, the latter which he validated by pointing to his own knowledge, led to Goudie labelling Te Urewera unfit for settlement. To Goudie the future of Te Urewera lay in its forests: 'The forest crop which it now carries is the crop with which nature intended that its' [sic] surface should be perpetually clothed.'⁵³ Further, removing the forests would have serious consequences. 'It cannot be doubted', Goudie warned, 'that the removal of the forest will increase the climatic disabilities' in the region.⁵⁴ In ominous fashion he remarked: 'What result wholesale denudation in the Uriwera will have on the fertile coast country is conjectural but it may be fairly assumed that the balance of nature cannot be interfered with, with impunity.'⁵⁵ In fact, smaller clearing in the vicinity had already caused floods in the lowlands of Opotiki.⁵⁶ But if conserved, the forest offered a source of wealth and enjoyment:

Worked as a national forest it would yield an income far in excess of that to be procured from any other crop; it would provide a recreation ground for tired city folk and a well developed roading system would provide access to mountain forest scenery that is unrivalled for its beauty.⁵⁷

⁵² [Goudie] 'Report upon Uriwera [sic] Country,' 4. ANZ, Auckland, Provisional State Forest – Urewera Country, R1853921.

⁵³ Ibid., 13.

⁵⁴ Ibid., 13.

⁵⁵ Ibid., 12.

⁵⁶ Ibid., 12.

⁵⁷ Ibid., 14.

To Goudie, the existence of a discussion between the two options – agriculture or forestry – demonstrated a lack of understanding and knowledge of the latter. ‘If the functions of the Forest Service were better understood in this Dominion’, he noted, ‘the Public would realise that the denudation of the Uriwera [sic] was a crime against posterity.’⁵⁸

Yet, though Goudie bemoaned public ignorance, support for the protection of Te Urewera was brewing in the press. Already in 1917, the popular author James Cowan, who was familiar with the region, described Te Urewera in an editorial as highly unsuitable for farming, claiming that settlement advocates proved nothing but ‘quite ignorant of the nature of the land and of the peculiar topography’.⁵⁹ Four years later, just before Goudie set off for his survey, ethnographer Elsdon Best who, much like Cowan, was familiar with the land and helped create the mythical status of Te Urewera amongst Pākehā through his works, warned against settlement in an interview with the *Auckland Star*, stating:

We must preserve a lot of our bush or our climate is going to suffer, and the rough country like the Urewera is the part we should keep intact as far as the forest is concerned. There is no doubt, in my opinion, that New Zealand will sooner or later have to grow [unreadable word] own timber entirely – judging from what is taking place in other parts of the world. Such country as the Urewera is natural forest country – as much of it suitable for nothing else.

According to Best, the forests of Te Urewera possessed economic and utilitarian values: the former in the shape of timber, which, with the looming timber famine, threatened to deplete around the world with skyrocketing prices; the latter, in turn, as climatic protection. Unfortunately, Best does not specify whether he refers to erosion and flooding, or the older theory of forests attracting and ensuring steady supplies of rain. Nevertheless, his concerns for forest conservation in all its forms highlight how the concerns of securing Te Urewera as a protection forest was not limited to the staff of the SFS. As newspapers across the North Island published or referred to Best’s warning in the following days, so did calls for conservation rise.⁶⁰ The *Evening Post*, for example, questioned the suitability of Te Urewera for farming due

⁵⁸ [Goudie] ‘Report upon Uriwera [sic] Country,’ 13. ANZ, Auckland, Provisional State Forest – Urewera Country, R1853921.

⁵⁹ James Cowan, ‘Maori highlands,’ *Lyttelton Times*, 12 December 1917, 9.

⁶⁰ ‘Save the forest,’ *Press*, 6 September 1921, 2; ‘Settling the Urewera,’ NZH, 7 September 1921; ‘The Urewera country,’ *Manawatu Daily Times*, 8 September 1921, 3; ‘Urewera forests,’ PBH, 13 September 1921, 2; ‘Save the forest,’ PBH, 10 September 1921, 5.

to the risk of erosion, and called for the consultation and involvement of the SFS in the matter.⁶¹ The *Auckland Star*, in turn, represented the issue as an ‘important test of the Government’s sincerity towards forestry problems’, since the region encompassed two fundamental aspects of forestry, namely the conservation of timber, and climatic influence, in terms of rainfall and river flow.⁶²

While the press called for the involvement of the SFS, the latter did not utter any public statements. However, the SFS did covertly provide the press with material to showcase the necessity of the land be placed under its administration. Goudie, for example, discussed the matter of Te Urewera with Frederick Carr Rollett, editor of the *Auckland Weekly News*’s agricultural section, which featured an article strongly in favour of keeping the land forested.⁶³ Meanwhile, someone within the SFS leaked Goudie’s report on Te Urewera to the press. ‘According to information that has reached this office,’ one editorial in the *Evening Post* informed its readers, ‘over 90 per cent. of the Urewera is forested, and less than 10 per cent. ... is ploughable’, citing sentences and descriptions from the survey as further evidence.⁶⁴ The supplying of information to the press by the SFS demonstrates its understanding of the importance of the press in creating and stirring public opinion (see chapter 1).

In addition to the press, the official organs of the NZFL, regardless of whether they were under the editorship of Lawson or Hurst, featured articles against opening up Te Urewera to settlement. The first issue of the *Forest Magazine (of New Zealand)* in 1922, for example, featured an article by Cowan, who, in his typical florid style, detailed the region’s history, vegetation and splendid scenery.⁶⁵ Because of its extreme geography, as well as the traditional knowledge required to farm the land, Cowan argued that the best use of Te Urewera was ‘as a national woodland sanctuary’, or ‘reserve’, for those who favoured a more straightforward term.⁶⁶ As a reserve, Cowan concluded:

the forest and the forest life will be perpetuated century after century, a place tapu to the Maori – a born forest-ranger – and to wild nature, to the supply under scientific

⁶¹ ‘Run-off problem in the Urewera,’ EP, 2 September 1921, 6; ‘Forest problem in the Urewera,’ EP, 16 September 1921, 6; ‘Grass, timber, and the Urewera,’ EP, 26 September 1921, 6.

⁶² ‘A test of sincerity,’ AS, 22 October 1921, 6.

⁶³ H. A. G. to Ellis, 17 December 1921. ANZ, Auckland, Provisional State Forest – Urewera Country, 1921-1933, R1853921; ‘Forests and grass,’ *Auckland Weekly News*, 21 December 1921, 57.

⁶⁴ ‘Timber that is: Grass that may be,’ EP, 17 October 1921, 6.

⁶⁵ James Cowan, ‘The Urewera Forests. Razorback Ridges and Gorges,’ *Forest Magazine (of New Zealand)*, 1, no. 1 (1922): 30f.

⁶⁶ *Ibid.*, 31.

management of timber for the people's uses and to the natural storage and regulation of innumerable river sources.⁶⁷

A year later, F. C. Rollett, in a richly illustrated article, called the idea of settling Te Urewera 'simply madness' since the clearing and removal of forests would result in lessened rainfall, while simultaneously increasing the risk of erosion and floods (figure 14).⁶⁸ Instead, like Cowan, he wanted to see the forest placed under scientific management, claiming that it would ensure much 'greater monetary returns' in comparison to 'stock grazing' while preventing any climatic tampering.⁶⁹

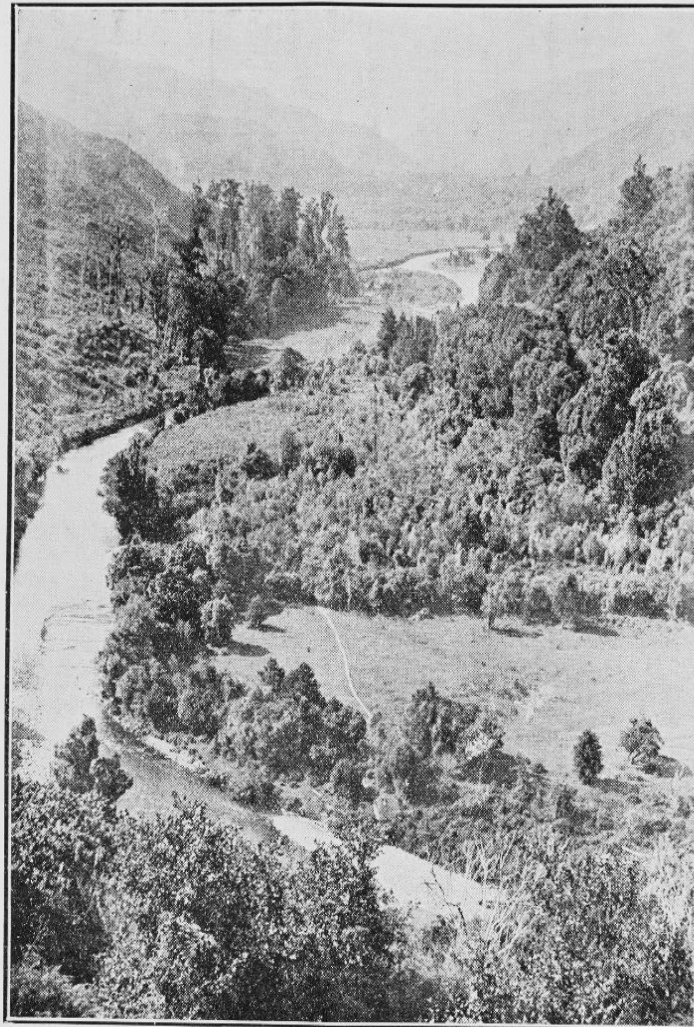
The articles by Cowan and Rollett gained traction in the press. 'People who know the country', the *Evening Post* reported in connection to Cowan's piece, 'state that it is of the sawtooth variety,' thus making it unfit for settlement since it required the removal of forests on mountains and hillsides. 'The people who make these statements', the paper continued, 'are not "bushophiles" nor people of bias; and their point of view deserves respect.' After quoting large segments from Cowan, the article concluded with a rhetorical question: 'Are there not already enough object-lessons of the consummate stupidity of the policy of growing one blade of grass where two trees grew before?'⁷⁰

⁶⁷ Cowan, 'The Urewera Forests,' 31.

⁶⁸ F. C. Rollett, 'Settling Forest Lands: The Urewera Country,' *New Zealand Life and Forest Magazine*, no. 8 (1923): 9-12, quote from 11.

⁶⁹ *Ibid.*, 10

⁷⁰ "'Settle" the Urewera,' EP, 3 February 1922, 6.



**A Beautiful Approach to the Urewera Country:
The Upper Reaches of Waimana Valley.**

The best authorities agree that the steep ranges of the Urewera should be made a great Forest Reserve, and its resources developed in the shape of timber. The Urewera is a rugged, heavily-forested region between Hawke Bay and Bay of Plenty.

Figure 14. In addition to articles, the magazine of the NZFL carried photographs depicting the lush vegetation of Te Urewera. 'A Beautiful Approach to the Urewera Country: The Upper Reaches of Waimana Valley,' New Zealand Life and Forest Magazine, no. 8 (1923): 8.

In December 1921, as newspapers dedicated a growing amount of space to the importance of conserving Te Urewera, the Urewera Lands Act was placed before Parliament. As the Waitangi Tribunal and Binney show, as they took the floor a number of politicians emphasised the need to conserve the forests for utilitarian and aesthetic reasons. These included William Hughes and Sir Apirana Ngata, members or former members of the NZFL. Meanwhile, other politicians seemingly unmoved by the press, continued to portray Te Urewera as land ideal for farming.⁷¹ Though the Urewera Lands Act was passed, thus opening up Te Urewera for settlement, boundary issues remained and the blocks attracted little interest.⁷² With settlement uncertain, the SFS stepped up its efforts to acquire the land under its administration. In 1923, for example, Ellis presented Sir Robert Heaton Rhodes, Minister for Forestry, with a report arguing that the best use of Te Urewera was not to open it up for settlement but to make it:

a permanent forest, to be used for timber-crop production, water conservation, stream-flow regulation, subordinate sylvo-pastoral settlement by Europeans and Maoris [sic] and for national recreational and sporting purposes.⁷³

To support his claim, Ellis thoroughly detailed how the soil, geology, topography, and forest composition of the region made Te Urewera unsuitable for settlement.⁷⁴ At the same time, he emphasised how these factors made it essential to conserve the forests of Te Urewera, not least in terms of preventing erosion and flooding. He also stressed the economic foolishness of settling Te Urewera by comparing the expected credits to debits that would follow complete settlement.⁷⁵ According to Ellis, the credits generated by sheep, cattle, and any ‘subsidiary wealth created’ would be as little as zero and that Te Urewera would at best provide ‘doubtful livelihood for 1,250 people.’⁷⁶ Debits, in comparison, included £3,650,000 for the value of the forest destroyed; £125,000 for the annual loss of 50 million feet of timber generated from sustained yield management; £168,000 for the yearly loss in wages and profits, including ‘subsidiary wealth’; and lastly, an annual expense of £20,000 due to the work associated with

⁷¹ Anita Miles, *Rangahaua Whanui District 4: Te Urewera* (Wellington: Waitangi Tribunal, 1999), 442-446. Binney, *Encircled Land*, 601.

⁷² Miles, *Rangahaua Whanui District 4*, 446-476.

⁷³ L. MacIntosh Ellis, ‘A Forest Service Report on the Urewera Country,’ [1923], 1; L. MacIntosh Ellis to Minister for Forestry, 3 May 1923. ANZ, Wellington, Urewera Country, R17274264. See also: *AJHR*, C3, 1922, 4, and *AJHR*, C3, 1923,

⁷⁴ Ellis, ‘A Forest Service Report on the Urewera Country,’ 1-4. ANZ, Wellington, Urewera Country, R17274264.

⁷⁵ *Ibid.*, 1-6.

⁷⁶ *Ibid.*, 4.

settlement, such as the building of roads and bridges as well as the reclamation of land.⁷⁷ Concluding, Ellis noted that Te Urewera could either become ‘a great National Timber Farm and Protection Forest’, or, if opened up, be transformed into ‘a worthless half a million acres of man-made desert.’⁷⁸ Another report by the SFS released the same year, ‘The Effect of Proposed Deforestation on the Flow of the Urewera Rivers’, listed ‘floods, inundations, destruction of land, crops, buildings, stock, roads, bridges and general devastation of land’ as guaranteed consequences if the forest was removed.⁷⁹

The propaganda in the press and the reports by the SFS had the desired effect. In late 1923, Gordon Coates, minister of native affairs and public works, after visiting Te Urewera expressed the need for caution in opening the land for settlement, asserting that clearing forests on the steep hills would risk contributing to erosion, a statement that appeared in a number of papers.⁸⁰ Commenting on Coates’s assessment, the *New Zealand Life and Forest Magazine* described him as ‘a hearty supporter of the policy, “Save the Urewera Forests!”’⁸¹ A year later, newspapers reported that Coates’s ministerial colleague, A. D. McLeod, Minister of Lands, had joined the ranks of those seeking to conserve the forests as he, after also visiting the region, reached an agreement with Rhodes that would see large sections of Te Urewera be passed to the SFS.⁸² The news met with enthusiasm amongst conservationists and foresters alike. The NZFL, upon hearing the minister’s decision, agreed to write him a letter, ‘congratulating him on the withdrawal of the Urewera lands from settlement, and including them in the provisional State forests.’⁸³ The Wellington branch of the NZFL, at its annual meeting, attributed the decision by the government to its propaganda and ‘the wide publicity and support given by the Press throughout New Zealand’.⁸⁴ Ellis, in a letter to the Under Secretary at the Department of Lands and Survey remarked triumphantly:

⁷⁷ Ellis, ‘A Forest Service Report on the Urewera Country,’ 4. ANZ, Wellington, Urewera Country, R17274264.

⁷⁸ *Ibid.*, 5.

⁷⁹ J. B. R. Mason, ‘The Probable Effect of Deforestation upon the Flow of the Urewera Rivers,’ 1923, 1-4, 3 in particular. ANZ, Wellington, New Zealand State Forest Service. Branch of Forest Products. The probable effect of deforestation upon the flow of the Urewera rivers, R20065450.

⁸⁰ See, for example: ‘The Urewera lands,’ NZH, 3 December 1923, 8.

‘The Urewera country,’ ODT, 4 December 1923, 8. ‘Urewera country,’ *Press*, 4 December 1923, 6;

‘Conservation of forests,’ PBH, 5 December 1923, 2.

⁸¹ ‘Save the Urewera Forests,’ *Life and Forest Magazine* 3, no. 2 (1924): 13.

⁸² See, for example, ‘The Urewera country,’ PBH, 4 April 1925, 8; ‘Urewera land,’ EP, 4 April 1925, 8; ‘Great Urewera reserve,’ AS, 11 June 1925, 7; ‘Urewera bush lands,’ NZH, 12 June 1925, 11; ‘Urewera forest country,’ *Press*, 12 June 1925, 6; ‘Great timber reserve,’ ODT, 13 June 1925, 21.

⁸³ NZFL, council, 18 June 1925, 3. A L Hunt, Papers, ATL, MS-Papers-0158-299.

⁸⁴ NZFL, Wellington Branch, annual general meeting, 11 May 1925, 2. A L Hunt Papers, ATL, MS-Papers-0158-298.

I wish to thank you on behalf of the Forest Service and all those keenly interested in Forestry in New Zealand for the dedication of the Urewera country. I see by the Press that Mr. McLeod has at last crossed the Rubicon and “burned his bridges”, and that the Urewera country is to be declared as a Provisional State Forest. I note that he stated the whole area is to be declared. I consider this is a splendid statesmanlike move, made no doubt in the face of great opposition.⁸⁵

To the NZFL and the SFS the withdrawal of the blocks from settlement and their future designation as protection forests represented a victory for conservation. This they had achieved by raising public opinion through articles in the magazine of the NZFL, and by gaining the support of the general press, which the SFS had secretly supplied with information on the unsuitability of Te Urewera for farming and the risks of deforestation. However, protecting forests to prevent erosion and flooding required not only the safeguarding of forests from the axe, but also from the match.

Fire prevention

Upon arriving in New Zealand, Ellis expressed shock at the widespread use of fire in the Dominion. ‘Your Director’, he reported in 1921 after losing 50,000 acres of State forests to fire during the last twelve months, ‘is appalled at the apathy and indifference displayed at this wanton decimation.’⁸⁶ According to Ellis, avoiding a timber famine and securing a stable timber supply first required putting a stop to the current ‘orgy of destruction’ caused by fire.⁸⁷ ‘Every individual citizen’, he noted, ‘should concern himself and make his interest felt in the protection of New Zealand forest against fire.’⁸⁸ Engaging the public was essential in combating and preventing fire, as Ellis explained a year later: ‘Effective control is not so much a matter of statute or regulation ... as it is a matter of public forest consciousness and appreciation of the forest as a tangible asset.’⁸⁹

In the initial decades of British colonisation, pastoralists and farmers regularly employed fire to clear land of forests and tussock. As Stephen J. Pyne notes: ‘To pioneers, fire was a

⁸⁵ L. MacIntosh Ellis to J. B. Thompson, Under Secretary Department of Lands and Survey, 12 June 1925. ANZ, Wellington, Urewera Country, R17274264.

⁸⁶ *AJHR*, C3, 1921, 7.

⁸⁷ *Ibid.*

⁸⁸ *Ibid.*

⁸⁹ *AJHR*, C3, 1922, 8.

philosopher's stone, transmuting New Zealand's weird dross into familiar gold.'⁹⁰ However, far from being a settlement of pyromaniacs, recent scholarship shows that settlers, at least in the tussock grasslands of the South Island, employed fire for a variety of reasons, not just to clear native vegetation.⁹¹ Moreover, the extensive burning of forests also ignited concerns about future timber supplies amongst early conservationists, such as Thomas Potts.⁹² Nevertheless, politicians continued to open up forestland for settlement into the twentieth century, with forests perishing in flames as a result. 'During the past generation', Ellis assessed in 1921, 'two and a half million acres of virgin timber-land has been destroyed, and in its place is useless barren waste'.⁹³ Ellis's concern was shared by newspapers. The *Observer*, a pictorial weekly, for example, attributed the huge loss of forests to fires to the actions of 'the "cocky" souls of Governments, past and present, and the incredibly idiotic people who rave over "good burns."'⁹⁴ This was not limited to farmers who sought to convert forests to pastures, but included 'the fat-headed picknicker [sic]' who burned down a tree 'to make a Sunday morning holiday.'⁹⁵ The best way to prevent forest fires, the *Observer* suggested in 1919, 'is a regiment with machine guns to prevent the destruction by every wooden-headed cocky who cares to put a fire-stick in the bush.'⁹⁶

In 1921, to combat fire – dubbed the 'archangel of devastation' by Ellis⁹⁷ – Chief Inspector Arnold Hansson presented a prevention system based on four cornerstones: fire patrols, public education, fire breaks, and lookout stations – the last two limited to plantations.⁹⁸ To Hansson, informing the public proved vital in fire prevention. This was particularly evident in one of the many duties he assigned to the patrol man, namely, to show settlers 'that there are two sides to the question of burning the forest off the land', as it was not merely a matter of creating more farmland.⁹⁹ Hansson also presented a number of suggestions for posters, all of which urged the public, whether timber workers or recreationists, to look after the forest.¹⁰⁰

⁹⁰ Stephen J. Pyne, *Vestal Fire: An Environmental History, Told through Fire, of Europe and Europe's Encounter with the World* (Seattle and London: University of Washington Press, 1997), 430.

