

I thank the party for their observations.

REFERENCES

- Beever, J.E. 1992. Mosses of Motukaraka (Flat Island). Auckland Botanical Society Journal 47(1): this edition.
- Cameron, E.K. & Taylor, G.A. 1990. Flora and vegetation of Motukaraka (Flat Island) - Beachlands, south-east Auckland. Auckland Botanical Society Journal 45(2): 62-70.

Mosses of Motukaraka (Flat Island)

Jessica E. Beever

Motukaraka is a small (6 ha), modified island, lying near the southern shore of the Tamaki Strait, Auckland, at 36° 52' S 174° 58' E. It is connected to the mainland by a shellbank, uncovered for 3 hours either side of low tide. Steeply cliffed on all sides, the island rises to a plateau some 15 m above sea level. A detailed account of the vascular flora and vegetation of Motukaraka is provided by Cameron and Taylor (1990), based on six visits to the island between May 1987 and September 1989. As an appendix to the vascular plant species list they noted the presence of 8 bryophytes, 6 of which were mosses. During a half-day visit to the island by the Auckland Botanical Society on 21 September 1991 further observations were made on the vascular plants (Cameron 1992), and the opportunity was taken to make notes on the moss flora and augment the moss species list.

As noted by Cameron and Taylor (1990), the least modified vegetation occurs on the cliffs of the island, which are fringed by large pohutukawa trees. On the southern and eastern sides of the island there are numerous seepages, in which Bryum erythrocarpoides covers many square metres of cliff face, shaded by overhanging pohutukawa. Fissidens asplenioides and Philonotis tenuis are also common in the dampest sites, with F. leptocladus and Gymnostomum calcareum common on drier parts of the cliffs. On slumped soil at the cliff base several colonies of a moss tentatively identified as a non-complanate form of Rhynchostegium tenuifolium were noted. The northern and western cliff bases are drier and more rapidly eroding. Here mosses are uncommon, with only Barbula torquata forming extensive swards.

The island's flat-topped plateau is dominated by a dense sward of herbaceous weeds, bracken and sedges, and is apparently devoid of mosses. At the sloping margins along the cliff-tops, however, where rabbit browsing appears to be most intense, bare ground between the grasses and herbs is colonised by a variety of species. Here Hypnum cupressiforme forms extensive mats, with two species of Campylopus, C. clavatus and C. introflexus. A taxonomically troublesome pottiaceous moss, lacking peristome teeth at the capsule mouth, and tentatively identified as Hymenostomum patulum, is common on sloping bare ground. On the black friable soil of eroding midden sites two species of Bryum have established: B. dichotomum and B. argenteum.

Two of the mosses recorded by Cameron and Taylor (1990) on Motukaraka were not seen on the present visit, Ptychomnion aciculare and Desmatodon linguatus. A complete list of mosses now recorded for the island, 25 species in total, with voucher numbers of specimens lodged in the

herbarium of the Botany Department of the University of Auckland (AKU) is given below.

SPECIES LIST	AKU voucher
* <i>Barbula torquata</i>	72262
<i>Bryum argenteum</i>	72263
<i>B. dichotomum</i>	72264
* <i>B. erythrocarpoides</i>	72265, 71749
<i>Campylopus clavatus</i>	72266
<i>C. introflexus</i>	72267
*? <i>Desmatodon lingulatus</i>	71750
<i>Fissidens asplenioides</i>	72268
* <i>F. leptocladus</i>	72269, 72270
* <i>F. pungens</i>	72271
* <i>F. tenellus</i>	72272
* <i>Gymnostomum calcareum</i>	72273, 72138
*? <i>Hymenostomum patulum</i>	72274, 72275
<i>Hypnum cupressiforme</i>	72276
<i>Philonotis tenuis</i>	72277
<i>Ptychomnion aciculare</i>	-
<i>Racopilum convolutaceum</i>	72278
* <i>Rhynchostegium laxatum</i>	72279
*? <i>R. tenuifolium</i>	72280, 72281
* <i>Sematophyllum amoenum</i>	72282
<i>Stokesiella praelonga</i>	72283
<i>Thuidium furfuraceum</i>	72284, 72285
* <i>Tortula muralis</i>	72286
? <i>Trichostomum brachydontium</i>	72287
* <i>Weissia controversa</i>	72288

* capsules present

ACKNOWLEDGEMENT

I thank Ewen Cameron for introducing me to Motukaraka, and for helpful discussion.

REFERENCES

- Cameron, E.K. & Taylor, G.A. 1990. Flora and vegetation of Motukaraka (Flat Island) - Beachlands, south-east Auckland. Auckland Botanical Society Journal 45(2): 62-70.
- Cameron, E.K. 1992. Motukaraka, Beachlands - trip observations. Auckland Botanical Society Journal 47: this edition.

Addition to the Hunua flora

J. Mackinder

On a field trip to Hunua with Auckland Natural History Club, on 3 November 1991, I came across *Pterostylis cardiostigma*, on a track between Repeater and Ottau Roads. There being only 2 flowers seen no voucher was taken, but the evidence of a bus load of keen amateur botanists should be sufficient to justify inclusion in R.O. Gardner's "Native Vascular Flora of the Hunua Ranges Auckland."