

Acknowledgements

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A visit to Taranga (Hen) Island

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Photographs by Tricia Aspin

While driving south from Whangarei in September 2011 after an Auckland Botanical Society (ABS) weekend camp, I looked longingly out to sea to the craggy silhouette of Taranga, the “Hen” of the Hen and Chickens island group, and thought sadly to myself that I would never get a chance to visit this conservation island. But by one of those serendipitous coincidences, within a week I had a communication that the Ngatiwai Trust Board wanted to organise a “capacity building” project for young Ngatiwai members. This project was to have a biological component; by learning something of the ecology of plants, birds, lizards and invertebrates the youngsters would be better prepared to undertake the kaitiaki responsibilities which go with having mana whenua over the east coast islands.

So it was that from late November to mid December 2011 ABS members Mere Roberts and Geoff Davidson worked on the island with a small group of young people for one week, and Tricia Aspin and I took over for a second week with another group (Plate 1A), our aim being to teach something of the botanical component.

As always on such an exercise much can be learned from those who have gone before. In 1935 Lucy Cranwell and Lucy Moore (the two Lucys) published a paper, *Botanical Notes on the Hen and Chicken*

Islands, outlining their observations from two trips undertaken in November 1933 and November 1934 (Cranwell & Moore 1935).

In 1988 Katie Reynolds (1988) wrote evocatively of her memories of the 1934 visit to Taranga with the two Lucys, and a fourth friend, Dorothy Ellin. The Auckland University Field Club visited the Hen in August 1953 and the resultant papers were included in their Journal, *Tane* 6. The Off-shore Islands Research Group (OIRG), consisting of Field Club “oldies”, visited in August 1977, and *Tane* 24 contains their reports, the most useful to botanists being Anthony Wright’s annotated list of vascular plants (Wright 1978). A further visit by Anthony Wright and Ross Beever in December/January 1990/91 produced many additional vouchered specimens in the Auckland Museum Herbarium (AK) (see Appendix for a species list with additional observations from this present 2011 visit). Table 1 summarises the different elements of the flora observed.

Taranga is 19 km south-east of Whangarei Heads. It covers an area of 520 hectares, is 5km long by 2 km wide and rises to a height of 460 m. This remnant of a Miocene strato-volcano has a long axis running from west to east with a high rocky central ridge featuring several pinnacles and a remarkable balancing rock. On the north side are some sloping valleys that end in



Plate 1A. Our group - Trisha Aspin and Maureen Young with Ngati Wai.



Plate 1B. Approaching Taranga (Hen Island).



Plate 1C. The Dragon's Mouth.



Plate 1D. *Pisonia brunoniana* and *Meryta sinclairii* with slip debris in foreground.



Plate 1E. *Xeronema callistemon* with Sail Rock in the background.



Plate 1F. Tuatara - *Sphenodon punctatus*.



Plate 2A . *Arthropodium candidum* in flower.



Plate 2B. The collector.



Plate 2C. *Euphorbia glauca*.



Plate 2D. *Linum monogynum*, with seed capsules.



Plate 2E. A friendly kaka keeping an eye on the campers.



Plate 2F. Old Woman (or Wahine) Rock.

Table 1: Summary of plant groups observed in 1990/91 and 2011 (see Appendix).

Plant Group	Taranga (Hen Island)
Native ferns & fern allies	59
Native conifers	2
Native dicots	134
Native monocots	70
<i>Native sub total</i>	265
Naturalised ferns & allies	0
Naturalised conifers	0
Naturalised dicots	55
Naturalised monocots	18
<i>Naturalised sub total</i>	73
Overall total	338
% native	78.4%

steep cliffs. Kiore, the only animal pest on the island, were removed in May 2011 (Clive Stone pers. comm.).

The pohutukawa (*Metrosideros excelsa*) trees were just bursting into flower as we approached Dragon's Mouth Cove on the *El Pescador* on 6 December 2011 (Plate 1B), and as we anchored by the small rocky islet that gives the name to the cove (Plate 1C), the boys rowed ashore in the rubber dinghy and set up a rope system to pull the dinghy back and forth to land our gear. Waiting on the stony beach was the party who were returning to the mainland. After a hasty swapping of information they left the island and we climbed c. 30 m to the comfortable camp site.

Over the next seven days, a blessedly fine week in the midst of a wet summer, we set up vegetation plots and worked with "our boys" to help familiarise them with the plants, but there was plenty of time for Tricia and me to botanise and for the young men to fossick for kai moana.

Our first experience of the flora was on the flats near the shore, an area that had been gardened by Maori when they inhabited the island in pre-musket days (c.1820). The impression one gained was of northern coastal forest "on steroids". The large leaf size caused by the "island influence" was obvious on kohekohe (*Dysoxylum spectabile*), karaka (*Corynocarpus laevigatus*), whau (*Entelea*

arborescens), kawakawa (*Macropiper excelsum*) and taurepo (*Rhabdothamnus solandri*), and the out-sized leaves of parapara (*Pisonia brunoniana*) and pukanui (*Meryta sinclairii*) added to the impression (Plate 1D). It has been suggested that the latter two had been planted by Maori, and pukanui in particular, was seen only where there had been historical cultivation.

Apart from the Poor Knights Islands, Taranga is the only natural site for the Poor Knights lily or raupo-Taranga, (*Xeronema callistemon*). One of our first walks, therefore, was to a rocky bluff uphill from our camp where "x" marked the spot on the map where this rare plant grows. It excites the imagination to consider that the only other species in this genus and family (Xeronemataceae) is *X. moorei*, growing in the highlands of New Caledonia. We were well rewarded by the sight of the massed growth of bright green sword-like leaves mixed with clumps of *Collospermum hastatum*, *Astelia banksii* and renga lily (*Arthropodium cirratum*). Although flowering had finished, the long racemes covered with upright red stigmas gave us an inkling of what must have been a wonderful display a short time before. A view looking out over *Xeronema* to Sail Rock in the distance gave a great feeling of "place" (Plate 1E). A few days later we found ourselves in a rocky amphitheatre just west of the main summit track. Tricia leaned backwards to view the tops of the rocks, and spotted a second colony of *Xeronema* ringing the summit of the bluffs.

A short distance east of Dragon's Mouth Cove is a huge slip reaching from the base of the summit pinnacles for c. 150 m down slope towards the coast. Judging from the age of the plants becoming established on the bare soil, the slip would be a year or so old. The plants that were the first colonisers were mostly transitory species – fleabanes (*Conyza sumatrensis*, *C. bonariensis*), fireweeds (*Senecio bipinnatisectus*, *S. esleri*) and nightshades (*Solanum nigrum*, *S. nodiflorum*) – though the numerous seedlings of pampas (*Cortaderia selloana*) will be a problem if not dealt with expeditiously. However, native plants were establishing well. Poroporo (*Solanum aviculare*), with both white and purple flowers, was the most common, along with whau. In a plot with a radius of 3 m we counted 213 whau seedlings. Sporelings of *Hypolepis dicksonioides* were common (we later saw adult plants of this giant fern near Balancing Rock), as were seedlings of *Hebe parviflora*, *Fuchsia excorticata*, *Calystegia tuguriorum* and *Wahlenbergia vernicosa*. The little creeping herb, *Australina pusilla*, had established here and there, and the rare *Rorippa divaricata* and *Picris angustifolia* were also present. The *Picris* was seen at several other sites in clearings on the bush edges.

Beside the slip and along the base of the summit rocks we found the fierce nettle (*Urtica ferox*) which is rare in Northland, bamboo grass (*Microlaena polynoda*), and on damp rocks, the filmy fern, *Trichomanes endlicherianum*. The puriri (*Vitex lucens*) and pohutukawa trees were ancient giants, laden with epiphytes, and there was much taraire (*Beilschmiedia tarairi*). We searched carefully under the taraire, hoping to find the orchid *Danhatchia australis*, but no little pinkish-brown spikes were seen.

