

The story behind the book: *Wild plants in Auckland*

Alan Esler

If *Wild plants in Auckland* had a beginning it would be 20 Jan 1970. On that day I arrived from Palmerston North with our family of four sons to become DSIR Regional Botanist for Auckland with a territory stretching from Taupo to North Cape. The appointment arose from a request from Plant Diseases Division to have a botanist at Mt Albert as the burden on Joan Dingley became too heavy with the great increase in court work. Also, Botany Division had the need for somebody to record the plants and vegetation. At the time Forest Research Institute at Rotorua had active field botanists while Auckland was in the botanical doldrums. Jack Rattenbury described Auckland Botanical Society as being in "receivership". Most of the early stalwarts were elderly, and there were few young members.

Much of the plant life was strange to me as a southerner. However, Joan Dingley very willingly shared her incomparable knowledge. The appointment made me an instant expert on cannabis which I had never seen before. Chemistry Division analysts got away with identifying cannabis seeds from the contamination by the narcotic from other parts of the plant.

It is generally not known that New Zealand introduced the world to forensic botany when Botany Division's Ruth Mason used plants as evidence in crimes and misadventures. I continued this later in Auckland by easily slotting in with a background in agricultural science which trained students in ecology and examining plants in detail in the field. Seeds were superb diagnostic features, and I had a large private seed collection as well as a plant collection from the Lincoln student days as a reference set.

With two years lecturing in agricultural botany at Lincoln behind me and 10 years doing the same work at Massey my familiarity with weeds became known to students who later became farm advisory officers. There were about 100 ex-students and others sending me specimens from their various districts. Noxious plant officers also sent in their weeds. Thus the distribution of troublesome plants was well monitored.

As long as there had been a Plant Research Station at Mt Albert (since 1939) the public knew that this was the place to take any sort of plant problem. I copped that too. The plant pathologists dealt with the diseases but it fell to me to identify the host plant and answer enquiries. The position required me to service Government departments and local bodies. By the end of my 20 years there I had dealings with all Government departments in existence at that time.

Meanwhile, my capable assistant Sandra Astridge and I recorded every naturalised species in Auckland, and the Floras being prepared by Botany Division at Lincoln benefited from our efforts in this new territory. When our number of wild exotics in urban Auckland reached 500 we realised there was something special, possibly unique in the world, in this flora.

The Botany Division work took a new enforced direction when we became responsible for auditing environmental assessments for any sort of development that involved vegetation. We could have spent all our time following routes for gas pipelines for hundreds of kilometres, and such projects. I soon became selective to concentrate on productive botanical activities. Survey work for Lands and Survey Department was much rewarding, and this allowed us to become familiar with the vegetation of Hauraki Gulf islands and the greater Auckland region. This was a very happy and productive relationship with Lands and Survey supplying maps, aerial photos, transport and accommodation. Of course, we made no charge for our services. Similarly with vast police work where every assistance was given to us, even allowing the DSIR evidence to be given at the beginning of a case so that we could be released to attend to our other work.

This crime investigation work added to our knowledge as we provided corroborative evidence of the who, where, how, and why questions.

As retirement approached I expressed a wish to Eric Godley, my director at Lincoln, to bring much of the collected knowledge together as a prime task. He agreed and gave me concessions to hasten the conclusion. The proposal was to write three papers on the naturalised species and a similar number on the natives. Soon the tally of wild aliens climbed to 615 making Auckland the likely weediest city in the world. This catalogue became the first documentation of wild alien species in any city anywhere, so had worldwide interest. After writing an unexpected six papers on the subject there was time for only one on the native element. This was handed in to the typists the day I retired in 1989. I was bold enough to predict that there would be a book on Auckland's wild plants within a few years. A contract with Agriculture and Fisheries assessing the weediness of noxious plants, and community work, delayed the start for several years.

The book I had in mind became the first part of a larger publication. The first project was an account of the plant communities but it could not include all the 1000 or so species. A smaller number of 100 natives and 200 aliens seemed manageable choosing not always the most common but those most characteristic

of their communities. There were many generalists to omit that had fairly unspecific places in nature and their presence told little about the communities where they grew. So the list began. The tally gave almost exactly 100 natives and 200 aliens. These became the core of the study, and the drawings and writing began in 1996.

