

Letter

Maytenus boaria (Mayten) - a new weed?

The following letter and the corresponding article were forwarded by John Barkla, DOC, Otago Conservancy.

Our colleagues at Christchurch City Council are getting very concerned about this species which is starting to spread, is difficult to kill and thrives in low light conditions. See following article for more details.

Has anyone seen this elsewhere in the country?
Or know any more about it?
Any information would be appreciated.

Thanks
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Notes, articles & biography.

BSO Honours Geoff Baylis

Fig. Geoff Baylis, 1979. Photo by Alan Mark

At our committee meeting in early September, Bastow Wilson proposed that the Botanical Society of Otago honour Geoff Baylis for his contribution to botany in general, and to our society in particular, by instituting an annual Geoff Baylis lecture in his name. The committee unanimously and enthusiastically agreed. As a newsletter editor, who appreciates Geoff's lively articles and comments at meetings, I was assigned the pleasurable task of putting our idea to him, and of gleaning some background information.

So that is how I found myself sitting sipping coffee and admiring a framed photo of Goblin Forest (a term Geoff approves of) by John Johns and a Nancy Adams drawing of kauri forest (commissioned by Geoff in exchange for a gold watch from Selfridges). Geoff told me that he was born in Palmerston North (in 1913), but the family soon moved to Hastings and then to Auckland, where he was educated. His father, who was 'fiercely honest, with a short temper', lost his job as an instructor to the Department of Agriculture at the start of the depression and the family had to make a living off 6 acres

of land. Geoff saw this poverty as an advantage: ‘Nothing like a poor beginning to give you a drive to do better’.

And do better he did, with scholarships taking him from Takapuna Grammar School to the University of Auckland to Imperial College, London. There his PhD topic, ‘to find out why garden peas don’t come up in winter’, was completed in a quick 18 months, before the money ran out. On his return to New Zealand Geoff worked for Plant Diseases Division, DSIR, and started their substation at Lincoln. Distinguished war service in the Royal Navy followed before the University of Otago appointed Geoff as head of the Botany Department. He held this position for 33 years, as Senior Lecturer from 1945 and Professor from 1952, all based in the basement of the Otago Museum

Two of the many interesting and enduring things that arose from Geoff’s dedication to teaching Botany are his research into mycorrhizas and his large garden. His discovery of this fungal association with the roots of native plants began when he was sectioning a variety of roots in preparation for a student lab, and found that the roots of *Griselinia littoralis* (broadleaf) were chock full of an arbuscular mycorrhizal fungus. Growth experiments followed, putting sterile seedlings into sterile or infected soil, to see whether this fungus had a negative, positive or neutral effect on their growth. Geoff became aware of the beneficial nature of the association well before his colleagues in a distinguished institute in Australia, who presented a paper on the ‘toxic’ effects of growing grapes in sterilised soil some years after Geoff’s discovery.

His mycorrhizal work is still going on. Geoff showed me the puny little *Ixerba brexioides* that failed to thrive in its nursery pot, its mate that was thriving in the company of *Griselinia littoralis*, and the additional trials he has set up. He also mentioned how interesting it would be to look at the roots of *Leptospermum*, which has ecto-mycorrhizal associations when it is near *Nothofagus*. But does it have any on Stewart Island, where there is no native beech?

Geoff’s large and fascinating garden, which he is still maintaining and extending, arose in part from his desire to have the most diverse and fresh plant material available for his students to study. It also contains the results of many of his discoveries and experiments over the years – a real living treasure of botanical history. At the top of the step leading down to the garden twines the famous *Tecomathe speciosa*, discovered and rescued by Geoff from near-extinction on the Three Kings Islands, along with *Pennantia baylisiana*, which grows further down, so close to its nearest relative, *Pennantia endlicheri*, from Lord Howe Island, that they are producing vigorous self-seeded hybrids.

There is an attractive, yellow-flowered *Cytisus canariensis*, from the Canary Islands, that Geoff says his uncle stole from Kew Gardens. Further along is a 50 year old nikau palm, *Rhopalostylis sapida*, still with no trunk, and a ‘teenage’ rimu, *Dacrydium cupressinum*; white pine, *Dacrycarpus dacrydioides*; and kauri, *Agathis australis*, of a similar age. Some of the podocarps are by-products of his studies on arbuscular mycorrhizal fungi in podocarp root nodules. Geoff shows off the kauri as a ‘forester’s dream’, with its fine timber and straight, self-pruning trunk. He believes there is indeed a place for sustainable milling.

Another botanical treasure that Geoff Baylis established and watched grow from the basement of the museum is the OTA Herbarium, now based in the current Dept. of Botany. It continues to be a valuable reference source for students, staff and Bot Soc members. Geoff's name features as collector, discoverer and describer to remind us of his many valuable contributions. Today the Herbarium has specimens of nearly all the plants in the following table, except the *Tecomanthe* and the fungus, which is held at PDD, the fungus herbarium at Landcare Research, Mt Albert.

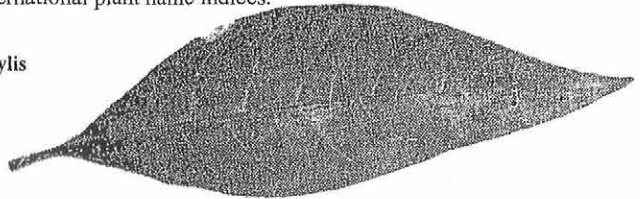
**Table: Vascular plants, liverwort and fungus discovered by,
or named for or by Geoff Baylis:**

- Brachyglottis arborescens* WRB Oliver, Three Kings Is.
Pennantia baylisiana (WRB Oliv) GTS Baylis, Three Kings Is.
Elingamita johnsonii GTS Baylis, Three Kings Is.
Tecomanthe speciosa WRB Oliver, Three Kings Is.
¹*Solanum baylisii* Gerasimenko sp nov 1970, Three Kings Is
²*Solanum americanus* var *baylisii*, Morrison's greenhouse in Greymouth
Plagiochila baylisii Inoue & Schuster., Secretary Is (Liverwort.)
Nivatogastrium baylisianum E Horak. Rock and Pillar Range. (Fungus)

¹This was named *S. aviculare* var *latifolium* by Baylis in 1963. and renamed *S. baylisii* in Geoff's honour by the Russian, Gerasimenko in 1970. This name was not recognised in the Flora of New Zealand, Vol 4, 1988, but Graeme Jane's CD (2002) has a key distinguishing *S. aviculare* var *aviculare*, with pinnatifid leaves, from Baylis's *S. aviculare* var *latifolium*, with simple leaves, and the variety is also recognised by Shannel Courtney.

²This variety is not recognised, nor mentioned, in Vol 4 of the Flora of New Zealand, but is still present on the international plant name indices.

Fig. Simple leaf of
S. aviculare var *latifolium* Baylis
(=*Solanum baylisii*
Herasim=Gerasimenko).
Reduced size.



The Botanical Society of Otago has indeed a great deal for which to thank and honour Emeritus Professor GTS Baylis, with his enduring and endearing ability for nurturing rare plants and people.

Allison Knight, editor

Acknowledgements

Extra botanical sleuthing was done by John Steel, who also translated the Russian, and Mary Anne Miller, with help from Graeme Jane's extraordinarily useful AFLORA programme.

References

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