There was another, smaller slip near the coast, and along this coast which was fringed with taupata (*Coprosma repens*) we noted the native cucumber (*Sicyos australis* agg.), *Hebe bollonsii*, *Crassula sieberiana*, *Einadia trigonos*, *E. triandra*, *Scandia rosifolia*, *Melicytus novae-zelandiae*, *Spergularia tasmanica*, tawapou (*Planchonella costata*) and *Asplenium haurakiense*. I was interested to see that *A. haurakiense* grew not only along the shore, but also along the exposed summit ridge with several other coastal plants, whereas *A. flaccidum* was the species growing epiphytically in the closed forest between.

An early start one morning gave us a full day to explore the summit ridge. Moving upwards from the camp the going was reasonably steep to start with, but soon became much steeper and we were pleased that the track was not wet and slippery. In the higher reaches the canopy was dominated by extremely

large trees of tawaroa (*Beilschmiedia tawaroa*), and there were also very tall rewarewa (*Knightia excelsa*). Abundant *Asplenium lamprophyllum* with some *A. oblongifolium* and large plants of *Polystichum wawranum* covered the ground. Massive clumps of perching asteliads were everywhere on rocks and trees; plentiful *Collospermum hastatum*, *Astelia banksii* more commonly nearer the shore, but still present on the ridge, and *Astelia solandri* which thankfully bore translucent fruit to establish its true identity. Pohutukawa was present from shoreline to summit, and other coastal species seen growing along the ridge were *Pseudopanax lessonii*, *Coprosma macrocarpa*, *Carex ochrosaccus*, *Senecio lautus*, *Tetragonia implexicoma*, coastal maire (*Nestegis apetala*), and *Pittosporum umbellatum*.

A brief respite from botanising occurred when a tuatara was chased and retrieved from its burrow and was much photographed before being released (Plate 1F). We then dropped downhill to a saddle, and it could be seen by the younger vegetation that this was an area that had been burned in the past, with tall kanuka (*Leptospermum ericoides*) dominating. These gently sloping north-facing valleys were where major pre-European cultivation had occurred. There was much discussion on the whereabouts of the only large kauri tree (*Agathis australis*) that had been recorded from Taranga, as the map indicated that it grew nearby. In the saddle the vegetation was shorter in stature and there were massed shrubby plants of the handsome *Hebe parviflora*, a species with narrow leaves and yellow petioles. These were young plants, as this hebe is one of the tallest in our flora. Later, on a walk to the automatic light, Tricia and I saw a tree that was 8 m tall. It had a double trunk, one with a dbh (diameter at breast height) of 28.5 cm, and one with a dbh of 20 cm. A few plants of *H. stricta* also grew on the saddle, as did *Alseuosmia quercifolia*, these with short thin trunks, a branching top and "oak-shaped" leaves. Short, round leaves suggested that the Kirk's daisy was *Brachyglottis kirkii* var. *kirkii*.

A stiff climb led us to our lunch stop at the peak named Baldy. We explored the south face and found *Libertia ixioides*, three filmy ferns, *Hymenophyllum demissum*, *H. sanguinolentum*, and *H. revolutum*, the orchid, *Earina mucronata* and three trees of coastal maire. A "garden" of renga lily in full flower added to that feeling of "island magic". The boys called out to come and see the mutton bird chick (a grey-faced petrel) that they had retrieved from a burrow, and then it was time to retrace our steps. Two nice surprises awaited us as we clambered downhill. The first was the sighting of some narrow green leaves and the odd white flower on a bare bank; this turned

out to be the small renga lily (*Arthropodium candidum*) (Plate 2A). The previous northern limit for this species was Great Barrier Island, so it was a new northern record and a new record for the Northland Ecological Region.

The second sighting was of the head of a healthy kauri tree emerging above the kanuka on the opposite slope. It didn't take much effort to reach the tree, which we estimated might have been c. 120 years old. When the two Lucys measured it in 1934 it was 18 m high and 50 cm dbh (Fig. 1). It now has a dbh of 75 cm so has grown well in the intervening 77 years (Fig. 2). The Lucys also found two kauri saplings, but these have not been seen by any subsequent explorers. They surmised that kauri once played an important part on the higher slopes, but in actual fact, apart from the larger islands of the Hauraki Gulf, there are few gymnosperms on the northern islands. There is one AK voucher of a single kahikatea (*Dacrycarpus dacrydioides*) tree on Taranga, lodged by M. Nydegger in 2007.



Fig. 1 (left). Kauri in 1934. (Photographer unknown.)
Fig. 2 (right) The same kauri in 2012.

On the ridge leading to the automated light on the western end of the island the vegetation appeared not to have been cleared. Many large old flowering cabbage trees (*Cordyline australis*) were full of epiphytes, a large specimen of coastal maire was present, as was an extremely old kowhai tree (*Sophora chathamica*). The dbh of this tree was 46.5 cm and the gnarled bark of the trunk was marked by the horizontal lines of kaka pecking. This was the first time I had noticed this phenomenon on any tree

apart from pohutukawa. In the past the kowhai on Taranga had been named *S. microphylla*, but all juveniles seen by us had a non-divaricating form, and the leaves had large, overlapping leaflets. *Asplenium oblongifolium* had taken over from *A. lamprophyllum* as the main ground cover on this west facing slope.

Around the helicopter pad used to service the light (Plate 2B) there were a number of naturalised plants, but none of them was invasive. At nearby Stead Bay the coastal banks were home to *Euphorbia glauca* (Plate 2C), *Linum monogynum* (Plate 2D), *Scandia rosifolia* and *Pimelea urvilleana*, while on the shoreline were lush plants of *Apium prostratum*.

The coastal milk tree (*Streblus banksii*) is one of the large-leaved trees found on the northern islands, and Lucy Moore once told me that this tree was a feature of Taranga, with juvenile leaves so lobed that they looked like hawthorn leaves; however, this was not our experience. Although we came across several small plants and one sapling, only one plant had a few leaves that were "fiddle-shaped". It has been suggested that kiore find the fruit of this tree very palatable (Atkinson, 1986), so maybe that is the cause of its scarcity, and in nearly 80 years perhaps it has become a lesser component of the island's flora. A couple of small plants had leaves that fell within the *S. heterophylla* range.

Weed teams regularly work on the island and have eradicated marijuana (*Cannabis sativa*), prickly hakea (*Hakea sericea*), brush wattle (*Paraserianthes lapantha*) and cineraria (*Pericallis × hybrida*). Work is still proceeding with Mexican daisy (*Erigeron karvinskianus*), moth plant (*Araujia hortorum*), Mexican devil (*Ageratina adenophora*) and mist plant (*A. riparia*) (Monica Valdes, pers. comm.).

Even botanists couldn't help being captivated by the wildlife on the island. The many kaka were quiet during the earlier part of the day when they were feeding, but by mid-afternoon they became very vocal, and often performed for us in the trees above our heads at the camp (Plate 2E). We also saw pigeons, tui, bellbirds, saddlebacks, pied tits, fantails, little blue penguins, a grey-faced petrel chick and kakariki, and heard little spotted kiwi (which have been released on the island), shining cuckoo, morepork, and noisy sea birds landing at night-time. We saw two tuatara, a few skinks darting across the track, and a yellow admiral butterfly attracted by the nettles. Katie Reynolds wrote of the rasping "wolf whistle" noise that the weta made during the night; we didn't hear this, but with the rats gone, hopefully the weta numbers will increase.

As our visit drew to an end and with the weather beginning to deteriorate, we reversed the landing procedure, and then sailed around to Wahine Bay to pick up a couple of ornithologists. This bay used to be called Old Woman Bay, and it is a matter of opinion whether the rock silhouette that gives the name is suggestive of a Maori wahine, or a woman with an old-fashioned bustle to her long gown (Plate 2F). With each transfer being undertaken in worsening weather, by the time we had landed the ornithologists on Mauitaha Island (one of the Chickens), the skipper had difficulty in keeping the boat off the rocks, and our young fellows came into their own in wet and windy conditions.

