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+ABOUT US

ENNZ provides a forum for debate on environmental topics through the acceptance of peer reviewed and non peer reviewed articles, as well as book and exhibition reviews and postings on upcoming events, including conferences and seminars.

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Contents

i-iii	TITLE & PUBLICATION DETAILS
iv	CONTENTS
v-vi	EDITORIAL INTRODUCTION
1-12	ARTICLE: PAUL STAR, 'NEW ZEALAND'S BIOTA BARONS: ECOLOGICAL TRANSFORMATION IN NEW ZEALAND'
13-14	REQUEST: JOANNA BISHOP, 'MEDICINAL PLANTS IN NEW ZEALAND, 1850s-1920s'
15-18	BOOK REVIEW: CHARLES DAWSON, ON <i>MĀORI AND THE ENVIRONMENT: KAITIAKI</i>
19-21	BOOK REVIEW: JULIAN KUZMA, ON <i>THE SETTLER'S PLOT</i>

EDITORIAL INTRODUCTION

JAMES BEATTIE

Environment was strongly represented at the recently-held Past Tensions, New Zealand Historical Association Conference, hosted by the History Programme, University of Waikato from 16 to 18 November 2011. **Six streams – and no fewer than 20 papers out of 98 – addressed environmentally-related themes.** That represents over 20% of all papers! And, I think it's a fair indication of the growing importance of studies on the environment.

Since the journal began some 6 years ago, environmental studies in the humanities has gone from strength to strength. Environmental history papers are being offered at the universities of Otago, Victoria, and Waikato, with garden history also being taught at the last institution. A website is available (<http://envirohistorynz.wordpress.com/>) which brings together writing on the environment. As I write, a new environmental history organisation is in the process of forming from the Australian Forest History Society. A new peer-reviewed Australasian journal of environmental history will also be published from ANU E-Press (more details will be forthcoming).

While these developments are impressive, there is still room for more to be done. The *New Zealand Journal of History* carries very few studies on environmental history. The University of Auckland, which of the institutions not to offer environmental history, has the most capacity to do so (being the second-largest history department after the Waitangi Tribunal), has great potential to carry on the mantle of Kenneth Cumberland.

Beyond the stuffy rooms of the ivory tower, issues about environment are increasingly to the fore in the public domain. The Rena disaster has focussed attention on government monitoring of ships and the preparedness of the government to meet such an environmental crisis. Mining – especially of the ocean floor – remains a hot political topic. We continue as a nation to dodge the issue of fossil fuel usage and sustainability.

The contributions to this issue bring together what I consider as the particular strengths of *ENNZ*: providing a forum for new research; a test-bed of ideas; a voice to those beginning their research; a review of the latest offerings in the field from different disciplinary perspectives; and not least, making accessible a variety of stimulating and (at times) controversial ideas.

In this issue, Paul Star challenges historians to think about the role of private settlers in environmental change, putting forward the concept of 'biota barons' to describe those settlers whose actions resulted in significant ecological changes in nineteenth-century New Zealand. Joanna Bishop outlines a fascinating new topic – the role of medicinal plants in New Zealand – and asks readers for their help in tracking down new sources. Charles Dawson – presently in South America with his family – overviews an important new book on Māori attitudes to the natural world, that is also, as he puts it, 'a handbook for aspiring kaitiaki'. Finally, Julian Kuzma reviews a delightful new book by Alex Calder which re-examines the relationship between Pākehā literature and the environment.

In handing on the editorship of *ENNZ* to Dr. Paul Star, I would like to thank all of those whose support made this journal possible and wish Paul all the best with the journal's editing.

James Beattie, Hamilton, November 2011

NEW ZEALAND'S BIOTA BARONS:
ECOLOGICAL TRANSFORMATION IN COLONIAL NEW ZEALAND¹

PAUL STAR²

What trees and birds does a New Zealander most often see? Of trees, maybe manuka and kowhai, but more likely poplar and gum. Of birds, maybe tui and piwakawaka (fantail), but more likely starling and blackbird. New Zealand's landscapes, particularly on the eastern side, have been utterly transformed, with the removal of many indigenous species and their replacement by exotic biota. The process of change has largely been a deliberate one, and it took place most notably in the second half of the nineteenth century. This paper considers people who were instrumental in bringing about this change. More specifically, it heralds Henry Matthews and Richard Bills as 'biota barons'.

Biota Barons

We have become used to the word 'baron' being applied not just to someone of a certain rank in the nobility, but to others who are 'powerful or influential', or 'great merchant(s) in a specified commodity'. The *Concise Oxford Dictionary* comes up with the phrase 'beer baron' to exemplify this, though Australians might be more likely to think first of 'press barons' like Murdoch, Fairfax and Packer. I propose the phrase, 'biota barons', to describe those who were influential in the business of shifting biota from place to place.

'Biota', as defined by the *Dictionary*, is the 'animal and plant life of a region'. Nineteenth century New Zealand settlers were not only active in altering the make-up of their biota by bringing in new species, but also thorough in recording the process. When it

¹ An earlier version of this paper was delivered at the New Zealand Geographical Society conference, Christchurch, 6 July 2010.

