

ranges from c. lat. 16° southwards); perhaps not too dry though to prevent the eventual selection here of a weedy strain of the species.

Racosperma longifolia, the Sydney golden wattle, and Paraserianthes lophantha, brush wattle, are also present but only in low numbers.

Salvia repens creeping sage

According to Flora IV NZ this South African species occurs only on Kawau and the Coromandel Peninsula, "mostly in old pastures". It also occurs at Takatu Point (AK). I collected it on Kawau near the coppermine east of Dispute Cove, where there were a few plants on the rocky face of the coastal slope a metre or so above the sea.

Senna septemtrionalis buttercup bush

This plant occurs sporadically throughout the pines of the Reserve, often in open ridge sites away from the coast. Adults are usually accompanied by younger plants but there are no dense or extensive infestations. No doubt though the species would become much more common after disturbance.

Syzygium australe brush cherry

There are old trees on the Mansion House lawn and numerous wild individuals on the slope above to the west, which with its many old pines and other conifers has obviously been man-made forest ever since Grey's time. But the greatest infestation occurs towards the head of the next valley northwards, where there are two old trees (c. 14 m tall, 80 cm basal diam.) at the old dairy site; for hundred metres around, the pines have a brush cherry understory, thickest and tallest near the parents. The fruits are spread I suppose by tui and native pigeon, and young plants are fairly common throughout the pines of the Reserve. Even though the species is not especially shade-tolerant and therefore not likely to invade directly into undisturbed forest, it would at least find itself at home in canopy gaps and along creek edges (its Australian habitat). It could become a great nuisance in Northland's pine forests, especially since it has a strong capacity for resprouting after being crushed or cut back.

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**Mosses of the Noises Islands, Hauraki Gulf**

Jessica E. Beaver

The Noises, a small group of islands and islets in the inner Hauraki Gulf, lie just 25 km from Auckland's city centre at 36° 41'S 174° 58'E. The underlying rock structure of the group is argillite and greywacke of the Waipapa Group (Mayer, 1968). Two larger islands, Motuhoropapa and Otata, together comprise an area of 28 hectares, and rise to heights of 50 m and 61 m respectively. Their vascular plant vegetation and flora have been documented by Mason & Trevarthen (1950), Atkinson (1960) and Mason et al (1960). A list of six mosses collected on Otata were

provided by Mason & Trevarthen (1950). To the south-east of these two main islands lie a scattering of smaller islets, the largest of which are Maria Island (Ruapuke) and the David Rocks.

During the Auckland Botanical Society trip to the Noises Islands on 20 March 1993 a brief survey of the mosses on Motuhoropapa and Otata was made, with 2½ hours being spent on the former, and 1½ hours on the latter. Although the vegetation of these islands has been severely modified, especially that of Otata which was largely burnt over in the early 1930s (Mason & Trevarthen, 1950), both islands now support coastal forest, with areas of scrub and exposed rock outcrops. Moss specimens from the Noises already held in the Herbarium of the Auckland Institute and Museum (AK), now easily retrievable due to computerisation of the herbarium records, were also examined.

A total of 25 species of moss from 12 families were found on Motuhoropapa and Otata during the 1993 visit, 13 on the former and 21 on the latter island. The forest of Motuhoropapa is older, with numerous very large pohutukawa trees. Decayed pohutukawa boughs were common on the forest floor, and provided a substrate for species such as Eurhynchium muriculatum and Sematophyllum amoenum. On Otata much less decaying wood was seen, and these moss species were less common. On both islands open area above the cliffs with bracken fern, or exposed rock communities, provided habitat for species such as Campylopus introflexus and Thuidium furfurosum. The most frequently seen moss on Otata was Fissidens leptocladus, which was common on bare, compacted sloping earth associated either with human disturbance such as tracks, or with intermittent watercourses. This species was not seen at all on Motuhoropapa, where tracks were much less well defined, and no watercourses were found. Most of the other species found only on Otata are mosses of exposed sites, including two, Tortula muralis and Bryum dichotomum, found on the verandah of the owner's cottage. No permanent streams occur on either island, and no coastal seepages were seen. The only species normally characteristic of damp sites found was Distichophyllum microcarpum, found in small quantity in an intermittent watercourse on Otata. No moss epiphytes were seen on either island except for a very few cases where a moss colonised the extreme base of the trunk of a tree or shrub. The lack of moisture-demanding species, and the virtual absence of epiphytes, reflect the dryness of these small, northern islands.

Sixteen packets of mosses from the Noises Islands, held in AK prior to the present study, provided records for 12 species. The specimens include vouchers for the 6 species listed by Mason & Trevarthen (1950) collected by T.C. Chambers on Otata, one specimen of Bryum billardierei collected by M.H. Knight from an unspecified Noises island, and 6 specimens collected on 3 March 1934 from 'Western Noise' (i.e. Motuhoropapa), Maria Rock and David Rock without collector or determiner noted. Examination of the hand-writing on the 6 latter packets suggested that they were collected by Lucy Moore and determined by G.O.K. Sainsbury. Five of the packets bear a number in the same hand-writing as the determination. A search for duplicate specimens in the Sainsbury Herbarium in the National Museum of New Zealand (WELT) turned up the five numbered specimens (the numbers being Herb. Sainsbury numbers), and confirmed that the collector was indeed Lucy Moore. Sainsbury had evidently not kept a duplicate of the sixth packet, a gathering from David Rock.

