maximum width 35 ± 7.8, giving a mean length to breadth ratio of 18.1 ± 3.5 (specimens in AK). These figures place the population clearly with the mainland Cordyline australis, rather than that of the relatively broader Three Kings cabbage tree C. kaspar (Beever 1986).

* indicates adventives
! indicates voucher specimens have been lodged in the herbarium of the Auckland Institute and Museum (AK)

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Received 22 June 1987.

SOME MOSSES FROM THE MOKAIKAI SCENIC RESERVE, NORTH CAPE

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The Mokaikai Scenic Reserve, in the Far North, stretches from the Parengarenga Harbour northwards to the North Cape massif. It thus includes the sand tombolo of Waikuku Flat at its northern boundary (see Fig. 1 of R.E. Beever, this issue) and a large area of higher ground, rising to nearly 200 m, in its southern part. The reserve encompasses a great range of habitats: unstable sand dunes, stable dunes bearing manuka scrub, salt marsh, freshwater swamp, coastal cliffs, upland areas of impeded drainage bearing manuka-dominated scrub, various stages of reverting pasture (mostly dominated by kanuka), and a number of forest remnants.

During a 6-day visit to the North Cape area, with the Offshore Islands Research Group over New Year 1986-1987, our camp was situated at the northern boundary of the reserve at a latitude of 34°25'S, further north even than Cape Reinga. The present article records mosses collected near the camp and on a few forays into other parts of the Mokaikai Scenic Reserve. A report on the mosses of the North Cape massif (comprising the North Cape Scientific Reserve and the Murimotu No. 2

Block) will be published elsewhere.

Mosses recorded from Mokaikai Scenic Reserve (vouchers in CHR):

Barbula torquata Tayl. On soil in grassland
Brachythecium plumosum (Hedw.) BSG On rock in stream
Bryum billardieri Schwaegr. var. *platyloma* Mohamed On soil under kanuka
B. campylothecium Tayl. On soil under kanuka
B. clavatum (Schimp.) C.Muell. On rock in coastal seepage
B. laevigatum Hook.f. & Wils. On wet rock in stream and in freshwater swamp
Campylium polygamum (BSG) C.Jens In freshwater swamp
Campylopus clavatus (R.Br.) Wils. On soil under manuka
C. introflexus (Hedw.) Brid. On soil and humus in exposed sites
C. kirkii Mitt. With *Sphagnum* in area of impeded drainage in open manuka scrub
C. pyriformis (K.F.Schultz) Brid. On soil under manuka scrub
Dicnemoloma pallidum (Hook.) Wijk & Marg. On rock (andesitic conglomerate)
Dicranella clathratum Hook.f. & Wils. On wet rock by waterfall
Drepanocladus aduncus (Hedw.) Warnst. In freshwater swamp
Echinodium hispidum (Hook.f. & Wils.) Reichdt. On rock at edge of waterfall
Entosthodon productus Mitt. ex Hook.f. On exposed soil in manuka scrub
Fissidens asplenioides Hedw. On wet rock by waterfall
F. leptocladus C.Muell. & Rodw. Terrestial in damp shaded sites
Funaria hygrometrica Hedw. Terrestial in sand dune
Haplohymenium pseudotriste (C.Muell.) Broth. Epiphytic in coastal forest
Hypnodendron marginatum (Wils.) Lindb. ex Jaeg. Submerged in stream in coastal forest
H. spininervium (Hook.) Jaeg. On wet rock shaded at stream margin
Hypnum cupressiforme Hedw. var. *cupressiforme* On soil in manuka scrub
Leptostomum macrocarpum (Hedw.) Pyl. Epiphytic in coastal forest
Leucobryum candidum (P.Beauv.) Wils. Terrestial on humus in coastal forest
Macromitrium gracile (Hook.) Schwaegr. On fallen log in coastal forest
M. ligulare Mitt. Epiphytic in coastal forest
M. ?submucronifolium Epiphytic in coastal forest
Philonotis tenuis Tayl. (Reichdt.) On wet rock by waterfall
Pleuridium nervosum (Hook.) Mitt. On soil in open manuka scrub
Racopilum convolutaceum (C.Muell.) Reichdt. On soil and rocks in coastal forest
Sphagnum cristatum Hampe Terrestial in area of impeded drainage in open manuka scrub
S. sp. Terrestial in area of impeded drainage in open manuka scrub
Thamnobryum pandum (Hook.f. & Wils.) Stone & Scott On rock at stream margin in forest
Thuidium furfurosum (Hook.f. & Wils.) Reichdt. Terrestial in grassland, scrub and forest
T. sparsum (Hook.f. & Wils.) Jaeg. Epiphytic in coastal forest
Trichostomum brachydontium Bruch. Exposed on rock (andesitic conglomerate)
Zygodon minutus C.Muell. & Hampe Epiphytic in coastal forest

I thank other members of the party for assistance in the field, especially Ross Beever, Shannel Courtney and Fred Brook for their contributions to the moss collection. I am also grateful to Allan Fife (Botany Division DSIR) for confirming or determining a number of specimens.

Received 22 June 1987.

PUKITU - WOODHILL

E.K. Cameron

On 16 February and 6 August 1987 I looked at the vegetation on Pukitu; a stabilised sand dune (NZMS 260 Q09 187225; 40-140 m ASL). This small hill with indigenous vegetation covering less than 3 hectares in Woodhill State Forest was mentioned by Cameron & Bellingham (1986) as the apparent southern limit for Hebe diosmifolia under the heading "Area 4". Pukitu knoll is surrounded by a pine plantation and the nearest native vegetation is the Coal Seam Hill Ecological Area just over 1 km to the south (see map of Cameron & Bellingham 1986). Along with the four Ecological Areas in Woodhill, Pukitu is now owned by the new Forestry Corporation and is covenanted to the new Department of Conservation.

The tallest vegetation is pure kanuka 6-8 m tall on the summit of the knoll and this extends eastwards for a short distance. There are plenty of canopy gaps which have encouraged a dense undergrowth of Hebe diosmifolia, mingimingi (Leucopogon fasciculatus), Coprosma crassifolia and weeping mapou (Myrsine divaricata) to a height of about 2 m. The sloping eastern margin also contains stocky plants of N.Z. broom (Carmichaelia aligera) up to 4 m tall. A small area has been cleared in the kanuka for the placement of a trig. This opening has allowed pampas (Cortaderia selloana) to establish here.

From the top of the knoll to the west the kanuka is lower (4-6 m tall), denser, and with scattered narrow bushes of weeping mapou and Coprosma crassifolia. On the west facing slope under the kanuka, Poa pusilla and Lagenifera stipitata are common. On the open margins H. diosmifolia is locally abundant, 1-4 m tall, standing out because of its bright green foliage. Also present on the margin are low shrubs of mingimingi and kanuka.

The native cover on the knoll's southern side extends further than on the other flanks and is locally dominated by houpara (Pseudopanax lessonii) up to 5 m tall. Occasional hybrid Pseudopanax are also present and equally as tall. Associated with the houpara are weeping mapou, Coprosma crassifolia, the occasional Coprosma macrocarpa and larger kanuka.

Very few individuals were seen of the filmy fern, hangehange, mahoe, kawakawa, Myrsine australis, Parsonsia and Pellaea. Apart from bryophyte mats the ground is frequently bare. The fern, Doodia media is only on the lower southern slope. The most frequent ferns are bracken,