⁹¹ Robert Peden, "'The Exceeding Joy of Burning': Pastoralists and the Lucifer Match: Burning the Rangelands of the South Island of New Zealand in the Nineteenth Century, 1850 to 1890', *Agricultural History* 80, no. 1 (2006): 17-34; Peden, *Making sheep country*, 41-64.

⁹² Star, 'Thomas Potts and the Forest Question,' 180-183; Star, 'Regarding New Zealand's environment,' 105.

⁹³ *AJHR*, C3, 1921, 7.

⁹⁴ 'Hack, Burn, and Grub,' *Observer*, 20 March 1920, 3.

⁹⁵ *Ibid.*

⁹⁶ 'Pars about people,' *Observer*, 6 December 1919, 10.

⁹⁷ *Ibid.*

⁹⁸ Arnold Hansson, 'Proposals for Organisation of Fire Protection 1921,' 1-5. ANZ, Wellington, New Zealand State Forest Service. Proposals for organisation of fire protection 1921, R20065240.

⁹⁹ *Ibid.*, 1.

¹⁰⁰ *Ibid.*, unnumbered.

To Hansson, it was vital to educate all kinds of forest user about the dangers of fire and inculcate them with a forest consciousness.

Following Hansson's recommendations, the SFS erected signs and calico posters that informed any person working, visiting, or passing through, of the necessity to extinguish any potential fire. With the posters (figure 15), the SFS sought to appeal to 'the better nature of the people', but also to warn visitors of the legal consequences of starting fires without a permit. Of the forest users, the recreationist was the most important to reach. 'Everyone knows', one Conservator lamented to Ellis in 1925, 'how irresponsible the weekender is'.¹⁰¹ To which he added: 'It only requires one or two acts of carelessness to cause incalculable damage.'¹⁰² With the growing popularity of tramping, the number of recreationists in State forests increased, much to the horror of the Conservator who perceived them as a liability. To impress upon 'the weekender' the danger of lighting fires, the SFS received significant assistance from its honorary rangers, many of them members of tramping associations (see chapter 6). Indeed, Ellis, and later Phillips-Turner, repeatedly stressed the valuable work of honorary rangers against fires in their annual reports.¹⁰³ In 1924, for example, Ellis credited the work of the honorary rangers as one of the primary reasons for the few fires erupting during the summer, despite exceptionally dry weather across New Zealand.¹⁰⁴

¹⁰¹ W. T. Morrison, Conservator of Forests, to Director, 29 July 1925. ANZ, Wellington, Tracks and Huts in SF [State Forest], R17277852.

¹⁰² Ibid.

¹⁰³ *AJHR*, C3, 1922, 8; *AJHR*, C3, 1923, 9; *AJHR*, C3, 1924, 7; *AJHR*, C3, 1925, 16; *AJHR*, C3, 1926, 14; *AJHR*, C3, 1927, 14; *AJHR*, C3, 1928, 10; *AJHR*, C3, 1929, 13; *AJHR*, C3, 1930, 24.

¹⁰⁴ *AJHR*, C3, 1924, 7.

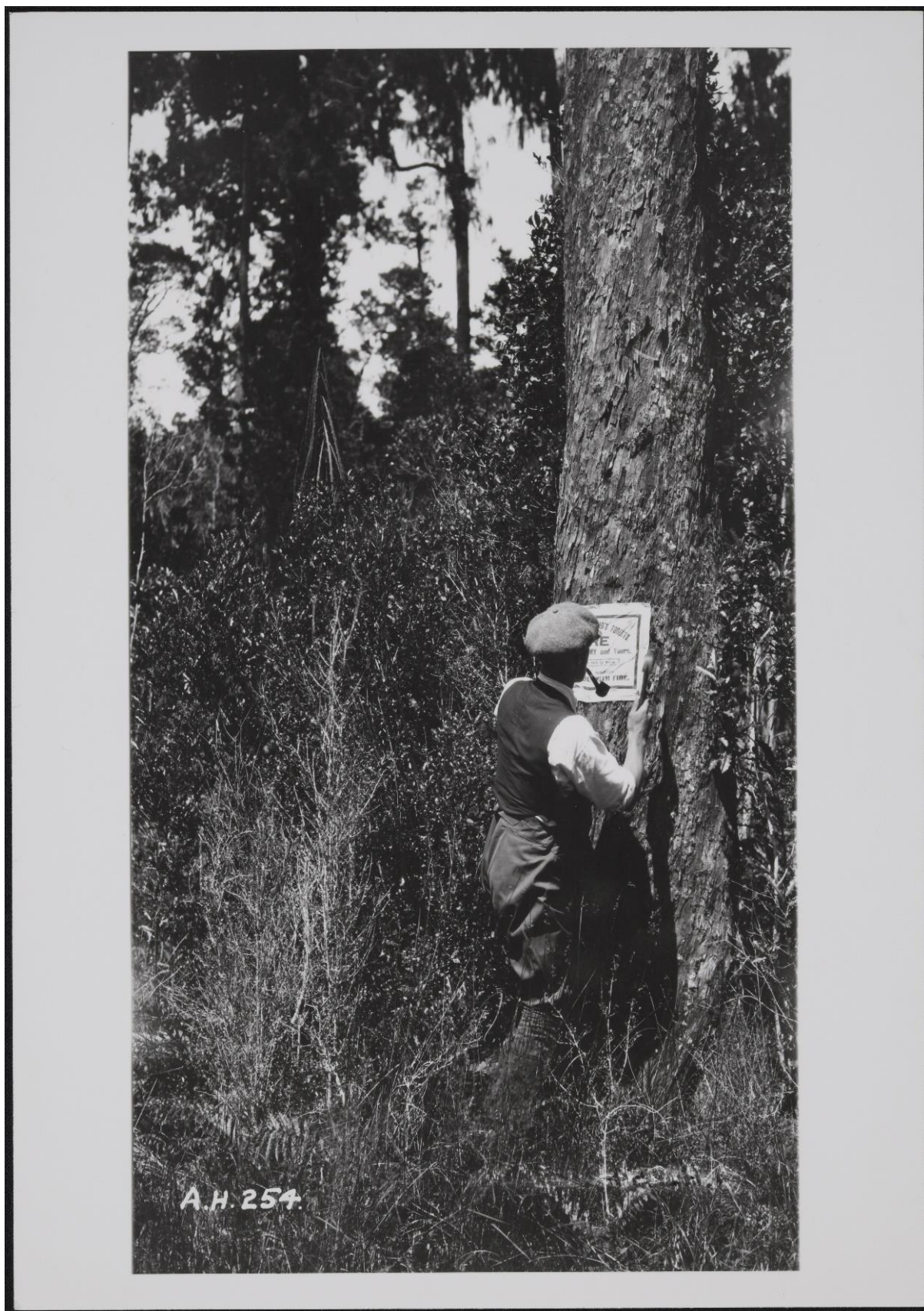


Figure 15. An unnamed fire ranger smoking a pipe whilst putting up signs urging the public to be cautious with fire. 'A fire ranger, Westland, circa 1923,' photo taken by Chief Inspector Arnold Hansson. ANZ, Wellington, Tree Species – 945.2 Forest Publicity – Signs, Exhibitions, Open Days, R2422556.

Besides posters and the employment of honorary rangers, the SFS, as previous research has highlighted, established fire districts; areas in which it was prohibited to light fires between certain dates without the permission of the SFS.¹⁰⁵ From five districts initially in 1922, the SFS had by 1930 created almost 40, covering more than two million acres. The drastic increase of land covered by fire districts was due to two reasons. First was the Forests Amendment Act, passed in 1925, which allowed ‘any private or other lands of an area not less than two hundred acres’ to be designated as a fire district.¹⁰⁶ Second, following the act, the SFS published a free circular to inform and encourage settlers, plantation companies, and other local bodies of the many benefits of fire districts, how to establish them, and the legal requirements.¹⁰⁷ ‘Although the danger to plantations from fire may be lessened considerably by efficient external and internal fire-breaks, by the use of proper appliances, and by good organization for the prevention and control of fire within a plantation, the fire-district system’, the SFS explained, ‘gives a plantation-owner the power to extend the organization to adjoining lands in order to control the lighting of fires on those lands during the closed season.’¹⁰⁸ This was controlled by an honorary ranger, who could be nominated by the applicant for the fire district. Aware that the power of the honorary ranger would infringe upon when neighbouring farmers could organise bush burns, the SFS proved keen to highlight the benefits fire districts offered. For example, neighbouring a fire district, the SFS noted, did not place any protective requirements on neighbours. Moreover, their interests would be considered equally to those of the fire districts applicants.¹⁰⁹ The SFS also acknowledged the value of fire as a tool for farmers, but emphasised the importance of controlling it to protect forests. As the SFS noted in the circular:

That “Fire is a good servant but a bad master” is recognized by all. Farming requires the use of fire for clearing operations, forestry requires the protection of growing trees from fire, and the country requires the produce from the farms and the forests for its economic progress. Helpful co-operation between them all – farmers, plantation-owners, the general public, and the State – is necessary for the welfare of the whole community.¹¹⁰

¹⁰⁵ Roche, *History of Forestry*, 186.

¹⁰⁶ Forests Amendment Act 1925, 314.

¹⁰⁷ SFS, *New Zealand State Forest Service. Circular No. 8. “Forest fire districts.” Principle of application and use in the control and prevention of forest fires* (Wellington: Government printer, 1926); *AJHR*, C3, 1926, 14.

¹⁰⁸ SFS, *New Zealand State Forest Service. Circular No. 8*, 2.

¹⁰⁹ *Ibid.*, 2f.

¹¹⁰ *Ibid.*, 4.

In addition to the circular, the SFS received great assistance in informing landowners of fire districts through the press, which detailed and explained their advantages, even carrying the circular in their pages.¹¹¹ The publicity greatly assisted in raising awareness of fire districts. ‘Farmers and the public generally’, Ellis noted in 1927, ‘are rapidly beginning to realize the value of the fire-district principle in safeguarding our indigenous and exotic forests’.¹¹² Moreover, the fire districts proved immensely effective as they drastically reduced the areas of forests going up in flames to just a few acres.¹¹³

The implementation of posters and fire districts showcases two kinds of fire protections. The former sought to remind recreational forest users to be careful with fire when venturing into indigenous forests to protect the utilitarian values of the forest, such as its protection against erosion and floods, as well as its aesthetic value. The latter aimed to protect exotic forest plantations, which primarily served to meet New Zealand’s timber supply, and offered little protection against erosion or floods, or held any major scenic value to the general forest user. Moreover, with the Forests Amendment Act, fire districts would also protect the many timber plantations of the growing number of afforestation companies (see chapter 2). Then, of course, overlapping cases existed. For example, posters could appear alongside roads next to exotic forests, reminding visitors to act cautiously.

The SFS also employed a very popular medium to educate the public on the dangers of forest fires – cinema. In May 1924, shortly before its New Zealand distribution, members of the SFS, the NZFL, and Bell, attended a private screening of the picture *Hearts Aflame* (1922) by Reginald Barker.¹¹⁴ Based on the novel *Timber* (1922) by Harold Titus, the story centred around Helen Foraker, played by the famous Swedish actress Anna Q. Nilsson.¹¹⁵ Foraker tries to protect a grove of forests planted by her late father from exploitation by the timber tycoon Luke Taylor, played by Frank Keenan. Eager to obtain the forest, Keenan’s character sends his son, played by Craig Ward, to acquire the land, but he instead develops romantic feelings for Foraker and agrees to help her protect the forest. As the forest is set aflame, Foraker and the younger Taylor are forced to undertake a daring act to save it before it is entirely consumed by the fire.¹¹⁶ Before coming to New Zealand, both film and book had enjoyed success in the

¹¹¹ ‘Forest fires,’ EP, 2 March 1926, 10; ‘Forest protection,’ *Northern Advocate*, 5 June 1926, 6; ‘Forest fires,’ *Bay of Plenty Times*, 29 June 1926, 4.

¹¹² *AJHR*, C3, 1927, 14.

¹¹³ Pyne, *Vestal Fire*, 433f; Roche, *History of Forestry*, 185-187.

¹¹⁴ ‘A forestry film,’ EP, 20 May 1924, 2.

¹¹⁵ For an overview of Anna Q. Nilsson and her career, see Denise Lowe, *An Encyclopedic Dictionary of Women in Early American Films: 1895-1930* (New York: Haworth Press, 2005), 400-403.

¹¹⁶ Dave Dempsey and Jack Dempsey, *Ink Trails II: Michigan’s Famous and Forgotten Authors* (East Lansing: Michigan State University Press, 2016), 145-147.

United States.¹¹⁷ Speaking to a reporter afterwards, Bell, who ‘expressed appreciation of the movie’, believed that it would ‘prove of great interest to all those interested in forestry’.¹¹⁸ Ellis expressed even greater excitement. ‘The picture’, he claimed in a letter to the cinema manager, which was later published in the press:

is even more graphic and real than the novel and to all lovers of the forest, the outdoors, of Nature at her best, and to all true citizens interested in the welfare of the forests in this Dominion, I sincerely recommend this picture.¹¹⁹

During the interwar period, going to the cinema constituted one of the most popular pastimes amongst urban dwellers, especially the youth. With cinemas in almost every New Zealand town, and with tickets being cheap, a majority of the public could watch the latest Hollywood picture. As previous research on cinema in interwar New Zealand shows, American films played a significant role in the culture of the Dominion, influencing ideas and perceptions of, for example, fashion and romance.¹²⁰ Hollywood pictures also promoted concerns from socially conservative citizens who worried that the movies would lead to increased crime and inappropriate sexual behaviour amongst youth.¹²¹ Fears also existed that cinema diverted the rising generation from taking an interest in nature. In 1922, two years before finding himself watching *Hearts Aflame*, Leigh Hunt reportedly declared that it remained up to the NZFL and horticultural societies to turn children ‘away from the picture shows’ and encourage them ‘to go out and study the bush.’¹²² However, as the reviews by Bell and Ellis show, authorities believed, if the right movie was available, that Hollywood pictures could also generate a broad interest in forestry, and especially the danger of fire.

As with many other Hollywood films exported to New Zealand during the interwar period, *Hearts Aflame* featured drama, romance, and thrills; all of which were heavily advertised in the press.¹²³ The starring of Nilsson also received particular attention, with one

¹¹⁷ Dempsey and Dempsey, *Ink Trails II*, 147.

¹¹⁸ ‘A forestry film,’ EP, 20 May 1924, 2.

¹¹⁹ ‘Amusements,’ AS, 27 May 1924, 16. A shorter version of the letter appeared too, see for example: EP, 18 June 1924, 2.

¹²⁰ Charlotte Greenhalgh, ‘Busch Cinderellas. Young New Zealanders and romance at the movies, 1919-1939,’ *New Zealand Journal of History* 44, no. 1 (2010): 1-21; Natalie Smith, ‘The Modern Girl. Dale Austen, Miss New Zealand, in Hollywood,’ in *New Zealand between the Wars*, ed. Bell, 261-264.

¹²¹ Rory Shuker, Roger Openshaw and Janet Madeline, *Youth, media and moral panic in New Zealand: from hooligans to video nasties* (Palmerston North: Massey University, 1990), 57-67.

¹²² ‘Forestry League. Wellington Branch formed. Public opinion strong. To conserve bush remaining,’ EP, 24 March 1922, 4.

¹²³ ‘Amusements,’ AS, 29 May 1924, 16; ‘Amusements,’ NZH, 29 May 1924, 16.

advertisement referring to the Swedish actress as ‘the blonde beauty’.¹²⁴ Aside from its plot and the appearance of its star, advertisements and reviews in the press also commended the pedagogical aspect of the film, as had Bell and Ellis. The *Evening Post*, for example, saluted *Hearts Aflame*, with its ‘study of the forest and timber problem’ providing ‘[a]n excellent sample’ of ‘[t]he value of the moving picture in the education of the public’.¹²⁵ The *Hokitika Guardian*, in turn, noted that *Hearts Aflame* offered ‘a valuable document for those interested in forest conservation in this country’, which, the paper argued, constituted ‘a subject of vital interest to New Zealanders at the present time.’¹²⁶ Apart from simply highlighting the contemporary issue of forestry, the press gave great attention to the destruction caused by the fire in the final moments of the picture. ‘The scene’, the *Auckland Star* noted, ‘is terrible yet fascinating’.¹²⁷ This was an assessment shared by the *New Zealand Herald*, which also suggested that the picture ‘should have a great appeal to lovers of Nature and those who are interested in the prevention of destruction of trees.’¹²⁸ Meanwhile, an advertisement in the *Evening Post* described the movie as: ‘A powerful preachment against the devastation of our Natural Forests.’¹²⁹

Janette-Susan Bailey demonstrates how advocates and scientists of soil conservation in the United States and Australia, the latter drawing upon metaphors from the former, employed a range of imagery, such as photography, literature, and film, to enable the public to experience and conceptualise what a dustbowl entailed.¹³⁰ Though not a primary tool of the government departments of the respective countries, Bailey shows how Hollywood pictures helped shape the soil conservation discourse through their imagery in the United States and Australia, not least in the 1940s movie adaptation of John Steinbeck’s *Grapes of Wrath*.¹³¹ The fire scene in *Hearts Aflame* played a similar role, namely by conveying a moving image of forest fires’ destructive power, and the subsequent need to prevent them. The fact that the movie took place in the United States mattered little: what mattered was the imagery Ellis and newspapers believed would foster a forest consciousness in the public mind. Judging by advertisements, *Hearts Aflame* proved a popular movie, appearing in cinemas across New Zealand, with the last

¹²⁴ ‘Amusements,’ AS, 29 May, 1924, 16.

¹²⁵ ‘A forestry film,’ EP, 20 May 1924, 2.

¹²⁶ ‘Amusements. McLean’s pictures,’ *Hokitika Guardian*, 30 July 1925, 1.

¹²⁷ ‘Screen stars and films,’ AS, 24 May 1924, 23.

¹²⁸ ‘In filmiland,’ NZH, Supplement, 1 March, 1924, 8; ‘In filmiland,’ *New Zealand Herald*, Supplement, 17 May 1924, 26. Quote from the former.

¹²⁹ EP, 23 June 1924, 2.

¹³⁰ Janette-Susan Bailey, *Dust Bowl. Depression America to World War Two Australia* (New York: Palgrave Macmillan, 2016).

¹³¹ *Ibid.*, 155f.

advertised viewing seemingly taking place in 1927. Seeking to create a forest conscious public, the SFS used traditional media, like posters and modern cinema.

In its propaganda efforts to promote a more cautious use of fire, the SFS received help from private companies as well as preservation and conservation societies. In 1925, the British Imperial Oil Company offered to supply the SFS with 10,000 leaflets, which encouraged drivers to help reduce the risk of forest fires, whilst also promoting the company's products (figure 16 and 17).¹³² To convince the SFS of its usefulness, the company informed the SFS that the Victorian Forests Commission used it.¹³³ Suitably persuaded, the SFS accepted the offer, but unfortunately, the leaflets arrived too late into the fire season for efficient distribution.¹³⁴ Nonetheless, eager to circulate 'this form of educational propaganda', the SFS assured the company that it would distribute the material next fire season.¹³⁵ In November 1926, the British Imperial Oil Company supplied the SFS with additional 'bush fire propaganda', namely a 'cheque book size blotter'.¹³⁶ The SFS, again, agreed to distribute the blotters. To reach 'a greater number of the general public', it also recommended the company send them 'to the hotel and boarding house keepers at Rotorua, Hanmer Springs, and other frequented resorts in the vicinity of forest reserves', advice the company followed.¹³⁷ As the interest of the SFS in the material suggests, ignorant motorists, especially in the vicinity of its plantations, constituted a threat to forests (see chapter 6).

¹³² The British Imperial Oil Company (New Zealand) to The Director of Forestry, 19 January 1925. ANZ, Wellington, Fire Prevention Notice Leaflets etc, R17274817.

¹³³ Ibid.

¹³⁴ Secretary of Forestry to the British Imperial Oil Company (New Zealand), 29 January 1925. ANZ, Wellington, Fire Prevention Notice Leaflets etc, R17274817; Secretary of Forestry to The British Imperial Oil Company (New Zealand), 28 April 1925. ANZ, Wellington, Fire Prevention Notice Leaflets etc, R17274817.

¹³⁵ [Unreadable signature], for the Director of Forestry, to The British Imperial Oil Company (New Zealand), 22 October 1925. ANZ, Wellington, Fire Prevention Notice Leaflets etc, R17274817.

¹³⁶ The British Imperial Oil Company (New Zealand) Ltd, to The Director of Forestry [sic], 26 November 1926. ANZ, Wellington, Fire Prevention Notice Leaflets etc, R17274817.

