

<i>P. intricata</i> (Delise)Vainio	b O	202533
<i>P. lividofusca</i> (Krempelh.)Gall. & James	b R	202573
<i>P. montagnei</i> (Church.Bab.)Gall. & James	b C	202560
<i>P. multifida</i> (Nyl.)Gall. & James	b R	202559
<i>P. neglecta</i> (Mull.Arg.)Magnusson	b R	202374
<i>P. pickeringii</i> (Tuck.)Galloway	b C	202443
<i>P. sericeofulva</i> Galloway	b R	202398
<i>Psoroma allorhizum</i> (Nyl.)Hue	b C	202527
<i>P. araneosum</i> (Church.Bab)Nyl.	b R	202521
<i>P. athrophyllum</i> Stirton	b O	202576
<i>P. leprololum</i> (Nyl.)Rasanen	b R	202571
<i>P. patagonicum</i> Malme	b R	202431
<i>Pyrenula deliquescens</i> (Knight)Mull.Arg.	b C	202523
<i>Ramalina celastri</i> (Sprengel)Krog & Swinsc.	b R	202446
<i>Sticta fuliginosa</i> (Hoffm.)Ach.	b O	202441
<i>S. latifrons</i> Rich	b C	202544
<i>S. squamata</i> Galloway	b O	202526
<i>Tephromela atra</i> (Huds.)Hefellner	b R	202504
<i>Thelotrema lepadinum</i> (Ach.)Ach.	b O	202503
<i>Usnea</i> spp.	b C	202549, 202550, 202551, 202577
<i>Xanthoria parietina</i> (L.)Th.Fr.	c R	202354
Number of genera	33	
Number of species	80	

REFERENCE

Galloway, D.J. 1988: Studies in *Pseudocyphellaria* (lichens) I. The New Zealand species. *Bulletin of the British Museum Botany* 17.

Vascular plants of Tapu Bush, North Kaipara Barrier

A.E. Wright & M.E. Young

The primary reason for the Bot Soc trip to Pouto on the North Head of the Kaipara Harbour (21-25 May 1991) was to explore and document a significant forest remnant known as Tapu Bush (NZMS 260 grid reference 07-42- on Sheet P09, latitude 36 19, longitude 174 04). From a base at the Northern Wairoa Outdoor Education Trust's field centre in the former schoolhouse at Pouto, parts of three days were spent by 19 people in Tapu Bush. Contributions to the vascular plant species list which follows were made by many of these people.

Tapu Bush is Maori owned, and apart from a small area of active dune on part of its south-western boundary, its 33 hectares are enclosed by plantation forestry (*Pinus radiata*). For such an extraordinary piece of forest it had received scant attention from botanists. In fact, it is to geographers that we look for the chief written accounts. John Reid, a Masters' student in the Department of Geography at the University of Auckland published "A survey of Tapu Bush, a remnant of pre-European vegetation" in *Auckland Student Geographer* 8 (pp. 35-46, 1977). Ingeborg P.C.H.M. Kampman of the same department presented a MA thesis entitled "Vegetation of the North Kaipara Barrier" in November 1981. This thesis, which can be consulted in the University Library, deals with several forest remnants on the North Kaipara including Tapu Bush. The only other written account we have found is the unpublished "Observations on Tapu Bush, North Kaipara Barrier" by Philip Simpson (Commission for the Environment, December 1982).

To accompany the present species list which greatly expands the number of species recorded for Tapu Bush, we now summarise a number of our own observations which help characterise the forest.

1. The local dominance of very large, mature trees of narrow-leaved maire (Nestegis montana) has never been seen elsewhere by us. One was measured with a circumference of 161 cm at breast height, and these trees commonly formed a canopy 15 m high.

2. The occurrence of several normally epiphytic plants directly on the ground, e.g. the locally extremely common Astelia solandri, and CollospERMUM hastatum. The total lack of surface drainage features such as streams means that all precipitation must freely drain down through the massive sand dune accumulations. We suggest that a parallel with the Rangitoto Island situation may exist here. Whereas on Rangitoto the jumble of giant lava blocks forms a great water vapour "sponge" above the fresh-water aquifer, here the fossil sand dunes hold a great reservoir of fresh-water which rises as vapour through the upper levels of sand grains to support plant life "epiphytic" on the soil surface. Hollows clothed with a ground-cover of Trichomanes reniforme are also reminiscent of Rangitoto.

