

As a weed hairy-legs groundsel will probably continue to be a poor performer with little adaptability, no cloning ability, and little competitive strength. These deficiencies are offset, in part, by a high seed output. The arrival of the species in many districts suggests an ability to get about. However, its local spread seems limited for a plant with supposedly windborne seeds. The seeds, or the parachutes alone, do not float in the

air like thistledown. Enough seeds are produced at the type locality to stock the district but only occasional seedlings appear in neighbours' gardens.

When will it get to Australia? If the Australians want to claim *Senecio esleri*, they should find it soon. Otherwise, they will never know if it is a recent arrival from across the Tasman.

My thanks to Sylvia Guo for typing this article.

Australia finally accepts hairy-legs groundsel (*Senecio esleri*) as one of their own

Ewen K. Cameron

On 29 Nov 2004, the morning before the launch of Alan Esler's new book, *Wild plants in Auckland*, Ross Beever in preparation for his afternoon speech enquired if *Senecio esleri* (Webb 1989) "had been recognised in Australia yet?" After checking the recent Australian floras and websites without success I asked Alex Buchanan, an ex kiwi based in the Tasmanian herbarium. Alex replied that he hadn't heard of this plant in Australia and suggested that I contact Ian Thompson at the Melbourne herbarium, who was currently revising the erechthitoid or disciform (= central florets of the capitulum bisexual and tubular, and marginal florets female and tubular (see Thompson 2004)) senecios for Australia. Thompson replied that he wasn't aware of *S. esleri* and to evaluate it he would require seeing some specimens. The few New Zealand duplicates held in Australian herbaria were loaned to him and his immediate response in Jan 2005 was that it was the same as his very recently described Australian endemic, *S. brevitubulus* (Thompson 2004). I also collected several specimens for him from around Auckland. The following year Thompson (2006) published his complete treatment of the tribe Senecioneae for Australia where he formerly recognized *S. esleri* as an earlier valid name for *S. brevitubulus* (without any acknowledgement which led to this discovery).

Hairy-legs groundsel is so far only known from five collections in Australia (SE Queensland & NE New South Wales) suggesting it may be quite rare there. Thompson (2006) argued "...as they predate the New Zealand collections and because some collections appear to be from natural areas, the species appears more likely to be native to Australia." In New Zealand it occurs in disturbed sites and the first definite collection is from Northland at Whangaruru in 1972 (CHR 227523, *AE Esler*). It is also still expanding its range – reaching the more remote areas of Northland

and Auckland regions (pers. ob.), to as far south as Rotorua in 2002 (AK 282853, *PJ de Lange 5524*) and Coromandel township in 2004 (AK 288761, *EK Cameron 12581*).

Alan Esler was the first person to recognise *S. esleri* was different from the rather similar Australian fireweed (*S. bipinnatisectus*); which led to hairy-legs groundsel being described by Colin Webb, and in an indirect way, Alan's book launch led 17 years later to the correct name being finally applied to it in Australia.

As mentioned in Alan's (Esler 2007) previous article, *Senecio diaschides* was another Australian senecio described in New Zealand. It was described by Drury (1975) and as with hairy-legs groundsel, this publication was also missed in Australia and eight years later Belcher (1983) described it as a new species (*S. cahillii*).

Three Australian disciform senecios (*Senecio bipinnatisectus*, *S. diaschides* and *S. esleri*) are currently treated as naturalised in New Zealand (Drury 1975, Webb et al. 1988, Webb 1989, Thompson 2006). In discussion with Peter de Lange, we agree that they must have been introduced to New Zealand, however, it depends on whether humans were involved in their dispersal from Australia as to whether they should be treated as exotic or as additions to the New Zealand native flora (unfortunately this is almost impossible to prove). In favour of a natural vector argument is the fact that five of the erechthitoid senecios currently recognised as native to New Zealand are shared with Australia (i.e. *S. biserratus*, *S. hipidulus*, *S. glomeratus* subsp. *glomeratus*, *S. minimus* and *S. quadridentatus*). So there was a natural vector around at the time when these species crossed the Tasman Sea.