² Paul Star is a Research Associate of the History Programme, University of Waikato:

<http://www.waikato.ac.nz/wfass/subjects/history/people/research-associates/P-Star.pdf>

came out, there was nothing else quite like G.M. Thomson's 600-page volume on *The Naturalisation of Animals and Plants in New Zealand*, published in 1922. In his introduction he noted that 'It had never been attempted before ... for any country ... [and] New Zealand was the only country in which such a bit of history could be attempted with any prospect of success'.³ Given that it is also the country that has experienced the greatest degree of rapid biotic modification in modern times, New Zealand is an appropriate place to identify 'biota barons' who have played a key role both in environmental change and biotic exchange. Nurseryman Henry Matthews was, I suggest, one such baron.

Perhaps the nearest we have to a theoretical framework in which to place our 'biota barons' is 'actor-network theory', as recently applied by Eric Pawson to botanical exchange.⁴ Following this terminology, the plantsman Henry Matthews appears as an 'actor' engaged in the 'translation' of 'actants', which in Matthews' case were the floral components of various ecosystems. These are helpful concepts, but the language is flat. Calling Matthews an 'actor' doesn't make his actions sound any more significant than those of a drain-layer. Calling him a 'biota baron', however, immediately implies that his actions had the same importance as those of a country's more recognised movers and shakers.

The term also has a further suitability, given that the archetypal antipodean biota baron was, indeed, a baron – Baron Ferdinand von Mueller, Victoria's government botanist and, until 1873, the director of Melbourne's botanic gardens. While von Mueller was intimately involved with the collection and identification of the indigenous flora, his overall vision, as Ian Tyrrell has noted, was one of 'a grand ecological transformation, not respect for the wild'.⁵ He was a prominent member of the Victorian Acclimatisation Society, the flourishing colonial offshoot of a withering parent. Not only did he bring countless exotic plants

³ G M Thomson, *The Naturalisation of Animals and Plants in New Zealand*, Cambridge University Press, Cambridge, 1922, p 1.

⁴ Eric Pawson, 'Plants, mobilities and landscapes: Environmental histories of botanical exchange', *Geography Compass* Vol 2 (2008) pp 1464-1477.

⁵ Ian Tyrrell, *True Gardens of the Gods: Californian-Australian Environmental Reform, 1860-1930*, University of California Press, Berkeley, 1999, p 31.

into Australia, but in a 'reciprocal exchange' he also promoted the spread of eucalypts to California and throughout the globe.⁶

Von Mueller was tireless in his facilitation of this kind of plant transfer. He only once visited New Zealand, in 1891, when he told a reporter he 'receive[d] a great number of letters, more than three thousand in the year; and as my friend Baron Liebig could say when asked for his address, "Europe", I can say "Australia"'. Many of these letters were about the transfer of plants, which he saw as a multi-directional endeavour. 'Plants and trees are being distributed through many countries now', he noted. 'The east is sending to the west, the west to the east, the Old World is sending to the New, the New to the Old ... It is a good thing to see that the public of different countries are not now contented merely with their own flora. About San Francisco there are many Australian trees, and about Melbourne there are many Californian trees, and in New Zealand you have both Australian and Californian trees.'⁷

Nurserymen and professional foresters

While von Mueller was a botanist, many of his fellow peers were colonial nurserymen, who operated in the 'pioneering' stage, before professional foresters dominated timber production and before stock and station agents took over the provision of agricultural supplies.⁸ They dealt in a wide range of plant material, largely determining not only which flowers and vegetables European settlers had in their gardens, but also which grasses they grew and which trees they planted.⁹

⁶ Tyrrell, *True Gardens of the Gods*, pp 87-88; see also William Beinart and Karen Middleton, 'Plant transfers in historical perspective: A review article', *Environment and History* Vol 10 (2004), p 3.

⁷ *The Press* (Christchurch) 17 January 1891.

⁸ On the latter, see Simon Ville, *The Rural Entrepreneurs: A History of the Stock and Station Agent Industry in Australia and New Zealand*, Cambridge University Press, Cambridge, 2000.

⁹ On grasses, see Paul Star and Tom Brooking, 'Fescue to the rescue: Chewing fescue, paspalum, and the application of non-British experience to pastoral practice in New Zealand, 1880-1920', *Agricultural History* Vol 80 (2006), pp 312-335; Vaughan Wood and Eric Pawson, 'The Banks Peninsula forests and Akaroa cocksfoot: Explaining a New Zealand forest transition', *Environment and History* Vol 14 (2008) pp 449-468; Eric Pawson and Vaughan Wood. 'The grass seed trade', in Eric

Eric Pawson¹⁰ has highlighted the role of Arthur Yates, an English nurseryman who set up branches of the family business in both Auckland and Sydney, in effect creating a 'multinational' corporation which continued to grow on the Empire's edges while its English core wasted away. Even for nurserymen whose businesses did not extend beyond one colonial area, however, the ecological impact of their activities would be extensive. Consider, for instance, the effect of Thomas Lang's actions in bringing almost a million trees and shrubs to his nursery in Ballarat between 1858 and 1870, which he then sold throughout Victoria.¹¹

Nurserymen formed a non-governmental network right across the British Empire, not so well-studied by academics as the quasi-governmental activities of botanic gardens or acclimatisation societies but equally important.¹² Among the shrubs received by Lang in Ballarat were variegated hollies in 1863, sent to him from New Zealand by the Scottish nurseryman George Matthews of Dunedin. Matthews' original stock may well have arrived with him from Ireland, where he gardened for nine years before emigrating in 1850 to the new settlement of Otago. His Dunedin nursery quickly became established as the leading source of introduced plant material in the province.