Four of the taxa collected on earlier visits, namely Hypnum chrysogaster, Fissidens linearis, Sematophyllum contiguum and Weissia controversa were not re-found on the Noises on the present visit. Hypnum chrysogaster, a common moss of northern New Zealand regenerating

forests, is highly likely to still be present on Otata, where it was collected in 1950. The voucher specimen (AK 58545) had been misidentified as Hypnum cupressiforme, and appears under that name in the list of Mason & Trevarthen (1950). The records for Fissidens linearis and Sematophyllum contiguum are from Maria Island, not visited on the present trip. The record of Weissia controversa, which appears in Mason & Trevarthen's list under the synonym Weisia viridula (L.) Hedw., is tentatively accepted here. The specimen (AK 58399) is very similar to material I have identified as ?Hymenostomum patulum. Both belong to a group of pottiaceous mosses requiring critical study.

Table 1: Mosses of the Noises Islands

This table is based on specimens held in the Herbarium of the Auckland Institute and Museum. Collections were made by L.B. Moore (3 March 1934), T.C. Chambers (2 April 1950), M.H. Knight (15 March 1952) and J.E. Beever (20 March 1993). A single specimen voucher number is given for each record.

Moss names follow Beever, Allison & Child (1992).

\* indicates that capsules were seen on the 1993 visit.

	Motuhoropapa	Otata	Maria I	David Rocks
<i>Bryum billardierei</i> *	AK 209825	AK 58694	-	AK 209873
<i>B. campylothecium</i>	-	AK 209843	-	AK 209872
<i>B. dichotomum</i>	-	AK 209844	-	-
<i>B. sauteri</i>	AK 209832	-	-	-
<i>Campylopus clavatus</i>	-	AK 209845	-	-
<i>C. inrtoflexus</i> *	AK 209826	AK 209846	AK 18365	AK 18366
<i>C. pyriformis</i>	-	AK 209847	-	-
<i>Dicranoloma billardierei</i>	-	AK 209848	-	-
<i>Distichophyllum microcarpum</i>	-	AK 209849	-	-
<i>Eurhynchium muriculatum</i> *	AK 209821	AK 209841	-	-
<i>Fissidens leptocladus</i> *	-	AK 209850	-	-
<i>F. linearis</i>	-	-	AK 18391	-
<i>F. tenellus</i> *	AK 209827	AK 209856	-	-
<i>?Hymenostomum patulum</i> *	AK 209831	AK 209861	-	-
<i>Hypnum chrysogaster</i>	-	AK 58545	-	-
<i>H. cupressiforme</i>	-	AK 209858	-	-
<i>Hypopterygium rotulatum</i>	AK 209829	-	-	-
<i>Leucobryum candidum</i>	AK 209830	-	-	-
<i>Ptychomnion aciculare</i> *	-	AK 209862	-	-
<i>Racopilum convolutaceum</i>	AK 209834	AK 209863	-	-
<i>Rhynchostegium tenuifolium</i> *	AK 209823	AK209840	-	-
<i>Sematophyllum amoenum</i> *	AK 209835	AK 209864	-	-
<i>S. contiguum</i>	-	-	AK 18348	-
<i>Thuidium furfurosum</i>	AK 209836	AK 209866	-	-
<i>Tortella knightii</i> *	AK 209837	AK 209867	-	-
<i>T. rubripes</i>	AK 209838	-	-	-
<i>Tortula muralis</i> *	-	AK 209868	-	-
<i>Trichostomopsis australasiae</i>	-	AK 209869	-	-
<i>Triquetrella papillata</i>	-	AK 209870	-	-
<i>?Weissia controversa</i>	-	AK 58399	-	-

Excluded species:

Acrocladium auriculatum. Listed by Mason & Trevarthen (1950) for Otata, but the voucher specimen (AK 58503) is misidentified Hypnum

cupressiforme.

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### Additions to the Adventive Flora of the Waitakeres

E.D. Hatch

On page 2 of his booklet Jack Mackinder correctly stated that there were no voucher specimens in AK for my records of Datura stramonium and Gomphocarpus fruticosus. This deficiency has now been remedied as under: -

1. Datura stramonium - AK 210676
2. Gomphocarpus physocarpus - AK 210703, identification confirmed by Ewen Cameron.

I first noticed this plant in January 1992 when it was only in flower and assumed that it was G. fruticosus. This year however I managed to obtain specimens with both flowers and fruit, and the follicles immediately proclaimed it to be G. physocarpus. I notice in Flora NZ 4: p. 150, 1980, that this species had not at that time been reported from the wild. The Laingholm plant however was growing among gorse and other adventives, well down on a crib wall in a most inaccessible place and had certainly not been planted there.

The following species appear to be new records for the Waitakeres -