There were little excursions to locate specimens for drawing (all from fresh material) and my wife Una joined in many of these. About the same time Leslie Haines was coming to grips with wild plants in the field, so we shared trips. Discussions with her helped to define the coverage of the book.

The publication was to be an account of the communities (the place of wild plants in nature) but this became part of a much larger volume. Something had to be said about wild plants in our lives, and this became Part 2.

Still the full story had not been told because the role of plant form in the way that plants live their lives had barely been mentioned. In the diversity of garden plants there are reflections of lives lived other regimes. Many became weeds that used these adaptations to their advantage and our despair. Natives too, have features that determine their performance. This is morphology of the kind that gave students of the past a breadth of training that made them comfortable in any field of botanical endeavour. Above all, morphology demonstrates the degree of order in the plant body just as ecology reveals organisation in plant communities that seems chaotic to the layman.

I am never happier than when writing (all in longhand) or drawing, particularly when it is to the world's best music mostly via the Concert Programme and my recordings of earlier programmes. The introduction though, was written in very different circumstances. While walking home to Mt Albert from the Auckland

railway station Gershwin's *Summertime* was swirling around the brain and the thought came that for many wild plants in this agreeable climate it is always summer time. This had to be recorded but with only a pencil to do it. Many paper scraps from rubbish bins and an hour and a half later the introduction was complete.

Up till now I was on familiar ground and everything was under my control. This degree of naivety left me unprepared for rebuffs from publishers who regularly reject more than 95 per cent of unsolicited manuscripts. Aware enough I was to know that no publisher would touch a textbook that had no assured market. Hiding the references in the text and avoiding names of plant families was some disguise for what was basically a textbook. I was also modestly avoiding self publicity while wanting others to benefit from my 20 years experience as a DSIR botanist in a unique occupation.

Jessica Beever overtook my timidity with something more than nudges to a publisher and a sponsor. Elizabeth Caffin, who manages Auckland University Press, wrote "we don't usually publish in this kind of area" but took it on, made an attractive volume and enjoyed the challenge. The AUP staff were great to work with.

Auckland Regional Council's biosecurity arm under Jack Crow willingly provided funds to keep down the price. As a former noxious plants officer he knew my work and saw the book as a useful aid to his staff and the public in general.

On 29 Nov 2004 the printing of 1000 copies was launched by Jack Crow at Landcare Research at the Tamaki campus. Reviewers made kind remarks and one rightly said there should have been a bibliography. A list of references and corrections are given below.

References

The number following the entry indicates the book page of the relevant reference.

- Beever, R.E. 2001 Phytoplasmas, a new threat to New Zealand plants. *Auckland Botanical Society Journal* 56 (2) 24-26 **172,173**
- Campbell, J.L. 1881 *Poenamu*. Williams and Norgate, Edinburgh **9,10,12,135**
- Colenso, W. 1846 Memorandum of an excursion in the Northern Island of New Zealand, in the summer of 1841-42. *Tasmanian Journal of Natural Science* 2 210-234, 241-308 **7,9,13,177**
- Cutler, D.F.;Richardson,I.B.K. 1981 *Tree roots and buildings*. Construction Press, London **158**
- Darwin, C. 1835 Quoted from Kalaugher 1925 **142**
- Duder, Ross (pers.com.) The information on Trevor Ellett and the Mangere ecotypes came from Ross. As a plant breeder for Arthur Yates he made the selections of Ellett and Yatsen strains. **178**
- Dumont d'Urville, J. 1950 *New Zealand 1826-1827*. Trans. Olive Wright, Wellington **8,9,12,14,28**
- Esler, A.E. 1969 Leaf fall and flowering of nikau. *Wellington Botanical Society Bulletin* No 36 19-22 **203**
- Esler, A.E. 1988 *Naturalisation of plants in urban Auckland*. DSIR Publishing, New Zealand Department of Scientific and Industrial Research. Contains six papers from *New Zealand Journal of Botany* vols 25-26 in 1987-88 **156,167-170,176**
- Esler, A.E.;Liefing,L.W.;Champion,P.D. 1993 *Biological success and weediness of noxious plants in New Zealand*. Ministry of Agriculture and Fisheries, Auckland **160**