By 1879, when the nursery advertised along the lines shown in the *Otago Witness* of 27 August,¹³ the business was already passing into the hands of George Matthews' energetic

Pawson and Tom Brooking (eds), *Seeds of Empire*, I B Tauris, London, 2010, chapter 7; James Beattie, 'Acclimatisation and the "Europeanisation" of New Zealand, 1830s-1920s', *ENNZ: Environment, Nature and New Zealand* Vol 3 No 1 (February, 2008), pp 1-25.

¹⁰ Eric Pawson, 'Biotic exchange in an imperial world: Developments in the grass seed trade', in Christina Stringer and Richard Le Heron (eds), *Agri-Food Commodity Chains and Globalising Networks*, Ashgate Publishing, Aldershot, 2008, pp 229-239.

¹¹ Paul Fox, *Clearings: Six Colonial Gardeners and Their Landscapes*, Melbourne University Press, Carlton, Victoria, 2004, pp 37, 53.

¹² For botanic gardens, see Richard Drayton, *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World*, Yale University Press, Newhaven and London, 2000; for acclimatisation societies, see Michael A Osborne, 'Acclimatising the world: A history of paradigmatic colonial science', *Osiris* 2nd series Vol 15 (2000), pp 135-151.

¹³ *Otago Witness* 27 Aug 1879.

young son, Henry. At least by the end of the 1880s, he was also selling plants well beyond the local market, and often to overseas gardeners for whom New Zealand species had strong appeal. In 1889 Henry exhibited alpine plants and ferns which he had collected throughout the lower South Island.¹⁴ Later that year, he sent to Japan 'nine cases, weighing about four tons, and containing tree and other ferns, nikau palms, [and] mountain lilies'.¹⁵ This was his fourth shipment of native plants to Japan, and followed on other large consignments to Britain and Australia.¹⁶ By 1892 Henry Matthews had 'a magnificent collection of New Zealand flora ... quite unequalled in the colony' and he distributed 'a special descriptive catalogue of native plants'.¹⁷

With this catalogue, Matthews sought to gain a niche within an extensive international market. The Veitch dynasty were the leaders in that market, English nurserymen who, from the late eighteenth to the late twentieth century, collected, propagated and distributed plant material throughout the world.¹⁸ Their activities were not limited to the British Empire. Their most famous representative, John Gould Veitch, collected plants in Japan in the 1860s,¹⁹ and Philip Pauly, in his study of 'the horticultural transformation of America', specifically refers to their wholesale supply of plants to their fellow-nurserymen in the north-eastern states.²⁰

Sir Thomas Acland had brought the founder of the firm of Veitch from Scotland to England, and business links continued

¹⁴ *Otago Witness* 28 February 1889.

¹⁵ *Otago Witness* 18 July 1889.

¹⁶ Matthews, Henry (c 1890), 'Descriptive and Priced List of New Zealand Native Ferns, Plants, Trees, Shrubs, Seeds, etc on sale by George Matthews, Nurseryman and Seed Merchant, Moray Place, Dunedin. Nurseries: Hawthorn Hill, Mornington', Dunedin, items 1949/112/2 and 1950/88/1, within DC-2444, Otago Settlers Museum.

¹⁷ Aparana Renata (Alfred Reynolds), 'Native trees, shrubs and plants under cultivation', *Otago Witness* 8 December 1892.

¹⁸ See Sue Shepard, *Seeds of Fortune: A Gardening Dynasty*, Bloomsbury, London, 2003.

¹⁹ See Setsu Tachibana and Charles Watkins, 'Botanical transculturation: Japanese and British knowledge and understanding of *Aucuba japonica* and *Larix leptolepis*, 1700-1920', *Environment and History* Vol 16 (2010), pp 43-71.

²⁰ Philip J Pauly, *Fruits and Plains: The Horticultural Transformation of America*, Harvard University Press, Cambridge, Mass., 2007, p 112.

between the two men's English descendants. Given that the influential Aclands of Canterbury, New Zealand, were also descendants of Sir Thomas, it is remarkable how little commerce the Veitches had with the colony. However, one plant-hunting Veitch did drown en route to New Zealand, while another, James H Veitch, actually reached its shores in 1893. He had come, he said 'to see if there are any plants that can be added to those we already grow from this country'. He left upon finding that 'the work has been, and is being, done so thoroughly by various amateurs and nurserymen — notably by Mr ... Matthews — as, to a large extent, to obviate the necessity of a visitor undertaking the work'.²¹

The significance of Henry Matthews, as recognised by James Veitch, was that he, a colonial, was rendering obsolete the English-based plant-hunter. Not only that, he was also directly selling the New Zealand plants that he collected to horticulturists and gardeners in Europe and elsewhere, in effect undercutting the likes of Veitch and Sons in London. This is a prime example of the Empire striking back, the assumption of a metropolitan role by a peripheral player. It is the kind of thing that historians and geographers in the former colonies, such as New Zealand, are always eager to highlight.

