

Olearia rani
Pittosporum tenuifolium
Prunella vulgaris *
Pseudopanax arboreus
Pseudopanax crassifolius
Ranunculus reflexus
Rubus australis
Rubus cissoides
Schefflera digitata
Ulex europaeus *
Vitex lucens
Weinmannia sylvicola

Monocotyledons 31 (23 + 8)

Aristea ecklonii *
Astelia hastata

Astelia microsperma
Astelia solandri
Astelia trinervia
Bulbophyllum pygmaeum
Carex lambertiana
Carex solandri
Carex uncinata
Cordyline australis
Cordyline banksii
Cyperus eragrostis *
Dianella nigra
Drymoanthus adversus
Earina mucronata
Entolasia marginata *
Freycinetia banksii

Gahnia setifolia
Isolepis reticularis
Isolepis sepalcalis *
Juncus articulata *
Juncus effusus *
Juncus planifolius
Juncus prismatocarpus
Juncus tenuis *
Microlaena avenacea
Microlaena stipoides
Paspalum urvillei *
Rhopalostylis sapida
Ripogonum scandens
Rytidosperma gracile

Fauna notes

Giraffe weevils (male and female) on a mahoe.
 Cicadas still singing, but not deafening.
 Birds: fantail, tomtit, kereru were all frequent.

The Waiotemarama Walkway, Waima Forest, South Hokianga, 26 October 2019

Maureen Young

Thiagaraj (or Tiago) Mahalingam, from India, has been working in New Zealand since 2015. As he was keen to spread his wings and see more of the country's botany than that which he encounters through his work around Auckland, we headed north over Labour Weekend 2019 and took in Trounson Park and Waipoua Forest on the way up to the Hokianga Harbour. The next day, as one of us now finds steep tracks troublesome, it was off to an early start for a very leisurely wander up the wondrous Waiotemarama Walkway in Waima Forest.

This track used to consist of a loop that passed through the most beautiful kauri (*Agathis australis*) forest that one could wish to see, and from the top of the loop the track carried on to the Hauturu Trig, at an altitude of 679 m. not far short of the highest point in Northland. Bot Soc explored around this trig during a memorably wet and primitive camp in the Waima Forest over Anniversary Weekend 2003 (Young et al. 2003) but approached it then from the other side. The track has been closed for some time because of kauri dieback but was reopened in July

2019. Sadly, one side of the loop remains closed and the bulk of the kauri forest is out of bounds. The track is now so well constructed that it must vie with the best in the country. Extra-sturdy timbers line the steps and are used on the few boardwalks. A honeycomb of thick plastic has been laid on the track before gravel was placed on top, with the aim of preventing the gravel from scouring out in heavy rain. Even though the materials were dropped in by helicopter, it still must have been a mammoth task to complete. About two thirds of the way to the summit the construction comes to an end with a second boot-cleaning station, and a tramping-standard trail carries on.

From the first boot station at the car park it takes a short distance to get into real forest, but this stretch has its own delights—two or three lush patches of the rare endemic large-leaved herb, *Lobelia physaloides* (formerly described in this genus, then placed in *Colensoa*, followed by *Pratia* and now back to *Lobelia*) (Fig. 1). There was no sign of the long blue flowers or the fat purplish-blue berries that



Fig. 1. A lush patch of *Lobelia physaloides*. All photos taken by Thiagaraj Mahalingham, 26 Oct 2019.



Fig. 2. *Corybas macranthus* with a late flower.



Fig. 3. A sprig of the flowers of *Metrosideros albiflora*.

make it such an unusual addition to the New Zealand flora. Wet trackside banks were ideal habitat for the spider orchid, *Corybas macranthus*, and a few late flowers were present (Fig. 2). At higher altitudes we saw *Corybas trilobus* and *C. acuminatus*. At the river crossing some big volcanic rocks are usefully located to act as stepping-stones. One has a good view of the water-fall, on this day a rushing cascade with renga lily (*Arthropodium cirratum*) on the rocks, and parataniwha (*Elatostema rugosum*) beside the stream. Many of the public only come this far.