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Appendix: Vascular Plant Species List for Taranga (Hen) Island

* = exotic a = abundant c = common o = occasional l = local s = scarce ✓ = new record in 2011. Comments are from AE Wright's collections of 1977 (Wright 1978) and his unpublished vouchers of 1990/91, unless otherwise stated. Additional comments from 2011 visit by Tricia Aspin, Geoff Davidson and Maureen Young are shown in brackets.

Species	Comments from Wright (1978) and his vouchers of 1990/91. (2011 observations in brackets)	New in 2011 ✓	Voucher AK
LYCOPHYTES			
<i>Huperzia varia</i>	Clubmoss, o, growing from bases of epiphytic <i>Collospermum</i> . (Two seen on mid-ridge.)		142765
FERNS			
<i>Adiantum cunninghamii</i>	Maidenhair, o, in damp stream valleys in forest. (lc, on southern slopes).		142682
<i>Adiantum diaphanum</i>	o, on steep dry areas in coastal forest.		142753
<i>Adiantum fulvum</i>	c, in dry forest throughout. (o, on southern slopes).		142697
<i>Adiantum hispidulum</i>	Rosy maidenhair, c, in dry coastal areas and dry inland forest.		142711
<i>Adiantum viridescens</i>	lc, in mature coastal forest above Dragon's Mouth Cove.		142697
<i>Arthropteris tenella</i>	c, on rocks in dry valleys throughout.		142741
<i>Asplenium flaccidum</i>	c, epiphyte on rocks and trees, usually away from the coast.		142701
<i>Asplenium gracillimum</i>	s, finely-cut plants in coastal forest.		142740
<i>Asplenium haurakiense</i>	c, along coastline; usually terrestrial but occasionally epiphytic on <i>Metrosideros excelsa</i> . (Also c. in exposed areas on summit ridge).		142704
<i>Asplenium lamprophyllum</i>	a, in dry rocky forest throughout. The most abundant and striking fern on the island, often forming pure swards up to 10m across.		142752
<i>Asplenium oblongifolium</i>	Shiny spleenwort, a, throughout.		142692
<i>Asplenium polyodon</i>	c, in dry forest throughout; both epiphytic and terrestrial. (o).		142766
<i>Blechnum chambersii</i>	c, around streams and seasonal watercourses throughout.		142980
<i>Blechnum filiforme</i>	Thread fern, a, in dry forest; adult plants occasionally terrestrial.		142705
<i>Blechnum membranaceum</i>	o, at main stream at western end of Wahine Bay. Growing on rocks of waterfall in valley.		201202
<i>Blechnum novae-zelandiae</i>	Kiokio, s, occurring in scattered localities usually near rock outcrops.		142782
<i>Blechnum triangularifolium</i>	o, growing on seepage over clay bank behind beach, Wahine Bay, west end.		201189
<i>Blechnum vulcanicum</i>	s, one colony of c. 20 plants growing on stony soil beneath mature kanuka in a shallow, sheltered valley.		142771

	<i>Cardiomanes reniforme</i>	Kidney fern, c, on damp rocks around the Pinnacles; terrestrial on damp soil in central valleys on the northern side of the island.	142670
	<i>Cheilanthes distans</i>	Woolly cloak fern, c, in meadows on exposed rock outcrops around the Pinnacles, Moran's Lookout and Baldy. (Seen at the helicopter pad).	143349
	<i>Cheilanthes sieberi</i>	Rock fern, c, in crevices on rocky outcrops throughout.	142970
	<i>Cyathea dealbata</i>	Ponga, c, in dry valleys throughout. (o).	142700
	<i>Cyathea medullaris</i>	Mamaku, o, seedlings found in openings in damp valleys. (o, larger plants seen).	201179
	<i>Dicksonia squarrosa</i>	Wheki, s, around base of highest Pinnacles; terrestrial on damp soil, central valleys on north side of island.	142678
	<i>Doodia australis</i>	Rasp fern, c, in coastal areas, particularly beneath kanuka.	142699
	<i>Histiopteris incisa</i>	Water fern, s, in an open area below the highest Pinnacle. (o, on slips).	142767
	<i>Hymenophyllum demissum</i>	Filmy fern, a, on damp rocks around Pinnacles; c, in damp valleys throughout. (Only seen at base of Baldy).	142673
	<i>Hymenophyllum dilatatum</i>	c, on damp rocks around the Pinnacles; o, in damp valleys on the northern side of the island.	142984
	<i>Hymenophyllum flabellatum</i>	Listed by Cranwell & Moore as rare on exposed interior rocks. No specimen in AK, unconfirmed by others.	
	<i>Hymenophyllum rarum</i>	At the base of Baldy on south side. Growing in a tight mat on rock face with <i>Metrosideros perforata</i> , <i>Hymenophyllum revolutum</i> and <i>H. sanguinolentum</i> .	201246
	<i>Hymenophyllum revolutum</i>	c, on rock faces and lower tree trunks around the Pinnacles. (Only seen at base of Baldy).	142679
	<i>Hymenophyllum sanguinolentum</i>	o, growing below <i>Astelia</i> and <i>Collospermum</i> on rock outcrops on ridges.	142671
	<i>Hymenophyllum scabrum</i>	s, terrestrial beneath mature kanuka forest in wide valley between Taranga and the Pinnacles.	142775
72	<i>Hypolepis ambigua</i>	lc among small rocks on a rich alluvial soil terrace beneath low shrubbery of <i>Urtica ferox</i> , <i>Coprosma macrocarpa</i> and <i>Macropiper excelsum</i> at Pukanui Bay.	201137
	<i>Hypolepis dicksonioides</i>	s, growing on alluvial soil beside stream in Pukanui Bay. (a, many sporelings establishing on large fresh slip in forest above Pukanui Bay. Population of adult plants on trackside near Balancing Rock).	142703
	<i>Lastreopsis glabella</i>	Listed by Cranwell & Moore as occurring in climax forest. (s, on southern slopes).	114836
	<i>Lastreopsis microsora</i>	s, one large colony found in immature coastal forest. Creeping among rocks on a dry ridge.	142889
	<i>Lastreopsis velutina</i>	Velvet fern, o, in very dry, rocky coastal areas.	142735
	<i>Loxogramme dictyopteris</i>	a, on rock faces in forest throughout.	142942
	<i>Lygodium articulatum</i>	Mangemange, Very thick tangles scattered through dry, open coastal forest in lower areas.	142702
	<i>Microsorium pustulatum</i>	Hound's tongue, a, on coastal and inland trees and rocks.	142873
	<i>Microsorium scandens</i>	a, on rocks and trees in dry valleys throughout.	142694
	<i>Paesia scaberula</i>	Ring fern, several small colonies on open terrace margin in forest. (c, on large slip, also on summit ridge).	201099
	<i>Pellaea falcata</i>	Two colonies of c. 1m ² beneath 4m high kanuka forest. Between Stead Bay and Moran's Lookout.	201215
	<i>Pellaea rotundifolia</i>	s, in dry forest, particularly in flat areas on headlands. (Seen on bluff with automatic light).	142975
	<i>Pneumatopteris pennigera</i>	Gully fern, o, in dry valleys throughout.	142982
	<i>Polystichum wawranum</i>	a, in open coastal forest throughout; also very large plants growing along central ridge.	142706
	<i>Pteridium esculentum</i>	Bracken, c, in open areas throughout.	142769