Matthews as foresters

And yet, these are not the activities for which Henry Matthews is best remembered. In 1896 he more or less abandoned the family nursery business, instead taking on a newly-created government position as head of the afforestation division of the Forests Branch. In this role, which he held for thirteen years until his death in 1909, he was responsible for the creation of the first seven state nurseries, and of thirteen associated plantations occupying over 12,000 acres. His staff raised over 63 million trees, the vast majority of them exotics. His work included the earliest substantial experimentation in New Zealand with species such as catalpa and some of the eucalypts.²²

²¹ *Otago Witness* 3 Aug 1893.

²² See Paul Star, 'Henry Matthews' contribution to tree culture in New Zealand from 1896 to 1909', in Brett J Stubbs (ed), *Proceedings of the Eighth Conference of the Australian Forest History Society*, Lismore, NSW, (forthcoming).

Matthews never became a wealthy man, nor was he famous, though he is one of the few nurserymen to appear in the *Dictionary of New Zealand Biography*.²³ Significance, however, is poorly judged in terms of the amount of money one has in the bank, and impact even less so, particularly where it relates to impact upon the environment, rather than more directly upon one's fellow human beings.

Matthews, like von Mueller before him, was concerned with the relocation of *plant* species, and this is what environmental historians have focussed on. In this vein, the journal, *Environment and History* recently had an article on the role of economic and market factors, and of 'propagule pressure', in the spread of rhododendrons throughout Britain, while another article discussed the 'botanical transculturation' of species of larch and aucuba from Japan to Europe.²⁴ But it is equally important to look at the relocation of fauna, to which the same concepts can often be applied.

Richard Bills

A significant New Zealand biota baron in this area was Richard Bills, who was born in Brighton in England but who, like Matthews, spent much of his life in Dunedin. Between 1867 and 1880, Richard Bills and his son Charles travelled back to England seven times. On each occasion they returned to New Zealand with a large shipment of birds – on average about nine hundred per voyage – of which nearly two thirds survived to reach the colony (see Fig 1). Historians have emphasised the role of refrigerated shipping in New Zealand's development as a trading nation, rather than the preceding increase in speed, reliability and frequency of intercontinental sea transportation. It was this earlier development that enabled the successful transfer of live biota (including the Bills' birds), long before it also supported the transfer, in the other direction, of frozen and cooled animal produce and fruit.

²³ Helen M Leach, 'Henry John Matthews, 1859-1909', pp 320-321 in Claudia Orange (ed), *Dictionary of New Zealand Biography: Volume Two: 1870-1900*, Bridget Williams Books, Wellington, 1993.

²⁴ Katharina Dehnen-Schmutz and Mark Williamson, 'Rhododendron *ponticum* in Britain and Ireland: Social, economic and ecological factors in its successful invasion', *Environment and History* Vol 12 No 3 (Aug 2006), pp 325-350; Tachibana and Watkins, 'Botanical transculturation'.

Fig 1: English bird shipments from England to the South Island of New Zealand

by Richard and Charles Bills, 1868-1880

Date	Shipped	Landed alive
1867-8	1100	524 (Otago)
1868-70	441	343 (Otago)
1870-1	n/k	600 (Otago)
1871-2	1000	380 (Canterbury)
1872-3	806	726 (Canterbury)
1874-5	1010	811 (Canterbury)
1879-80	1025	n/k (Canterbury)
average (of 6)	897	564
approx total (7)	6279	3948

percentage landed alive 62.7%

Source: Contemporary newspaper references

In the case of all these shipments, the birds were English species that settlers wished to establish in New Zealand. Many of them were caught, looked after and, finally, released by the Bills working under contract to the acclimatisation societies of Invercargill, Dunedin, Oamaru and Christchurch, but they also imported birds for individuals, or on their own behalf for later sale. Since these shipments were larger, more consistent and more successful than any others undertaken in the period when the South Island was colonised by English birds, Richard and Charles Bills clearly emerge as the barons at the heart of this particular relocation.

Thomson, writing in 1922, noted that, among attempted bird introductions to New Zealand, 'The record of failures is much greater than the record of successes'. He then listed the 24 species which had become established, including 13 English passerines, mostly small songbirds which are now familiar to all New

Zealanders. I have ascertained that, in each case, the Bills played a significant and demonstrable part in their establishment (see Fig 2).