¹³⁷ Director of Forestry, to The British Imperial Oil Coy. (N.Z.) Ltd., 4 December 1926. ANZ, Wellington, Fire Prevention Notice Leaflets etc, R17274817; The British Imperial Oil Co. (N.Z.), to The Director of Forestry, 1 February 1927, 1f. ANZ, Wellington, Fire Prevention Notice Leaflets etc, R17274817. Hotels in following places were supplied, listed in alphabetical order: Alexandra, Blenheim, Clyde, Domett, Glenhope, Greymouth, Hokitika, Inangahua, Kaikoura, Makarora, Nelson, Pembroke, Queenstown, Roxburgh, Taupo, Te Anau Te Kuiti, Tokaanu, Wanganui, and Westport.



Figure 16. Front side of leaflet published by the British Imperial Oil Company advertising the company's products whilst simultaneously calling upon motorists to help prevent forest fires. ANZ, Wellington, Fire Prevention Notice Leaflets etc., R17274817.

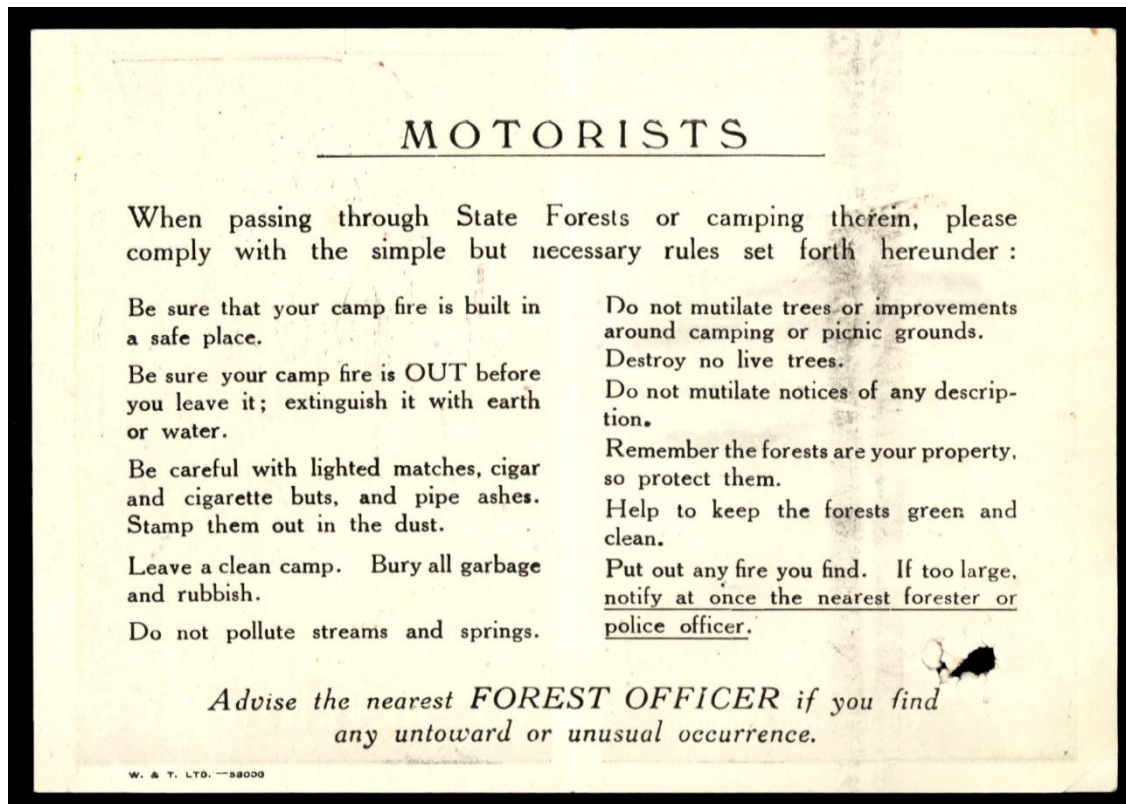


Figure 17. Back side of leaflet published by the British Imperial Oil Company calling upon motorists to help prevent forest fires by collaborating with the SFS and by following certain rules so as not to cause any fires. ANZ, Wellington, Fire Prevention Notice Leaflets etc., R17274817.

What about the NZFL? Was it, too, concerned about fire? For more than a decade following its formation in 1916, the NZFL directed only minor attention towards the threat of fire, seeing it as the task of the SFS.¹³⁸ Such disinterest in fire prevention amongst NZFL members also reflected the opinion of imperial forester David Ernest Hutchins, who exercised a strong influence on the NZFL (see chapter one). Although Hutchins noted that fires had badly affected plantations prior to his arrival, he attributed the cause to a lack of organisation.¹³⁹ Regarding native forests, Hutchins deemed fire as a nominal threat that could be addressed through ‘ordinary precautions’ since ‘the damp climate of New Zealand’ would result in few fires.¹⁴⁰

However, large fires during the summer of 1927-1928 prompted the NZFL to pursue an active role in fire prevention, focusing on the threat posed by discarded cigarettes and general carelessness.¹⁴¹ To combat the former, the NZFL approached a tobacco company with the suggestion that its cigarette cartons should feature slogans like: “‘Save fire loss”, [or] “Extinguish your butt””.¹⁴² To its displeasure, the cigarette company rejected the idea due to the ‘many technical difficulties’ such an addition entailed.¹⁴³ Instead, the NZFL turned its attention to the risk tourists posed, asking tourist agencies to ensure that they had signs ‘in prominent positions asking campers, tourists, and the public generally to guard against insipient fires.’¹⁴⁴ It later sent the same appeal to acclimatisation societies as well as the Union Steam Ship Company.¹⁴⁵ In general, these efforts met with great success. The Union Steam Ship Company, for example, agreed to include ‘a warning on its advertising matter’ of the dangers of forest fires.¹⁴⁶ Contrary to the SFS, which perceived fire as an enemy in an economic and utilitarian sense, the NZFL primarily regarded fire as a threat to protection forests and forests of scenic value. This is reflected in the focus of the NZFL’s anti-fire propaganda on tourist operators and recreational users.

While recreationists, motorists and trappers alike, constituted a fire risk, the NZFL and the SFS welcomed more people seeing and experiencing the outdoors, claiming that it would see the public develop a forest-consciousness (see chapter 6). ‘While there are many careless vandals who burn, deface, destroy, and defile,’ the NZFL noted in a 1931 article in its official

¹³⁸ Lochhead, ‘Preserving The Brownies’ Portion,’ 247.

¹³⁹ Hutchins, ‘Scientific national forestry,’ 312, 314, and 317.

¹⁴⁰ *Ibid.*, 317.

¹⁴¹ NZFL, council, 26 July 1928, 2. A L Hunt Papers, ATL, MS-Papers-0158-299.

¹⁴² NZFL, council, 23 August 1928, 2. A L Hunt Papers, ATL, MS-Papers-0158-299.

¹⁴³ NZFL, council, 29 November 1928, 1f. A L Hunt Papers, ATL, MS-Papers-0158-299. Quote from 1.

¹⁴⁴ NZFL, council, 23 August 1928, 3. A L Hunt Papers, ATL, MS-Papers-0158-299.

¹⁴⁵ *Ibid.*

¹⁴⁶ NZFL, council, 29 November 1928, 2. A L Hunt Papers, ATL, MS-Papers-0158-299.

magazine seeking to remind motorists and trampers to be mindful of fire and to look after forests in general in 1931:

there is among trippers an increasing majority of people who love wild life (flora and fauna) and who would preserve it and check the vandals. As this spirit of Nature-love gains increasingly the upper hand, forest consciousness – in fact, tree-consciousness embracing exotics as well as native – will attain so much power that the public opinion it creates will become a respected force even in party politics.¹⁴⁷

Protecting native birds to protect native forests

The interests of the SFS and the NZFL also extended to concern for the welfare of native birds, many of which had gone extinct in the preceding decades due to forest destruction and predation by introduced species. In 1924, Leigh Hunt, after visiting the Buller and Westland regions in 1924, penned an article in *Life and Forest Magazine* detailing his journey. Although encountering ‘a galaxy of scenery’, the trip had left him deeply concerned about the future of New Zealand’s native avifauna as he had barely spotted or heard any bird during the trip.¹⁴⁸ It was a most dispiriting experience, as Leigh Hunt remarked: ‘who would not feel depressed by passing through hundreds of miles of silent forests where the flutter of wings or the song of a bird is not heard?’¹⁴⁹ The recent excursion proved a stark contrast to those in his youth during which he witnessed and heard plenty of birds, many of them now rare or extinct, such as huia (*Heteralocha acutirostris*).¹⁵⁰ ‘If the public’, he warned, ‘are indifferent and fail to rescue the remnant of our bird life, we, and those who come after us, will pay a terrible price for our neglect’ – namely a soulless bush.¹⁵¹ Saving remnants of native forests meant little if its indigenous inhabitants disappeared, thus making native bird protection a natural objective of forest preservation. To prevent the forests from becoming silent monuments to the past, Leigh Hunt called upon the public to act and protect native avifauna:

Get busy! therefore, you Farmers’ Unions, Fruitgrowers’ Associations, and Horticulturists, aye, and you City folk, too, for none of you can live (you may exist) in a

¹⁴⁷ N.Z. Forestry League, ‘Afoot and awheel. To summer man (and maid). Be tree conscious! Defend wild life!’ *New Zealand Magazine* 10, no. 2 (1931): 11.

¹⁴⁸ A. Leigh Hunt, ‘The Birdless Bush. A National Menace,’ *New Zealand Life and Forest Magazine* 3, no. 5 (1924): 5.

¹⁴⁹ *Ibid.*, 5.

¹⁵⁰ *Ibid.*, 5.

¹⁵¹ *Ibid.*, 6.

birdless country any more than in a treeless waste, as our experts tell us that the bird is as necessary to the forest as the forest to the bird, if either are to regenerate. Get busy and rally round the [Native] Bird Protection Society and the New Zealand Forestry League[.]¹⁵²

As Leigh Hunt's plea demonstrates, birds proved essential to forests and humans. Indeed, since the 1880s, as a New Zealand identity had begun to emerge amongst Pākehā, so had fondness for native avifauna grown, with many birds being adopted as national icons, most notably kiwi (*apteryx*). In 1890, to shield native birds from introduced threats, such as cats and mustelids, the government established three island reserves where birds would be able to live in peace.¹⁵³ However, though protected on paper, poachers continued to shoot native birds whilst cats and other bird-predators roamed the island reserves.¹⁵⁴ Meanwhile, forest destruction and the spread of predators continued to cause declines in bird numbers, including extinctions. At the same time, Pākehā adopted native birds as national symbols, fuelling efforts to protect them.¹⁵⁵ Seeking to improve the protection and preservation of native birds, the New Zealand Forest and Bird Protection Society was established in 1914. However, hampered by World War I, with other issues deemed more important than conservation and preservation, the society ceased to exist a few years later.¹⁵⁶ In March 1923, in a new attempt to awaken public support for the safeguarding of indigenous avifauna, former Prime Minister Sir Thomas Mackenzie and Ernest Valentine Sanderson formed the Native Bird Protection Society (NBPS).¹⁵⁷

As suggested by Leigh Hunt's plea, the NBPS, mere months after its establishment, received support from members of the NZFL. Wilson regarded the formation of the NBPS as 'none too soon' in light of the rapidly decreasing number of native birds.¹⁵⁸ Moreover, Wilson believed that the efforts and aims of the new society would benefit the NZFL, since 'birds', he claimed, 'are provided by nature to assist forestry'.¹⁵⁹ Members of the NZFL seemed to have agreed, as many of them soon joined the NBPS, including, Leigh Hunt who would hold a membership in both organisations for several years.¹⁶⁰ As a result of dual memberships,

¹⁵² Leigh Hunt, 'The Birdless Bush,' 6.

¹⁵³ Young, *Our Islands, Our Selves*, 91-95. For an overview of mustelids and other introduced species affecting native birdlife, see: King, *Invasive Predators in New Zealand*.

¹⁵⁴ *Ibid.*, 94f.

¹⁵⁵ Paul Star, 'Native Bird Protection, National Identity and the Rise of Preservation in New Zealand to 1914,' *New Zealand Journal of History* 36, no. 2 (2002): 123-136.

¹⁵⁶ Lochhead, 'Preserving The Brownies' Portion,' 192-238.

¹⁵⁷ *Ibid.*, 266-273.

¹⁵⁸ President's address, annual meeting, 18 July 1923, 4. A L Hunt Papers, ATL, MS-Papers-0158-297.

¹⁵⁹ *Ibid.*

¹⁶⁰ Lochhead, 'Preserving The Brownies' Portion,' 272.

likeminded interests, and not least Sanderson who sat on the council of the NZFL, the two associations came to co-operate on a range of issues related to preservation throughout the 1920s. To the two movements, the preservation and protection of forests and birds were seen as a common goal due to their inter-dependence. ‘The bush and bird life’, Hurst noted in *Life and Forest Magazine* in 1923, which briefly served as the official magazine for both organisations, ‘are closely linked; and the loss of one means the death-knell of the other.’¹⁶¹ To demonstrate this point, he quoted a stanza from the poem “The Passing of the Forest” by New Zealand politician and historian William Pember Reeves:

Gone are the forest birds, aboreal [sic] things
 Eaters of honey, honey-sweet of song,
 The tui and the bell-bird – he who sings
 That brief, rich music we would fain prolong
 Gone the wood-pigeon’s sudden whirr of wings;
 The daring robin, all unused to wrong.
 Wild, harmless, hamadryade creatures, they
 Lived with their trees, and died, and passed away.¹⁶²

When first published, in 1898, Julian Kuzma notes that Reeves set to capture the contradictory feelings of progress and loss in the wake of burning forests for the cultivation of land. However, growing ever more wary of deforestation, Reeves regularly edited his poem to emphasise the negative consequences of deforestation.¹⁶³ By the 1920s, the poem had become a central literary piece amongst conservationists. As Kirstie Ross shows, the poem regularly featured in the *School Journal* to impress upon children the dangers of deforestation.¹⁶⁴ In the same issue that Hurst emphasised the relationship between birds and forests by citing Reeves, L. O. H. Tripp, NZFL-council member and president of the Wellington Acclimatisation Society, outlined several reasons for the depletion of native birds, all stemming from actions by ‘the white man’ who had introduced the animals preying on the birds.¹⁶⁵ To protect and prevent native birds from going extinct, Tripp listed a handful of suggestions. These included raising public opinion,

¹⁶¹ Maurice Hurst, ‘Our Heritage. Of Busch and Birds and Beauty,’ *Life and Forest Magazine*, no. 7 (1923): 5.

¹⁶² *Ibid.*, 5.

¹⁶³ Julian Kuzma, ‘New Zealand Landscape and Literature, 1890-1925,’ *Environment and History* 9, no. 4 (2003): 453f.

¹⁶⁴ Ross, *Going Bush*, 47.

¹⁶⁵ L. O. H. Tripp, ‘Our Native Birds. Steps to Prevent Depletion,’ *Life and Forest Magazine*, no. 7 (1923): 7.

planting native trees to function as a source of food, and introducing native weka (*Gallirallus australis*) in forests plagued by rats as observations showed that the bird proved a most excellent rat-catcher.¹⁶⁶ The value of introducing weka to new forests was further stressed by fellow council-member Joseph Orchiston, detailing with horror the ecological disaster that followed its depletion in Eastbourne, a suburb of Wellington:

In my bush at Muritai I rarely find any manuka tree [*Leptospermum scoparium*] from an inch in diameter upwards not riddled by the weta [an insect species native to New Zealand]. Since the elimination of the weka there appears to be no enemy left to prey upon the weta – hence its phenomenal increase of late years. There is no doubt that the destruction of the native bird life is ultimately going to seriously affect the forests of the country.¹⁶⁷

Meanwhile, as the NZFL called upon the protection of native birds, the NBPS urged for the protection of forests in its magazine *Birds*, later renamed *Forest and Bird*. Indeed, Sanderson ascribed ‘climatic effects’ together with the ‘prevention of erosion’ as ‘the most important side of the utility of our forests’ in *Birds* in 1926.¹⁶⁸ Therefore, he deemed it paramount to protect forests from two threats: introduced animals such as deer, which destroyed the forest floor, and fire. He also emphasised the need to safeguard native birds since they ate harmful insects and helped with the distribution of seeds as well as pollination.¹⁶⁹ If New Zealand failed to protect its forests and birds, Sanderson warned, a gloomy future awaited: ‘Our rainfall would be spasmodic and lessening, alternating between floods and droughts. New Zealand would be a wind-swept country with a bare rocky range in the centre. Semi-desert conditions would prevail, and our island home be not worth while living in.’¹⁷⁰ As the examples from Hurst, Tripp, Orchiston, and Sanderson demonstrate, propaganda for native bird protection and forest conservation could, and did, overlap. However, as Lynne Lochhead notes in her thesis, the two organisations would divide the labour of conservation between themselves, with the NZFL focusing on forests and the NBPS dedicating its efforts to birds.¹⁷¹

¹⁶⁶ Tripp, ‘Our Native Birds,’ 7f.

¹⁶⁷ J. Orchiston, ‘Why Our Bush Birds Vanish,’ *New Zealand Life and Forest Magazine*, no. 8 (1923): 13,

¹⁶⁸ E. V. Sanderson, ‘A peep into the future – the apex of our prosperity,’ *Birds* 11 (October 1926): 2-3.

¹⁶⁹ *Ibid.*, 3.

¹⁷⁰ *Ibid.*, 2f.

¹⁷¹ Lochhead, ‘Preserving The Brownies’ Portion,’ 260.

The SFS, like the NZFL, welcomed the new society, with Ellis encouraging staff to offer ‘hearty support to the efforts being made by the New Zealand Native Bird Protection Society to conserve our bird life’.¹⁷² Much to his joy, plenty of officers did, with some of them writing directly to Sanderson to pledge their support.¹⁷³ Ellis would later follow his own advice, joining the association in June 1925, and serving as one of its many vice presidents, as would Edward Phillips Turner after succeeding Ellis as Director of Forestry in 1928.¹⁷⁴ To assist the NBPS, the SFS actively assisted the NBPS in distributing its propaganda to eliminate what it regarded as ‘a most apathetic attitude’ amongst the public towards ‘wild-life conservation’.¹⁷⁵ This primarily involved setting up posters in English and Te Reo Māori. The posters in question, (figure 18 and 19) differed slightly in message. The poster in English began by emphasising the importance of native birds to the welfare of the forest. Besides their utilitarian value the poster also highlighted their beauty and uniqueness to New Zealand, making protecting them an act of patriotism. The poster concluded with a warning of the legal consequences if a person was caught hunting native birds: a £25 fine with the additional risk of guns, nets, or even boats or cars being seized. The poster in Te Reo Māori, in contrast, while beginning by addressing both Māori and Pākehā, warned that deforestation and hunting seriously threatened birds and stressed the importance of protecting birds as the descendants of Tāne, the god of forests. In addition to Tāne, the poster drew upon other elements of Māori thinking, concluding by exhorting readers to treasure birds so that they might have a bright future. The posters certainly proved effective, as Ellis reported a general increase in native bird numbers in 1925, which he attributed to the ‘work and propaganda’ by the NBPS.¹⁷⁶

¹⁷² Director of Forestry to all conservators, 7 November 1923. ANZ, Wellington, Native Birds, R17277660.

¹⁷³ E. V. S to MacIntosh Ellis, 11 December 1923. ANZ, Wellington, Native Birds, R17277660.

¹⁷⁴ E. P. T to E. V. Sanderson, 9 June 1925. ANZ, Wellington, Native Birds, R17277660; Lochhead, ‘Preserving The Brownies’ Portion,’ 272.

¹⁷⁵ *AJHR*, C3, 1924, 7.

¹⁷⁶ *AJHR*, C3, 1925, 16.



**New
Zealanders!**

PROTECT YOUR NATIVE BIRDS

They are necessary to the well-being and life of our forests, which without them would dwindle and die.

They attend to the proper distribution of forest tree seeds, especially the pigeon.

They are the guardians of the forest against insect pests and like scourges.

They attend to the fertilisation of the forest tree flowers.

They are chosen by nature, after thousands of years' evolution, as the most fitted for their purposes.

They are necessary to your well-being, as their well-being is inter-allied with the welfare of the forest.

They are unique and wonderful beyond compare; therefore their protection should appeal to all true New Zealanders.

Caution to Vandals, Poachers, Collectors, &c.

Our birds are, almost without exception, protected by law. Any person who takes or kills any of these birds (including pigeons and nearly all varieties of sea birds), or takes or has in his possession, taken after the passing of "The Animals Protection Act, 1921-22," any of these birds or their nests or their feathers, is liable to a fine of £25 for each offence. Moreover, guns, boats, nets, motor-cars, etc., used or intended to be used contrary to the provisions of this Act are liable to seizure.

N.Z. Native Bird Protection Society

P.O. BOX 631, WELLINGTON

Revolving Post Print.

Figure 18. To spread its propaganda, the NBPS supplied the SFS with posters, which the SFS happily put up. 'NBPS-poster in English, 1926'. Wellington. ANZ, Wellington, Native birds, R17277660.