<i>Pteris comans</i>	o, in open coastal forest and on coastal banks.	142751
<i>Pteris macilenta</i>	Collected by Cranwell & Moore.	115603
<i>Pteris saxatilis</i>	o, in dry, open coastal forest	142770
<i>Pteris tremula</i>	c, on dry, well-lit coastal banks. (c, on large slip).	142750
<i>Pyrrosia eleagnifolia</i>	a, throughout; epiphytic on trees and rocks.	142940
<i>Tmesipteris elongata</i>	s, in high areas, growing from the bases of epiphytic <i>Collospermum</i> . Up to 60 cm long, branching.	142772
<i>Tmesipteris lanceolata</i>	o, epiphytic on <i>Cyathea dealbata</i> in damp shady areas.	142731
<i>Tmesipteris tannensis</i>	c, in damp valleys in upper part of island; both terrestrial on rich soils and epiphytic on <i>Cyathea dealbata</i> .	142890
<i>Trichomanes elongatum</i>	Bristle fern, s, very small, juvenile plants in one deeply incised valley in centre of northern side of the island.	142672
<i>Trichomanes endlicherianum</i>	c, on shaded clay banks of deeply incised valley in the centre of the northern side of the island.	142680

GYMNOSPERMS

<i>Agathis australis</i>	Kauri, s, one mature specimen located. Despite searching, the two younger trees recorded by Cranwell & Moore (1935) were not found. In 1935 the single tree was c. 18m tall, DBH of 50cm. (DBH in 2011, 75cm).	142744
<i>Dacrycarpus dacrydioides</i>	Kahikatea, on main ridge track, one tree only, 12m tall, 25cm DBH. Emergent over primary kanuka forest. New record for the island, Mara Nydegger (2007).	299272

DICOTYLEDONS

<i>Ageratina adenophora</i> *	Mexican devil, targeted by weeders (Monica Valdes, pers. comm.).	
<i>Ageratina riparia</i> *	Mist flower, targeted by weeders (Monica Valdes, pers. comm.).	
<i>Alectryon excelsa</i>	Titoki, o, in mature coastal forest. (Seedlings rare).	142943
<i>Alseuosmia quercifolia</i>	s, small straggling shrubs (to 1.5m tall) in dry forest north of Taranga and Baldy. (Shrubs with single trunk and branching apex. Leaves like "oak-foliage", widest in farthest third).	142803
<i>Alternanthera philoxeroides</i> *	Alligator weed, Wahine Bay, west end. Growing among mud & boulders on seepage flat, mouth of stream.	655799
<i>Anagallis arvensis</i> var. <i>arvensis</i> *	Scarlet pimpernel, c, on coastal screes and exposed inland rock outcrops.	142806
<i>Apium prostratum</i>	NZ celery, a, on coastal rocks, banks and screes.	142747
<i>Araujia hortorum</i> *	Moth plant, targeted by weeders (Monica Valdes, pers. comm.).	
<i>Aster subulatus</i> *	Sea aster, s, growing on soil scree slope on coastal slips, Lighthouse Bay.	201150
<i>Atriplex prostrata</i> *	(Two plants seen, on strand at Stead Bay).	✓ 329876
<i>Australina pusilla</i>	c, herb on forest floor in dry coastal areas. (Also c, on large slip).	142748
<i>Beilschmiedia tarairi</i>	Taraire, c, canopy tree in shallow valleys throughout. Often pure dominant with trees to 14m tall.	142657
<i>Beilschmiedia tawaroa</i>	Tawaroa, o, in taraire forest, lc as spreading specimen trees on central ridges. Notable for large leaf sizes (up to 150mm by 60mm).	142757

<i>Bidens pilosa*</i>	Cobbler's pegs, o, on grassy coastal cliffs on the northern side of the island; la on top of large rock outcrops in coastal forest. (One at camp site, Dragon's Mouth Cove).	142733
<i>Brachyglottis kirkii</i> var. <i>kirkii</i>	Kirk's daisy, o, in coastal forest, la on ridges and around interior rock outcrops.	142865
<i>Brachyglottis repanda</i>	Rangiora, o, in lower areas throughout. (c on ridge).	142867
<i>Brassica oleracea*</i>	Wild cabbage, listed by Cranwell & Moore (1935) as frequent in coastal rock and scrub.	63211
<i>Cakile maritima*</i>	Sea rocket, growing amongst mud and boulders on seepage flat at mouth of stream, west end of Wahine Bay.	201187
<i>Callitriche muelleri</i>	c, on steep, damp rock faces on waterfalls on stream running into Great North Bay. (o)	201238
<i>Calystegia sepium</i> ssp. <i>roseata</i>	Bindweed, a, in coastal and kanuka scrub.	142709
<i>Calystegia soldanella</i>	l, growing on soil scree slope on coastal cliffs, Lighthouse Bay.	201147
<i>Calystegia tuguriorum</i>	lc, at tops of boulder beaches, e.g. Pukanui Bay. (Also on ridges and slips).	142688
<i>Cardamine debilis</i>	NZ bitter cress, lc, in exposed, well-lit inland areas.	142807
<i>Carduus tenuiflorus*</i>	Winged thistle, o, on coastal screes. AK 89670 collected by Cranwell & Moore is a poor specimen that can't be confidently determined as <i>C. pycnocephalus</i> .	142849
<i>Carmichaelia australis</i>	NZ broom, o, in coastal scrub and kanuka forest.	142895
<i>Centaureum erythraea*</i>	Centaury, c, in rock crevices around the base of coastal cliffs.	201127
<i>Cerastium glomeratum*</i>	Mouse-ear chickweed, c, on coastal screes; more common on interior rock outcrops.	142722
<i>Cirsium vulgare*</i>	Scotch thistle, c, around the coast. (Also common on slips)	142690
<i>Clematis cunninghamii</i>	a, on ridges and in coastal forest throughout.	142983
<i>Clematis paniculata</i>	lc, in kanuka forest; s, in mature coastal forest.	142749
<i>Conyza bonariensis*</i>	Wavy-leaved fleabane, (o, on slips).	✓ 329874
<i>Conyza sumatrensis*</i>	Fleabane, c, to la, in coastal areas. (Dominant on slips).	142710
<i>Coprosma areolata</i>	s, between Pinnacles and Taranga. (2 or 3 seen on summit ridge).	163200
<i>Coprosma grandifolia</i>	Kanono, a, in coastal forest throughout.	142833
<i>Coprosma lucida</i>	Shiny karamu, o, in kanuka and coastal forest. (Also on summit ridge).	142870
<i>Coprosma macrocarpa</i> ssp. <i>minor</i>	a, especially in coastal forest. (Also on summit ridge).	142879
<i>Coprosma repens</i>	Taupata, c, on rocks above high water.	142857
<i>Coprosma rhamnoides</i>	la, in dry forest.	142685
<i>Coprosma robusta</i>	Karamu, listed by Cranwell & Moore as o, in all communities. (All plants seen 2011 were <i>C. macrocarpa</i>).	37340
<i>Coriaria arborea</i>	Tutu, la, on coastal banks and screes e.g. Wahine Bay.	142785
<i>Corynocarpus laevigatus</i>	Karaka, c, in coastal forest, particularly on flat areas near the sea.	142872
<i>Crassula colligata</i>	(A single plant seen on the large slip above Pukanui Bay, c. 15cm tall.)	✓ 329884
<i>Crassula sieberiana</i>	l, in rock crevices on rock outcrops.	142829
<i>Crepis capillaris*</i>	Hawksbeard, c, around coast and on interior rock outcrops.	142713
<i>Daucus carota*</i>	la, growing in disturbed soil and gravel around helicopter landing pad.	201168