Fig 2: Exotic small bird species established in New Zealand by 1922

Minimum numbers successfully landed in South Island by Richard and Charles Bills, 1868-75

	1868	1869	1870	1871	1872	1873	1874	1875
Skylark	50		35	56				
Thrush	95		65		43	50		74
Blackbird	65		34			50		
Hedge sparrow	22			80	19			11
Rook					4	36		
Starling	110		94		31	50		33
House sparrow	3							
Chaffinch	42			66	12			
Redpole	10			11	50	135		120
Goldfinch	40		50	31		60		110
Greenfinch	68			12				
Cirl bunting				7				
Yellow hammer	8		31			100		180

Source: Contemporary newspaper references

By reference to newspaper reports, the fate of specific batches of birds *after* they were landed in New Zealand can often also be plotted. Of the 35 English skylarks which Bills brought out in 1870, for instance, 6 were auctioned off in Dunedin and 27 went up to Oamaru. Of these, 7 pairs were released at Papakaio and 7 pairs at Totara.²⁵ All had disappeared by 1871, but the further 56 that reached Dunedin that year fared much better. These were liberated at Green Island. While some were shot, the species was 'frequently seen' in the vicinity in 1872. Since skylarks were by then doing even better in Nelson, at the top of South Island, Bills went there to capture his next lot, releasing 100 Nelson birds at Tokomairiro, south of Dunedin, in 1873. Skylarks were 'numerous' in Otago by 1887.

Goldfinches were so common in Dunedin by 1900 that Charles Bills could catch a hundred in a couple of hours at the racecourse, and he made a tidy profit shipping them off to Melbourne, where demand still outstripped supply.²⁶ By then, however, the golden days of acclimatisation were over. His father retired to New South Wales. Charles, who stayed on in Dunedin, sold cagebirds from his pet shop, and also had a business making wire bedframes, no doubt employing skills gained making birdcages. He was also frequently employed in netting and destroying the descendants of many of the grain-eating birds he and his father had brought across from England, which were now considered pests.

Katharina Dehnen-Schmutz and Mark Williamson have suggested that the *number* of introductions of a species – which is historically determined – can be as significant to the success of a plant invasion as any biological factor.²⁷ In a similar way, the repeated introduction of bird species by Bills was a factor in their successful invasion. The Lincoln University ecologist Richard Duncan has noted, 'the more abundant [bird] species in Britain were selected for introduction and were more readily available for capture and export, so were introduced to New Zealand in greater numbers and were therefore more successful in invading'.

²⁵ *North Otago Times* 18 April 1871.

²⁶ *Otago Witness* 3 Oct 1900.

²⁷ Dehnen-Schmutz and Williamson, '*Rhododendron ponticum* in Britain and Ireland', p 326.

In this case, he considers that ‘introduction effort was the most important determinant’.²⁸

Duncan used Thomsons’s data, but not the data in newspapers that I have used, and I suspect he gave no thought to the role of Richard Bills’ expertise and persistence. Never – despite stressing the place of humans in biological success stories – does he look at the particular people involved. This is where ecologists usually bow out, and where environmental historians can step in.

Information about faunal distribution might have further value. Bill Gammage has suggested how the shifting range of the galah in Australia could be used as a cultural indicator. ‘Similar stories’, he claims, ‘might be written of red kangaroos, koalas, Tasmanian devils, white-backed magpies ... In turn their changed behaviour might signal how and how much Aborigines and non-Aborigines have changed the land’.²⁹ In the same way, the pace and limits to the spread of those bird species introduced by Bills in eastern South Island could provide some sort of corollary to estimates of the environmental impact of European settlement based on sawmilling licences or land sales.

It should be noted, finally, that the Bills, as for the Matthews with plant material, not only brought exotic bird species into New Zealand, but also shipped native species to England. Richard Bills went back in 1872 with a shipment of nearly a thousand parakeets, tui and silvereyes which he had captured around Dunedin.³⁰ In 1885, when Charles Bills was again off to England, he took with him not only a further thousand parakeets – presumably to sell as cage birds – but also some moreporks and a pair of tuatara for London Zoo.³¹ All this runs

²⁸ Richard P Duncan, ‘The role of competition and introduction effort in the success of passeriform birds introduced to New Zealand’, *American Naturalist* Vol 149 No 5 (May 1997) pp 903-915. See also Richard P Duncan, Tim M Blackburn and Daniel Sol, ‘The ecology of bird introductions’, *Annual Review of Ecological and Evolutionary Systems*, Vol 34 (2003), pp 71-98.

²⁹ Bill Gammage, ‘Galahs’, *Australian Historical Studies* Vol 40 No 3 (2009), pp 275-293. See also Libby Robin, Robert Heinsohn and Leo Joseph (eds), *Boom and Bust: Bird Stories for a Dry Country*, CSIRO Publishing, Collingwood VIC, 2009.

³⁰ *North Otago Times* 14 May 1872.

³¹ *Otago Witness* 18 April 1885.

contrary to the impression once given, that the biotic avenue between 'metropolis' and 'periphery' was more or less a one-way street.