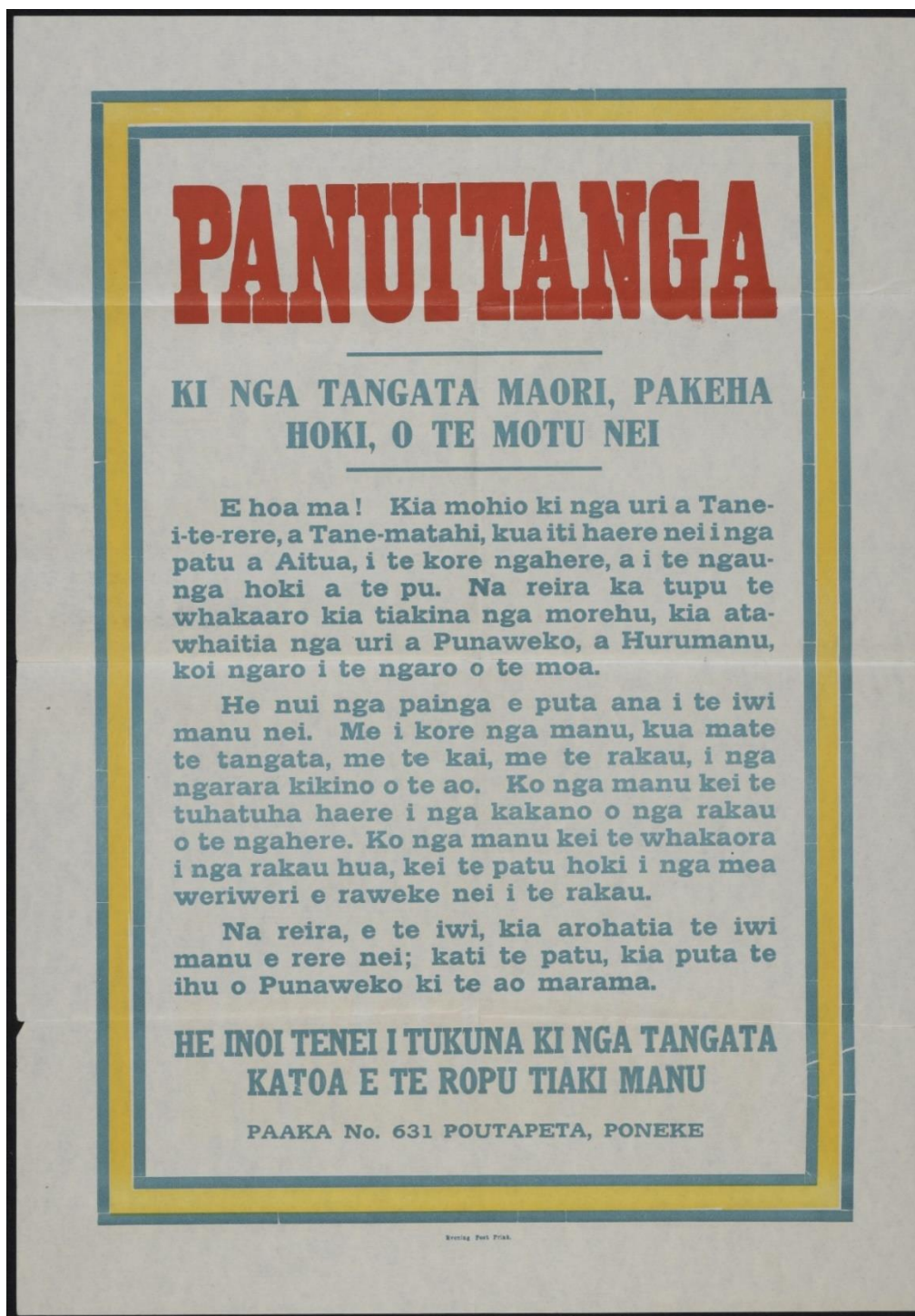


Figure 19. In addition to posters in English, the NBPS also supplied the SFS with posters in Te Reo Māori. 'NBPS-poster in Te Reo Māori, 1926'. Translation: 'To the Māori people and the Pākehā people of this country. Friends! The descendants of Tanei-te-rere, a Tana-matahi [i.e. the birdlife of the forests], are facing disaster from the loss of forests and from hunting. Consequently there is increasing concern to protect birdlife [i.e. to protect 'the remnants', 'the survivors' that is, the birds we still have today – particular species and also numbers of particular species], to care for the descendants of Punawekoa and of Hurumanu [i.e. the birds of forest and coast], lest they are lost as the moa has been lost. It would be of the highest importance that the birdlife survives. Without birds people themselves sicken or die, likewise foodstuffs, trees due to bugs/insects – i.e. birds keep bugs and insects/relatively small pests under control (by eating them)]. [Birds heal/revive/restore forest trees and they control pests (that attack the trees)]. Therefore, all people, let us appreciate and care for all birds; stop the destruction (of the birds) that the birdlife might thrive in this, the living world. This is an appeal to all people by the Native Bird Protection Society. PO BOX 631, Wellington.' I would like to thank Prof. Jim McAloon and, especially, Dr. Arini Loader, for assistance with translating the poster.

To the SFS, helping the NBPS in educating the public on the value of native birds to forest welfare, and the subsequent need to protect them, constituted an aspect of creating a public forest consciousness. As Ellis noted in 1925: ‘The Service, realizing the value of the relation of bird-life to the forest, gives its whole-hearted support to this society, and officers use every opportunity to stress the need for perpetuating our native birds.’¹⁷⁷ This symbiotic relationship was repeatedly stressed by Ellis in his annual reports.¹⁷⁸ In fact, in 1922, a year prior to the formation of the NBPS, Ellis suggested that the NZFL ought to direct more focus ‘to the serious need of conserving our native bird life’ due to its importance for the welfare and lifecycle of New Zealand’s forests.¹⁷⁹ That same year, Ellis noted in his annual report that in protecting native birds, and thereby the forest, the SFS had begun to deny access to certain forests to people carrying ‘guns, rifles, and other firearms’.¹⁸⁰ The only shooting the SFS would allow in these forests was that done with a camera.¹⁸¹

Aside from distributing propaganda to inculcate the public with a love and realisation of the value of native birds, the SFS and the NBPS also collaborated in catching poachers, especially of kererū (*Hemiphaga novaeseelandiae*). To conservationists and foresters, kererū, with its hefty appetite for various berries, played a major role in ensuring the future growth of native trees by distributing their seeds. Although having become a protected species in 1910, both Pākehā and Māori continued to hunt kererū, though for very different reasons. To Pākehā hunters it was a popular game bird. To Māori the bird was an important food source as well as of cultural significance, and the hunting of kererū had long been a topic of political discussion in the late nineteenth and early twentieth century.¹⁸² The notion of when to hunt kererū caused constant debate between Pākehā and Māori, with the former favouring April to June when kererū were more agile whilst Māori preferred July to September when the bird had become fat after feeding on berries.¹⁸³ To catch hunters of kererū and other native birds, the SFS received help from its honorary rangers. Amongst those assisting the SFS was Sanderson, who in his

¹⁷⁷ *AJHR*, C3, 1925, 16.

¹⁷⁸ See also *AJHR*, C3, 1922, 7; *AJHR*, C3, 1924, 7; *AJHR*, C3, 1926, 16.

¹⁷⁹ L. M. Ellis, ‘Forestry at work,’ 6. ANZ, Wellington, New Zealand State Forest Service. Forestry at work, R20065318.

¹⁸⁰ *AJHR*, C3, 1922, 7.

¹⁸¹ *Ibid.*

¹⁸² For an example of the political discussions and implications on Māori hunting privileges, see Peter Meihana, ‘Once Were Muttonbirders: Ngāti Kuia’s Fight to Retain Its Harvesting Rights,’ in *New Zealand Between the Wars*, ed. Bell, 132-153.

¹⁸³ Kate Hunter, *Hunting: A New Zealand History* (Auckland: Random House, 2009), 56-66.

role as honorary ranger zealously confiscated the rifle of any person he suspected of poaching during his patrols.¹⁸⁴

In late October 1926, to further improve the protection of native birds within State forests against poachers, Sanderson suggested to Ellis that a portion of them be classified as sanctuaries, a notion that seemingly intrigued Ellis.¹⁸⁵ A few months later, Sanderson presented a list of suitable State forests across New Zealand. The idea received general praise amongst Conservators, although some expressed concern over banning guns entirely since it would make deer hunting and possum trapping difficult. Thus, rather than prohibiting all kinds of firearms, the SFS instead banned those designed to kill birds only.¹⁸⁶

The measures undertaken by the SFS and the NBPS, the bird-propaganda, the patrolling of state forests and turning them into bird sanctuaries, together with other initiatives by the SFS alone, seem to have had the desired effect. As Ellis reported in 1927:

Bird-life must have breeding-places, shelter, and food, and the forest furnishes this admirably. The fire-protection policy of the Forest Service, together with loyal public co-operation, has accomplished much in safeguarding the remaining refuges of New Zealand native birds.

Though the general public seemingly had embraced a forest consciousness, individual poachers remained a nuisance. While cherishing the improved protection of native birds, Ellis also reported that two men had been fined £20 each and had had their rifles taken for shooting kererū. The following year, Phillips Turner, who had succeeded Ellis, reported several cases of ‘illicit shooting’.¹⁸⁷

Poachers were not the only threat to native birds and the welfare of forests. By the end of the 1920s, the danger of rats, possums, deer, and mustelids started to become ever more apparent. While Sanderson and the NBPS had long expressed concern over the havoc caused by deer and possums, the SFS saw the two as sources of revenue before slowly changing its stance, in particular regarding the latter with its lucrative fur trade.¹⁸⁸ In 1929, for example, Phillips Turner acknowledged that native bird ‘protection and propagation’ depended on the

¹⁸⁴ See, for example: Sanderson to the SFS, 19 April 1922 and Sanderson to the SFS, 23 April 1922. ANZ, Wellington, Permits to enter Orongorongo SF [State Forest] R17277585.

¹⁸⁵ ‘Note for file. Native Birds,’ 29 October 1926. ANZ, Wellington, Native Birds, R17277660.

¹⁸⁶ *AJHR*, C3, 1928, 12.

¹⁸⁷ *Ibid.*

¹⁸⁸ On deer and possum, see: Young, *Our Islands, Our Selves*, 130-135. See also: Hunter, *Hunting*, 66-73 and 142-152.

elimination of ‘vast numbers of deer, stoats, weasels and rats’, but admitted that the revenue from possums made it ‘not sufficient to provide for more than a partial destruction of the forest pest.’¹⁸⁹ The threat to forest and forest wildlife would see the native bird propaganda shift, from focusing on the glory and ecological importance of native birds, to rallying support for the elimination of exotic animals, deer in particular, which were described as a menace to New Zealand. For example, the introduction to *Birds* in November 1929 read:

It is incumbent upon all to realise the menace of plant-eating animals to our peculiar forests. If the farmer, the business man and the public in general do not fully comprehend this real danger to our prosperity and do not act accordingly, then all will have to pay a heavy toll. The menace if unchecked means great loss of immediate and future wealth of the Dominion. We ask the assistance of all patriotic people in combating the attempt by a few to sacrifice our National heritages and well being for mere sport. Is it to be the prosperity of the community or the pleasure of some 700 stalkers?¹⁹⁰

Conclusion

The deforestation of New Zealand during the nineteenth century, in addition to causing concern of a timber famine, also fuelled anxiety about the increased frequency of erosion and floods as well as a reduction in rainfall. Although the last fear had faded amongst scientifically trained foresters like David Ernest Hutchins, by the time of the creation of the NZFL in 1916, anxiety around erosion and floods very much remained. Following the creation of the SFS, the NZFL devoted significant efforts to educating the public on the importance of protection forests, most notably through its magazine which carried articles and cartoons on the utilitarian value of forests beyond just a source of timber. To the NZFL, creating a public forest consciousness involved not just creating public support for scientific forestry and encouraging private tree-planting, but a public realisation of the wider utility of forests as protectors against erosion and floods. Director of Forestry Leon MacIntosh Ellis, though primarily concerned with securing New Zealand’s timber supply, repeatedly emphasised the value of protection forests, in particular to agriculture. To Ellis, protection forests proved essential to agriculture, safeguarding farms from erosion and floods. As such, he requested that forests along steep ridges and other vulnerable areas be placed under the administration of the SFS. The attempts by the NZFL and the SFS to foster a forest consciousness and stir public opinion, in relation to

¹⁸⁹ *AJHR*, C3, 1929, 9.

¹⁹⁰ *Birds* 19 (1929): 1.

protection forestry can be well seen in the efforts to prevent the settlement of Te Urewera. Through reports, articles in the official magazines of the NZFL, and even by supplying the general press with material, the NZFL and the SFS sought to convince ministers and the general public alike on the need to preserve the forests of Te Urewera.

As much as it proved imperative to protect forests from the axe, fire also constituted a major threat to forests. Of these two dangers, Ellis deemed fire to be the greater menace due to what he perceived as public apathy and carelessness. As such, to awaken the public to the threat of fire, the SFS erected posters around forests reminding visitors of the importance of forests, not least economically. It also allowed private individuals and companies to establish fire districts, which sought to limit the risk of burns on agricultural lands. It also collaborated with private companies in distributing leaflets encouraging drivers to be cautious, and even promoted the Hollywood movie *Hearts Aflame* which revolved around forest conservation, culminating in the prevention of a massive forest fire. As more people flocked to forests for recreation in the latter half of the 1920s, the NZFL, too, began expressing concern about the threat of fire, using its magazine to urge its readers to act responsibly with fire. The NZFL also asked individual companies that engaged in tourism to remind their customers to act responsibly. To the SFS and the NZFL, educating the public about the dangers of fire constituted an essential aspect of creating a forest conscious public.

Forest consciousness was not limited to the protection of forests, but extended also to the native avifauna inhabiting them. Prominent settler efforts to protect native birds began in the 1880s as a New Zealand identity emerged amongst Pākehā. To further the preservation of native birds, Ernest Valentine Sanderson, together with former Prime Minister Thomas Mackenzie, formed the NBPS in 1923. The new society met with hearty support from the NZFL and the SFS with members and staff of the two enrolling in the new society. To the NZFL and the SFS the protection of native birds proved essential for two reasons: First, the ecological importance of native birds to forests, such as weka ridding forests of rats and mice, and kererū distributing the seeds of native trees with its healthy appetite for berries; second, birds filled the forest with life and song. To help the NBPS, the NZFL actively supported the new organisation in its objectives, while the SFS, in turn, gladly assisted in distributing posters to spread the propaganda of the NBPS. To the two organisations, bird preservation could not be separated from forest conservation and the development of a public forest consciousness.

Chapter Six

Forest consciousness and recreation, 1916-1932

Forests are essential not only for the production of timber crops, but also for their aesthetic and recreational values to the community.¹

Leon MacIntosh Ellis, 1927

As alluded to in the previous chapter, arguments presented by foresters and conservationists for protecting forests from axe and fire did not solely stress the utilitarian benefits, be they to prevent a timber exhaustion or as protection against floods and erosion, but also their scenic value. This chapter examines the efforts by the New Zealand Forestry League (NZFL) and the New Zealand State Forest Service (SFS), to instil in the public a love of forests and trees on the basis of their beauty and uniqueness. Indeed, creating a public forest consciousness involved inculcating an aesthetic appreciation of forests as much as securing political support for scientific forestry. The former proved particularly important during the 1920s as more and more people began to use forests as sites of recreation, whether tramping, walking, or motor touring.

This chapter starts by looking at how the NZFL and the SFS regarded scenery preservation as an essential aspect of scientific forestry. Thereon the chapter explores the burgeoning collaboration and relationship that the NZFL and the SFS formed with trampers and car-drivers – two groups that grew significantly in number during the 1920s. As this chapter will show, scenery preservation and outdoor recreation were far from distinct and separate affairs. On the contrary, by encouraging New Zealanders to hop in the car or lace up their boots to experience the beauty and wonders of the bush, the NZFL and the SFS hoped to further a public appreciation of forests and forestry.

Scenery preservation

As a New Zealand identity developed amongst Pākehā settlers in the late nineteenth century and early twentieth century - an identity strongly linked to the unique landscape and nature of their new home - so did calls for the safeguarding of indigenous flora and fauna. Besides aesthetic arguments, ecological and economic – the last not least in terms of possible tourism

¹ *AJHR*, C3, 1927, 14.

revenues – appeared frequently with calls to preserve native landscapes.² In 1903, the government passed the Scenery Preservation Act, which environmental Paul Star argues, ‘was to protect areas from settlement and to advance goals other than the satisfaction of settlers’ material needs.’³ To examine potential sites worth protecting, the Scenery Preservation Committee toured New Zealand from 1904 to 1906, reviewing potential scenic areas – mostly forests – and historic places of interest.⁴ By 1914, more than 350 scenic and historic reserves, most of them forests, covering a total of 214,000 acres, had been established. While the Scenery Preservation Committee certainly played a role in the establishment of reserves, the expansion of reserves stemmed not least from the laborious work of emerging scenery preservation societies, which actively campaigned to protect local sites.⁵

In addition to smaller reserves, the government also set out to create national parks. The first one, Tongariro National Park, was established in 1894. The first step towards gazetting the park started in 1887, with the gifting of it to the Crown by Horonuku Te Heuheu IV, rangatira of Ngāti Tūwharetoa. He did this in an effort to protect the mountains Tongariro, Ngauruhoe, and Ruapehu, which held deep cultural and spiritual significance for his iwi, from falling into private hands, and thereby retain control over it.⁶ However, as recent investigations show, the crown saw the gift as an opportunity to attain sole control over it, going against the intended arrangement.⁷ ‘M[ā]ori interests’, as David Young notes, ‘were being sacrificed to the nation in the form of natural remnants.’⁸ The concept of national parks certainly proved popular. By 1907 the New Zealand government had established four additional parks, Sounds National Park, Egmont National Park, Arthur’s Pass National Park, and Mt Cook and Tasman Park (figure 20 and 21). ‘The creation of these parks and reserves’, Young concludes, ‘was a response to a growing national pride and awareness of scenic, recreational and tourist benefit.’⁹ Indeed, in

² David Thom, *Heritage: Parks of the People* (Auckland: Landsowne Press, 1987), 101-112; Paul Star, ‘Native Forest and the Rise of Preservation in New Zealand (1903-1913),’ *Environment and History* 8, no. 3 (2002): 275-294; Young, *Our Islands, Our Selves*, 80-108; Star and Lochhead, ‘Children of the burnt bush,’ 141-157.

³ Star, ‘Native Forest and the Rise of Preservation in New Zealand (1903-1913),’ 278. See also: Young, *Our Islands, Our Selves*, 106.

⁴ For the work of the Scenery Preservation Committee and one of its members, see: Michael Roche, ‘Seeing scenic New Zealand: W. W. Smith’s eye and the Scenery Preservation Commission, 1904-1906,’ *International Review of Environmental History* 3, no. 1 (2017): 175-195.

⁵ Star and Lochhead, ‘Children of the burnt bush,’ 146-148.

⁶ Thom, *Heritage*, 91-97; Judith Binney with Vincent O’Malley and Alan Ward, ‘The Land and the People, 1860-1890,’ in *Tangata Whenua: A History*, ed. Anderson, Binney, and Harris, 278.

⁷ Waitangi Tribunal, *Te Kahui Maunga. The National Park District Inquiry Report. Volume 2* (Lower Hutt: Legislation Direct, 2013), 429-547.

⁸ Young, *Our Islands, Our Selves*, 80.

⁹ *Ibid.*, 102.

1907, almost three million acres of land fell under the broad category of scenery preservation, for example, as a national park or scenic reserve.¹⁰

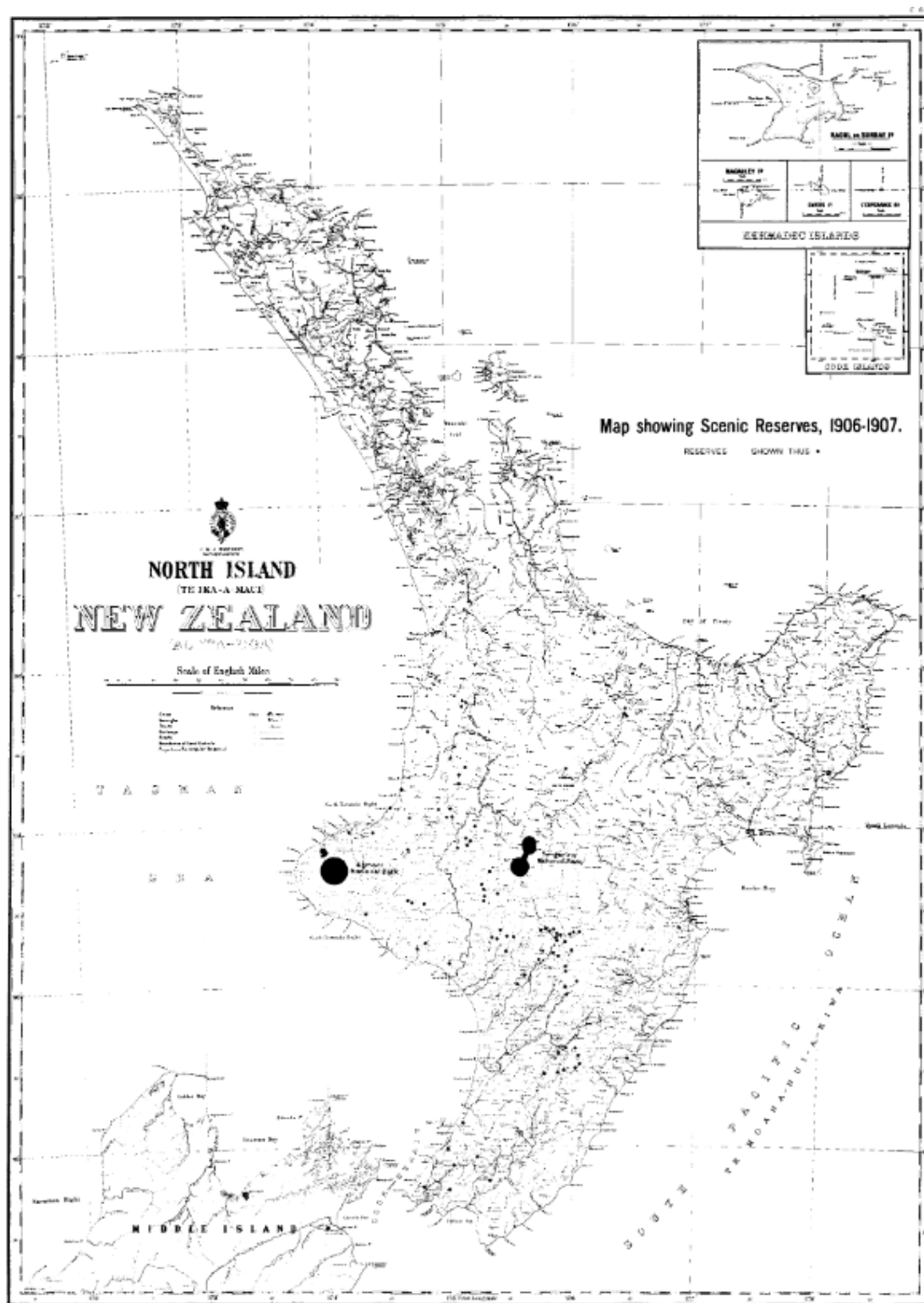


Figure 20. Scenic reserves, including national parks, in the North Island outlined by the Department of Lands, 1906-1907. 'Map showing Scenic Reserves, 1906-1907,' AJHR, C6, 1907, unnumbered.