	<i>Daucus glochidiatus</i>	NZ carrot, a, in herbfield on top of large rock outcrops along ridges throughout.		142893
	<i>Dichondra repens</i>	Mercury Bay weed, a, in lower coastal forests.		142691
	<i>Disphyma australe</i>	NZ ice plant, a, on coastal rocks throughout.		142864
	<i>Dodonaea viscosa</i>	Akeake, lc, in coastal kanuka forest and coastal scrub.		142730
	<i>Drosera auriculata</i>	Sundew, a, in well-lit kanuka forest throughout. Compact, fleshy forms found growing in mosses on Baldy.		142732
	<i>Dysoxylum spectabile</i>	Kohekohe, a, important and common constituent of mature and developing coastal forest throughout. One of the first forest species to appear in kanuka regeneration.		142860
	<i>Einadia triandra</i>	c, on extreme coastal soils and in humus-filled rock crevices.		142725
	<i>Einadia trigonos</i>	c, on soil at base of coastal rock faces.		201208
	<i>Elaeocarpus dentatus</i>	Hinau, AT Pycroft, April 1933, no comments.		102660
	<i>Entelea arborescens</i>	Whau, la, in open, well-lit coastal areas, e.g. around campsite at Dragon's Mouth Cove. (Thousands of seedlings on slips).		142969
	<i>Epilobium billardioreanum</i> ssp. <i>cinereum</i>	o, growing on soil scree slope on coastal cliffs, Lighthouse Bay.		201156
	<i>Epilobium rotundifolium</i>	Willow herb, lc, on steep, damp rock faces.		201201
	<i>Erechtites valerianifolia</i> *	Brazilian fireweed, (o, on slips and on the summit ridge).	✓	329872
	<i>Erigeron karvinskianus</i> *	Mexican daisy, targeted by weeders (Monica Valdes, pers. comm.).		
	<i>Euchiton collinus</i>	Creeping cudweed, a, in kanuka forest and open spaces throughout.		142848
	<i>Euchiton involucratus</i>	o, growing amongst mud and boulders on seepage flat at mouth of stream, Wahine Bay, west end.		201195
75	<i>Euchiton sphaericus</i>	Japanese cudweed, c, on coastal banks and screes.		142846
	<i>Euphorbia glauca</i>	la, on damp coastal screes and soil accumulations on coastal cliffs. (Stead Bay)		142831
	<i>Euphorbia peplus</i> *	Milkweed, c, on top of a small number of sheltered inland rock outcrops.		142878
	<i>Fuchsia excorticata</i>	Kotukutuku, tree fuchsia, o, shrub or tree around rocks in higher areas. (Seedlings c, on slips.)		142981
	<i>Galium divaricatum</i> *	Slender bedstraw, (s, by concrete pad at base of automatic light).	✓	329882
	<i>Galium propinquum</i>	l, between Lighthouse and Stead Bay.		201211
	<i>Gamochaeta calviceps</i> *	s, on large slip above Pukanui Bay.	✓	329885
	<i>Gamochaeta coarctata</i> *	Purple cudweed, c, on coastal banks and screes and exposed interior rock outcrops.		142847
	<i>Gamochaeta purpurea</i> *	s, growing on the base of fallen <i>Collospermum</i> in openings in coastal forest.		142839
	<i>Gamochaeta simplicicaulis</i> *	o, growing amongst mud and boulders, seepage flat at mouth of stream, Wahine Bay, west end. (o, on slips)		201194
	<i>Geniostoma ligustrifolium</i>	Hangehange, a, in kanuka forest and coastal forest throughout.		142754
	<i>Geranium solanderi</i>	o-c, on the bigger inland rock outcrops. (Growing around helicopter pad).		142818
	<i>Gonocarpus incanus</i>	s, beneath low scrub on Baldy. AK100933 collected by Cranwell & Moore, 1934, is this species, not <i>G. cf. montanus</i> .		142971
	<i>Griselinia lucida</i>	One only, epiphytic in mature coastal forest above Dragon's Mouth Cove. (Two seen from summit ridge).		142780
	<i>Haloragis erecta</i>	a, on coastal screes throughout.		142783
	<i>Hebe bollonsii</i>	a, in coastal scrub, common in coastal forest throughout.		142819

<i>Hebe parviflora</i>	c, shrub or tree in all major habitats. (Very c. as a shrub on summit ridge, where cover burned in the past).	142626
<i>Hebe stricta</i> var. <i>stricta</i>	Koromiko, one only. (Several plants on saddle on summit ridge where cover has been burned in the past).	201243
<i>Hedycarya arborea</i>	Pigeonwood, o, in coastal forest and over-mature kanuka forest.	142695
<i>Helminthotheca echioides</i> *	Oxtongue, la, on coastal screes.	201151
<i>Hoheria populnea</i>	Houhere, lacebark, o, shrub in coastal forest and kanuka forest. (Widespread).	142659
<i>Hydrocotyle elongata</i>	a, in forest and scrub.	142841
<i>Hydrocotyle heteromeria</i>	s, forming dense cushions in rock crevices, coastal forest. (o, on summit ridge).	142843
<i>Hypochaeris radicata</i> *	Catsear, a, around coastline and on interior rock outcrops.	142804
<i>Jacobaea vulgaris</i> *	Ragwort, s, growing amongst mud and boulders on seepage flat at mouth of stream, west end of Wahine Bay.	201192
<i>Knightia excelsa</i>	Rewarewa, o, to c, in kanuka. s, in coastal forest. (Some huge trees near track by Balancing Rock).	142987
<i>Kunzea ericoides</i>	Kanuka, c, over large areas at eastern end and on the northern side of the island. Extremely large, senescent trees up to 16m tall and 60cm DBH are scattered along the central ridge between the Pinnacles and Baldy.	142693
<i>Lactuca saligna</i> *	s, growing on soil scree slope on coastal cliffs, Lighthouse Bay. (One plant found by DOC weeders).	201153
<i>Laurelia novae-zelandiae</i>	Pukatea, one old tree, trunk nearly 1m through above buttresses, by main stream western end of Wahine Bay.	201204
<i>Leontodon taraxacoides</i> *	Hawkbit, Pukanui Bay, growing on soil accumulation on side of large rock outcrop at top of boulder beach.	201244
<i>Lepidium oleraceum</i>	Cook's scurvy grass, Cheeseman specimen in AK (Taranga Isles). Listed by Cranwell & Moore as l. in coastal rock and scrub.	4469
<i>Leptospermum scoparium</i>	Manuka, listed by Cranwell & Moore as o. on interior rocks and o-la, in kanuka forest. They state that "in a few small areas the growth of manuka rather than kanuka has recently been favoured by burning" (1935). Two trees seen by AEW (1990) between Stead Bay and Moran's Lookout, in small canopy gap in 4m kanuka forest. Being shaded out.	201213
<i>Leucanthemum vulgare</i> *	Ox-eye daisy, lc, at automatic light. Growing in disturbed soil and gravel around helicopter pad.	201171
<i>Leucopogon fasciculatus</i>	Mingimingi, listed by Cranwell & Moore as o, in kanuka forest. AE Wright (1990), head of valley between Pinnacles and Taranga, single 2.5 m high straggling shrub seen beneath 15m high kanuka forest near kauri tree. (Not seen, 2011).	201242
<i>Leucopogon fraseri</i>	Patotara, la, on steep grassy slopes above the north-western tip of the island. (Also at Stead Bay).	142724
<i>Linum monogynum</i>	Rauhuia, la, on damp coastal rocks, e.g. northern end of Wilson Bay. (Also at Stead Bay).	142832
<i>Lobelia anceps</i>	Shore lobelia, a, in coastal rocks and scrub.	142812
<i>Lophomyrtus bullata</i>	Ramarama, one only, south side of Taranga Peak, small tree. RE Beever (1990).	200248
<i>Lotus angustissimus</i> *	Growing in disturbed soil and gravel around helicopter pad near automatic light.	201232
<i>Lotus suaveolens</i> *	Growing in disturbed soil and gravel around helicopter pad near automatic light.	201170
<i>Macropiper excelsum</i>	Kawakawa, c, throughout; particularly a, in coastal forest.	142683
<i>Melicope ternata</i>	Wharangi, la, in coastal scrub; o, in coastal and kanuka forest.	142737
<i>Melicytus novae-zelandiae</i>	Coastal mahoe, c, overhanging beaches on the coast.	142719
<i>Melicytus ramiflorus</i>	Mahoe, c, canopy tree in scrub and sub-canopy shrub in forest.	142868