Conclusion

In conclusion, I would stress that, when we look at biotic transfers, we need to consider animals as well as plants, commercial operations as well as public institutions, and people (in both their private and official capacities) just as much as flora and fauna. In the case of flora, recent work by both New Zealand and Australian garden historians³² has extended well beyond the tree-planting research that forest historians have generally concentrated upon. With fauna, the emphasis has been on the acclimatisation of birds and animals, particularly those that 'ran wild'. The transfer of domestic animals, however – both farm beasts and household pets – is equally pertinent. By studying the careers of people who stocked both garden flowers and timber trees, or who both released wild birds and sold caged songsters, we are encouraged to see more of the picture.

A couple of North American scholars – geographer A.H. Clark and historian A.W. Crosby³³ – were the first to describe New Zealand's experience as the classic case of a global phenomenon, the 'invasion' of an environment as a function of 'ecological imperialism'. A handful of New Zealand historical geographers and environmental historians are now engaged in filling in the detail and reinterpreting the evidence. I hope to have shown that the identification of 'biota barons' like Henry Matthews and Richard Bills, and the examination of their ventures, is a useful extension of the field of study first ploughed by professors Clark and Crosby.

³² This is summarised in James Beattie and Katie Holmes, 'Reflections on the history of Australasian gardens and landscapes', *Studies in the History of Gardens and Designed Landscapes*, Vol 31 No 2 (2011), pp 75-82.

³³ A H Clark, *The Invasion of New Zealand by People, Plants and Animals: The South Island*, Rutgers University Press, New Brunswick, 1949; A W Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900*, Cambridge University Press, Cambridge, 1986.

MEDICINAL PLANTS IN NEW ZEALAND, 1850s-1920s

JOANNA BISHOP¹

The history of medicinal plants is a subject that often prompts recollections of favoured or loathed family remedies, handed down through generations and representative of a relative's resourcefulness or frugality. While contemporary debates divide the population into advocates or opponents of traditional therapies, the historical use of medicinal plants continues to evoke feelings of nostalgia and pride in our pioneering past. People who have explored New Zealand's medical history could be forgiven for thinking that settlers relied predominantly on inorganic medicines and a relatively large number of colonial doctors to maintain their health and the health of others.

New Zealand's current medical historiography is dominated by histories of institutions, the development of public health practices and the professionalisation of medicine. Medicinal plants have been largely overlooked by both social and medical historians as well as environmental historians who examine nineteenth-century plant exchange and transfer. My Ph.D. thesis entitled, 'A History of Medicinal Plant Use in New Zealand's Professional and Non-Professional Settler Medical Culture, 1850s-1920s', will explore the introduction, propagation and use of medicinal plants in New Zealand. It will challenge the distinction between public health practices and domestic or alternative medicine in nineteenth and early twentieth century New Zealand and will contribute to current environmental historical scholarship relating to the role of botanical gardens and the local and international movement of plants.

Environmental and garden historians have identified numerous reasons for the rapid introduction of plants and

¹ Jo is a Ph.D. candidate in History at the University of Waikato.

animals by New Zealand's settlers, including the desire to create a sense of familiarity by importing known species. More recently the pursuit of health has been proposed as an impetus for the introduction of plants believed to have healing or sanitising qualities. My thesis will follow this line of enquiry and will test whether medicinal plants were introduced and later propagated to support the health of the colonial population. Through an analysis of nursery catalogues, herbarium records and accounts and correspondence between local and international botanical gardens, it will determine what role botanical gardens and local and international nurseries played in the introduction, propagation and distribution of medicinal plants.

Early herbal manuals such as *Culpeper's Complete Herbal* (1653) are evidence of people's desire to order and understand medicinal plants which have maintained an integral role in the history of medicine and medical care. *The New Zealand Family Herb Doctor* (1891), written by herbalist James Neil, was widely distributed in New Zealand during the nineteenth century. It provides an indication of what plants New Zealand colonists had access to and how they were using them.

My thesis will use primary sources such as Neil's as well as colonial diaries, doctors' case-notes, and memoirs, pharmacopoeias and pharmaceutical literature for insight into the professional and non-professional use of medicinal plants. In 1962 Stanley Brooker and Richard Cooper collated all available literature on medicinal plants in New Zealand and the extent and scope of this research reflects great interest in native New Zealand plants and their therapeutic value. While my research is based primarily on introduced species, it may touch upon the use of native medicinal plants by Europeans and will determine if any interest or co-operation existed between Chinese healers and Europeans during the nineteenth century. This research will explore a new aspect of cross-cultural relations in the nineteenth century New Zealand by testing whether, amidst the introduction of Eurocentric policies and institutions, European settlers made use of medical practices and knowledge from Māori and Chinese.

If anyone has information, particularly relating to the introduction of medicinal plants to New Zealand or Australia, please e-mail me (<j.bishop@xtra.co.nz>).

