Kunzea ericoides
Libocedrus plumosa
Macropiper excelsa
Melicope simplex
Melicytus micranthus
M. ramiflorus
Metrosideros fulgens
M. perforata
Mida salicifolia
Muehlenbeckia australis
Myrsine australis
Nertera dichondraefolia
Nestegis cunninghamii
N. lanceolata
N. montana
Olearia rani
Oplismenus imbecillus
Paratrophis microphylla
Parsonsia sp.
Passiflora tetrandra
Phyllocladus trichomanoides
Podocarpus hallii
P. totara
Prumnopitys ferriginea
P. taxifolia
Pseudopanax crassifolius
Pterostylis rubricaulis
Rhopalostylis sapida
Ripogonum scandens
Rubus australis
R. cissoides
Scirpus reticularis
Vitex lucens

Ferns and allies

Asplenium flaccidum
A. oblongifolium
A. polyodon
Blechnum capense
B. chambersii
B. filiforme
B. fraseri
B. membranaceum
Cyathea dealbata
C. medullaris
Dicksonia squarrosa
Diplazium australe
Doodia media
Histiopteris incisa
Hymenophyllum revolutum
H. sanguinolentum
Hypolepis ambigua
H. distans
Lastreopsis glabella
L. hispida
Lindsaea trichomanoides
Deparia petersenii
Paesia scaberula
Phymatosorus diversifolius
P. scandens
Pneumatopteris pennigera
Pteris tremula
Pyrrosia serpens
Schizaea dichotoma

Received 21 May 1989.

TE HENGA - COASTAL VEGETATION

J. A Rattenbury

Saturday, June 17th, saw more than 30 members and guests start out for Te Henga (Bethells) Beach with high optimism both for the weather and for an interesting programme. In the event, both optimisms were abundantly justified.

Setting off from the beach carpark we followed the full and turbulent stream which drains both swamp and lake to the safe dry crossing of the Bethells Walkway and thence traversed the slope of the hill to the first of many stops for commentary by our leader, David Slavin. The day's programme was to be a long one and a stiff pace, with minimal waits, meant that those in the rear (whether from choice of necessity) regrettably missed out on many words of wisdom.

Noted along the walkway were: Coprosma rhamnoides and C. crassifolia (rather similar divaricating species) three species of Pteris - tremula,

macilenta (formerly saxatilis) and pendula (formerly macilenta) and a substantial patch of the grass Zoysia pauciflora.

A brief overview of the Te Henga area with its extensive fresh-water swamp, its brilliantly-white mobile dunes and the succession of vegetation from sedge and grass through tea-tree scrub to dune forest gave way as we turned westward, to beach and cliff and off-shore islands. These last, together with the headland which separates them, proved fascinating for their distinctive plant cover. The southern island (Ihumoana) is clothed almost excludively with pohutukawa (Metrosideros excelsa) and houpara (Pseudopanax lessonii) while the northern Kauwahaia I. in O'Neill Bay is almost entirely covered in karo (Pittosporum crassifolium). Are the petrels (and their burrows) a factor here or are the islands geologically different? Erangi Point which separates them has relatively few of these species but a wide variety of other shrubs such as the coastal kowhai (Sophora microphylla var. fulvida) tawapou (Planchonella costata) ngaio (Myoporum laetum) coastal karamu (Coprosma macrocarpa) hangehange (Geniostoma rupestre var. ligustrifolium) with some very large-leaved forms and many ground plants.

.Leaving the walkway, we crossed the low saddle betwen Bethells and O'Neills beaches and climbed the gentle zig-zag of the privately-owned headland with comments (and arguments!) on less-common species such as: Carex brevicaulis, Mentha cunninghamii (N.Z. mint), Libertia ixioides (or was it grandifolia?), Lepidosperma laterale, Astelia banksii and, at lunchtime by the caves, Spergularia marginata. The effect of both wind-pruning and divarication resulted in some remarkable formations, particularly in Coprosma crassifolia.

