

ON THE *ASPLENIUM HOOKERIANUM* - *ASPLENIUM COLENZOI*  
CONTROVERSY: SOME OBSERVATIONS NEAR AKAROA

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(slightly abridged - Ed.)

I write on ferns, as noted by a young 86 year old Bushman. I had relief from arthritic pains on retirement and enjoyed ramblings in my new home of Banks Peninsula. I lived with my plants and noted variations that I had not seen in the south, especially in *Pellaea*, *Polystichum* and *Asplenium*.

For the last eight or nine years I have been closely observing a small native *Asplenium* established above the Onuku Stream, Akaroa. To me it resembles the original *Asplenium colensoi* but so far I have no confirmation that it is identical.

Much controversy exists regarding *Asplenium hookerianum* and *A. colensoi*. Some claim that the latter is a hybrid or simply a variant of the former; some record that at times both types of frond can be seen growing on the same plant.

I have observed much variation of form within our fern species, especially in the genus *Asplenium*, but I have never yet observed two fixed types of frond on any one plant. Variations of vigour, often caused through shifting, different soil conditions, or consistent heavy watering, will create temporary variations in ferns as in other plants.

The Onuku *Asplenium* is the smallest and most delicate. It develops in 'swarms' (forty to more than a hundred plants in one patch of a square metre or so) on porous clay in protected sites generally steeper than the surrounding ground. There is no doubt that these conditions are necessary as it will not thrive under wet conditions. Nor will its crown remain healthy unless noticeably above the surrounding soil. Fronds are few in all plants observed and tend to flatten on or towards the soil surface. The stipes are short, about equal to the distance between pinnae along the rachis. Plants of very small size produce prolific spores. The Onuku plants do not bear a close resemblance to the plant of *Asplenium colensoi* illustrated in Crookes & Dobbie (1963).

Plants similar to 'good' *Asplenium hookerianum* are found upstream, and many variations occur in the locality. These frequent diverse sites from rich damp dark humus to small cliffs. Hybridism appears to be rife. Perhaps the great variation could be the result of a reasonably high level of fertility in the original hybrids. Several specimens of the Onuku *Asplenium* are now

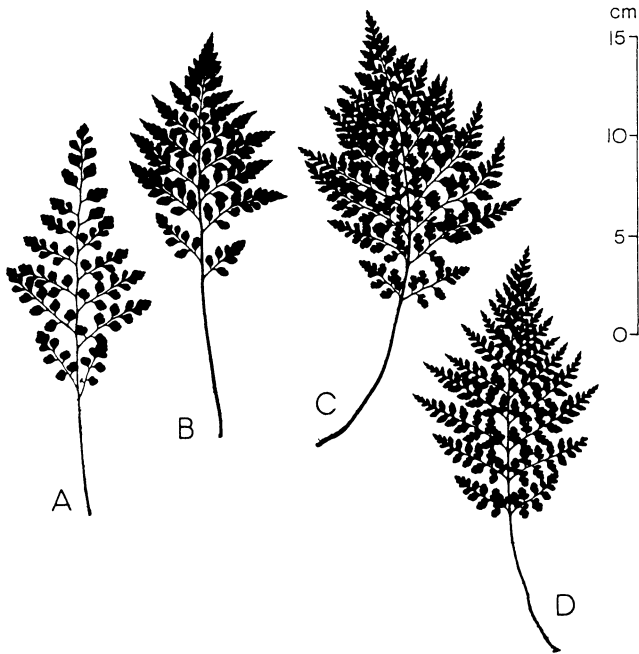
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growing at the DSIR, Lincoln, for close study. At present I feel sure that my Onuku 'colensoi' is a very definite species.

**Reference**

Crookes, M. & Dobbie, H.B. 1963. **New Zealand Ferns**. 6th edition. Whitcombe & Tombs, Christchurch.



*Asplenium hookerianum*. A, Carters Bush, Wairarapa; B, Kapiti Island; C, Stronvar, Wairarapa; D, Karori, Wellington. From Brownsey, P.J. 1977. *New Zealand Journal of Botany* 15. (see p. 54 for further illustrations)