

Field trip: Mt Tamahunga, 19 November 2016

David Wilson

Participants: Ewen Cameron, Geoff and Bev Davidson, Frances Duff, Sarah Gibbs, Peter Glamazima, Shelley Heiss-Dunlop, Dongmei Li, Mark Paterson, Vivienne Paterson, Juliet Richmond, Joshua Salter, Doug Shaw, Doug Sheppard, Sam Sutherland, David Wilson (co-leader), Maureen Young (co-leader), Yumei Zhang, Zonggi Zhao.

Since 2009, a community group called the Tamahunga Trappers have established trap lines for stoat control on Mt Tamahunga. Our walk followed two of these trap lines, which took us to parts of the forest not seen when Auckland Botanical Society (ABS) walked the public track to the summit in 2007 (Young 2007).

Mt Tamahunga, with its twin summits (445 m and 437 m a.s.l.), forms a prominent landmark in the Warkworth and Matakana areas. The forested southern and eastern slopes are protected as the 259 ha Tamahunga Ecological Area, administered by the Department of Conservation. The north-western slopes have a roughly equal area of forest cover, most of which is in private ownership or under the control of Auckland Council. A small area around the summits has been designated as a scientific reserve under the ownership of the iwi Ngati Manuhiri.

Altogether, this is one of the largest and most species-rich areas of native forest in north Auckland. The Department of Conservation and Auckland Council have eradicated goats from the forest, and are reducing pig and possum numbers. The Tamahunga Trappers were formed in 2009 to further enhance the ecology of the forest by trapping stoats, and their trap lines now extend right around the mountain. We chose two lines to follow, based on their relative ease of access and ability to be walked at botanical pace while only slightly exceeding the usual time taken for a field trip.

The 'Geordie' line is named after Geordie Murman, the Tamahunga Trapper and local landowner who established it (Fig. 1). This route took us up the south-eastern side of Mt Tamahunga, to meet the public walking track at about 370 m a.s.l., on the main ridge north of the two summits. On entering the forest at the bottom of this line, we found ourselves in a small area dominated by rimu (*Dacrydium cupressinum*), tanekaha (*Phyllocladus trichomanoides*) and kanuka (*Kunzea robusta*).

Perhaps this was an area cleared of forest in the past, with pioneering kanuka now being supplanted by the two conifer species. The understorey here included mamangi (*Coprosma arborea*), maire taika



Fig. 1. Setting out towards the 'Geordie' line – Mt Tamahunga visible in the distance. Photo: JS. All photos taken on 19 Nov 2016, by Joshua Salter (JS) or Ewen Cameron (EKC).



Fig. 2. *Hymenophyllum demissum* carpet. Photo: JS.

(*Mida salicifolia*) and white maire (*Nestegis lanceolata*). We spent some time distinguishing between individuals of the two latter species.

Further up the ridge, the forest had the character more typical of Tamahunga, with abundant taraire (*Beilschmiedia tarairi*), kohekohe (*Dysoxylum spectabile*) and nikau palms (*Rhopalostylis sapida*). We passed a pair of very large kahikatea (*Dacrycarpus dacrydioides*), a common canopy emergent here. We paused also to admire a lush carpet of filmy ferns (*Hymenophyllum demissum*) on a well-lit patch of forest floor amid rocks and tree roots (Fig. 2).



Fig. 3. Lunch stop under karaka canopy. Photo: JS.



Fig. 4. *Astelia microsperma* perched waist-high on a tree fern stump. Photo: EKC.



Fig. 5. A large low branch on the rata (or was it a root?) allowed a closer look at the *Pittosporum kirkii*, growing in a clump of *Astelia hastata*. Photo: JS.

Our lunch stop (Fig. 3) was close to some karaka trees (*Corynocarpus laevigatus*), a fairly frequent species in this part of the forest – soon after, we would see a large tree with an especially high number of seedlings under it. Having reached the approximate mid-point of our day, with only a small proportion of our walk completed, our leader soon deemed it time to continue.

We crossed two streams, one with a small tree of pukatea (*Laurelia novae-zelandiae*) beside it. A short, sharp climb above the second stream crossing brought us to a fairly large totara occupying a prominent position on the ridge. While waiting for the rest of our group to catch up, those at the front of the party debated which species this was – we decided it was Hall's totara (*Podocarpus laetus*), which is slightly less abundant than totara (*P. totara*) on Tamahunga. There were also some small toropapa here (*Alseuosmia macrophylla*). Slightly higher, we saw a small mangeao tree (*Litsea calicaris*), the only specimen seen on this trip. Flowers of pigeonwood (*Hedycarya arborea*) littered the track in places.

A feature of Tamahunga is the presence of some species on the higher slopes which are otherwise uncommon or absent in the district. The first of these we encountered was the 'tank lily' *Astelia microsperma* (Fig. 4) (formerly *CollospERMUM microspERMUM*). Our first specimen was easily examined, being perched on a short tree fern stump, and distinguished from the more abundant *A. hastata* by its more slender, drooping foliage. Another such species is the soft tree fern (*Cyathea smithii*), of which we saw several during our trip. Both of these species are more common in cooler, wetter climates, but evidently Tamahunga has enough elevation on its higher slopes for these plants to find the conditions they need. Other species which became more common towards the



Fig. 6. *Pittosporum kirkii* sporting several fruits. Photo: EKC.

top of the Geordie Line were lemonwood (*Pittosporum eugenioides*) and tawa (*Beilschmiedia tawa*).