There is much *Schefflera digitata* in the gorge, with lobed juvenile leaves on the seedlings, and the dwarf cabbage trees (*Cordyline pumilio*) have the short trunks that are seen in the north. Towai (*Weinmannia silvicola*) is common, and although we didn't take time to check each small plant to answer that perennial problem encountered in the north – is it *Ackama rosifolia* or juvenile towai? – it seemed that there was only towai present. Kirk's daisy, (*Brachyglottis kirkii* var. *angustior*) and that *Alseuosmia* that defies attempts to place it in any specific box, were common trackside plants. We were very soon among one of the features of this walk, massed growth of mairehau (*Leionema nudum*) - not only was it common, but some also reached a surprising height of 3 or 4 metres. *Pterostylis banksii* was flowering volupuously and who could resist tickling the odd labellum? Other greenhoods seen were *Pterostylis agathicola* and *P. trullifolia*. Although the bulk of the large kauri trees are now off-limits, we still passed several, some with trunks not terribly tall, but massively thick. At this point we were in amongst another joy of northern botanising, the white-flowered rata, *Metrosideros albiflora* (Fig. 3), that was flowering beautifully. We noted seven species of rata all told. Sharp-eyed Tiago spotted a red splotch on a tree-top on the other side of the gorge, and at this time of year it could only be carmine rata (*M. carminea*). The northern tree rata (*M. robusta*), was not a common feature, but the few trees we passed were extremely large with healthy canopies and bearing many epiphytes (Fig. 4).

A viewing point opened a vista over the gorge, and a surprise was three or four small trees of *Sophora fulvida* just below the view-point. The only flowering mairehau was also seen here. There were many young *Quintinia serrata* along the track and in the distance a large tree was covered in flowers. In the north quintinia is usually accompanied by *Ixerba brexioides*, but we only spotted one sapling of that. *Dracophyllum latifolium* became common, and later *D. sinclairii* also. Once past the belt of kauri the canopy became mainly tawa (*Beilschmiedia tawa*) and taraire (*B. tarairi*) with increasing numbers of hinau (*Elaeocarpus dentatus*) and miro (*Pectinopitys ferruginea*).



Fig. 4. A horizontal branch of northern tree rata supported by an artificial prop because of the weight of epiphytes.

After the built track ended there were two very steep climbs, where tree roots and track-side vegetation were necessary hand-holds to pull oneself upwards. A very tall hebe, 4-5 m. tall, took me by surprise, but I knew from previous trips here that there was a hebe that had us puzzled. Fortunately it has, since 2001, been given a name, and Hauturu State Forest, Waima Range, is the type locality (Bayly & Kellow 2006, p.194 & 310). This is *Hebe flavida*, the specific name meaning "yellow", which refers to the dull yellow base to the leaf and the midrib. Some leaves have tiny teeth distantly spaced along the edges. On the way down we saw several more plants that we had missed on the climb up. The last notable tree was a single *Pittosporum ellipticum*, its identity being confirmed by the thick coating of rusty-coloured hairs surrounding the flower buds; and we now had the differences between *Astelia hastata* and *A. microsperma* sorted. We hadn't seen any sign of pest animals, until in the higher altitudes we came across three chewed-up kauri snail (*Paryphanta busbyi*) shells (rats or pigs?), and the tell-tale scrapings on coprosma trunks caused by the sharp teeth of goats. The only troublesome weeds seen after the river crossing were *Sellaginella kraussiana* and Mexican daisy (*Erigeron karvinskianus*).

At this point I made an overly-cautious decision that I later regretted – thinking about the downward trip I decided to stop and rest on the trackside while Tiago carried on to the summit. As it happened he didn't make it to the trig where the Waima Forest endemics *Olearia crebra* and *Coprosma waima* grow, and I could easily have kept going to the top, so neither of us was satisfied. Sliding down the two steepest slopes by lowering my centre of gravity, I was reminded of an old sea captain who used to live on Kawau Island. When he wanted his dog to "sit" he commanded, "Lower away aft!". Tiago hadn't yet exhausted his powers of observation, and on the way down added *Pittosporum cornifolium* (terrestrial) and *Helichrysum lanceolatum* to the species list (see Appendix).

For anyone longing for an escape from the rat race I can strongly recommend a visit to one of my favourite walks in the whole of Northland.

Acknowledgements

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References

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Appendix Native vascular plant species (154) seen on the Waiotemarama Track (compiled from memory after the fact).