¹⁰ Star and Lochhead, 'Children of the burnt bush,' 141.

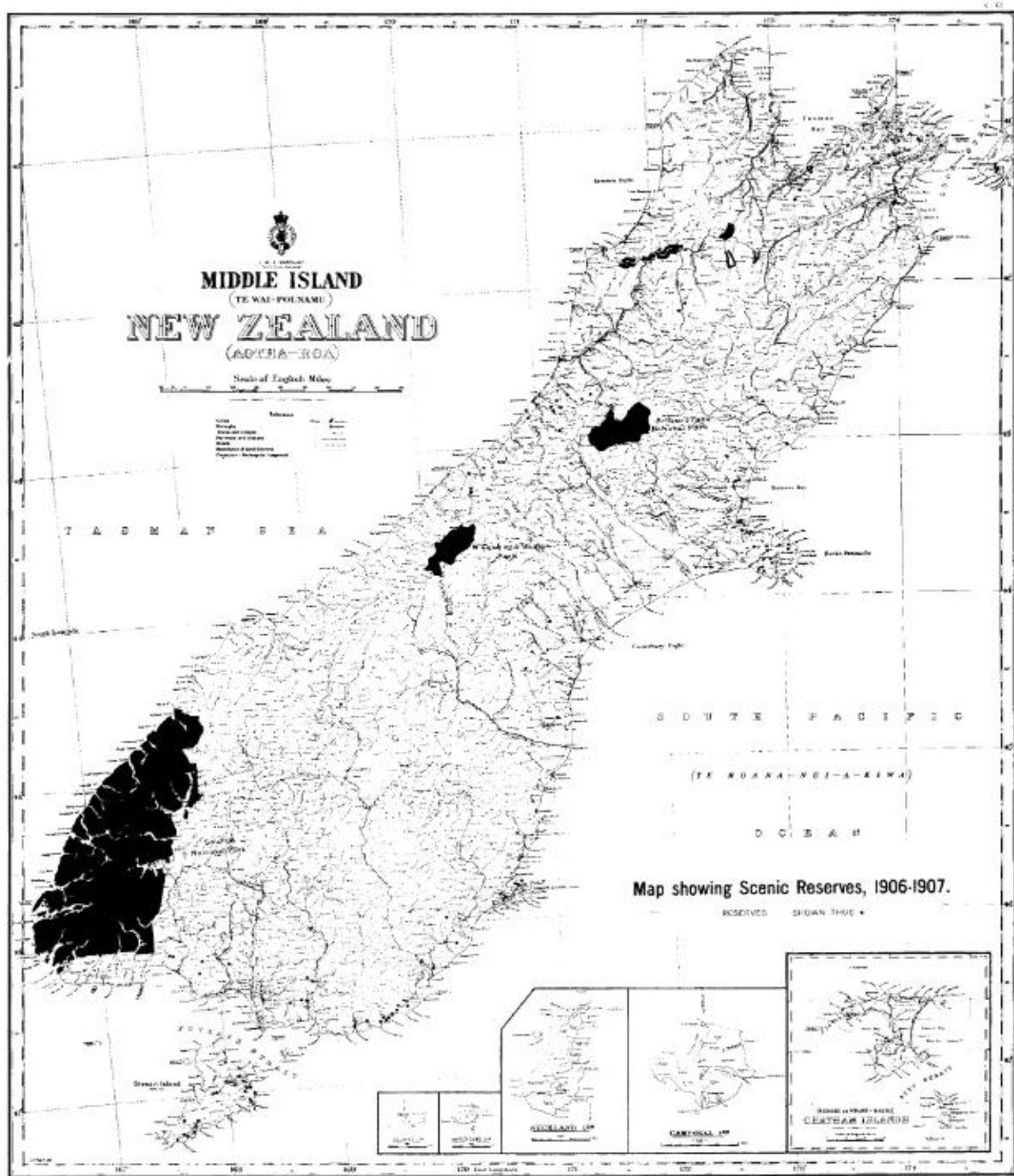


Figure 21. Scenic reserves, including national parks, in the South Island outlined by the Department of Lands, 1906-1907. 'Map showing Scenic Reserves, 1906-1907,' AJHR, C6, 1907, unnumbered.

Though imperial forester David Ernest Hutchins noted with excitement the formation of scenic reserves to protect 'the beautiful forest scenery of New Zealand' in his inaugural address to the NZFL in 1916, he expressed deep concern over the fact that they were administered by the Department of Lands and Survey.¹¹ 'If we want to preserve forests (such as that on most of the scenic reserves) in contact with civilization', he claimed, 'the usual machinery of a Forest

¹¹ D. E. Hutchins, 'Scientific National Forestry for New Zealand,' NZJA 13, no. 4 (1916): 297.

Department must be employed.’¹² While he acknowledged that scenic reserves were regularly inspected under the current system, the inspecting officer held no authority over the land; rather, it rested solely with the Commissioner of Lands, who, Hutchins noted, ‘may or may not take an interest in forestry.’¹³ The same applied to the staff of the department. While some might have an interest in forestry at best, none possessed any training in it, thus making the department poorly suited to the task of managing scenic reserves.¹⁴ ‘With the usual machinery of forest-conservancy’, Hutchins, continuing the machine metaphor, claimed, ‘the protection of “nature” reserves becomes automatic, and their formation as easy as putting an extra train on a State railway’, a statement he supported by pointing to forest management in continental Europe and America.¹⁵ ‘Either all the civilized world is wrong in this respect and New Zealand and England right,’ Hutchins noted in his typically direct manner, ‘or *vice versa*.’¹⁶ To Hutchins, scenery preservation could not be separated from forestry, thus further necessitating the need for a forest service, beside the management of timber resources.

The NZFL fully embraced Hutchins’s view of forestry, and chose the fitting motto ‘Preservation and Conservation’ for its organisation. The motto, Lynne Lochhead argues, reflected the dual concerns of the NZFL, namely ‘that adequate areas of indigenous vegetation should be set aside and permanently protected as reserves or national parks’, and that remaining forests ‘be managed wisely according to the principles of scientific forestry’.¹⁷ Though Hutchins favoured the rather less catchy slogan, ‘Immediate forest demarcation, and a forest loan and forest development after the war’, apparently disapproving of the word ‘preservation’, the watchwords certainly reflected the work and ethos of the NZFL.¹⁸ Indeed, soon after its formation, the NZFL came to undertake work to preserve various forests and scenic sites, including a garden.¹⁹ The work to preserve urban green environments indicates the strong links between some members of the NZFL. Co-founder Alexander Bathgate, for example, played a major role in the Dunedin and Suburban Reserves Conservation Society.²⁰ The work of demarcating reserves was mostly done through Edward Phillips Turner, who possessed vast

¹² D. E. Hutchins, ‘Scientific National Forestry for New Zealand,’ 297.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Lochhead, ‘Preserving The Brownies’ Portion,’ 239.

¹⁸ D. E. Hutchins, ‘Scientific National Forestry for New Zealand,’ NZJA 13, no. 5 (1916): 393; E. C. Jack to Sir James G. Wilson, 14 June 1917, 1f. Laneth, McKinnon, 1922-1995, Papers, ATL, 81-159-02.

¹⁹ See, for example, ‘Report of executive of the N.Z. Forestry League for the year ending March 31st, 1921,’ 1-5. A L Hunt Papers, ATL, MS-Papers-0158-297.

²⁰ On Bathgate and the Dunedin and Suburban Reserves Conservation Society more generally, see Lochhead, ‘Preserving The Brownies’ Portion’, 86-103.

experience and a wide network from his time as Inspector of Scenic Reserves between 1907-1918, before becoming Secretary of the Forestry Branch of the Department of Lands and Survey, and later Secretary of Forestry following the establishment of the SFS in 1919.²¹ In 1917, for example, Phillips Turner, on behalf of the NZFL, investigated the possibility of turning Parata's Bush, just north of Wellington, into a permanent forest reserve.²²

New Zealand's first director of Forestry, Canadian forester Leon MacIntosh Ellis, shared the view of his imperial counterpart that scenery preservation fell under the umbrella of forestry. In his 1920 policy proposal he recommended that all scenic reserves as well as national parks should be managed by the SFS.²³ To Ellis, scenic forest reserves could demonstrate to the public the necessity of conservation, as he noted after the SFS acquired 908 acres of kauri (*Agathis australis*) forest from James Trounson in 1921, subsequently named Trounson Kauri Park:

It will stand for centuries as a glorious but vestigial souvenir of what was once a great example of Nature's handiwork – the unequalled kauri forests of the North. Gone for ever is this great heritage of the people, sold and destroyed for a mess of pottage. Let this remnant stand as a reminder of how not to use our remaining forest wealth.²⁴

However, as Michael Roche notes, Ellis's hope of placing the management of national parks and scenic reserves under the SFS was quickly dashed, largely because Francis Dillion Bell, Commissioner of State Forests, perceived forestry as being 'contradictory' to preservation.²⁵ As such, the administration of Trounson Kauri Park was soon transferred to the Lands and Survey Department.²⁶ Undeterred, Ellis repeated his view that scenery preservation ought to fall under the responsibility of the SFS in 1925. 'The Forest Service', he blustered, 'is the only State organization in New Zealand that is competent to manage forest lands, and to assure a continuity of policy and permanence of interest in the care, culture, and control of forests and forested lands.'²⁷

The NZFL shared Ellis's view. The same year James Deans, in his presidential address, advocated that the SFS receive 'absolute control of all available areas of indigenous forests, for

²¹ Roche, 'Edward Phillips Turner,' 143-153.

²² NZFL, council, 21 November 1917, 3. A L Hunt Papers, ATL, MS-Papers-0158-297.

²³ *AJHR*, C3A, 1920, 2.

²⁴ *AJHR*, C3, 1921, 4.

²⁵ Roche, *History of Forestry*, 415.

²⁶ *AJHR*, C3, 1923, 6.

²⁷ *AJHR*, C3, 1925, 8.

timber production, water conservation and scenic reserves.²⁸ Deans regarded scenery preservation, like the management of protection forests, as another branch of forestry (see chapter 5). Despite their efforts, the government remained unconvinced. As a result, the management and responsibilities of national parks and scenic reserves continued to be divided across a number of departments, including the Department of Internal Affairs, the Department of Lands and Survey, and the Department of Tourist and Health Resorts, not to mention various park boards, leading the official magazine of the NZFL to compare the organisation to ‘the [Tower of] Babel’.²⁹

Although the SFS and the NZFL failed to have scenic reserves and national parks administered by one body, the latter vigorously continued to campaign for the preservation of local sites as it had since its inauguration and with occasional success.³⁰ The NZFL also continued its work promoting a public appreciation of New Zealand scenery, especially that offered by trees and forests, through its official magazine, whether under the editorship of Will Lawson or Maurice Hurst. With the magazine, both were eager to reach a wider public than professional foresters. The editorial in the first issue of the *Forest Magazine (of New Zealand)*, for example, informed readers that the magazine would, in addition to carrying articles on forestry, feature articles on ‘the bird life and the botanical aspect of the forest’ as well.³¹ The editorial also encouraged readers ‘to send their views and impressions to the editor in the form of articles, paragraphs, and photographs.’³² Lawson, who Julian Kuzma notes enjoyed the epithet ‘the Wellington Kipling’, seized upon the opportunity presented by the editorship and published some of his own material, often next to a sketch of native bush.³³

Following Hurst’s acquisition of the magazine, in which he transformed it to *New Zealand Life and Forest Magazine*, its popular aspect became perhaps even more prominent. The first editorial of the new journal declared: ‘We shall endeavour to supply articles and pictures that will interest, not only the expert, but also ordinary men, women, and young people who find

²⁸ President’s address, annual Meeting, 2 July 1925, 7. A L Hunt Papers, ATL, MS-Papers-0158-299.

²⁹ ‘Control of Reserves and Sanctuaries,’ *Forest Magazine* 4, no. 2 (January 1925): 2.

³⁰ A L Hunt Papers, ATL, MS-Papers-0158-297, passim; A L Hunt Papers, ATL, MS-Papers-0158-299, passim. See also Lochhead, ‘Preserving The Brownies’ Portion,’ 256f and 259.

³¹ ‘Editorial. The Forestry Movement in New Zealand,’ *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 3.

³² Ibid.

³³ Julian Kuzma, ‘Landscape, literature and identity: New Zealand late colonial literature as environmental text, 1890-1921 (PhD diss., University of Otago, 2003), 89. For Lawson’s poems appearing in the magazine, see, for example: Will Lawson, ‘The Trees,’ *Forest Magazine (of New Zealand)* 1, no. 1 (1922): 3; Will Lawson, ‘The Rata Tree,’ *Forest Magazine (New Zealand Out-of-Doors)* 1, no. 2 (1922): Will Lawson, ‘The Song of the Saws,’ *Forest and River (New Zealand Out-of-Doors)* 1, no. 5 (1922): 173; Will Lawson, ‘Silence,’ *Forest and River (New Zealand Out-of-Doors)* 1, no. 6 (1923): 219. Lawson’s poems continued to appear after Hurst took over the magazine, see, for example: ‘Tree Magic,’ *New Zealand Life and Forest Magazine*, no. 12 (1923): 3.

pleasure out-of-doors, and who desire to see our native bush and birds protected and preserved.’³⁴ This goal was certainly reflected in Hurst’s own writing. ‘Our national heritage of beauty, so far as the forests and wild places are concerned,’ he noted in a lengthy piece in the same issue: ‘should be saved for coming generations on many grounds; and one of the most important is the great healer and purifier.’³⁵ ‘This work of preservation’, he continued:

is a matter not only for legislators but for everybody, in town and country. We should do it to ensure our own enjoyment, and for the welfare of our children. For we live not only by the thoughts and deeds of men, but also by our appreciation of Nature as artist and physician.³⁶

To Hurst, forests proved imperative for spiritual as well as physical health, a view he supported by quoting the English art historian and social commentator John Ruskin, who, as James Beattie shows, influenced some scenery preservation movements and advocates in Australasia during the late nineteenth century.³⁷ As Hurst’s quotation suggests, Ruskin remained an inspiration for nature advocates in early twentieth-century New Zealand, too. Under the editorship of Hurst, the magazine continued to feature photographs of stunning and remarkable scenes of forest and trees, encouraging its readers to join the NZFL and preserve New Zealand nature (figure 22). It also included poems and articles by writers such as Blanche Edith Baughan and Alan Edward Mulgan, who wrote extensively on the environmental transformation of New Zealand.³⁸ ‘On one hand,’ Kuzma notes, the two writers, and others as well, ‘celebrated the progressive transformation of the landscape, while on the other they lamented the loss of the natural indigenous beauty.’³⁹ This portrayal in literature and poetry, Kuzma argues, created a Pākehā identity that encompassed the transformed as well as the indigenous landscapes.⁴⁰ Baughan, beyond detailing the destruction of native bush, certainly championed the cause of preservation.

³⁴ ‘Editorial notes,’ *Life and Forest Magazine*, no. 7 (1923): 3.

³⁵ Maurice Hurst, ‘Our Heritage. Of Bush and Birds and Beauty,’ *New Zealand Life and Forest Magazine*, no. 7 (1923): 6.

³⁶ *Ibid.*, 6.

³⁷ Beattie, *Empire and Environmental Anxiety*, 72-99.

³⁸ See, for example, B. E. Baughan, ‘The Bush Nun,’ *New Zealand Life and Forest Magazine* 3, no. 1 (1923): 11; Alan E. Mulgan, ‘Dead Timber,’ *New Zealand Life and Forest Magazine* 3, no. 3 (1924): 7; Alan Mulgan, ‘Under the Pohutukawas,’ *New Zealand Life* 7, no. 2 (1928): 19; B. E. Baughan, ‘A March Day on Mt. Egmont,’ *New Zealand Life* 7, no. 5 (1928): 69f. In addition to poems and articles by Mulgan and Baughan, the magazine also published reviews of their work, see, for example: ‘A Book of Nature Poems,’ *New Zealand Life and Forest Magazine*, no. 11 (1923): 6; ‘Our New Zealand Bookshelf. Alan Mulgan’s New Book of Verse,’ *New Zealand Life* 5, no. 3 (1926): 11.

³⁹ Kuzma, ‘Landscape, literature and identity,’ 37

⁴⁰ *Ibid.*, 270f.

‘How heartily do I agree,’ she wrote in 1925 to the magazine in response to an article calling for the protection of national parks from exotic elements, ‘that “unspoiled natural scenery is a natural asset,” and that we ought, with the New Zealand Forestry League, to demand “the preservation intact of all scenic reserves, national parks, sanctuaries, etc., in their natural native state.”’⁴¹ The magazine, with its literary content, featuring texts on the wonders of New Zealand scenery by leading authors like Baughan and Mulgan, strongly championed the indigenous remnant as a part of the growing Pākehā identity, calling upon the need to preserve and protect the scenery that made New Zealand unique.

⁴¹ B. E. Baughan, ‘Scenery as a National Asset,’ *New Zealand Life* 4, no. 7 (1925): 2.



In Trounson Kauri Park, Auckland Province.

(Illustration from State Forest Service).

ARE OUR NATIVE FORESTS WORTH £1 1s. A YEAR
TO YOU?

Do YOU love the glories of the New Zealand bush—the forests of Tane? The beauty of fern-filled gullies, and mountain slopes clothed with trees? The music of merry creeks, and the songs of the tuis and bell-birds?

Do you know that these rich possessions are in constant danger of destruction—unless bush-lovers get together and keep the despoiler at bay?

The active protector of the New Zealand Forests is

THE N.Z. FORESTRY LEAGUE

—a group of several hundred New Zealanders who wish to preserve the remainder of the bush and to encourage the planting of trees.

Join the Forestry League NOW. Subscription is £1 1s. per annum, including 12 issues of this journal. Write to the Secretary, N.Z. Forestry League, Inc., Dominion Farmers' Institute, Wellington.

Figure 22. The NZFL presented scenery preservation as one of the leading arguments regarding why people should join the association. 'In Trounson Kauri Park, Auckland Province,' *New Zealand Life and Forest Magazine* 3 no. 2 (1924): 16.

Tramping

By the time Baughan, Mulgan, and others were writing, increasing numbers of Pākehā were enjoying experiencing native forests. ‘During recent years’, as Phillips Turner reported in 1929, ‘numerous tramping clubs have been formed, which are devoting a great portion of their members’ holidays and week-ends to healthful exploration’.⁴² In the first decade of the interwar period, organised hiking, or tramping as it became called in New Zealand, surged in popularity, with the first club, Tararua Tramping Club (TTC) being formed in 1919.⁴³ In contrast to mountaineering, which demanded both time and money on the part of the practitioner, tramping required neither.⁴⁴ As a result, this novel activity particularly attracted an urban youth eager to escape city life, albeit for but a weekend, thus resulting in a whole new group of people becoming acquainted with forests and forest life.⁴⁵ This section examines the SFS’s and the NZFL’s relationship with tramping clubs, in particular the TTC, and their collaboration in fostering a forest consciousness amongst fellow trampers as well as other forest users.