REVIEW: *MĀORI AND THE ENVIRONMENT: KAITIAKI*. EDITED BY RACHAEL SELBY, PĀTAKA MOORE AND MALCOLM MULHOLLAND, HUIA PUBLISHERS, 2010, 372 PP., ISBN: 978-1-86969-402-9.¹

CHARLES DAWSON²

The nineteen essays in this book are a compelling combination of outrage, inspiration, and positive action. While the authors attend to resource management policy and practice, the book goes to the heart of Māori culture and tradition: as many of the authors note, without contact with the remnant bush and birds, and the transmission of knowledge, Māori risk losing connection with the places that foster tribal identity. Dozens of books and reports (most recently the Waitangi Tribunal's [Wai 262 report](#)) have warned of the effects of biodiversity loss on culture. This book gives the nation no room for complacency in this regard, reiterating Darrell Posey's explication of the inextricably linked worlds of indigenous knowledge and biodiversity.

The book contains three sections: the concept and practice of kaitiaki, freshwater issues, and the heritage and the protection context. The introduction describes kaitiakitanga as 'an inherent obligation we have to our tūpuna and to our mokopuna; an obligation to safeguard and care for our environment for future generations. It is a link between the past and the future, the old and the new, between the taonga of the natural environment and tangata whenua.'

Each essay consolidates this link between past and future. Judging from the calibre of the essays and the authors' sound grasp of their iwi concerns and traditions and the world of policy-making and resource management, the bicultural reality of local environments will endure. The writers represent the new generation and are impressive, articulate and determined to

¹ RRP \$55 (in November 2011 this was on sale direct from <www.huia.co.nz> for \$45).

² Charles, a co-editor of ENNZ, has trained in literature, cultural geography, te reo Māori and the martial arts. His recent work included facilitation in the Waitangi Tribunal's Wai 262 inquiry, and he is currently abroad with his family.

remain vigilant. And the book is generous in calling for vigilance from the wider community. As the back cover notes:

No one can read this book without feeling incensed that we have allowed the New Zealand environment to deteriorate to the extent that is revealed here. It is not too late to undo the damage. We must all adapt to the kaupapa of kaitiakitanga (guardianship) to preserve what we have.... New Zealand's reputation as a clean green environment is under threat. We ignore the messages in this book at our peril. This is a book for all New Zealanders.

Seen in the context of the emergence of resource management policy and the Māori 'cultural renaissance' of recent decades, *Kaitiaki* demonstrates the hard-won multi-skill set of Māori tradition, resource management policy, and bicultural practice; it's this sort of weave that makes New Zealand such an important place for the world to learn from. Many New Zealanders will also learn from this book.

Many of the authors record their dissatisfaction with the state of freshwater quality, the actions of local government (rubbish dumps and untreated effluent come in for special mention), or regard the incessant spread of urbanisation as forces that eroded tribal landscapes, tribal memories and tribal mana. So in Malcolm Mulholland's piece, 'The Death of the Manawatū River' you know he will pull no punches, but his research into the municipal activities of the 1950 to 1990s details the consistent, polite petitions of local Māori pitted against a local government apparatus that was not, for the authors, geared or designed to take their concerns into account.

The book's section on freshwater should be widely consulted, for as Gail Tipa observes, 'Landscapes and societies are shaped, in part, by the quality, quantity and form of water movement.' Tipa continues her role as a key developer of bicultural models for freshwater assessment that stand up to scrutiny in both Māori and non-Māori worlds. One of the volume's appealing features is its insistence on the local, and the writers' generous sharing of their experience of restoration projects. Huhana Smith's account of wetland restoration near Kuku Beach, Margaret Forster's essay on wetland restoration near Wairoa, and

Te Rina Warren's description of a possible model for hapū and iwi engagement and restoration in Rangitīkei, serve as beacons of possibility in other regions. In each of those cases the local Māori communities have stepped up to propose and foster restoration projects, collaborating with a wide range of experts, stakeholders and funding sources to overcome perceived limitations at the local government level.

The authors do not demonstrate a great deal of support from local government. It seems the positive stories are few and far between. According to Smith, 'Kaitiaki navigate considerable complexity in the resource management process to maintain and restore cultural and spiritual values in landscape, but only when these attributes are recognized, reconciled with, and respected can they be protected.' Yet it is also evident that central government has provided some support. Lisa Kanawa places these questions in a wide strategic context by bringing climate change impacts for iwi into view, while a subtle essay on 1080 poison-control of possums aims to move through and beyond polarised positions to promote dialogue.

Tūhoe scholars Rangi Mataamua and Pou Temara acknowledge the winds of change that have separated all but five per cent of Tūhoe from the tribal forests; their honest questions for Tūhoe as to what this separation means show the work required for Māori as well as non-Māori. Their questions have national relevance. Veronica Tawhai's essay on consultation with the many who live outside their tribal rohe speaks to the nature and effect of dislocation on consultation processes.

In an essay on global heritage management criteria, Sir Mason Durie proffers the five indigenous-derived principles of connectedness, mauri, continuity, contextual significance and reciprocity as crucial elements for ICOMOS³ heritage management policy at the local and international level. As this book (and the Wai 262 report) makes clear, a concerted effort is needed.