One of Tamahunga's most distinguished botanical residents is Kirk's pittosporum (*Pittosporum kirkii*) (Figs. 5 & 6) which occupied a large clump of epiphytic *Astelia hastata* on the trunk of a large rata on the Geordie Line. The health of the *Astelia* has declined over time, and as it has subsided, the *Pittosporum* has begun to lean precariously (D. Wilson, pers. obs.). It still appears healthy though, and we saw some seed capsules on it. Keen-eyed Tamahunga Trappers have so far failed to find any more individuals on the mountain. Its presence here is notable, as this species is otherwise virtually absent over quite a large surrounding area.

As we climbed ever higher, we had the opportunity to spot the small filmy fern *Hymenophyllum lyallii* on some of the tree fern trunks. A fallen twig was found to be carrying a small individual of the wiry, orange-yellow lichen *Teloschistes flavicans*. This lichen is curiously common on Tamahunga, once an observer becomes accustomed to looking for it.

Upon reaching the public track on the main ridge north of the summits (at 3.45pm!), we encountered what was arguably the main attraction of this trip. This was the iris *Libertia flaccidifolia*, a possible Tamahunga endemic with a species description co-authored by ABS member Dan Blanchon (Blanchon & Weaver 2009). It was flowering right beside the track, as were some more which we encountered soon afterwards. Distinguishing features of this species include the drooping foliage and the height of the flowers above the leaves, compared with the shorter flower stems of *L. ixioides*, the other common iris at Tamahunga.

After walking a short section of the public track, we took a right turn down our second trap line, known as the Haybarn Line, which would eventually take us back to the Omaha Valley Road and our cars. High on this line, narrow ridges had more *Libertia flaccidifolia*, with numerous flowers, and it was encouraging to see so much of it (Fig. 7). The recent eradication of goats from Tamahunga has no doubt removed a major threat to its survival. Ridges here have a range of woody species, the most common of which include miro (*Prumnopitys ferruginea*), rimu, lancewood (*Pseudopanax crassifolius*), rewarewa (*Knightia excelsa*), white maire, tawa, lacebark (*Hoheria populnea*) and hangehange (*Geniostoma ligustrifolium*). Large, emergent northern rata (*Metrosideros robusta*) are also prominent (Fig. 8). There is also some hinau (*Elaeocarpus dentatus*) and kohuhu (*Pittosporum tenuifolium*). The gentler slopes and gullies have a higher proportion of taraire, kohekohe and nikau,



Fig. 7. A patch of *Libertia flaccidifolia* on the 'Haybarn' line. Photo: JS.



Fig. 8. Emergent rata on a ridge, seen from the 'Haybarn' line. Photo: JS.

and in some places the ground underneath them is relatively bare. Silver fern (*Cyathea dealbata*) is the commonest tree fern.

At mid-elevation on the Haybarn Line we passed a small patch of dead and dying trees, for which we could think of no obvious explanation. In an area the size of a living-room, there were about two dozen trees of taraire, kohekohe, nikau and two species of tree fern (*Cyathea dealbata* and *C. medullaris*), showing either yellowing leaves, defoliation or death. The wide variety of species affected suggests that this has probably not been caused by a pathogen, but perhaps by some feature



Fig. 9. Rain closing in as we descended through soggy farmland. Photo: JS.

of the physical environment or human action. Being so close to a trap line, any ongoing mortality at this site will be able to be monitored in future.

Two large northern rata trunks formed something of an archway for us to walk under as we neared the bottom of this trap line. The species-rich forest gave

way to an area dominated by tree ferns, then we left the forest and made our way down a steep treacherously pugged paddock to the road, finishing our walk as it began to rain (Fig. 9). The forest was remarkably free of weeds.

A species list for Tamahunga was published following the previous ABS Tamahunga trip (Young 2007). Additions following this trip are as follows:

Ferns and fern allies	Dicotyledons
<i>Phlegmariurus varia</i>	<i>Coprosma spathulata</i>
Gymnosperms	Monocotyledons
<i>Prumnopitys ferruginea</i>	<i>Dianella latissima</i>
<i>Prumnopitys taxifolia</i>	<i>Drymoanthus adversus</i>
	<i>Uncinia zotovii</i>

Acknowledgements

Thanks to Geordie Murman, Logan Campbell and their families for allowing us to cross their land.

References

- Blanchon D.J.; Weaver, J.S. 2009: *Libertia flaccidifolia* (Iridaceae), a new species from Mt Tamahunga, Northland, New Zealand. *New Zealand Journal of Botany* 47: 317–324.
- Young M. 2007: Field trip: Mt Tamahunga, 17 February 2007. *Auckland Botanical Society Journal* 62(1): 38–41.

Field trip to Otata Island, Noises Islands, Hauraki Gulf

Ewen K. Cameron



Fig. 1. The last of the second boatload of Bot Soccers disembarking from *Taikahu* on Otata Island's main pebble beach. Photo: Jacqui Geux. Unless stated differently all photos taken on 26 Nov 2016.

After the postponement of the scheduled 15 October 2016 Bot Soc field trip, due to strong winds, the Otata Island trip eventually occurred on 26 November. The Department of Conservation (DoC) kindly transported us on their service boat "Taikahu" which for that part of the Hauraki Gulf is surveyed to carry 12 passengers. To get our group of 22 to Otata Island DoC took 12 from Bayswater (departing at 9am), and the other ten took the public ferry to Waiheke Island. After disembarking the first load, *Taikahu* doubled back to Waiheke to collect the second group. By 10.30 am the party was complete on Otata Island.

The Noises Islands lie 1.4–5.5 km to the NE of Rakino Island in the inner Hauraki Gulf. There are nine islands/islets in the group and they are all owned by the Neureuter family (held in a Trust). The largest island of the group is Otata Island (15.0 ha),