Lycophytes

Lycopodium deuterodensum
Lycopodium volubile
Phlegmariurus billardi

Ferns

Adiantum fulvum
Asplenium bulbiferum
Asplenium flaccidum
Asplenium polyodon
Blechnum chambersii
Blechnum filiforme
Blechnum fraseri
Blechnum membranaceum
Blechnum novae-zelandiae
Cardiomanes reniforme
Cyathea dealbata
Cyathea medullaris
Cyathea smithii
Deparia petersenii ssp. *congrua*
Dicksonia squarrosa
Doodia australis
Hymenophyllum demissum
Hymenophyllum dilatatum
Hymenophyllum frankliniae
Hymenophyllum flabellatum
Hymenophyllum revolutum
Hymenophyllum sanguinolentum
Lastreopsis hispida
Leptopteris hymenophylloides
Loxogramme dictyopteris
Lygodium articulatum
Microsorium pustulatum
Microsorium scandens
Notogrammitis heterophylla
Paesia scaberula
Pneumatopteris pennigera
Polystichum sp.
Pyrrosia elaeagnifolia
Rumohra adiantiformis
Tmesipteris elongata
Tmesipteris lanceolata

Gymnosperms

Agathis australis
Dacrycarpus dacrydioides
Dacrydium cupressinum
Libocedrus plumosa
Phyllocladus trichomanoides

Podocarpus laetus
Pectinopitys ferruginea

Dicotyledons

Alectryon excelsus
Alseuosmia macrophylla
Alseuosmia sp.
Beilschmiedia tarairi
Beilschmiedia tawa
Brachyglottis kirkii var. *angustior*
Brachyglottis repanda
Cardamine sp.
Carmichaelia australis
Clematis cunninghamii
Coprosma arborea
Coprosma autumnalis
Coprosma lucida
Coprosma macrocarpa
Coprosma spathulata
Coriaria arborea
Corynocarpus laevigatus
Dracophyllum latifolium
Dracophyllum sinclairii
Dysoxylum spectabile
Elaeocarpus dentatus
Elatostema rugosum
Entelea arborescens
Epilobium rotundifolium
Euchiton japonicus
Geniostoma ligustrifolium
Griselinia lucida
Hebe flavida
Hedycarya arborea
Helichrysum lanceolatum
Hoheria populnea
Ixerba brexioides
Knightia excelsa
Kunzea robusta
Laurelia novae-zelandiae
Leionema nudum
Leptecophylla juniperina
Leucopogon fasciculatus
Litsea calicaris
Lobelia physaloides
Lophomyrtus bullata
Melicytus macrophyllus
Melicytus micranthus
Melicytus ramiflorus

Metrosideros albiflora
Metrosideros carminea
Metrosideros diffusa
Metrosideros excelsa
Metrosideros fulgens
Metrosideros perforata
Metrosideros robusta
Muehlenbeckia australis
Myrsine australis
Myrsine salicina
Nertera depressa
Nertera dichondrifolia
Nestegis lanceolata
Nestegis montana
Olearia furfuracea
Olearia rani
Parsonsia sp.
Pittosporum cornifolium
Pittosporum ellipticum
Pseudopanax crassifolius
Quintinia serrata
Rhabdothamnus solandri
Rubus australis
Rubus cissoides
Schefflera digitata
Solanum americanum
Sophora fulvida
Streblus heterophyllus
Toronia toru
Vitex lucens
Wahlenbergia violacea
Weinmannia silvicola

Monocotyledons

Acianthus sinclairii
Arthropodium cirratum
Astelia hastata
Astelia microsperma
Astelia solandri
Astelia trinervia
Bulbophyllum pygmaeum
Carex banksiana
Cordyline banksii
Cordyline pumilio
Corybas acuminatus
Corybas macranthus
Corybas trilobus
Dendrobium cunninghamii

Dianella nigra

Earina autumnalis

Earina mucronata

Freycinetia banksii

Gahnia lacera

Gahnia pauciflora

Gahnia setifolia

Gahnia xanthocarpa

Libertia grandiflora

Microlaena avenacea

Microlaena stipoides

Microtis unifolia

Oplismenus hirtellus

Phormium tenax

Poa anceps

Pterostylis agathicola

Pterostylis banksii

Pterostylis trullifolia

Rhopalostylis sapida

Ripogonum scandens

The vegetation and flora of Shakespeare Cliff Reserve and environs, Mercury Bay

Nick Goldwater and Ewen K. Cameron

Introduction and history

Shakespeare Cliff Scenic and Historic Reserve (hereafter referred to as 'Shakespeare Cliff Reserve' or 'the Reserve'), managed by Thames-Coromandel District Council (TCDC), is located between Cooks Beach and Maramaratōtara Bay (of which the eastern part is commonly known as Flaxmill Bay) (NZTM E5587599 N1833491) in Mercury Bay (Fig. 1). Mercury Bay is an inlet on the east coast of Coromandel Peninsula, which is part of a drowned valley system divided into two portions; the outer one is Mercury Bay, and the inner one a south-