- Esler, W.R. 1976 The succession of fronds on mamaku (*Cyathea medullaris*). *Wellington Botanical Society Bulletin* No 39 41-43 **203**
- First annual report of the Agricultural and Horticultural Society of Auckland*, 1843. Southern Cross, Auckland **140,141,142,146,147,148**
- also *Second annual report*, 1844 **145**
- Golson, J.;Fowlds,G.M. 1957 *Auckland's volcanic cones. A report on their condition and a plea for their preservation*. Historic Auckland Society **149**
- Graham, R. 1842 Quoted from *Early Epsom* compiled by the staff of the Epsom Branch library 1972. **145**
- Grieve, M. 1931 *A modern herbal*. Jonathon Cape, England **173**
- Grigson, G. 1975 *The Englishman's flora*. Granada Publishing Ltd, England **139,140**
- Hochstetter, F.von 1867 *New Zealand*. Stuttgart,J.G.Cotta (trans.from the 1863 German edition) **8,9,10,14**
- Johnson, C.D.;Lovell,P.H. 1980 Germination, establishment, and spread of *Soliva valdiviana* (Composite). *New Zealand Journal of Botany* 18 (4) 487-493 **175,176**
- Kalaugher, J.P. 1925 *Historical chronicles of the Auckland Agricultural and Pastoral Association and early days of the Auckland Province*. Dawson Printing Company, Auckland **140,141,143,145,147**
- Kermode, L.O.;Searle,E. J. 1966 *Geological map of New Zealand*. 1:25,000 (Industrial Series) Sheet N42/5 Eden, also Kermode,L.O. Sheet N42/2 Devonport. New Zealand Department of Scientific and Industrial Research **8,9**
- Kirk, T. 1870 On the grasses and other plants adapted for pasturage in the Province of Auckland especially with regard to indigenous kinds. *Transactions of the New Zealand Institute* 2 102-106 **147**
- Kirk, T. 1871 On the flora of the isthmus of Auckland and the Takapuna district. *Transactions of the New Zealand Institute* 3 148-161 **143,156**
- Kirk, T. 1879 Notes on the botany of Waiheke, Rangitoto, and other islands in Hauraki Gulf. *Transactions of the New Zealand Institute* 11 444-454 **49**
- Kuschel, G. 1990 *Beetles in a suburban environment: a case study*. DSIR Plant Protection Report No 3 New Zealand Department of Scientific and Industrial Research **176,177**
- Raunkiaer, C. 1934 *The life form of plants*. Clarendon Press, Oxford **204**
- Rough, D. 1840 Quoted from Stone,R.C.J. 2001 *From Tamaki-makau-rau to Auckland*. Auckland University Press, Auckland **9,12,13**
- Salsbury, E.J. 1961 *Weeds and aliens*. Collins, London **162**
- Thomson, G. 1922 *The naturalization of animals and plants in New Zealand*. Cambridge University Press, Cambridge **148**
- Tomlinson, P.B.; Esler, A.E. 1973 Establishment growth of woody monocotyledons native to New Zealand. *New Zealand Journal of Botany* 11 622-644 **185**

Corrections

Acknowledgements: Lesley Haines read Leslie Haines
brilliant carer read brilliant career

P 27: Coprosma grandiflora read Coprosma grandifolia

P 52: Middle of the page Growth is rapid... rich in nutrients. Delete last two commas

P 111: No 249 is duplicated.

P 113,213: Leucojum sativum read Leucojum aestivum

P 128: Ivy to be in bold print

P 154: photo of Mt Eden printed in reverse

P 218: wasteland read waste land

Index: These are exotic plants – *Ciclospermum leptophyllum*, *Cymbalaria muralis*, *Nephrolepis cordifolia*, *Poa annua*

Acknowledgement

I am grateful to Sylvia Guo for her careful typing of this script.

Acknowledgements

Ewen Cameron and Peter de Lange for editing assistance with this journal.