	<i>Meryta sinclairii</i>	Pukanui, la, in coastal forest throughout, although rarely more than 100m from the sea. The largest grove seen was around the stream at the western end of Wahine Cove.	142815
	<i>Metrosideros carminea</i>	Carmine rata, listed by Cranwell & Moore (as <i>M. diffusa</i>) as o. on rock in climax coastal forest; juvenile.	102225
	<i>Metrosideros diffusa</i>	la, at the tallest Pinnacle, on bases of vertical rock faces.	201250
	<i>Metrosideros excelsa</i>	Pohutukawa, a, coastal tree throughout; o. groves slightly inland. (Many on interior rock outcrops).	142707
	<i>Metrosideros fulgens</i>	a, locally dominant on windswept ridges around Taranga.	142811
	<i>Metrosideros perforata</i>	c, closely appressed on rock faces around the Pinnacles.	142729
	<i>Muehlenbeckia australis</i>	One only, AEW (1990). (At least two plants seen on summit ridge, near Balancing Rock).	201164
	<i>Muehlenbeckia complexa</i>	Wire vine, a, on coastal rocks and immediately behind beaches.	142684
	<i>Myoporum laetum</i>	Ngaio, o, in extreme coastal scrub, e.g. above beach in Wilson Bay.	142862
	<i>Myrsine australis</i>	Mapau, mapou, c, in coastal forest.	142985
	<i>Myrsine salicina</i>	Toro, listed by Cranwell & Moore as occurring in kanuka forest, "one seen on Taranga, girth 64.5 cm". No specimen in AK and unconfirmed by others.	
	<i>Nestegis apetala</i>	Coastal maire, lc, shrub and small tree in coastal forest throughout. (Adults at Baldy and in valley above Stead Bay).	142836
	<i>Nestegis lanceolata</i>	White maire, single 4m tree in rocky forest dominated by 4m kanuka, between Stead Bay and Moran's Lookout. (Two seedlings, one at Baldy, one at Pukanui Bay).	201216
	<i>Olearia albida</i>	Tree daisy, single tree with bushy head in 4m high kanuka forest, between Stead Bay and Moran's Lookout.	201214
	<i>Olearia furfuracea</i>	Akepiro, o, in forest and scrub throughout. (Mid ridge).	142663
77	<i>Orobanche minor</i> *	Broomrape, on open eroding soil bank behind beach at Dragon's Mouth Cove. (Several plants seen on ridge above coast, east of Dragon's Mouth Cove camp).	201122
	<i>Oxalis corniculata</i> *	Horned oxalis, a, on dry coastal soils.	142734
	<i>Oxalis exilis</i>	Creeping oxalis, collected by Cranwell & Moore. (Seen at automatic light).	100916
	<i>Oxalis rubens</i>	lc, on dry coastal soils, particularly in Dragon's Mouth Cove.	100912
	<i>Parietaria debilis</i>	a, straggling herb in any extreme coastal soil accumulations.	142726
	<i>Parsonsia capsularis</i>	Above Dragon's Mouth Cove in mature coastal forest. (Many vines were seen, but the only two in flower were this species, December 2011).	142827
	<i>Parsonsia heterophylla</i>	NZ jasmine, kaihua, collected by AT Pycroft (1933) with no comments.	106145
	<i>Passiflora tetrandra</i>	Kohia, la, climbing over shrubbery on seaward side of automatic light.	201167
	<i>Pelargonium inodorum</i>	o, on larger inland rock outcrops. (o, near coast).	142809
	<i>Peperomia urvilleana</i>	c, on rocks and boulders throughout.	142863
	<i>Physalis peruviana</i> *	Cape gooseberry, o, plants in forest and scrub openings.	142658
	<i>Phytolacca octandra</i> *	Inkweed, c, weed in extreme coastal scrub and forest openings.	142801
	<i>Picris angustifolia</i>	Collected by Cranwell & Moore (1934) with no comments. (lc, on clearings at edge of forest).	35262
	<i>Picris burbridgeae</i>	a, in grassland around automatic light above Lighthouse Bay. Not seen elsewhere.	142837
	<i>Pimelea urvilleana</i>	l, on exposed rocks near the coast; e.g. on the rocky bluffs at the north-western tip of the island.	142880

<i>Pisonia brunoniana</i>	Parapara, la, in fertile valleys near the coast; often forming pure stands that exclude all ground cover due to poor light penetration. (Also a few trees in higher reaches).	142877
<i>Pittosporum cornifolium</i>	Collected by Cranwell & Moore without comment. One only seen by AE Wright; a large old shrub growing on a prominent rock outcrop, on ridge from Pinnacles down to Pukanui Bay.	201207
<i>Pittosporum crassifolium</i>	Karo, la, above boulder beaches, particularly on northern beaches.	142881
<i>Pittosporum umbellatum</i>	c, shrub and small tree on lower ridges and around rock outcrops.	142828
<i>Planchonella costata</i>	Tawapou, c, to frequent tree in lower coastal forest.	142830
<i>Plantago lanceolata*</i>	Plantain, lc, in disturbed soil and gravel around helicopter landing pad at the automatic light.	201172
<i>Plantago major*</i>	Broad-leaved plantain, s, one or two plants seen growing in amongst boulders on upper beach, Reischek Bay.	142791
<i>Polycarpon tetraphyllum*</i>	Allseed, o, weed on coastal screes; more common on interior rock outcrops.	142850
<i>Pomaderris amoena</i>	Tauhinu, c, in scrub on exposed inland rock outcrops. (At automatic light).	142715
<i>Pseudognaphalium luteo-album</i>	Jersey cudweed, a, in open areas. (c, on slips).	142855
<i>Pseudopanax arboreus</i>	Five finger, o, in coastal forest throughout; la, in kanuka forest.	142686
<i>Pseudopanax lessonii</i>	Houpara, c, in coastal scrub and extreme coastal forest communities.	142854
<i>Ranunculus reflexus</i>	Listed by Cranwell & Moore as o, in coastal forest.	99955
<i>Rhabdothamnus solandri</i>	Taurepo, a, in dry coastal forest throughout.	142755
<i>Rorippa divaricata</i>	o, on stream banks or dry watercourses in low scrub. (o, on slips).	143365
<i>Rubus cissoides</i>	Bush lawyer, la, in upper areas particularly around the Pinnacles where extremely lush tangles are found.	142738
<i>Sagina apetala*</i>	Pearlwort, c, in crevices in coastal rocks.	142662
<i>Samolus repens</i>	lc, in coastal rock crevices.	142887
<i>Sarcocornia quinqueflora</i>	Glasswort, o, on coastal rocks and cliffs.	142884
<i>Scandia rosifolia</i>	c, la, beneath coastal scrub and on coastal screes.	142708
<i>Schefflera digitata</i>	Pate, o, in coastal forest throughout.	142986
<i>Senecio bipinnatisectus*</i>	Australian fireweed, o, in coastal screes. (Scattered, mainly on slips).	142689
<i>Senecio diaschides*</i>	Growing on open eroding soil bank behind beach.	201119
<i>Senecio elegans*</i>	Purple groundsel, targeted by weeders (Monica Valdes, pers. comm.).	
<i>Senecio esleri</i>	Hairy legs fireweed, (s, on large slip above Pukanui Bay).	✓ 329875
<i>Senecio glomeratus</i>	a, on rock outcrops along central ridges.	142665
<i>Senecio hispidulus</i>	Fireweed, stunted meadow community in rock crevices.	142666
<i>Senecio lautus</i>	Shore groundsel, c, on rocks above HTM and exposed interior rock outcrops.	142892
<i>Senecio minimus</i>	Growing on soil bank at back of boulder beach, west end, Wahine Bay. (s, on summit ridge).	201185
<i>Senecio quadridentatus</i>	Cotton fireweed, a, on interior rock outcrops, particularly on exposed ridges.	142668
<i>Senecio scaberulus</i>	Vouchered by Cranwell & Moore; no comments.	32106
<i>Senecio sylvaticus*</i>	Wood groundsel, lc, on exposed soil crevices on open, north-facing rock faces.	201112

