

Te Mata Peak, Havelock North

Supplementary Notes

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IN Bulletin No. 26 (January 1953) N. L. Elder described the vegetation of Te Mata Peak, under the headings of "limestone cliff", "coastal forest", and "open country". Here I wish to describe briefly two kinds of vegetation not mentioned in that article, and to place on record a list of the higher (i.e. vascular) indigenous plants found in the area.

The Peak has become extremely popular as a view point since the road was put in to the summit some 30 years ago. Inevitably this has called for a widening of the road, and work on this has recently begun. The unique cliff vegetation is not likely to be affected by this tourist onslaught, being largely out of sight and certainly out of mind.

Shrub-tussock cliff vegetation

Elder described the limestone cliffs as being dominated by flax (*Phormium colensoi*), but this only applies to some of them, principally those north of the summit and those facing north elsewhere. South and west of the summit on nearly all south-facing cliffs the large tussock grass, *Chionochloa flavicans*, shares dominance with flax. It decreases in importance with increasing exposure to direct sunlight. Mixed with the tussocks of flax and grass are shrubs and small trees, the principal species being akepiro (*Olearia furfuracea*), karamu (*Coprosma robusta*), kowhai (*Sophora tetraptera*) and *Pittosporum ralphii*. Between the larger plants, and scattered in crevices over the more open parts of the cliffs, are some 35 species of herbaceous plants, among them *Senecio colensoi* var. *colensoi*, *Gingidium rosae-folium*, *Celmisia gracilentia*, *Linum monogynum*, *Epilobium nummularifolium*, *Poa anceps* var. *anceps*, *Agropyron kirkii*, *Notodanthonia buchananii*, *Trisetum* sp., *Asplenium anomodum*, *Craspedia viscosa*, *Schizeilema trifoliolatum*, *Geranium microphyllum* and *G. solanderi* var. *solanderi*. The last four of these are not common.

Rushland

Seepages on the floors of the U-shaped valleys running west are dominated by rushes and sedges. The commonest rush is the tall adventive species, *Juncus inflexus*; indigenous species present are *J. gregiflorus* and *J. caespiticius* var. *bracteatus*. The following sedges were seen: *Carex diandra*, *C. flagelifera*, *C. geminata*, *C. secta*, *C. virgata*, *C. diandra* × *C. secta* (forming large patches), *Eleocharis acuta*, *Mariscus ustulatus* and *Scirpus lacustris*. The only other indigenous plants noted were *Epilobium hirtigerum* and *E. insulare*.



Shrub-tussock cliff vegetation at about 1000 ft. on the west side of Te Mata Peak. The dominant plants are the tussock grass *Chionochloa flavicans*, with numerous toetoe-like heads, and flax (*Phormium colensoi*). The dominant pasture grass is *Notodanthonia racemosa*. (January 1967)

The flora

In describing the vegetation of the area Elder mentions 36 species of higher plants; the present list contains 109. Most of the additional plants are herbs found on cliffs or in seepages. The great majority of the species listed are widely distributed in New Zealand; only a few call for special comment.

Pimelea aridula, with both surfaces of the leaf covered in silky hairs, is known with certainty in the North Island only from the slopes of Mt. Auahitotara (3763 ft., grid ref. N122 259432) and a gorge of the Moawhango R. below this mountain (2300 ft., N122 280442), both localities being in the south-western Kaimanawa Mountains about 6 miles east of Waiouru. (Specimens from these localities are in the Botany Division Herbarium—116269-70, 116348-9). The recent records by Elder (*Trans. Roy. Soc. N.Z. Bot.* 3, 59) from subalpine scrub and limestone cliff, northern Ruahine Range, are based on a misidentification of the somewhat similar *P. oreophila*, which has the upper surface of the leaf glabrous.

Chionochloa flavicans, a northern species, reaches its southern limit at Te Mata Peak. This is a 30-mile southern extension to the distribution shown by V. D. Zotov (*N.Z. J. Bot.* 1, 127).

The hybrid, *Carex diandra* \times *C. secta*, was first recognised in 1964 by Elizabeth Edgar, who recorded it from near Rotorua and from a few localities in the South Island (*N.Z. J. Bot.* 2, 283).

Numbers refer to specimens in Botany Division Herbarium, Lincoln.