western extension of the Whitianga Harbour or River (teara.govt.nz). Mercury Bay was previously called Te Whanganui-o-Hei (The Great Bay of Hei) and was named after an important Māori chief, Hei, who arrived on the Te Arawa waka. The local iwi (tribe) is called Ngāti Hei and the chief's name was also given to the nearby town of Hahei.

Lieutenant James Cook arrived in the bay in November 1769 and set up his shore station at Cooks Beach. On 9 November¹, Cook and Charles Green observed the transit of Mercury at the

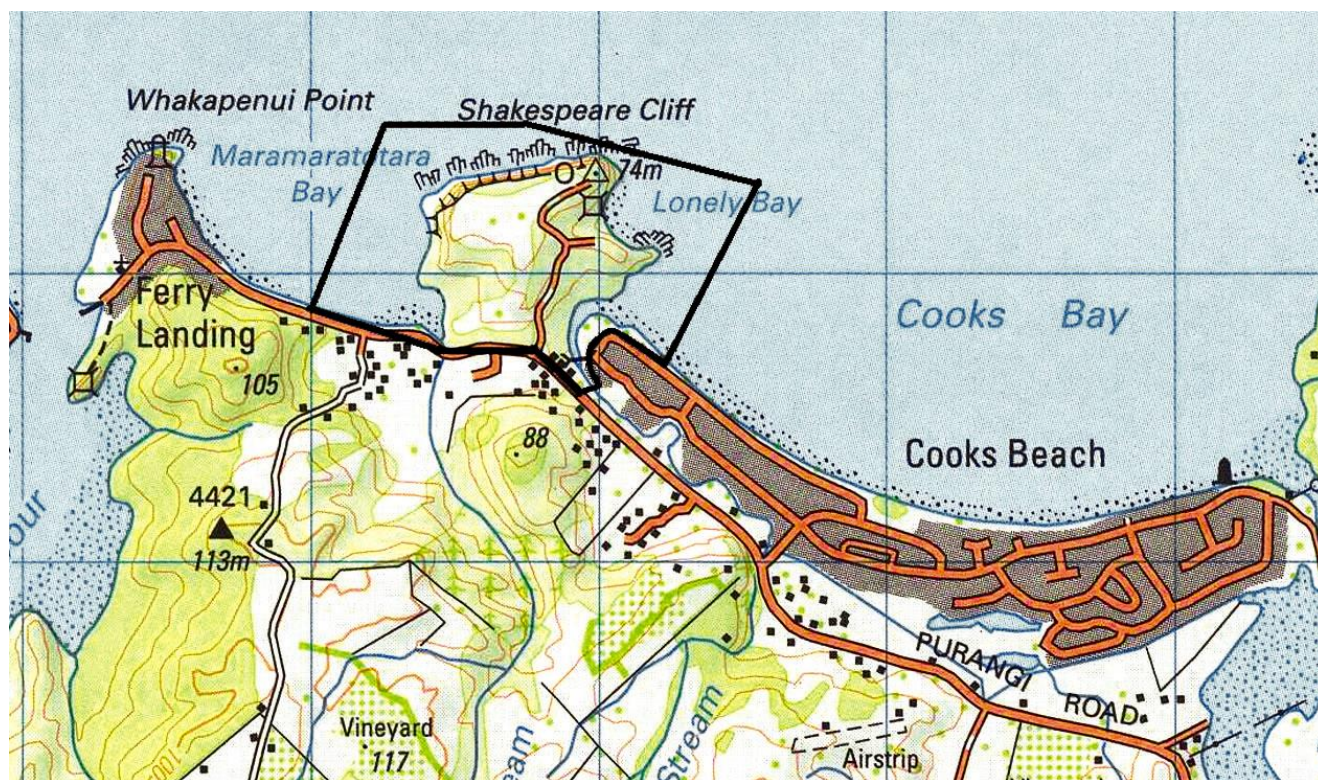


Fig. 1. Location of Shakespeare Cliff Reserve and BioBlitz boundary (black outline), Mercury Bay (National Library of NZ topographic map, modified by NG).