<i>Sicyos mawhai</i>	Mawhai, la, scrambling over all other vegetation immediately behind boulder beaches, e.g. Pukanui Bay.	142967
<i>Silene gallica*</i>	Catchfly, c, on interior rock outcrops and coastal screes.	142814
<i>Solanum aviculare</i> var. <i>aviculare</i>	Poroporo, c, in forest openings in higher areas, particularly around the Pinnacles. (c. on large slips).	142865
<i>Solanum aviculare</i> var. <i>albiflorum</i>	North coast, mouth of stream in Great North Bay, a 1.5m. spreading shrub at back of boulder beach. Flowers pure white. (More c. than var. <i>aviculare</i> on large slips).	201235
<i>Solanum nigrum*</i>	Black nightshade, mentioned by CB Trevarthen in Tane 6 but no vouchered specimen. (o, on slips).	✓ 329871
<i>Solanum nodiflorum</i>	Nightshade, a, in forest near the coast, particularly where avian burrows are dense. (One of the most dominant plants on large slips).	142805
<i>Sonchus asper*</i>	Prickly sow thistle, listed by Cranwell & Moore as occasional in coastal rock and scrub. (On slips).	90889
<i>Sonchus oleraceus*</i>	Sow thistle, puha, c, in open or disturbed areas throughout. (On slips).	142813
<i>Sophora chathamica</i>	Kowhai, la, in coastal scrub and kanuka forest, particularly at eastern end of the island; as <i>S. microphylla</i> . (All trees seen Dec. 2011, <i>S. chathamica</i> , with non-divaricating juvenile, and large, overlapping leaflets).	142723
<i>Spergularia tasmanica</i>	Sea spurrey, o, in rock crevices immediately above HTM	142675
<i>Stellaria media*</i>	Chickweed, a, weed on coastal screes.	142718
<i>Stellaria parviflora</i>	c, on floor of dry, well-lit coastal forest and hanging from rock crevices.	142674
<i>Streblus banksii</i>	Large-leafed milk tree, lc, in coastal forest, especially in flat areas. Juvenile-leaved shrubs very common in kanuka forest in higher areas. (Small plants most often without lobed leaves. Few large plants seen).	142714
<i>Streblus heterophyllus</i>	Milk tree, s, shrubs in kanuka/coastal forest. (Two small plants seen).	142745
79 <i>Tetragonia implexicoma</i>	NZ spinach, a, on coastal rocks and in coastal forest throughout. (Also c, near Balancing Rock).	142853
<i>Trifolium dubium*</i>	Suckling clover, growing on scree slope on coastal cliffs.	201154
<i>Trifolium glomeratum*</i>	Clustered clover, lc, on open, scorched soil slopes amongst sparse 2m. high kanuka, between Stead Bay and Old Man Rock.	201178
<i>Trifolium striatum*</i>	Striated clover, automatic light, in disturbed soil and gravel around helicopter pad.	201169
<i>Urtica ferox</i>	Ongaonga, tree nettle, la, shrub on coastal flats and in elevated flat areas around the Pinnacles. (On edges of ephemeral streams).	142712
<i>Vicia sativa*</i>	Vetch, at the automatic light, in disturbed soil and gravel around helicopter pad.	201173
<i>Vitex lucens</i>	Puriri, c, large trees in mature coastal forest.	142696
<i>Wahlenbergia vernicosa</i>	Coastal harebell, a, on exposed coastal and interior rocks. (Growing on slips).	142871

MONOCOTYLEDONS

<i>Acianthus sinclairii</i>	la, in kanuka forest throughout.	142717
79 <i>Aira caryophyllea*</i>	Silvery hair grass, listed by Cranwell & Moore as a, on exposed coastal and interior rocks.	98172
<i>Anthosachne multiflora</i>	Blue wheat grass, o, soil accumulation in rock crevices, base of coastal cliffs. (Seen near the automatic light).	201128
<i>Anthoxanthum odoratum*</i>	Sweet vernal, growing in disturbed soil and gravel around helicopter pad at automatic light.	201174

<i>Arthropodium candidum</i>	(s, >30 plants growing on a steep, otherwise denuded bank beside the track between the Pinnacles and Taranga. A new northern record).	✓	329870
<i>Arthropodium cirratum</i>	Renga lily, a, in rock crevices, both coastal and inland.		142869
<i>Astelia banksii</i>	a, on coastal and inland rock outcrops.		142852
<i>Astelia banksii</i> × <i>solandri</i>	Collected by Cranwell & Moore, Nov. 1933, as <i>A. banksii</i> . Later determined by RO Gardner.		108265
<i>Astelia fragrans</i>	o, along track on slopes to Taranga Peak. Only old fructescences seen. Costae pinkish on some specimens (RE Beever, 1991).		200242
<i>Astelia solandri</i>	a, in kanuka forest, common on inland rock outcrops.		142742
<i>Austroderia splendens</i>	Coastal toetoe, o, clumps in coastal scrub and on rocky bluffs.		142825
<i>Avena barbata</i> *	Slender oat grass, at Lighthouse Bay, on soil scree slopes on coastal cliffs.		201159
<i>Axonopus fissifolius</i> *	Narrow-leaved carpet grass, Dragon's Mouth Cove campsite, one small colony.		201096
<i>Baumea tenax</i>	A single colony under regenerating 5m. high kanuka scrub on main ridge track west of Taranga.		201231
<i>Bolboschoenus</i> ? <i>fluviatilis</i>	At the west end of Wahine Bay, growing amongst mud and boulders on seepage flat at mouth of stream.		201196
<i>Briza minor</i> *	Shivery grass, s, at Lighthouse Bay on a grassy slip face below light.		201209
<i>Bromus arenarius</i>	Sand brome, s, in rock crevices of cliffs at extreme west end of Wahine Bay.		201200
<i>Bromus diandrus</i> *	Ripgut brome, growing on a large conglomerate outcrop on lower beach of Pukanui Bay		201143
<i>Bromus hordeaceus</i> *	Soft brome, growing on soil scree slopes on coastal cliffs at Lighthouse Bay.		201149
<i>Caladenia</i> sp.	s, in a stunted meadow community in rock crevices on top of Baldy.		142777
g <i>Carex breviculmis</i>	s, growing on a large rock in the centre of the beach at Dragon's Mouth Cove.		142838
<i>Carex dissita</i>	lc, beneath scrub and flax on banks of stream course into Stead Bay.		201176
<i>Carex flagellifera</i>	Growing on seepage over clay bank behind beach, west end of Wahine Bay.		201188
<i>Carex lambertiana</i>	(o, on main ridge by Balancing Rock, and on ridge above Stead Bay).	✓	329877
<i>Carex solandri</i>	(c, around campsite at Dragon's Mouth Cove. lc, elsewhere).	✓	329878
<i>Carex spinirostris</i>	c, in coastal forest. (c, along main ridge).		201157
<i>Carex testacea</i>	Growing in rock crevices in light scrub on tallest Pinnacle.		201222
<i>Carex virgata</i>	Stead Bay.		201162
<i>CollospERMUM hastatum</i>	a, in forest and scrub throughout; epiphytic and rupestral.		142861
<i>Cordyline australis</i>	Cabbage tree, la, throughout. Many exceptionally large specimens can be found towering over senescent kanuka on central ridges.		142874
<i>Cordyline banksii</i>	Ti ngahere, s, in kanuka forest. One mature specimen seen above Dragon's Mouth Cove with DBH of 20 cm.		142661
<i>Cordyline australis</i> × <i>banksii</i>	At Stead Bay on true right branch of main stream (RE Beever, Jan. 1991). Hybrid nature based on general appearance.		202050
<i>Cordyline pumilio</i>	Dwarf cabbage tree, collected by RM Bellingham (Dec. 1983), no comment.		165231
<i>Cortaderia selloana</i> *	Pampas, o, on cliffs and beach edges, now targeted by weeders. (Many seedlings growing on the large slip).		142822
<i>Cyperus ustulatus</i>	Umbrella sedge, c, on coastal screes and in extreme coastal scrub.		142823