References

- Belcher, R.O. 1983: New Australian species of erechthitoid *Senecio* (Asteraceae). *Muelleria* 5: 119–122.
Drury, D. 1975: Illustrated and annotated key to the erechthitoid Senecios in New Zealand (Senecioneae-Compositae) with a description of *Senecio diaschides*. *New Zealand Journal of Botany* 12: 513–540.

- Esler, A.E. 2007: Living with hairy-legs groundsel (*Senecio esleri*). *Auckland Botanical Society Journal* 62(1): 97-99.
- Thompson, I.R. 2004: Taxonomic studies of Australian *Senecio* (Asteraceae): 1. The disciform species. *Muelleria* 19: 101-214.
- Thompson, I.R. 2006: A taxonomic treatment of the tribe Senecioneae (Asteraceae) in Australia. *Muelleria* 24: 51-110.
- Webb, C.J.; Sykes, W.R.; Garnock-Jones, P.J. 1988: *Flora of New Zealand*. Vol. IV. Christchurch, Botany Division, DSIR.
- Webb C.J. 1989: *Senecio esleri* (Asteraceae), a new fireweed. *New Zealand Journal of Botany* 27: 565-567.

Chionochloa conspicua subsp. *cunninghamii* (Gramineae) in the Waitakere Ranges

Rhys Gardner

Until 2001, when Chris McKain found this native snow-tussock (*Chionochloa conspicua* subsp. *cunninghamii*) on the slopes south of the Karamatura Stream, all of its records in northern New Zealand were from the Bay of Islands-Waipoua-Whangarei region. The plants Chris saw are right beside the track, and would surely have been noticed by others if they had been there long.

One might think that somewhere closer to the stream, on its steep, damp gorge walls and ledges, out of direct sunlight, there might be more *Chionochloa conspicua* subsp. *cunninghamii* colonies. Taking an indirect approach, in Feb 2006 I explored not the Karamatura but the Pararaha, to find a few plants in the damp scrub on the stream's true right bank, not far above the major waterfall (as shown on topo sheet 260 R11). A greater surprise came subsequently when

I also found a few plants on the Piha Stream, at the top of the gorge, just below what is now known as "Black Rock Dam".

I also noted it a few years ago on the summit of the Bream Head range, and (in Jan 2007), at the top of the forested part of Mt Manaia (that is, just below the summit pinnacles themselves).

What is going on here? Have these plants newly sprung up from long-overlooked nearby sources, or has there been an especially successful wave of colonisation from the south? It would be useful to know whether this grass might have increased in abundance along the tops of the Coromandel and Kaimai Ranges, by spreading through animal-damaged forest that in the last decade or so has seen its burden of pests (especially goats?) greatly reduced.

The distribution and influence of the introduced alga *Colpomenia bullosa* within New Zealand

Daniel McNaughtan

The introduced intertidal brown alga *Colpomenia bullosa* was first observed in Leigh Marine Reserve, North of Auckland, over 20 years ago (Parsons 1982).



Fig. 1. Scale picture, *Colpomenia bullosa* gametophyte, October 2006, Palmer Head, Wellington (Daniel McNaughtan).

Since this initial discovery the species has undergone a range expansion and can now be found in several North Island port and adjacent areas including Gisborne, Napier, and Wellington (Nelson 1999). Recently, isolated plants have also been discovered in two locations near Nelson in the South Island. Despite this continued range extension very little is known about its localised distribution or the effects it may be having on endemic communities. This study addresses

some of these issues by investigating its local intertidal distribution, physiological tolerance towards temperature and light, and how it interacts with other algal species of comparable morphology.

Like several other brown algal species, *C. bullosa* has a heteromorphic life history with two distinctly separate phases. The most recognisable is the upright gametophytic phase that can be identified by its brown finger-like projections 10-12 cm long and numbering 1-8 per holdfast (Adams 1994). The alternate phase is a crustose sporophytic thallus that can be easily identified with practise and can cover significant amounts of available substrate in intertidal pools. While the upright phase shows a pronounced seasonal distribution, present early spring to mid summer, the crustose phase is present throughout the year and is more likely to have long-term ecological impacts. While the exact origin of the species is unclear, recent molecular work has shown that the New Zealand species is identical to the species found in Japan (W. Nelson *pers. comm.*, 2006).

The first stage of this study was to quantify the distribution of this introduced alga within the intertidal zone and establish which endemic or naturalised