After lunching in pleasant sunshine, we returned to (and by-passed) the cars via the beach and a not-so-pleasant fording of the stream (river?)moving up the Bethell's private accesss road, cutting back along a side road and 'crashing' up into the the forested dunes that surround (and are responsible for) Lake Kawaupaka. This lies in an idyllic situation with dense bush running down to the raupo (Typha orientalis) - and sedge (Eleocharis sphacelata) - lined shore.

Highlights of these dunes, and (for some) climax of the day's botanical interest, were the extent and variety of the divaricating species of very distant angiosperm families, their convergent evolution resulting in a bewildering similarity of form (and presumably of function - anti-browsing or water-retention?). Dominant everywhere was Coprosma crassifolia - and rather less commonly - C. rhamnoides. In locally-frequent patches along the parallel dune ridges were weeping mapou (Mysine divaricata) with its heart-shaped (obcordate) leaves and brilliant orange gland-dots, Lophomyrtus obcordata (leaves somewhat heart-shaped but opposite on squarish branchlets and with green gland-dots) and turepo or milk-tree (Streblus heterophyllus - formerly Paratrophus microphylla) with fiddle-shaped leaves and milky juice which issues from the petiole when the leaf is freshly-picked.

Although the Te Henga area boasts examples of all the Waitakere divaricating plants, the other ten of so were too far away for viewing on this occasion (some are on private land). Bulmer (= Taylor) copies of which were handed out to members, includes puhuehue (Muehlenbeckia complexa) in her definition of divaricate. There was plenty of evidence of this species on the dunes, both open and forested.

Other plants of interest were: golden 'grass' (Carex testacea), Asplenium gracillimum, Microlaena polynoda, Oplismenus imbecillis and, on the road home, Pimelea tomentosa. The presence of (usually) epiphytic Pyrrosia eleagnifolia, Phymatosorus diversifolius and Asplenium flaccidum growing on the sandy ground was reminiscent of the

situation on scoria (e.g. Rangitoto) and perhaps there for the same reasons (excellent drainage? aeration of roots?).

Other matters of interest and/or concern were the site of the old native plant plantation and the tragic devastation wrought by possums on the pohutukawas.

All our thanks to the leader and the organisers.

Received 5 July 1989.

PICCONIA EXCELSA (OLEACEAE)

R.O. Gardner

The current Auckland City Council Proposed District Scheme lists two Picconia excelsa trees in Remuera, at St Kentigern School and at 115 Victoria Avenue, that are to be protected for their botanical (rarity) value. This species, the Canary Islands olive, is not mentioned in most horticultural works.

It forms a tree of medium size, heavy in foliage, with the rough bark and crooked branching typical of its family. Sterile specimens have a deceptive likeness to those of Nestegis spp., even having a waxy bloom on the petioles -- (like N. cunninghamii, but not N. apetala) (Johnson 1957). The older AK material was first determined by Dr Peter Green of Kew.

There are several other individuals in Auckland, like the above of good size but almost certainly less than a hundred years old. There are trees at 2 Woodside Ave Mt Eden, at 277 Mt Eden Rd, and on a farmhouse drive in Ihumatao Rd; there is a AK specimen from the Wilson Home in Takapuna and until recently there was a tree in the crater of Mt St John.

Perhaps the importation of Picconia might be the result of a nurseryman's recognizing that Canary Islands species should flourish in what is literally the opposite side of the world.

Naturalization of Picconia in Auckland has not occurred, fruit being formed very rarely. Our trees are all lone individuals, so it may be that cross-pollination is usually essential.

REFERENCE

Johnson, L.A.S. 1957. A review of the family Oleaceae. Contr. N.S.W. Nat. Herb. 2(6): 395-418.

Figure: Vegetative shoot x0.4; fertile shoot x0.6, flower x6, ovary x9, stigma x18.