Motukaraka, Beachlands - trip observations

E.K. Cameron

On 21 September 1991 the Auckland Botanical Society field trip set out on a changeable spring day from the Beachlands mainland via a shell bank and mudflats to Motukaraka (Flat Island), south-east Auckland. There was a good turnout with members from Warkworth to Turangi. Jessica Beever studied the mosses (see Beever 1992). Sun-hats and raincoats both proved useful. Manukau City Council had recently built new wooden steps down the mainland cliffs from the carpark to replace the eroded steps and planted native shrubs next to them.

Many plants on the island were in flower including native species: hangehange, karaka, karamu (Coprosma robusta), karo, manuka, Mercury Bay weed (Dichondra repens), wire vine (Muehlenbeckia complexa). For a botanical account of Motukaraka see Cameron & Taylor (1990).

Five additonal plants to the species list of Cameron & Taylor (1990) were seen and three records were corrected (* = adventive species).

Corrections:

Dichondra ?micrantha* record is actually D. repens (AKU 21690 & 22992).

Fumaria ?bastardii* record is actually F. capreolata* (finally seen flowering).

X Agropogon littorlis* record is actually Polypogon fugax*.

Additions:

Daucus carota* wild carrot - local, rank pasture, west plateau.

Juncus australis - local, central plateau.

J. ?sarophorus - local, central plateau (sterile).

Prunus ?persica* - single seedling on shellbank (growing on in cultivation).

Veronica plebeia* Australia speedwell - local, north plateau, cliff-top.

UPDATE ON 1990 OBSERVATIONS

The single tanekaha is dying and was just alive.

Only two hangehange plants were seen on the southern cliff-tops. Spotted bur medick (Medicago arabica) was locally common in south plateau in the rabbit browsed pasture.

Small-flowered buttercup (Ranunculus parviflorus) was common on plateau.

Smilax (Asparagus asparagoides), a new plant was seen.

Japanese honeysuckle had increased on the plateau since my last visit two years ago.

GENERAL COMMENTS

Although fresh possum droppings were seen, the pohutukawa trees showed no obvious sign of browsing.

In our article (Cameron & Taylor 1990) we mentioned that the fern, Blechnum sp. "Green Bay" which is locally common on the southern cliffs of Motukaraka, may have its northern New Zealand geographical limit at Taranga (Hen Island). In October 1990 Peter de Lange collected this taxon from the more northern Ngawhenua Stream, Surville Cliffs by North Cape (AKU 22952).

Motukaraka urgently requires some active management to eradicate rabbits and possums, combined with selective weed control and suitable native planting on the plateau.

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 lingulatus. A complete list of mosses now recorded for the island, 25 species in total, with voucher numbers of specimens lodged in the