

Note on *Asplenium appendiculatum* subsp. *maritimum* at St John's Bush

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During a recent survey of St John's Bush, a remnant of central Auckland bush, an asplenium of interest was recorded, *Asplenium hookerianum* Colenso in the strict sense of the name (Ford 2020). This rare fern of Auckland was seen growing on the trunk base of the tree fern ponga (*Cyathea dealbata*), an unusual habitat for this plant (AK 380357).

In July 2019 when these asplenium plants were first found growing on ponga, a suggestion for a species-level identification of this plant was given by a user of iNaturalist after a posting of the find (<https://inaturalist.nz/observations/29097609>). Based on the size of the plant when fertile, the plants were placed under the name *A. hookerianum* (Figs. 1 & 2). Following this, larger plants were found, and it was assumed these were also the same species. After the recent publication of an updated flora of St John's Bush, a local botanist pointed out the similarities of plants at the reserve to that of *Asplenium appendiculatum* subsp. *maritimum*, another rare fern of urban Auckland.

Previously known as *Asplenium terrestre* subsp. *maritimum*, the fleshy fronds and the coastal location (most of urban Auckland is coastal) of this species all fit the plants seen at St John's. This coastal fern has also been found in other parts of Auckland, the nearest being Matukutūreia by Pūhinui reserve in Wiri (AK 378185). In the wider Auckland region, it is seen along the western Waitakere coast (<https://inaturalist.nz/observations/70234440>) (CHR 317773, AK 380218, AK 166349). Further search for this species is encouraged within the coastal remnants of urban Auckland.

This subspecies differs from subsp. *appendiculatum* by its preference for coastal habitats, and its smaller more erect fronds (Brownsey 1977). From *Asplenium haurakiense*, another coastal *Asplenium*, it is separated by its apparent allopatric distribution and the lack of a greatly elongated basal acroscopic pinnule on each pinna (Brownsey 1977). *Asplenium hookerianum* appears to be relatively more common than *A. appendiculatum* subsp. *maritimum* in Auckland; records of *A. hookerianum* are scattered throughout Central Auckland and the wider region, the closest to St John's Bush being Cornwall Park (AK 214703). On

reflection, it seems that *A. hookerianum* is not present at St John's Bush and should be removed from the species list. Instead *A. appendiculatum* subsp. *maritimum* is present in a range of sizes and ages.

Botany cannot be done in a vacuum. This is an example of the importance of peer-reviewed identifications, the publishing of finds, and the knowledge of local experts to refine our observations, working towards the more accurate understanding of the natural environment.

Acknowledgements

I would like to acknowledge Anthony Wright for suggesting a correct identification and Rhys Gardner for informing me of it.

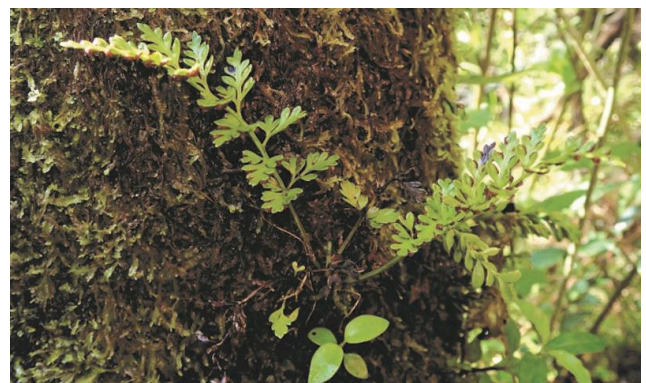


Fig. 1. *Asplenium appendiculatum* subsp. *maritimum* low on the trunk of the tree fern ponga (*Cyathea dealbata*) at St John's Bush. Both photographs by author, 18 July 2019.



Fig. 2. Frond underside of *Asplenium appendiculatum* subsp. *maritimum* showing sori.

References

- Brownsey, P. J. 1977: A taxonomic revision of the New Zealand species of *Asplenium*. *New Zealand journal of Botany* 15(1), 39–86.
Ford, M. 2020: New records for St John's College bush, Meadowbank, Auckland Botanical Society Journal 75(1): 117–122.
https://www.researchgate.net/publication/343699904_New_records_for_St_John's_College_bush_Meadowbank_Auckland