Shortly after its establishment, the TTC suggested to the then Forestry Department ‘that it be given the use of a hut in the forest’ and ‘that its members should be appointed honorary forest rangers’.⁴⁶ While granting the former suggestion without any demands but that the club kept it in good condition, G. H. M. McClure, Conservator of Forests for Wellington, rejected the idea of registering all members as honorary forest rangers, only agreeing to elect ‘two or three of the most active and prominent members’.⁴⁷ Justifying his decision to Phillips Turner, who served as de facto director at the time, McClure referred to one of the TTC’s objectives, namely ‘the protection of animal life in the Tararua State Forests and the preservation of the forest’.⁴⁸ As Kirstie Ross notes, tramping clubs, aware that they lacked a ‘customary right or tradition of free public access to footpaths’, and to prove an ‘environmental stewardship’

⁴² *AJHR*, C3, 1929, 12.

⁴³ Shaun Barnett and Chris Maclean, *Leading the way*.

⁴⁴ Ross, *Going Bush*, 54.

⁴⁵ For tramping in New Zealand during the Interwar-period, see Ross, *Going Bush*, 51-92, Kirstie Ross, ‘‘Schooled by Nature’. Pakeha Tramping Between the Wars,’ *New Zealand Journal of History* 36, no. 1 (2002): 51-65; Shaun Barnett and Chris Maclean, *Tramping: A New Zealand History* (Nelson: Craig Potton Publishing, 2016), 2nd edition, 116-165.

⁴⁶ G. H. M. McClure to Secretary, 18 December 1919. ANZ, Wellington, Activities of Tramping Clubs in SF [State Forest], R17277588.

⁴⁷ Ibid. The TTC nominated Frederick Vosseler, a businessman previously in the military and one of its co-founders, Dudley Reginald Hoggard, a solicitor and member of the NZFL, and J. H. Jerram of the State Fire Insurance Department. Vosseler, who had German parentage, but was ‘a native of Wellington’ and ‘a natural born British subject’ withdrew his application upon questions related to his nationality, reflecting the lingering anti-German sentiment in New Zealand after the war. For anti-German sentiment in New Zealand during the Great War, see Andrew Francis, *To Be Truly British We Must Be Anti-German’: New Zealand, Enemy Aliens and the Great War Experience, 1914-1919* (Oxford: Peter Lang, 2012).

⁴⁸ McClure to Secretary, 18 December 1919. ANZ, Wellington, Activities of Tramping Clubs in SF [State Forest], R17277588.

instead stressed their aim ‘to foster the appreciation and protection of native flora and fauna’ among its members.⁴⁹ Clearly, the aim of the TTC swayed McClure to grant the club access to State forests and even have a few of them serve as honorary rangers. The Forestry Department must have been impressed with the conduct of the TTC as a year later it allowed the club to erect a hut in the Tararua State Forest, and also appointed nine more of its members as honorary rangers.

State forests, in particular those close to cities, became primary destinations for tramping clubs. In addition to the Tararua State forest, the TTC regularly organised excursions to the Ōrongorongo Valley in the Rimutaka (now, correctly, Remutaka) State Forest.⁵⁰ The SFS welcomed the new forest visitors. ‘The rapidly increasing popularity of the national forest domain as a people’s playground’, Ellis noted in 1922, ‘is being encouraged by the Service.’⁵¹ Although he had failed to acquire national parks and scenic reserves for the SFS, this did not stop him from seeking to transform State forests into sites of leisure. ‘As the national economy of New Zealand develops and her population increases’, Ellis noted in 1922, ‘the recreational forests will be extensively utilized as vacation playgrounds by the people.’⁵² The time Ellis anticipated had, to some extent, already arrived as the SFS, in that year, estimated that ‘some thirty thousand persons’ had visited State forests in pursuit of recreation, be it tramping, fishing, or picnicking.⁵³ Ellis very much cherished the increased use of State forests for recreation, claiming in 1924: ‘It is only as the community values the forests that the community will demand the proper use and conservation of the forests.’⁵⁴ Thus, to Ellis, the growing appreciation of forests demonstrated, and would foster, a forest consciousness, which would see people realise the necessity and value of forest management.

However, as more people flocked to the forest, the lack of a hut infrastructure became apparent, with many tramping clubs, even individuals, building their own cabins or shacks in the bush. The right of charging fees for huts became an object of dispute; for example, in 1923, the TTC claimed that it ought to receive the money an opossum trapper had paid the SFS since it had repaired and refurnished the hut used by the trapper at its own expense, which the SFS refused to do.⁵⁵ To address the chaotic system, and ‘foster a greater interest in forests and forest

⁴⁹ Ross, *Going Bush*, 56.

⁵⁰ Barnett and Maclean, *Leading the way*, 50.

⁵¹ *AJHR*, C3, 1922, 7.

⁵² *Ibid.*

⁵³ *AJHR*, C3, 1923, 8.

⁵⁴ *AJHR*, C3, 1924, 7.

⁵⁵ Secretary, Tararua Tramping Club, to Secretary, Forestry Department, 18 June 1923; E. P. T. to Secretary, Tararua Tramping Club, 23 June 1923; Secretary, Tararua Tramping Club, to Secretary, State Forest Service, 1

welfare generally', forest assistant A. N. Perham drafted an elaborate hut proposal to allow the public 'to utilise State Forests for recreational purposes'.⁵⁶ The proposed system would allow individuals or clubs to either 'lease permanent camping sites', or erect 'temporary camping sites', each subject to approval by the Conservator in the region.⁵⁷ Neither lease granted permission to cut down trees for timber, or to light fires anywhere except in fireplaces. Applicants also had to agree to 'not pollute any spring or stream', or leave 'any refuse'.⁵⁸ The plan met with general approval within the SFS.⁵⁹ 'It is very desirable', the Conservator of Auckland noted, 'to meet this healthy phase of national life and encourage a stable interest in the forests from this viewpoint than is usually exhibited by the itinerant pleasure seeker.'⁶⁰ Despite the positive response, the SFS concluded 'that the time [was] not yet ripe to recommend the Government to make permanent camping sites'.⁶¹ Nevertheless, until that time arrived, the SFS would continue to allow 'free and unrestricted access to the public to indigenous forests for recreational and transient camping.'⁶²

The absence of a hut system did not hinder people from visiting State forests. In 1928, following an 'exceptionally fine summer', the SFS recorded a significant increase of people who sought recreation in 'the forest domain.'⁶³ Perhaps even more pleasing to the SFS than the mere increase of visitors was their behaviour:

Visitors who respect the forest law are always welcome, as it is recognized that only with an increasing knowledge and appreciation of the peerless beauty of our native forests, extending from subtropical in the far North to subalpine in the South, can a "forest conscience" be fully developed. Visitors generally "played the game" by the Service, and showed by the few reported acts of vandalism, careless fire-lighting, &c., that they valued the privileges afforded them.⁶⁴

August 1923; E. Phillips Turner to Secretary, Tararua Tramping Club, 14 August 1923. ANZ, Wellington, Activities of Tramping Clubs in SF [State Forest], R17277588.

⁵⁶ A. N. Perham, 'The Recreational Use of State Forests,' 1925, 1. ANZ, Wellington, Tracks and Huts in SF [State Forest], R17277852.

⁵⁷ Ibid., 2-5. Quotes from 2 and 4.

⁵⁸ Ibid., 3-5. Quote from 4f.

⁵⁹ H. A. Goudie to Director, 11 July 1925; A. D. McGavock to Director, 13 July 1925; D. Macpherson, to Director, 13 July 1925, 1f.; T. Douglas to Director, 24 July 1925; W. T. Morrison to Director, 29 July 1925. ANZ, Wellington, Tracks and Huts in SF [State Forest], R17277852.

⁶⁰ R. D. Campbell, Conservator of Forests, to The Director of Forestry, 24 July 1925. ANZ, Wellington, Tracks and Huts in SF [State Forest], R17277852.

⁶¹ [Unknown signature] for Director of Forestry, to All Conservators, 7 December 1925. ANZ, Wellington, Tracks and Huts in SF [State Forest], R17277852.

⁶² Ibid.

⁶³ *AJHR*, C3, 1928, 10.

⁶⁴ Ibid.

In its efforts to ensure that visitors ‘played the game’, the SFS received significant assistance from its honorary rangers, many of them active in tramping societies. In 1923, the SFS appointed 33 honorary rangers, of which 17 served in the Wellington region, most likely due to the presence of the TTC.⁶⁵ From 1922 to 1930, the number of honorary rangers assisting the SFS gradually rose to 103 (table 4).⁶⁶ The work of the honorary ranger, as well as the field staff, Ellis explained in 1923, was ‘to encourage and extend the legitimate use of forests by the people.’⁶⁷ This included giving visitors advice, but also warning them of the dangers of starting fires.⁶⁸ To Ellis, the engaging work of the honorary ranger constituted an essential part of fostering a public forest consciousness, as he pointed out in 1924:

It has been found that the success of forestry in many branches depends in a large measure on the active sympathy, support, and appreciation of the members of the community. It is in helping in the dissemination of forest knowledge and inculcating a better forest consciousness that the honorary officers of the Department have ... rendered such valuable service to the common weal.⁶⁹

⁶⁵ *AJHR*, C3, 1923, 9.

⁶⁶ The graph is based on following sources: *AJHR*, C3, 1922, 8; *AJHR*, C3, 1923, 9; *AJHR*, C3, 1924, 7; *AJHR*, C3, 1925, 16; *AJHR*, C3, 1926, 14; *AJHR*, C3, 1927, 14; *AJHR*, C3, 1928, 10; *AJHR*, C3, 1929, 13; *AJHR*, C3, 1930, 24.

⁶⁷ *AJHR*, C3, 1923, 9.

⁶⁸ *Ibid.*

⁶⁹ *AJHR*, C3, 1924, 7.

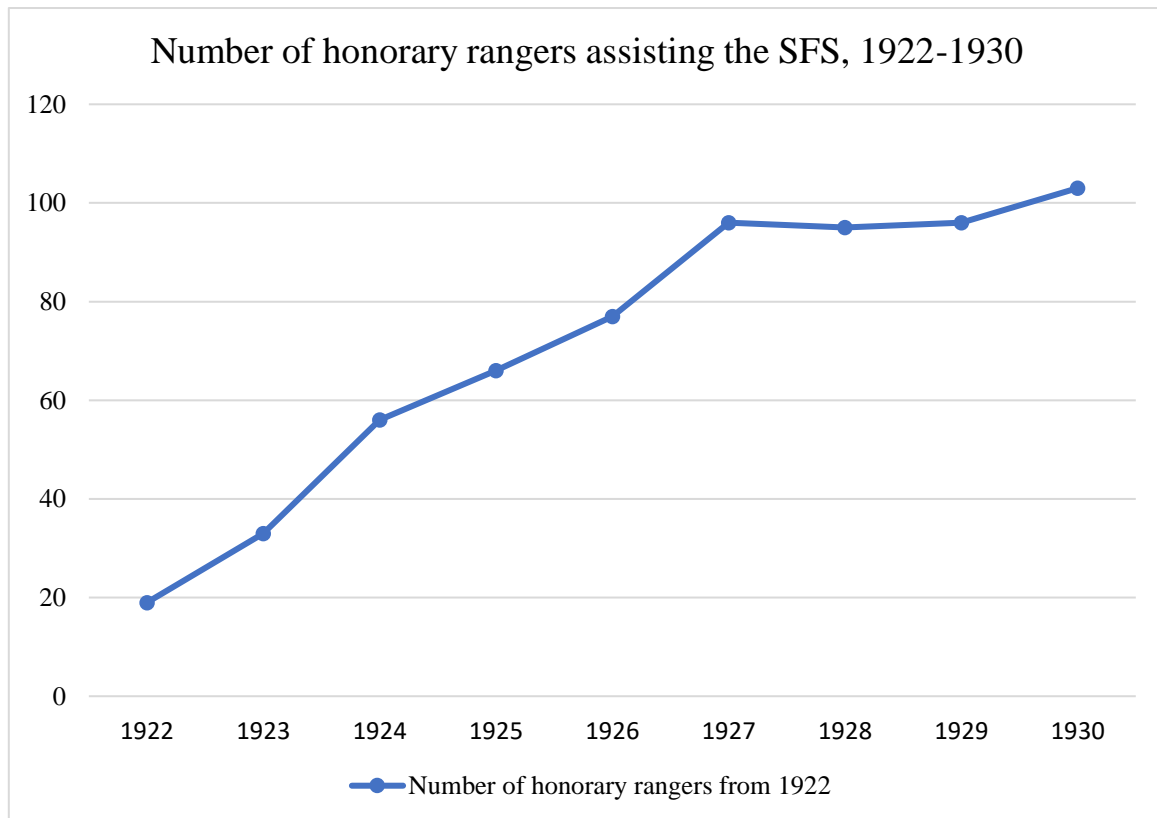


Table 4. In the first half of the 1920s, the number of honorary rangers steadily increased, eventually stabilising from 1927, before passing 100 in 1930.

A good example of the work between the SFS and its honorary rangers is through John A. Baine, who typified the new forest user. Born in 1900, Baine worked as a clerk at the Railway Department in Wellington, and joined the TTC shortly after its formation.⁷⁰ Baine appears to have been appointed to serve as an honorary ranger in 1922. He mainly patrolled in the Rimutaka State Forest and soon developed a great interest in forest flora and forestry, one time even asking Ellis for book recommendations on the subject.⁷¹ Usually, Baine found little to report on from his patrols. However, in 1927, he noted two matters of concern. Firstly, he observed the presence of stock grazing at the edge of the State forest, which he feared would denude the undergrowth of the forest.⁷² Secondly, he found hunters operating without rifle permits.⁷³ Although Baine could not offer a solution to the first problem, since the stock grazed upon private land, he suggested that the SFS should ‘insert an instruction or two in the daily papers’ to remind people that a permit was necessary in order to bring a firearm into the reserve.⁷⁴ Such a measure, Baine claimed, ‘would bring before the inexperienced enthusiasts

⁷⁰ My thanks to Ian Baine for sharing family information with me.

⁷¹ Hunter, *Hunting*, 20f; J. A. Baine to L. Macintosh Ellis, 11 March 1923. ANZ, Wellington, Permits to enter Orongorongo SF [State Forest], R17277585.

⁷² J. A. Baine to Director, 7 November 1927, 1. ANZ, Wellington, State Forest 35 – Rimutaka. R17274011.

⁷³ *Ibid.*, 1.

⁷⁴ *Ibid.*, 2.

their responsibilities.⁷⁵ Acting upon Baine's report, the SFS, in addition to advertising in Wellington papers, had calico posters 'affixed to conspicuous trees', which emphasised to visitors the necessity of a permit.⁷⁶

Like the SFS, the NZFL too developed a strong relationship with tramping clubs during the 1920s. As a means to enrol more members and establish a NZFL branch in Wellington, in January 1922 Lawson suggested that it approach the TTC, a notion eagerly endorsed.⁷⁷ At the TTC, the idea was also met with support, resulting in the formation of a Wellington branch of the NZFL in March.⁷⁸ Amongst the council members of the Wellington branch was Frederick Vosseler, one of the co-founders of the TTC. The other co-founder, William Field, already served on the council of the NZFL. With the NZFL being the largest forest conservation group at the time, the TTC received a most valuable ally in its efforts to protect native forests and promote tramping.

In addition to sharing members, the two associations would share the same official magazine from 1923-1928, featuring sections with the news of the NZFL and the TTC respectively, allowing the two to keep track of the other's activities. Besides the TTC, from the middle of the 1920s, the journal became the home to other tramping clubs, such as the Auckland Tramping Club and the Christchurch Tramping Club. However, more than just the minutes from the latest meeting of tramping clubs, the journal regularly featured contributions from members detailing their latest tramps as well as articles saluting the benefits of tramping, bringing the practitioner into contact with nature. In a stirring editorial, albeit a month before the TTC adopted *New Zealand Life and Forest Magazine* as its official organ, Hurst declared that the magazine aimed to encourage the exploration of the outdoors for benefits in body and mind: 'We want the younger people of each generation to learn the love of outdoors, to find health and pleasure in the real bush, beside clear waters, under the open sky.'⁷⁹ Hurst certainly practised what he preached, writing a lengthy account of the wonderful aspects of tramping following a tramp in the Ōrongorongo Valley: 'But the great charm of the place was its seclusion and wildness; its silence and peacefulness. We were conscious only of elemental things – air and water, blue sky and sunlight and birds and the invigorating tonic of the tramp.'⁸⁰

⁷⁵ Baine to Director, 7 November 1927, 2. ANZ, Wellington, State Forest 35 – Rimutaka. R17274011.

⁷⁶ D. Macpherson to Director, 13 February 1928. ANZ, Wellington, State Forest 35 – Rimutaka. R17274011. For example of instructions in newspapers, see 'Orongorongo State Forest, No. 35,' EP, 24 March 1928, 5.

⁷⁷ NZFL, council, 19 January 1922, 2. A L Hunt Papers, ATL, MS-Papers-0158-297.

⁷⁸ Tararua Tramping Club, meeting, 8 February 1922, 2; Tararua Tramping Club, meeting, 8 March 1922, 1. Tararua Tramping Club, Records, ATL, MSY-1126.

⁷⁹ Hurst, 'Our Heritage,' 6.

⁸⁰ Maurice Hurst, 'A Tramp to Orongorongo,' *New Zealand Life and Forest Magazine* 3, no. 1 (1923): 9.

As Ross notes, during the interwar-period, tramping met with public scepticism, not least due to the mingling of young men and women, while extensive press coverage of accidents and deaths further ‘fuelled negative public perceptions’ since it portrayed tramping as ‘dangerous and its adherents reckless and irresponsible.’⁸¹ Individual tramping clubs worked continuously to change this public image, emphasising the positive aspects of the activity, in particular its health benefits.⁸² The TTC, by having subscribers closely aligned with such a respectable organisation like the NZFL, certainly helped to demonstrate the seriousness of tramping members.

The *Life and Forest Magazine*, with its positive articles on tramping, also assisted in portraying tramping as a respectable activity. ‘Going for a Tramp!’, the pseudonym Rawhiti noted in a lengthy piece celebrating tramping, ‘is one of the most popular week-end amusements of an ever-growing number of young people in New Zealand.’⁸³ That the activity attracted the urban youth struck Rawhiti with little surprise since no ‘better tonic or healthier enjoyment can be found than among the wilds of Nature’ following ‘a spell of college tasks, or toll in [a] shop or [an] office’.⁸⁴ To demonstrate the wholesomeness of the activity, Rawhiti contrasted the Sundays of the slumbering city dweller to that of the vigorous tramper. Whereas the tramper rose in the early hours setting off for a long tramp in ‘God’s green world’, experiencing ‘a feeling of gladness for the gift of life, and of fellowship with all creatures’, city-dwellers, meanwhile, Rawhiti noted, ‘[were] lolling about their homes reading yesterday’s newspapers.’⁸⁵ Thus, to people such as Rawhiti, trampers were a desirable lot. The official magazine of both the TTC and the NZFL sought to encourage trampers to support the SFS and the NZFL, and perhaps even join the latter. In December 1924 the magazine’s opening page featured a plea to those seeking recreation in the great outdoors: ‘As you go ... remember that the bush and wilderness can be protected only by constant vigilance, so do your part in supporting the efforts of the Forestry League and State Forest Service.’⁸⁶

Scenic drives

Trampers were not the only ones beginning to explore the bush during the 1920s. ‘The ever-increasing number of motor-cars and consequent improvement of main arterial highways each

⁸¹ Ross, *Going Bush*, 63-66. Quote from 63.

⁸² *Ibid.*, 63-66.

⁸³ Rawhiti, ‘Going for a Tramp,’ *New Zealand Life and Forest Magazine*, no. 9 (1922): 8.

⁸⁴ *Ibid.*

⁸⁵ *Ibid.*

⁸⁶ ‘The Holiday Trail,’ *Forest Magazine* 4, no. 1 (1924): 1.

year', Phillips Turner reported in 1928, a mere year before commenting on the increase of tramping clubs, 'renders transport more mobile and speedy, and enables and encourages holidaymakers [sic] to seek their recreation farther afield than was possible before the motor era.'⁸⁷ While at first considered 'an assault on the human senses' by the wider New Zealand public at the turn of the century due to their noise and fumes, cars soon rose in popularity.⁸⁸ By the middle of the 1920s, Alexander Trapeznik and Austin Gee show, the Dominion constituted one of the world's most motorised societies with the ratio of one car for every 17 people, the total number of cars being 71,403.⁸⁹ Further reflecting the popularity of the car, it soon overtook trains as the preferred medium of travel.⁹⁰ The rising number of cars transformed New Zealand society, cityscapes and landscapes alike.⁹¹ The last, Trapeznik and Gee note, became filled with roadside advertising, much to the frustration of the motorist who wanted, sought, and desired pristine scenery.⁹²

The popularity of the car as a medium of travel and recreation during the interwar-period met with both optimism and concern amongst foresters, forestry advocates, and conservationists in general, especially in the United States. On the one hand, proponents believed that cars allowed more people to explore and experience the glory of forests as they drove through them, championing the construction of roads. The Save-the-redwoods League, for example, believed that a road through the forest would help their cause in preserving it since the road would allow the driver and passengers to see the glory of the trees.⁹³ On the other hand, growing car ownership and car tourism also fuelled conservationists' anxieties that roads threatened to eliminate pristine wilderness, prompting the creation of the Wilderness Society in 1935.⁹⁴ While these examples come from the United States, similar beliefs and concerns were identified by the SFS and the NZFL. As this section demonstrates, the SFS and the NZFL cherished the opportunity increased motor travel presented, allowing the public to see New Zealand's forests,

⁸⁷ *AJHR*, C3, 1928, p. 10.

