D. *M. chathamicus.* I have only examined dried seeds, which are straw-coloured. There are perhaps usually 3 or 4 per fruit. They are faceted ventrally and somewhat sculptured, especially on the dorsal curved faced which carries the raphe. Elongate tubercules are numerous especially on the dorsal face. The micropylar collar is inconspicuous.

E. *M. novae-zelandiae.* Seeds are maroon-coloured, us. 2 per fruit, the dorsal side curved and the ventral side plane. The micropyle is apical but its position is not evident. Low elongate tubercules are obscure in fresh seeds but are very evident on drying. The sectioned seed shows the inner layer of the testa (dots) forming tubercules especially at the chalaza. It seems that the tubercules and colouring develop after fertilisation; a specimen I examined (AK100123) had pale non-tuberculate seeds, which though full-sized were without endosperm and embryo.

F. *M. micranthus.* Seeds are purplish grey, large, ovoid and usually solitary (sometimes there is a second dwarfed seed). The testa is not swollen over the raphe or at the micropyle (this is apical and sometimes has the straw-coloured tegmen exposed). There are sometimes a few tubercules on the chalaza. The seed is quite strongly connected by its funicle to the middle and inner parts of the fruit wall. Peter de Lange has suggested to me that the pendent white fruits of *M. crassifolius* and the other small-leaved species (and *M. novae-zelandiae* too?) may be taken mainly by nocturnally-feeding lizards.

References

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Astelia grandis (swamp astelia) in the Waitakere Ranges

Sandra Jones

Astelia grandis is uncommon in the Waitakere Ranges, but not quite so uncommon as we once thought. It was first added to the species list in October 1984 when Rhys Gardner identified half a dozen large clumps on the Kakamatua Inlet Track. Then in late 1984, Geoff Davidson rescued some from the soon-to-become balefill site in Kay Road, Swanson. (Its habitat there has apparently gone for good now). I came across a couple of clumps not far from the first recorded site in November 1986, just off the Panto Track at Cornwallis. Those of us who were on the Bot. Soc. field trip in the Water Catchment on 15.8.92 will recall the attractive specimens in the swampy ground beside the Upper Nihotupu Track.

Harry Beacham has again added to the record. Just off the Cutty Grass Track (which is not too far from the Upper Nihotupu Track swamp), he found three clumps of eleven plants. He was searching (successfully) for *Pittosporum kirkii* at the time.

Footnote: It might not be common in the Waitakere Ranges, but its type locality is Ponsonby Road, Auckland!

(It was thought to be extinct in the Tamaki Ecological District, until Waitakere City staff found several plants in a wetland in Moires Park last year, while carrying out a PNA-type survey in the city. A subsequent investigation by Ewen Cameron resulted in the discovery of a herbarium specimen from this site, lodged by Alan Esler in 1985 (AK 170932). It has also been recorded in the past in a number of scenic reserves in the district - Ed).

Additions to the flora of Laingholm

E.D. Hatch

Stachys sylvatica - 25 Tane Road, Laingholm. 21.12.1994
Six plants in flower under the shade of an *Acmena* hedge. This species is common at the Titirangi end of the Old Exhibition Drive, which is only a couple of miles away as the thrush flies, so it is not surprising to find it here.

Bidens pilosa - roadside, Victory Road, Laingholm, Fls. Fr. 28.2.1995; AK 221576 (achenes linear; awns 3). This is not listed in Jack Mackinder's adventive booklet, so I presume it is also new to the Waitakere Ranges.

I had intended to express my gratitude to Mr Ewen Cameron, for updating a number of names, particularly of the grasses; and to Ms Cutting for her patient rearranging of these changed names in alphabetical order - no small task. Unfortunately the *Journal* was published before I got around to it - better late than never!

Selaginella martensii at the Whangarei Falls

R. O. Gardner

The unidentified selaginella that was found here in 1985, "collected once, probably as an escape" (Brownsey in Webb et al. 1988), is, I believe, *S. martensii* Spring, a species from the highlands of Mexico and Central America. It is one of the selaginellas often cultivated in glasshouses and conservatories. There is a good photograph of its foliage on the cover of the book by Jones (1985).

A portion of the original collection, grown on at the University of Auckland glasshouse, shows the characteristic string-like rhizophores that descend from the stems in the lower half of the suberect fronds. This material (AKU 13615) bears what seems to be fully-developed microspores and megaspores.

I searched the Falls last year for this plant but did not see it among the mass of *Selaginella kraussiana* here. Presumably it is cultivated in northern New Zealand, but I have not yet seen any such material.

References

Brownsey, P. J. *Selaginella* in Webb, C., Sykes, W.R. & Garnock-Jones, P.J. 1988: *Flora of New Zealand Vol. 4.* D.S.I.R. Christchurch.
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