<i>Dactylis glomerata*</i>	Coxfoot, c, on coastal and exposed interior rock outcrops.	142721
<i>Deyeuxia avenoides</i>	Scattered plants on open ground at the base of bluffs and in rock crevices.	201217
<i>Dianella latissima</i>	Blueberry, lc, in open regenerating forest. (Along main ridge).	142886
<i>Dichelachne crinita</i>	Plume grass, c, on coastal rocks and screes.	142687
<i>Drymoanthus adversus</i>	o, epiphyte on coastal trees. Voucher 201116 on branches of exposed pohutukawa on knoll on ridge.	201116
<i>Earina autumnalis</i>	Autumn orchid, lc, both epiphytic and rupestral around the Pinnacles.	142736
<i>Earina mucronata</i>	Spring orchid, c, in coastal forest (On Baldy).	142756
<i>Echinopogon ovatus</i>	Hedgehog grass, c, in crevices around open bases of bluffs.	201205
<i>Ficinia nodosa</i>	Knobby clubrush, c, on extreme coastal banks.	142990
<i>Gahnia lacera</i>	c, around streams in coastal forest.	142784
<i>Gahnia pauciflora</i>	On main ridge near Baldy (RM Bellingham, Jul. 1984).	273417
<i>Gahnia setifolia</i>	Cutty grass, o, clumps in kanuka near the large kauri tree. (o, on main ridge).	142774
<i>Holcus lanatus*</i>	Yorkshire fog, growing on scree soil slopes on coastal cliffs at Lighthouse Bay.	201152
<i>Ichthyostomum pygmaeum</i>	Collected by RM Bellingham, Dec. 1983, with no comments. (On Baldy).	165234
<i>Isolepis cernua</i>	a, in coastal rock crevices.	142834
<i>Juncus pauciflorus</i>	Growing on seepage over clay bank behind beach, west end, Wahine Bay.	201199
<i>Juncus usitatus</i>	One colony in exposed rock crevice on waterfall on stream running into Great North Bay.	201239
<i>Lachnagrostis billardierei</i>	Sand wind grass, 110211 collected by Cranwell & Moore, Nov. 1933, with no comments. (Seen on coast and on slips).	110211
<i>Lachnagrostis filliformis</i>	NZ wind grass, growing in rock crevices on coastal margins.	201234
<i>Lachnagrostis littoralis</i>	Coastal cliff wind grass, o, in soil accumulations in rock crevices at base of coastal cliffs.	201247
<i>Lagurus ovatus*</i>	Hare's tail, a few plants growing in gravel around the edge of the helicopter pad.	✓ 329879
<i>Lepidosperma laterale</i>	Sword sedge, collected by Cranwell & Moore, Nov. 1934, with no comments.	109580
<i>Libertia ixioides</i>	One small colony amongst low open scrub at the base of Baldy on south side.	201230
<i>Luzula picta</i>	Wood rush, a few colonies in rock crevices around the margins of the tallest Pinnacle.	201218
<i>Microlaena avenacea</i>	Bush rice grass, c, around tallest Pinnacle, not seen elsewhere on island.	201221
<i>Microlaena polynoda</i>	Bamboo grass, a, on ridges in coastal and kanuka forest. (A large colony at base of bluffs on south side of Pinnacles).	142758
<i>Microlaena stipoides</i>	Meadow rice grass, at the Dragon's Mouth Cove campsite.	201097
<i>Microtis unifolia</i>	c, in low turf on top of exposed inland rock outcrops.	142778
<i>Morelotia affinis</i>	lc, on exposed rocky ground on summit of tallest Pinnacle.	201219
<i>Oplismenus hirtellus</i>	Bush panic grass, c, in coastal and kanuka forest throughout.	142891
<i>Paspalum dilatatum*</i>	Paspalum, l, on coastal cliffs, and growing in disturbed soil and gravel around helicopter pad.	201175
<i>Phalaris minor*</i>	Lesser canary grass, growing on soil scree slopes on coastal cliffs.	201155
<i>Phormium tenax</i>	Harakeke, flax, c, on exposed inland and coastal rock outcrops; la, in kanuka forest.	142681

	<i>Poa anceps</i>	c, on coastal cliffs and screes.	142786
	<i>Poa annua</i> *	l, on coastal rocks.	142875
	<i>Poa imbecilla</i>	a, on exposed coastal and interior rocks.	142944
	<i>Pterostylis alobula</i>	la, in kanuka forest.	142716
	<i>Pterostylis banksii</i>	Tutukiwi, greenhood orchid, la, in kanuka forest. (On ridge above Stead Bay).	142808
	<i>Pterostylis trullifolia</i>	Collected by Cranwell & Moore, Dec. 1934, on a shaded rock face on main ridge.	108538
	<i>Rhopalostylis sapida</i>	Nikau, la, in coastal and more mature kanuka forest.	142743
	<i>Ripogonum scandens</i>	Supplejack, extensive colonies in more mature forest throughout, particularly a. on sides of damp valleys.	142866
	<i>Rytidosperma racemosum</i> *	Danthonia, a, on coastal screes, rocks and exposed inland rock outcrops.	142720
	<i>Rytidosperma unarede</i>	c, in crevices around open bases of bluffs and on open soil bank behind beaches.	201206
	<i>Setaria palmifolia</i> *	Palm grass, collected by A MacDonald, Jan. 2011, on clearing near cliff within 20m. of Dragon's Mouth Cove campsite. (Not seen there, Dec. 2011).	329337
	<i>Sporobolus africanus</i> *	Ratstail, a, on rocks throughout and coastal cliffs.	142810
	<i>Thelymitra longifolia</i>	Sun orchid, a, on exposed coastal and inland rocks.	142676
	<i>Trisetum arduanum</i>	Growing on soil scree slopes on coastal cliffs, Lighthouse Bay.	201161
	<i>Uncinia banksii</i>	Fine hooked sedge, la, in dry coastal forest.	142824
	<i>Uncinia laxiflora</i>	Hooked sedge, o, in dry coastal forest.	142669
	<i>Uncinia uncinata</i>	Hooked sedge, c, in dry coastal forest.	142773
8	<i>Vulpia bromoides</i> *	Vulpia hair grass, c, on coastal cliffs and exposed inland rock outcrops.	142888
	<i>Winika cunninghamii</i>	c, in coastal forest, epiphytic from the bases of <i>Collospermum</i> .	142894
	<i>Xeronema callistemon</i>	Poor Knight's lily, s, large clumps around upper edges of large rock outcrops on valley sides north and north-east of Dragon's Mouth Cove. (Also on large rock high on ridge above Stead Bay).	142660

SPECIES ERADICATED BY WEEDERS

<i>Cannabis sativa</i> *	Marijuana. (Monica Valdes, pers. comm.).
<i>Hakea sericea</i> *	Prickly hakea (presumably this species). (Monica Valdes, pers. comm.).
<i>Paraserianthes lapantha</i> *	Brush wattle. (Monica Valdes, pers. comm.).
<i>Pericallis × hybrida</i> *	Cineraria. (Monica Valdes, pers. comm.).