⁸⁸ Alexander Trapeznik and Austin Gee, 'The madding wheels of brazen chariots rag'd; dire was the noise': Motoring and the environment in New Zealand before the Second World War,' *International Review of Environmental History*, 6, no. 1 (2020): 31-49, quote from 48.

⁸⁹ *Ibid.*, 33.

⁹⁰ Margaret McClure, *The Wonder Country: Making New Zealand Tourism* (Auckland: Auckland University Press, 2007), 97f.

⁹¹ Ben Schrader, *The Big Smoke. New Zealand Cities, 1840-1920* (Wellington: Bridget Williams Books, 2016), 297-302; Alexander Trapeznik and Austin Gee, 'Accommodating the motor car: Dunedin, New Zealand, 1901-1930,' *The Journal of Transport History* 38, no. 2 (2017): 213-231. For road construction in New Zealand during the interwar-period, see John McCrystal, *100 years of motoring* (Auckland: Hodder Moa Beckett, 2003), 92-100.

⁹² Trapeznik and Gee, 'The madding wheels of brazen chariots rag'd; dire was the noise', 43-48.

⁹³ Gabrielle Barnett, 'Drive-by Viewing: Visual Consciousness and Forest Preservation in the Automobile Age,' *Technology and Culture* 45, no. 1 (2004): 30-47.

⁹⁴ Paul S. Sutter, *Driven Wild: How the Fight Against Automobiles Launched the Modern Wilderness Movement* (Seattle: University of Washington Press, 2002).

and thereby make the public more forest conscious. However, the NZFL came also to venture criticism of what it perceived as excessive destruction of forests during road construction, believing it essential that roads made as little impact on the forest as possible, and thus also seeing roads as a danger to scenery preservation.

Ellis and the SFS early on recognised the scenic value of forests to motorists. In 1921, Ellis announced plans to limit timber sales and logging operations in forests ‘situated along highways, bordering rivers, streams, and lakes,’ and thereby preserve ‘the natural beauty of the forest scenery’.⁹⁵ Such a sentiment was shared by ecologist Leonard Cockayne, who undertook several pioneering and influential studies of the ecology of New Zealand beech forests for the SFS during the 1920s.⁹⁶ ‘The value of southern-beech forest for scenic purposes’, Cockayne claimed in a lecture at Wellington Philosophical Society, later modified and printed in the *New Zealand Journal of Agriculture*, ‘must not be lost sight off [sic], since it puts its own peculiar stamp on the landscape.’⁹⁷ As an example, he pointed to the ‘especially beautiful’ red southern-beech (*Nothofagus fusca*) whose ‘abundance’, he claimed, gave ‘the celebrated drive along the shore of Diamond Lake to Paradise ... its peculiar charm.’⁹⁸

Aside from offering the motorist a pleasant view, Cockayne asserted that roadside forests served a protective function. In 1923, following a survey in Westland and western Nelson for the SFS, he reported that needless destruction of forests alongside roads in the region had caused erosion threatening the motorist, leading him to suggest that forest next to motorways ought to be safeguarded from logging.⁹⁹ Thus, the SFS, and its honorary botanist, emphasised protective and scenic arguments to preserve forests in relation to car travel.

While the SFS strove to protect forests next to existing roads, it expressed less enthusiasm for building new roads through forests, especially as the government proposed the construction of a road through Waipoua forest in 1925. Located in the northern part of the North Island, Waipoua forest, Roche suggests, ‘illustrates in microcosm many of the themes that run through New Zealand forest history’; its future and management being at the centre of settlement discussions, milling, sustained yield management, and preservation.¹⁰⁰ As Roche notes, the planned road met opposition from the SFS and the NZFL alike. The former feared that the road

⁹⁵ *AJHR*, C3, 1921, 7.

⁹⁶ Roche, *History of Forestry*, 193f.

⁹⁷ ‘The Southern-Beech (*Nothofagus*) Forests of New Zealand. Their Economic Significance,’ *NZJA* 23, no. 6 (1921): 359.

⁹⁸ *Ibid.* Other roads offering spectacular scenery mentioned by Cockayne were: The Buller Gorge, the Anau and Manapouri, the Matukituki Valley, the Routeburn valley, and Lake Waikaremoana.

⁹⁹ *AJHR*, C3, 1923, 12.

¹⁰⁰ Roche, *History of Forestry*, 405.

would cause significant damage to the forest, and therefore proposed an alternative road along the coastline instead. In contrast, the latter wanted to see the forests preserved as a ‘national monument’.¹⁰¹ The intended road received criticism in *New Zealand Life*, as well, portraying the SFS as protagonists and protectors of the Waipoua forest: ‘The Government have recently decided to put a road THROUGH this forest, for the convenience of settlers in the neighbouring districts. The State Forest Service proposed a road AROUND the Forest, but that suggestion was over-ruled by others.’¹⁰² To highlight the uniqueness of the Waipoua forest, the journal published a lecture by William Roy McGregor of the biology department at Auckland University College, and who had investigated the Waipoua forest for the SFS during the first half of the 1920s, making him ‘[t]he highest authority’ on the subject of the forest’s future.¹⁰³ According to McGregor, scientific management of Waipoua forest would ensure an ample supply of timber and the vitality of the forest whereas a road would not.¹⁰⁴ Auckland newspapers, Roche shows, also criticised the road, but in contrast to *New Zealand Life*, suggested that it would enable the SFS to commence logging operations. While Roche deems the claim by the Auckland press as ‘unlikely’ due to the ‘much stricter timber policy’ imposed by the SFS in the early 1920s, he argues that the ‘disquiet over Waipoua’ stemmed from its portrayal in the press ‘as the last kauri forest’.¹⁰⁵

Although the SFS at first strongly resisted the prospect of a road running through Waipoua Forest, it soon realised the road’s value in fostering a public forest consciousness. In 1927, a year before the road’s official opening, Ellis reported joyously how ‘the new road through Waipoua Forest has enabled many visitors to visit this extensive kauri forest’.¹⁰⁶ The *New Zealand Life* also celebrated the new road. ‘The scenery along the route’, the magazine told its readers in 1927, ‘is beyond description’, then proceeded to illustrate the wonders along the road: ‘Beautiful, stony bottomed streams, with all the wealth of fungus and shrubs typical of the luxuriant growth of northern forests, run amid huge kauris, totaras, rimus, kahahiteas and ratas [sic], each one seemingly bigger and better than its predecessor.’¹⁰⁷

Scenic drives were not confined to native forests such as Waipoua. Exotic forests, too, received praise for the vistas they offered, not for their beauty, but for the magnificent labour

¹⁰¹ Roche, *History of Forestry*, 408.

¹⁰² ‘Waipoua Kauri Forest Endangered,’ *New Zealand Life* 5, no. 9 (1926): 11.

¹⁰³ ‘Ibid. For McGregor’s early research on Waipoua and his relationship with the SFS, see, Roche, *History of Forestry*, 192-195.

¹⁰⁴ Ibid. From the 1930s and onwards McGregor would become a leading advocate for the preservation of Waipoua Forest, see: Roche, *History of Forestry*, 408-410.

¹⁰⁵ Roche, *History of Forestry*, 408.

¹⁰⁶ *AJHR*, C3, 1927, 14.

¹⁰⁷ ‘Kauri forests on view,’ *New Zealand Life* 6, no. 12, (1927): 5.

and achievement they represented. George Matthew Fowlds, president of the New Zealand Tourist League, after a car excursion to Te Urewera with the Auckland Automobile Association, was ecstatic over the views the trip offered in an interview with the *Auckland Star*, later reprinted in *New Zealand Life*: “‘Nothing could be finer than the approach across the Kaiangaroa [sic] Plains where the work of the Forestry Department can be seen at its best, and where the blue hills of the Urewera rise abruptly in the distance.’¹⁰⁸ Exotic plantations, like Kaingaroa, truly formed an impressive sight. As one writer of the *New Zealand Herald* remarked when traversing the North Island plains in 1927:

For mile after mile the road runs straight across the Kaiangaroa [sic] Plains – probably the longest stretch of straight road in the Dominion – and for all those miles exotic trees stretch away to the “back o’ beyond.” What a timber heritage this generation is providing the country!¹⁰⁹

As the number of people exploring New Zealand by car increased, so did the NZFL’s efforts to protect and preserve road scenery. In 1931, the NZFL distributed a circular to county councils. In it, the NZFL reportedly claimed ‘that New Zealand roads were gradually becoming less interesting than they used to be, largely through the thoughtless destruction and lack of appreciation of their beautiful and historic value to succeeding generations.’¹¹⁰ To prevent further destruction, the NZFL asked council members to co-operate with it to ensure that New Zealand roads remained scenic and interesting.¹¹¹ One councillor who adhered to the call was M. E. Fitzgerald, Matamata County engineer, who had recently managed to preserve tracts of native forest when overseeing the upgrade of the highway between Matamata and Rotorua (today a section of the road is known as Fitzgerald’s Glade).¹¹² One journalist traveling the road after its upgrade praised the vista it offered: ‘Such a wealth of unspoiled native scenery is not often seen nowadays. Parts of the road have been taken right through the bush so that alongside the wheeltracks [sic] great pungas and tree ferns, and all manner of native foliage flourish.’¹¹³ Thus, with Fitzgerald, the NZFL had acquired a prominent and influential collaborator. In a NZFL circular advocating the protection of native vegetation alongside roads, which also

¹⁰⁸ ‘Urewera motor trip,’ AS, 5 April, 1927, 8; ‘Motoring into the Urewera,’ *New Zealand Life* 6, no. 7 (1927): 15.

¹⁰⁹ Nikora, ‘Urewera wayfaring,’ NZH, 17 May 1927, 11.

¹¹⁰ ‘Preserving native bush,’ NZH, 15 April 1931, 12.

¹¹¹ Ibid.

¹¹² ‘Matamata County Council,’ *Matamata Record*, 20 April 1931, 5.

¹¹³ Motus, ‘Road to Rotorua,’ *Matamata Record*, 1 November 1928, 7.

appeared in the press, Fitzgerald detailed the process behind his renowned road.¹¹⁴ ‘A road through the bush, tree-shaded,’ the NZFL noted in another circular aimed to awake public support in favour of a less invasive road construction, ‘is a summer delight’.¹¹⁵

The NZFL efforts to stir public opinion certainly saw success. ‘The necessity for taking measures to preserve the natural beauty of the Bay of Plenty-East Cape route now being opened up for motor traffic’, the official organ of the NZFL reported in July 1932, had seen local Māori and Pākehā express concern over the potential destruction the road would cause to the trees.¹¹⁶ ‘The scenery along this part of New Zealand’s coast-line’, the magazine noted, ‘is of entrancing beauty and probably rivals anything the rest of the world can show’, applauding the NZFL’s efforts to raise public opinion on the need to protect forest and trees along roads to preserve New Zealand’s unique scenery, urging readers to support the NZFL.¹¹⁷ ‘The preservation of beautiful scenery along our coasts’, the journal continued, ‘is particularly desirable and this aspect should be kept in mind when road-developments are under consideration.’¹¹⁸ As concluding evidence, the magazine featured a photograph of pōhutukawa (*Metrosideros excelsa*), widely appreciated for their crimson flowers in December. Roads through forests or alongside trees offered a wealth of wonder to the car driver, but as the demand for improved roads increased with the growing number of cars, so did the risk of the spectacular scenery being destroyed. As the NZFL noted, this could only be prevented by a forest conscious public opinion, treasuring the vistas of the roadside.

Conclusion

As a New Zealand identity emerged amongst Pākehā in the late nineteenth century so did efforts to protect forests and other landscapes considered scenic, or unique, to New Zealand. The government established national parks and passed laws, such as the 1903 Scenery Preservation Act, to establish scenic reserves, often alienating Māori from their land. Meanwhile, concerned individuals across New Zealand formed scenery preservation societies, seeking to protect local

¹¹⁴ New Zealand Forestry League, ‘Bulletin – No. 4, Marginal Trees on Bush Roads,’ unknown year [most likely 1931]; New Zealand Forestry League, ‘Bulletin – No. 6, Fire Damage on Bush Roads,’ unknown year [most likely 1931]; New Zealand Forestry League, ‘Bulletin – No. 9, Roadside Trees. Departmental Protection,’ unknown year [most likely 1931]. A L Hunt Papers, ATL, MS-Papers-0158-294F; For the circulars appearing in the press, see: New Zealand Forestry League, ‘Bush Roads and Marginal Trees,’ EP, 28 October 1931, 7; N. Z. Forestry League, ‘Things of Beauty,’ EP, 14 November 1932, 11.

¹¹⁵ New Zealand Forestry League Bulletin – No. 6, Fire Damage on Bush Roads, unknown year [most likely 1931]. A L Hunt Papers, ATL, MS-Papers-0158-294F

¹¹⁶ ‘A Year of Forestry Activities. Report of Council of the N.Z. Forestry League (Incorporated),’ *New Zealand Magazine*, December 1932, 23.

¹¹⁷ ‘Unique coastal beauties to be preserved,’ *New Zealand Magazine* 11, no. 4 (1932): 17.

¹¹⁸ *Ibid.*

landscapes of regional significance overlooked by the government. Although the main focus of the NZFL was the promotion of scientific forestry, many of its members, like James Glenney Wilson and Alexander Bathgate enjoyed a background in local scenery societies, and as such its work quickly came to include scenery preservation. Moreover, imperial forester David Ernest Hutchins, who exercised a huge influence over the NZFL, argued that the job of scenery preservation fell under the workings of forestry. Thus, instituting a forestry department was not only imperative to prevent a timber famine, but also to protect the scenic forests of New Zealand. This position was reiterated by Director of Forestry Leon MacIntosh Ellis in his forest policy proposal in 1920. According to Ellis, only the SFS possessed the knowledge to properly manage the scenic reserves and national parks of New Zealand, a claim supported by the NZFL.

Although the SFS and the NZFL failed to secure national parks and scenic reserves under control of the former, the two, in particular the latter, continued campaigning for the protection of forests on scenic grounds. Allowing the public to behold the wonders of forests and trees would further the creation of a forest conscious public. Ellis, for example, envisioned that those who visited Trounson's Kauri Park would realise the value of scientific forestry and conservation. To promote the cause of preservation, the official magazines of the NZFL featured articles and poems, some of them by prominent writers, on the beauty of New Zealand's forests. Besides employing aesthetic arguments, the magazine, particularly under the editorship of Maurice Hurst, also emphasised the recreational value of forest preservation, saluting the physical and spiritual health benefits recreation in the bush offered the urban dweller. During the 1920s, tramping grew evermore popular, with tramping clubs being formed across New Zealand. Not requiring any significant expenditure, tramping became especially popular amongst the young who eagerly sought to escape the mundane office life, albeit for a weekend.

The SFS and the NZFL welcomed trampers, seeing them as representatives of a growing forest consciousness among the younger public. This is most evident in the SFS employing trampers as honorary rangers, who assisted the SFS in preventing fires and protecting wild life in State forests. From a mere handful in the beginning of the 1920s, the number of honorary rangers had risen to just over a hundred by the end of the decade. Seeking to further encourage tramping in State forests, the SFS even explored the establishment of a hut system, though later deciding to abandon the project deeming the time not yet ripe for such a scheme. The NZFL, in turn, saw trampers as potential members. In 1920, as the NZFL sought to form a branch in Wellington, it approached and recruited leading members of the Tararua Tramping Club, the first association of its kind. In addition to sharing members, the two also came to share the same

official magazine, which, in time, came to host a number of tramping clubs across New Zealand. In the middle of the 1920s, the magazine served as a megaphone for many organisations calling for the preservation of forests for their beauty and recreational value.

Trampers were not the only new group exploring the forests. During the 1920s, New Zealand became amongst the most motorised societies in the world, and motorists, just as trampers, flocked to the forests for recreation. The SFS and the NZFL welcomed this group too, believing that the more who experienced the wonders of the bush, be it by foot or wheel, the greater the likelihood of a forest consciousness taking root in the public mind. However, both the SFS and the NZFL, in particular the latter, expressed concern over the indiscriminate destruction of scenery associated with road construction. Thus, while not actively discouraging motorists, the NZFL sought to influence road constructors to limit the destruction of bush when building and upgrading roads. Forest consciousness, as much as it encompassed appreciating the glory of forests, also involved taking the utmost caution in road construction. To achieve this, the NZFL sought to collaborate with local councils and publish propaganda in the press as well as in its own magazine, emphasising the joy of driving under a forest canopy.

Conclusion

Timber famine averted and forest consciousness achieved?

Individual, public, and political support of the forestry movement, forest-conservation, and the growing of timber for profit is to-day from the North Cape to the Bluff most definite and spontaneous. Progress Leagues, Farmers' Unions, Chambers of Commerce, and dozens of other public organisations have pledged themselves to the continuance and wider extension of the policy laid down in 1920.¹

Leon MacIntosh Ellis, 1925

To Leon MacIntosh Ellis, Director of Forestry, the success of forestry in New Zealand depended upon public political support, public participation in tree-planting, and public appreciation of the utilitarian and aesthetic value of forests. From the middle of the 1910s to the middle of the 1930s, especially in the 1920s, the New Zealand Forestry League (NZFL) and the New Zealand State Forest Service (SFS) sought to create a public forest consciousness to prevent an imminent timber famine – a shortage of wood – and shore up a broad support base for state forestry. As this thesis demonstrates by drawing upon a vast array of primary sources, the NZFL and the SFS fostered a public forest consciousness using a range of methods and tools devised to target the general public and particular groups especially. The target group and methods ranged widely. Specific programmes engaged everyone from school children to farmers, forest recreationists, and the building industry itself as the SFS and the NZFL organised competitions, enacted policies to supply enquiring planters with trees, arranged conferences, partook in exhibitions, hosted lectures, put up posters, supplied the press with articles, started a journal dedicated to forestry, and even promoted a Hollywood film. Overall, through these practices, we can identify three kinds of forest consciousness that developed, each with a specific goal in mind. The first was to create a forest conscious public, the next was to enlist it in the cause of forestry, and the final was to ensure protection of forests for utilitarian and aesthetic reasons.

Political forest consciousness to ensure public support

As organised British colonisation of New Zealand commenced after the Treaty of Waitangi in 1840, and settlers set out to transform the colony into a land of milk and honey by clearing

¹ *AJHR*, C3, 1925, 10.

forests, the large-scale deforestation that ensued sparked environmental anxieties amongst early conservation-minded settlers. Yet, as previous research notes, any attempts during the nineteenth century to promote private tree-planting, implement scientific forestry, or establish a forestry department met with limited success at best. In the meantime, New Zealand's forests continued to diminish by axe and flame. The 1913 Royal Commission on Forestry, for example, estimated that New Zealand might possibly deplete its forest resources in three decades, its findings fuelling fears of a timber famine. In 1916, farmer, former politician, and president of the agricultural interest organisation the Farmers' Union, Sir James Glenny Wilson, fearing an imminent shortage of wood, together with other concerned citizens formed the NZFL, its task to stir public opinion and pressure the government to establish a forestry department in New Zealand. Speaking at the inaugural meeting of the NZFL, visiting imperial forester Sir David Ernest Hutchins stressed the importance of acquiring the support of the public. According to Hutchins, the reason forestry had failed in New Zealand in the past was due to a lack of public support.

Previous research on the NZFL's efforts to promote forestry has tended to focus on the close connection many of its members, in particular Wilson, enjoyed with leading politicians such as Prime Minister William Ferguson Massey and Sir Francis Bell. While the political network certainly deserves attention, it overlooks the wider propaganda employed by the NZFL to create public support for forestry. As this thesis shows, the NZFL published pamphlets and submitted articles to journals to educate and stir public opinion: for example, shortly after its establishment it ensured that Hutchins's address appeared in the *Journal of Agriculture*, the publication of the Department of Agriculture. With farmers constituting a major political force, informing them of the value and need for a forestry department proved crucial. Meanwhile, Hutchins, a true proselytiser of scientific forestry, collaborated with the NZFL in spreading the gospel of forestry, holding lectures throughout New Zealand to a range of audiences and organisations, from the Workers' Education Association in Wellington to the Otago Expansion League in Dunedin.

The propaganda of the NZFL and Hutchins proved effective: in 1919 the government established a forestry department and a year later it appointed Ellis as Director of Forestry, who renamed his department the SFS. Much like his imperial counterpart, Ellis regarded public support essential for forestry to succeed in New Zealand and believed the NZFL indispensable in fostering a public forest consciousness. Indeed, although a forest department had been instituted, it did not guarantee the success of forestry, especially as New Zealand plunged into

a recession in the early 1920s, with politicians seeking to cut public spending. Moreover, historically, forestry departments in New Zealand had only lasted a few years.