3. The repeated occurrence of filmy ferns, in particular Hymenophyllum flexuosum and H. scabrum, directly on the sandy soil. Presumably, this reflects the unusual combination of excellent drainage and steady water availability.

4. The extreme rarity of some normally common species. For example, Cyathea medullaris was found only as one very dead (but still standing) trunk, and one living, mature treefern.

5. The presence of several very large, old totara.

6. Adventive species, marked * in the species list, were confined to marginal areas, except for some purple pampas grass (Cortaderia jubata) amongst the kanuka fringes of the forest.

These notes do little to capture the extraordinary feeling of uniqueness experienced in exploring this mature forest on a fossil duneland topography. Bot Soc will be recommending that the Department of Conservation pursue some form of protective reservation of Tapu Bush with the Maori owners.

Ferns and Fern Allies (25)

Adiantum hispidulum
Asplenium flaccidum
A. gracillimum
A. hookerianum
A. oblongifolium
A. polyodon
Blechnum filiforme
Cyathea dealbata
C. medullaris
Doodia media
Grammitis ciliata
Hymenophyllum dilatatum
H. flexuosum

H. revolutum
H. sanguinolentum
H. scabrum
Lycopodium varium
Pellaea rotundifolia
Phymatosorus diversifolius
P. scandens
Polystichum richardii
Pteridium esulentum
Pteris tremula
Pyrrosia eleagnifolia
Trichomanes reniforme

Gymnosperm (1)

Podocarpus totara

Dicots (57)

Alectryon excelsus
Beilshmiedia tarairi
Brachyglottis repanda
Carmichaelia aligera
Cassinia retorta
*Cirsium vulgare**
Coprosma acerosa
C. crassifolia
C. grandifolia
C. lucida
C. macrocarpa

Lophomyrtus bullata
L. obcordata
*Lupinus arboreus**
Macropiper excelsum
Meliccytus ramiflorus
Muehlenbeckia complexa

Myrsine australis

C. parviflora
C. rhamnoides
C. robusta
*Conyza albida**
Corokia cotoneaster
Corynocarpus laevigatus
*Crepis capillaris**
Cyathodes fasciculata
C. juniperina
Dodonaea viscosa
Dysoxylum spectabile
Elaeocarpus dentatus
Geniostoma rupestre
Gonocarpus incanus
*Hakea sericea**
Hebe diosmifolia
*Hypochoeris radicata**
Knightia excelsa
Kunzea ericoides
Leptospermum scoparium
Litsea calicaris

Monocots (34)

Acianthus sinclairii
*Ammophila arenaria**
*Anthoxanthum odoratum**
Astelia solandri
Bulbophyllum pygmaeum
Carex testacea
Collospermum hastatum
C. microsperrum
Cordyline australis
*Cortaderia jubata**
C. splendens
Corybas trilobus
Dendrobium cunninghamii
Dianella nigra
Drymoanthus adversus
Earina autumnalis
E. mucronata

Nestegis lanceolata
N. montana
Olearia albida
O. furfuracea
*Parentucellia viscosa**
Parsonsia sp.
Pittosporum tenuifolium
Pomaderris ericifolia
Pseudopanax arboreus
P. crassifolius
Rubus cissoides
Senecio hispidulus
S. minimus
Solanum americanum

Sophora microphylla
Stellaria parviflora
Streblus heterophyllus
Vitex lucens

*Holcus lanatus**
Isolepis nodosa
Lepidosperma laterale
Leptocarpus similis
Microlaena polynoda
M. stipoides
Morelotia affinis
Oplismenus imbecillius
Poa anceps
P. pusilla
Pterostylis alobula
Rhopalostylis sapida
Rytidosperma gracile
Schoenus tendo
Uncinia banksii
U. uncinata
U. zotovii