Māori and the Environment: Kaitiaki is a powerful reminder of kaitiakitanga as a guiding force for Māori in Aotearoa New Zealand today. It is an engaging handbook for students of resource management, history, Māori studies, local government and voluntary community conservation groups. But perhaps more crucially, it is a handbook for aspiring kaitiaki, because it shares

³ International Council on Monuments and Sites.

positive accounts of iwi-led restoration projects. This book could have been a welter of anger, or despair. But often the communities (clearly led in some cases by the authors themselves) have worked to design—and carry out—projects that restore both mana and manu, for the good of all.

In their cycles of return, restoration and renewal, these projects inspire communities, Māori and non-Māori, to explore the potential of collaboration and self-determination. Given the leadership evident in this volume, I expect a second edition will feature even more accounts of positive projects for iwi, and I hope that wider communities will be involved in ways that honour the spirit demonstrated in this book.

REVIEW: ALEX CALDER, *THE SETTLER'S PLOT: HOW STORIES TAKE PLACE IN NEW ZEALAND*, AUCKLAND UNIVERSITY PRESS, AUCKLAND, 2011, 299 PP., ISBN 978 1 86940 488 8.

JULIAN KUZMA¹

Books on the roots of New Zealand literature and literary culture appear relatively far and few between. Alex Calder's 'study of the relationship between literature, place and the history of Pākehā settlement in New Zealand' comes then as a welcome addition.

Calder writes in a refreshingly straightforward and personable manner, free from the alienating terminology and continental theories of post-modern scholars (who have often influenced writing on New Zealand literature and literary culture, but whose approaches are often simply not applicable to the New Zealand historical and social context, landscape or literature). His style may be accessible but the ideas Calder conveys on authorial perception of place and representation of that place in literature are far from simple. *The Settler's Plot* is neither introductory study nor textbook, and readers with some prior knowledge of the texts and authors discussed will gain the most from this book.

A number of landmark New Zealand texts are examined from fresh angles at the same time as which prevalent discourses are challenged. Calder has no pretensions to represent the entire body of New Zealand literature, rather to 'read a relatively small number of classic New Zealand texts closely and well.' Therefore, instead of a general discussion of literature and place in New Zealand, the book is a series of free-standing essays about place, loosely grouped in topical bodies in roughly chronological order. These are 'Belonging' (the question of Pākehā turangawāwae), 'Landing' (cross cultural encounters in the nineteenth century), 'Settlement' (appropriating land, transforming the landscape, life in the suburbs) and 'Looming' (different kinds of New Zealanders and the awareness of a distant place in the world).

Certain works and authors merit Calder's attention for entire sections and these often contain the book's most interesting parts. Rather than random selections, Calder's choices of text, as well as his additional references to other authors, sources and

¹ Julian is a co-editor and book reviewer for *ENNZ*.

literature, show that his understanding of his theme is comprehensive – his arguments are grounded, convincing and applicable far beyond his subject texts. Furthermore, Calder writes with an insightful enthusiasm for his subjects that is infectious.

The choices of text contain both the expected and the surprising. It is on works that have been well-trodden by previous literary critics that Calder displays his ability to engage afresh with his subjects. Katherine Mansfield (whose works have provided literary scholars with what approaches an international publishing industry) tempts jaded palates for a fresh taste of suburban Karori, served alongside accounts of Frank Sargeson's Takapuna and Maurice Gee's 'Loomis'. Even Alan Mulgan's *Man Alone* – that most dismal of New Zealand classics – is completely revived through a discussion of the influence of the Western genre.

In *Maoriland: New Zealand Literature 1872-1914* (2006), Stafford and Williams read eight authors and used that as the basis of some assumptions on an entire era of literature, disappointingly failing to come to terms with the importance, necessary awkwardness and contradictions of that most interesting period of emergent literary nationhood. In *The Settler's Plot* Calder crosses over similar early authorial territory, but comes to some new conclusions.

His first and most important realisation is that New Zealand environment and literature, from any era, are inseparable. It's an obvious point perhaps, but one that literary analysts have often skirted around. Calder's second important point is that non-fiction writing is as relevant a form of literature as poetry, fiction and drama: Failure to recognise this has been 'the main reason why our nineteenth century literature has sometimes seemed so impoverished.' To this end Calder includes a chapter on Herbert Guthrie-Smith's *Tutira*; a transitional record of breaking in the land both as an improvement and as a desecration – a contradiction that lies at the heart of understanding early New Zealand culture and literature. Other non-fiction works on the theme of landscape discussed include Blanche Baughan's 1900s tourist travelogues, alongside an appraisal of a tourism documentary hosted by Helen Clark. This leads to Calder's third realisation – that individual authors will find individual meanings in alien or familiar landscapes. Their

interpretations are not expected to be coherent or cohesive and are often even self-contradictory. This strange diversity is what makes up the rich history of New Zealand's Pākehā settlement and its literature.

The Settler's Plot might be described as a gallery of landscape paintings and portraits, displayed in a seemingly haphazard manner ranging from historic curios to contemporary works and of various sizes and grandeur. Browsing among the works viewers will find much to interest, suggestive connections and insights, ideas that appeal and things to take away, inviting return visits.