To rally public support for scientific forestry, the NZFL expanded its propaganda efforts, hiring the writer Will Lawson as organiser in 1921, a role which involved delivering lectures around New Zealand and supplying newspapers with articles, with the aim of rallying support for the NZFL and forestry in general. As the NZFL and the SFS realised, the press constituted an important tool in forming public opinion, with both repeatedly acknowledging the role of the press in bringing forestry before the public in their annual addresses and reports respectively. Further reflecting the belief in the value of the printed word, the NZFL, like many other forestry associations abroad, started its own journal, *The Forest Magazine (of New Zealand)*, in 1922. Carrying a range of articles related to forests and forestry in a popular language by writers like James Cowan, native bird preservationist Ernest Valentine Sanderson (see below), and several members of the SFS, the journal aimed to appeal to a broad readership. While later incorporated into another magazine, *New Zealand Life*, the journal, which was published under a range of names, remained a popular publication throughout the inter-war period and served as the official organ of the NZFL well into the 1930s.

The SFS, too, set out to educate the public about its work and the value of forestry. Throughout the first half of the 1920s, the SFS partook in agricultural and pastoral shows, also known as winter shows, and participated in the New Zealand and South Seas Exhibition organised in Dunedin 1925-1926. Decorated walls of foliage with displays of statistics and photographs together with large relief maps combined aesthetics with education. Exhibitions allowed the SFS to merge pedagogy and amusement. By educating the public on the value of scientific forestry, the NZFL and the SFS hoped to secure its long term future.

While educating the adult population would ensure that forestry remained in the minds of voters at the next election, forestry, requiring decades of commitment to truly succeed, made it imperative for the NZFL and the SFS to foster a forest consciousness in children to secure the long term future of scientific forestry in New Zealand. In this aim, the SFS and the NZFL was tapping into a longer tradition of forest consciousness. The notion of educating children about the necessity of forests and tree-planting (see below) in New Zealand predated the NZFL and the SFS. Members of the NZFL, such as co-founder Alexander Bathgate, who had been one of the leading advocates in introducing Arbor Day in New Zealand in the 1890s, campaigned for revitalising the holiday which had fallen in prominence in comparison to the early days. According to Bathgate and the NZFL, Arbor Day would foster a love for nature, patriotism, and help beautify cities and countryside alike. While the NZFL received support for seeking to

rejuvenate Arbor Day with the endorsement of prominent individuals like Doctor Frederic Truby King and newspapers, it could only encourage schools so much: what was required was the influence of a state department, or even two.

Initially the SFS dedicated little attention to Arbor Day. However, inspired by the work of other forest departments, most notably the success of the forestry in schools campaign in Victoria, Australia, Ellis approached the Education Department with the idea of undertaking a similar scheme in New Zealand. Together, the two departments launched the “Forestry in Schools Campaign” to incorporate forestry into the classroom by supplying schools with seeds and seedlings, using existing subjects like nature study and pedagogical tools such as school gardens and the *New Zealand School Journal*. By supplying the *School Journal* with articles on forestry, the threat of a timber famine, and the many dangers of deforestation, the SFS could even inculcate a forest consciousness in urban school children who might not have access to a school garden to grow trees, especially since using the *School Journal* was mandatory.

To ensure that schools devoted ample time to forestry, the SFS hosted conferences for agricultural instructors at its plantation centres in the North and South Island respectively and submitted articles to the *New Zealand Education Gazette*, to provide teachers with instructions and ideas of how to bring forestry into the classroom. Adding to the articles in the *Education Gazette*, the SFS also published a booklet advising on tree-planting and school gardening. Instilling children with a forest consciousness involved educating educators almost as much as the students. However, to the SFS the work would ensure that trees and forestry had votes in the future.

Public participation in preventing a timber famine

During the nineteenth century when New Zealand politics was dominated by the notion of *laissez-faire*, many politicians perceived state forestry as paternalistic. Instead, in that century, the government passed legislation that sought to encourage private individuals to plant trees and establish timber plantations in the hopes of addressing any shortage of timber. While the legislation enjoyed only minor success, the nineteenth century saw New Zealand runholders experiment with a number of exotic trees, many of which demonstrated impressive growth rates, for example *Pinus radiata*, which could be logged after as few as three decades.

While the NZFL in its early years first and foremost sought to rally political support for the establishment of a forestry department, it also encouraged farmers to plant trees. To promote farm forestry, members of the NZFL published articles in the *New Zealand Journal of Agriculture* and held lectures to farming organisations on the subject, which later appeared in

the *Farmers' Union Advocate*, the official magazine of the Farmers' Union. To further encourage farmers to plant trees, the Forestry Branch of the Department of Lands and Survey started selling seeds and trees to farmers with the hopes of farmers establishing wood-lots to function as a local supply. The scheme proved a huge success, not least due to efficient advertisement in the *New Zealand Journal of Agriculture*.

As a result of the early experiments in the nineteenth century, articles and lectures on farm forestry by members of the NZFL, and the advertising by the Forestry Branch of the Department of Lands and Survey, a strong interest in tree-planting existed by the time Ellis arrived in New Zealand. Impressed by the strides in private forestry and the phenomenal performance of exotic trees in New Zealand, Ellis, in his 1920 policy proposal, calculated that close to a third of New Zealand's timber demand could be met by the private or semi-public sector, in which he included county councils, municipalities, various associations, and farmers. Of these, the last group proved of particular interest to the SFS in its efforts to inculcate a forest consciousness.

To encourage farmers to establish timber-plantations, the SFS undertook an aggressive propaganda campaign. In addition to expanding the advertisement of the Forestry Branch of the Department of Lands and Survey, the SFS put up posters at railway stations, promoted farm forestry at exhibitions, published and distributed booklets on the subjects, supplied articles to agricultural magazines, gave advice by correspondence, held lectures, and offered private inspection and advice. Arguments employed by the SFS to encourage farm forestry included emphasising the utilitarian value of timber plantations as shelter for stock, be it from wind or sun, or stressing the optimistic monetary profit that would follow a timber shortage. While reflecting Ellis's optimism for private forestry, and his belief in the propaganda of the SFS, he presented confident projections of sales in his annual reports. Although the estimates initially proved far too optimistic it did not take long before the projection fell below actual sales. Since the figures included sales to afforestation companies, together with poor record-keeping, finding any exact number of sales to farmers is difficult. Nevertheless, statistics by the Census and Statistics Office show that the planting of trees by farmers sky-rocketed during the 1920s.

As the SFS set out to promote farm forestry to prevent a timber famine, it realised that it alone could not supply the seed and trees needed if farmers were to grow a third of New Zealand's timber requirement. Therefore, the SFS developed a close relationship with the New Zealand Association of Nurserymen (NZAN) with both seeking to encourage farmers to plant trees while selling trees and seed at agreed upon rates. However, the collaboration soon derailed as the NZAN argued that the competition from the SFS resulted in prices below a profitable

level, putting good and honest nurserymen out of business. Moreover, vastly outselling the SFS, the NZAN claimed that it alone could supply farmers with the seeds and trees required. The rift sparked an ideological battle that came to dominate much of the 1920s. Should the SFS, a state department, compete against private business? According to Ellis, competition was essential in guaranteeing farmers access to quality seedlings at affordable prices, claims he supported by reports of customers praising the products of the SFS and how private nurserymen sold seedlings at a much higher price with hidden fees. This assessment was shared by the NZFL and the Farmers' Union. Meanwhile, the NZAN enjoyed the backing of fiscally conservative organisations, such as the New Zealand Welfare League, which equated the competition from the SFS to state socialism. Although the government supported the SFS, believing it was the task of the state, in conjunction with the private market, to assist farmers in their establishment of wood lots and timber plantations, economic downfall together with changes in government led to the policy of selling trees and seeds to farmers being scrapped.

Public participation in solving a timber famine by planting trees was not limited to farmers, but also included children. Indeed, as much as the "Forestry in Schools Campaign" sought to secure political support for forestry in the future, the scheme was also designed to help schools to establish timber plantations. To achieve this, the SFS supplied schools with trees, which it encouraged teachers to have children plant in school gardens, and later transfer to school plantations, or let the children bring seedlings home to foster a forest consciousness among their parents. By having schools raise trees in school gardens, Ellis and the SFS envisioned schools establishing their own timber plantations to serve as a local source of timber and function as an income for schools. In both the *Education Gazette* and printed material, the SFS stressed the profits that schools could earn by planting *Pinus radiata*, while at the same time offering advice on tree-planting and tree-nursing. Thus, whereas individuals like the prominent botanist and ecologist Leonard Cockayne wanted children to plant native species to promote patriotism, the SFS favoured the planting of quick-growing exotic timber-trees.

To further encourage schools to establish timber plantations, the SFS established school competitions in co-operation with other winter shows. Yet, despite the prospect of lucrative prizes, and the support of the press, few schools partook in competitions or established any timber plantations. The scheme only saw any major success in Taranaki where schools had established a total of almost 30 acres of timber plantations by the end of the 1920s, and were eager participants in school competitions. The success in Taranaki reflected the enthusiasm of its teachers and agricultural instructors, many of whom devoted a significant time to tree-planting, and also of the organiser of the South Taranaki Winter Show who was an ardent

conservationist. Perhaps they sought to do this because Taranaki was one of the regions that had suffered some of the most rapid deforestation in the country.

Fostering a public forest consciousness was not limited to encouragement of tree-planting. It also involved the promotion of a wise use of forest resources. During the nineteenth century and into the twentieth century, conservationists and scientific foresters noted with horror the tremendous waste of forest resources occurring in New Zealand with sawmillers leaving trees they regarded as inferior to perish in flames. According to the SFS, the wasteful cutting practices by sawmillers could be attributed to public demand, with consumers still perceiving New Zealand's forests as an endless resource to be mined, and therefore only accepting timber of the highest quality. To change public consumption patterns, the SFS set to develop a waste-exchange programme in the beginning of the 1920s. The scheme would see the SFS connect wood-consumers with sawmillers, and allow the consumers to acquire pieces that otherwise would go to waste. Although promoted at lectures and bulletins at exhibitions, the programme never took off, perhaps as a result of the low interest from sawmillers, with newspapers in timber rich regions mocking the scheme.

In addition to reducing waste by changing public consumption patterns, the SFS also sought to reduce waste within the timber industry by promoting a wider and more efficient utilisation of forest resources. During the late nineteenth and early twentieth centuries, technological improvements and scientific discoveries led to a range of new applications for wood and wood-products. Enthused by the advancements, Ellis expressed high hopes of ensuring a fuller utilisation of New Zealand's wood resources by establishing a forest products laboratory. Though some of the more ambitious projects Ellis envisioned were never realised, such as transforming wood waste into petrol, the forest products laboratory, together with Auckland University College, conducted several investigations to uncover potential areas of usage of often ignored trees. The test results were then published in bulletins that detailed the timber's properties and potential uses, which often suggested a lucrative market waiting. For example, the SFS claimed that a wider utilisation of red beech (*Nothofagus fusca*) could reduce New Zealand's need to import hardwood, primarily eucalyptus, from Australia. The collaboration between the SFS and the University of Auckland reflected the growing state involvement in science, especially applied science, in New Zealand. It also mirrored the development of forestry and applied science overseas, as forest departments overseas, such as in the United States, were collaborating with universities to solve matters of a technical nature and conduct scientific studies to ensure a fuller utilisation of timber to reduce waste.

In addition to finding new uses for previously overlooked or under-utilised timber trees, the SFS sought to reduce waste in the timber industry by promoting new technological innovations and practices with propaganda. One technological innovation the SFS was particularly keen to advertise was kiln-drying. Compared to air-seasoning, which exposed the wood to weather, wind, and insects, dry-kilns not only eliminated those risks, but could dry the timber to a much further extent, making the timber less susceptible to rot in the future. However, as a relatively new technology, expensive to acquire, and difficult to operate without sufficient knowledge, the SFS recorded a scepticism amongst timber merchants and sawmillers towards dry-kilning and artificial seasoning. To address the prejudices, the SFS, with the financial support of the Dominion Federated Sawmillers' Association, invited the American kiln-drying expert Harry D. Tiemann to hold lectures and give advice to kiln-dry operators in the early 1920s. The SFS also published two booklets on the subject detailing the advantages on kiln-drying and artificial seasoning, as well as useful tips related to air-seasoning.

The quest to reduce waste extended far beyond the timber industry to include pressing contemporary issues, most notably the housing shortage in New Zealand cities. With a majority of houses in New Zealand being made of wood, the notion of a timber famine contributed to fears of rising house prices. Thus, in 1924, the SFS organised a building conference, inviting architects, timber merchants, and builders, with the ambition to set out building recommendations that would reduce the drain of forest resources and at the same time promote construction and thereby alleviate the housing shortage. To stimulate discussion, the SFS supplied the delegates with its own suggested building recommendations. Although the attendance agreed on the overarching goal of the necessity of providing good affordable houses for the public, some of the recommendations by the SFS sparked intense debate, especially those regarding seasoned timber. Far from sharing the opinion of the SFS, some delegates claimed that in their experience green timber was preferable to seasoned timber. At the same time as the conference reflected the notion of solving societal issues, such as housing, through applied science and expertise, it also demonstrated the distrust of many in the building industry towards state intervention, in this case the SFS.

Utilitarian and aesthetic forest consciousness

The deforestation that followed British colonisation in the nineteenth century not only sparked fears of a timber famine, but, as research by environmental historians and other scholars show, also caused anxieties of erosion, floods, and even climate change, though the last had largely disappeared in forestry circles in the initial decades of the twentieth century. Moreover, as a

Pākehā identity emerged, in which bush and bird played a prominent part, so did calls to protect forests and birds on aesthetic grounds. To the NZFL and the SFS, forest protection to prevent erosion and floods, and the need to preserve forests and native birds, constituted branches cut from the same tree of scientific forestry. Thus, fostering a public forest consciousness involved not merely securing political support for forestry, and promoting public participation in preventing a timber famine, but also educating the public on the wider utilitarian and aesthetic value of forests.

To educate the public about the need to preserve forests, for their aesthetic and utilitarian value, the NZFL ensured that its official organ carried articles on how forests prevented erosion and protected against floods as well as articles on the wonders of New Zealand's forests. To enhance the message of these articles, the magazine at times featured sketches, images, and photographs either illustrating the dangers of deforestation or the beauty of the forests. In addition to regularly preaching the value and wonders of forests to an adult population, the NZFL sought to develop a forest consciousness in the minds of children as well by hosting competitions for best herbarium, encouraging children to explore and realise the beauty of the bush, as well as essay competitions on subjects related to forests and forestry. The SFS, too, sought to educate children on the utilitarian value of forests and foster a love for nature through the "Forestry in Schools Campaign" through the subject nature study and with articles in the already mentioned *School Journal*. Nature study, a subject developed in the United States and introduced in New Zealand in the early twentieth century, had long been used to foster a curiosity and love for nature amongst conservationists in New Zealand and abroad.

To the NZFL and the SFS, instilling a love for nature would help garner political support for forestry. As such, both welcomed the increasing number of people that flocked to the forests for their recreation, be it by driving or tramping. Indeed, during the 1920s, a growing number of car owners and the rising popularity of tramping allowed new groups of the public to witness the forests. Of the two groups, the NZFL and the SFS perceived the latter as a particularly valuable ally in scenery preservation, with the NZFL approaching the Tararua Tramping Club in the hopes of acquiring members. Further reflecting the commonality of the goals and aims of the NZFL and the Tararua Tramping Club, and later other tramping clubs too, was the fact that they shared the same official magazine. Meanwhile, the SFS noted that many trampers could serve as honorary rangers, helping to protect the forest and enforce regulation.

While the NZFL and the SFS supported the notion of forests as sites of recreation, the rising number of people visiting forests also increased the risk of fires, which Ellis perceived as the primary threat to New Zealand's forests. To prevent the risk of fires, the SFS employed

a number of tools. These included the establishment of fire districts, areas in which starting fires was prohibited during certain parts of the year, posters in forests urging campers and recreationists to act with caution when lighting fires, and collaborating with gas companies by distributing advertising blotters that also reminded drivers to be mindful of fires. As a more unusual means to inform the public on the danger of fire to forests, the SFS advertised the Hollywood movie *Hearts Aflame*, believing that the scenes depicting the forest fires would have moviegoers realise the very real threat fires posed to forests. The NZFL, in turn, urged tourist companies to remind their clients to be careful, and in an ambitious move, even asked cigarette manufacturers to put warning texts on their cartons.

Safeguarding forests from destruction was not merely about protecting forests from axe and fire, but also a question of protecting some of its inhabitants: native birds. To the NZFL and the SFS, instilling in the public a love for native birds constituted a central aspect of fostering a forest consciousness, albeit for different reasons. To the NZFL and the SFS, native birds filled the forest with life, thus enhancing the experience of being in a forest, but even more importantly, native birds played a crucial role in ensuring the well-being of forests, as pollinators, seed distributors, and insect consumers. To further the preservation of native birds, the NZFL and the SFS collaborated closely with the Native Bird Protection Society (NBPS), founded in 1923. Indeed, the NZFL, with several of its members joining the NBPS, came to promote many of the same goals as the NBPS. Meanwhile, the SFS, which also had many of its staff enrolling in the NBPS, with Ellis and later also his successor Edward Phillips Turner serving as vice-presidents, gladly shared the propaganda of the NBPS. This primarily involved the distribution of posters by the NBPS. Written in English and Te Reo Māori, both posters emphasised the ecological and aesthetic value of native birds, the latter also utilised Māori mythology. As the efforts to protect native birds demonstrate, fostering a forest consciousness included instilling an aesthetic and utilitarian appreciation of native forest wildlife in the public mind.

Where to now?

‘The post-war fears of a world timber famine’, Director of Forestry A. D. McGavock reported in March 1935, ‘have been definitely proved as groundless, and the following advantages enjoyed by the North European countries which dominate the international wood-goods trades cannot be lightly ignored’.² Contrary to his predecessors, Leon MacIntosh Ellis and Edward

² *AJHR*, C3, 1935, 3.

Phillips Turner, McGavock, as Michael Roche notes, ‘was a long-time public servant with decidedly sceptical views about the claims of professional foresters’, and dismissed the notion of a timber famine.³ Moreover, McGavock also objected to continued planting of exotics ‘on economic grounds’, maintaining that the current amount planted proved sufficient ‘to supplement the indigenous forests and to ensure an adequate supply of timber ... for the next century.’⁴ By the time of McGavock’s report, exotic state plantations covered about 406,200 acres, well beyond Ellis’s ambitious plan in 1925 of seeing state plantations covering 300,000 acres by 1935.⁵ Thus, the fear of a timber famine being regarded as merely senseless alarmism, together with economic depression, removed the SFS’s need to create a public forest consciousness, especially with the expansion of state plantations, as the SFS ended its policies of providing and selling trees and seeds to schools and farmers respectively during the 1930s.

Two years after McGavock dismissed the notion of a timber famine, Ernest Valentine Sanderson, president of Forest and Bird, previously Native Bird Protection Society, noted in his address at the Bush Preservation and Amenity Planting Conference in April 1937 that conservation, to truly succeed, required the support of the public.⁶ ‘Nothing’, he told the audience, ‘can be done without public sympathy, therefore, the first essential is to secure this backing, and it can be done by telling the public the facts in their own language in as simple a form as possible.’⁷ While Sanderson believed that Forest and Bird had accomplished great results in relation to its funds, much work remained in educating the public on the value and need for conservation. As Sanderson’s remarks suggest, had a public forest consciousness been instilled in the New Zealand public, or was it a continuous task requiring constant work by conservationists? While the NZFL continued to exist into the 1950s, its influence declined in the 1930s as the NBPS changed its name to Forest and Bird: there is thus much work that remains to uncover different ideas around the public’s importance in conservation matters from the perspective of the NBPS in the period of 1935 onwards.

This dissertation almost exclusively focuses on how the NZFL, which primarily consisted of Pākehā men, and the SFS, which also largely consisted of men, either Pākehā or from overseas, sought to foster a public forest consciousness. The public they targeted were, with few exceptions, generally Pākehā. Thus, as the membership of the organisations reveal, there

³ Roche, *History of Forestry*, 214.

⁴ Ibid.

⁵ Ibid., 2.

⁶ On the Bush Preservation and Amenity Planting Conference, see: Ross, *Going Bush*, 102-105.

⁷ ‘Forests: Address delivered at Forest Conference held in Wellington on 2nd April, by E. V. Sanderson, President Forest and Bird Protection Society,’ *Forest and Bird* 44 (1937): 10.

is much to uncover in relation to women and forest consciousness. This is also true for attempts to reach, or involve, Māori in the fostering of a forest consciousness and forest conservation in the interwar period.

Final thoughts

We are today facing a global environmental crisis. Although the cause of the challenges of today differ from the ‘environmental anxieties’ – to borrow a term coined by James Beattie – expressed by conservationists and scientific foresters in New Zealand with fears of a timber shortage, erosion, and flooding as a result of decades of deforestation, these anxieties still carry relevance today, as do their solutions.⁸ The attempt to foster a public forest consciousness to address matters of a timber shortage and native wildlife preservation, to mention but two examples, highlights the importance of public participation and involvement in solving environmental issues. The words of native bird preservationist Ernest Valentine Sanderson carry just as much relevance in 1931 as they do ninety years later:

Once the public can be brought to realize the economic importance of bird and bush, conservation is easy; but the public must be on the side of the forests and birds, and it is in their interests to be so.⁹

⁸ On environmental anxieties, see Beattie, *Empire and Environmental Anxiety*.

⁹ E. V. Sanderson, “‘Shall we do it?’,” *Birds* 25 (1931): 4.

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