TREES AND SHRUBS

Alectryon excelsus var. *excelsus*
Brachyglottis repanda var. *repanda*
Carmichaelia arborea var. (*C. corymbosa*) (165420-1)
Carpodetus serratus
Cassinia leptophylla var. *leptophylla*
Coprosma robusta
Cordyline australis
Coriaria arborea var. *arborea*
Corynocarpus laevigatus
Geniostoma ligustrifolium
Griselinia lucida
Hebe stricta var. *stricta*
H. sp. (*Veronica squalida*?) (165419)
Hoheria populnea var. *lanceolata* (*H. sexstylosa*)
Leptospermum scoparium
Macropiper excelsum var. *excelsum*
Melicytus ramiflorus
Myoporum laetum var. *laetum*
Olearia furfuracea
O. solandri (Elder)
Pimelea aridula (165233, 165551)
Pittosporum eugenioides
P. ralphii
Podocarpus totara
P. dacrydioides (extinct—Elder)
Pseudopanax arboreum
Sophora tetraptera

LIANES

Calystegia tuguriorum
Clematis forsteri
Muehlenbeckia australis
M. complexa
Parsonia capsularis var. *ochracea*
P. heterophylla

FERNS

Adiantum cunninghamii
Asplenium anomodum
A. bulbiferum
A. hookerianum s.s.
A. lucidum s.s.
A.l. × *A. anomodum*
Blechnum aggregatum (*B. lanceolatum*)
B. sp. (*B. capense* agg.)
Cheilanthes sieberi (Elder)
Microsorium diversifolium
Pellaea rotundifolia
Polystichum richardii

Pteridium aquilinum var. *esculentum*
(Elder)

Pteris tremula
Pyrrosia serpens

GRASSES

Agropyron sp. (*A. scabrum* agg.) (165415)
A. kirkii
A.k. × *A. sp.* (165414)
Chionochloa flavicans (165424-5)
Deyeuxia billardieri
D. crinita
Lachnagrostis filiformis var. *semiglabra*
Microlaena stipoides
Notodanthonia buchananii
N. clavata (adventive?)
N. racemosa (adventive?)
N. unarede
Poa anceps var. *anceps*
Trisetum sp. (165410-1, 165560)

SEDGES AND RUSHES

Carex diandra
C.d. × *C. secta* (165418)
C. flagellifera
C. geminata
C. secta
C. virgata
Eleocharis acuta
Juncus caespiticius var. *bracteatus*
J. distegis
J. greigiflorus
Mariscus ustulatus
Scirpus lacustris
S. nodosus

HERBS (OTHER THAN FERNS, GRASSES, SEDGES AND RUSHES)

Acaena anserinifolia
A. novae-zelandiae
Arthropodium candidum
Cardamine sp. (a) (*C. debilis* agg.) (165422-3)
C. sp. (b) (*C. debilis* agg.) (165554-5)
Celmisia gracilentia
Corybas macranthus s.s.
Craspedia viscosa
Dichondra repens
Drosera auriculata
Epilobium insulare

<i>E. hirtigerum</i>	<i>Microtis unifolia</i>
<i>E. nummularifolium</i>	<i>Oxalis corniculata</i>
<i>Galium propinquum</i>	<i>Parietaria debilis</i>
<i>Geranium microphyllum</i>	<i>Phormium colensoi</i>
<i>G. solanderi</i> var. <i>solanderi</i> (<i>G. pilosum</i>)	<i>P. tenax</i> (Elder)
<i>Gingidium rosaefolium</i>	<i>Ranunculus hirtus</i> s.s.
<i>Gnaphalium</i> sp. (<i>G. collinum</i> agg.)	<i>Schizeilema trifoliolatum</i>
<i>Haloragis erecta</i>	<i>Senecio colensoi</i> var. <i>colensoi</i> (165426-7)
<i>Hydrocotyle americana</i>	<i>Stellaria parviflora</i>
<i>H. elongata</i>	<i>Thelymitra longifolia</i> var. <i>longifolia</i>
<i>H. moschata</i>	<i>Urtica jerox</i>
<i>Lagenophora pumila</i> s.s.	<i>Vittadinia australis</i>
<i>Linum monogynum</i>	<i>Wahlenbergia gracilis</i> s.s. (165552-3)

Secondary Totara-Titoki-Matai Forest on the Otaki Plain

Two members have supplied additional information on this forest, a description of which was given in the last Bulletin by Mr A. P. Druce.

Mrs F. C. Duguid, Levin, writes

“Conversation with R. A. Prouse of Levin has provided me with some historical background of the forest. It was milled between 1886 and 1889 by Messrs. Prouse brothers of Levin, father and uncle of R.A.P. This fits in well with the estimated age of the trees. No doubt there would have been some young trees left standing after the others were milled, and those would be the few large trees of the present bush.”

“On the day of the Botanical Society’s excursion to the bush, I went briefly into stand F of the aerial photo (Fig. 1) and found *Arthropodium candidum*. As I thought only the one stand was being studied I did not mention it at the time; but I see it is not included in the list.”

Mr. R. D. Creswell, Tauranga, writes:

“My grandfather took up 800 acres of lease 4 miles up the Otaki R. from Te Horo about 1890. The farm was situated on the south bank. The whole Otaki area was podocarp forest with fine totara and matai adjacent to the river. At the back of the farm on the foothills rata and rimu with a few matai and miro predominated. Numerous log fires swept the area after the initial burn. Most of the regrowth of totara established in burnt out stumps.”