

## The Northern Pinnacle, Poor Knights Islands: natural history notes on a brief landing in 1983

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Fourteen species of vascular plant are recorded for this small, precipitous, rarely visited islet. Brief observations on the vegetation, geology and fauna are recorded.

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### Introduction

The 1983 Offshore Islands Research Group expedition to the Three Kings Islands left Auckland on the MV Pegasus II on 24 November 1983, heading north. The party on board included marine scientists/divers, and the opportunity was taken en route to dive at The Pinnacles that same day. The seas around The Pinnacles and Sugar Loaf (outliers of the Poor Knights Islands situated some 6 km south of the southern tip of Aorangi Island) form part of the Poor Knights Islands Marine Reserve. The Poor Knights Islands are rodent-free.

The Pinnacles (Figs 1, 2) are also known as the High Peak Rocks, and the two main islets are mapped and named High Peak Rocks (Land Information New Zealand 2009) where the larger northern rock measures approximately 300 x 150 m and has a spot height of 87 m (35.547°S, 174.724°E, Map Reference AW32 563649) and an area of 1.15 ha (Taylor 1989).

From the boat a very large-leaved small tree could be seen near the summit. Geoff Baylis, Ewen Cameron and Bruce Hayward were convinced it was puka (*Meryta sinclairii* (Hook.f.) Seem.), known only from the Three Kings and Hen and Chickens Islands – but not from the Poor Knights in between. Their conviction may have been based, at least partly, on convincing me to land and attempt the climb.

Put ashore for half an hour on the eastern point of the islet I climbed to the summit, recording three pages of field notes on which this article is based.

### Geology

Very hard, silicified ignimbritic rock, much cut by quartz veins, particularly towards the summit. One small included patch of a coarser, granular ignimbrite was noted.

### Fauna

A colony of Australasian gannet (*Morus serrator* Gray, 1843) numbering some 80–100 adults inhabited the summit area. Most adults were associated with large, downy chicks approximately three-quarters of adult body size. Also present were a few smaller chicks, down to two new-born, black-skinned pulli with several birds still sitting on eggs.

A large population of geckos was observed basking in the sun amongst the gannets in very high density – perhaps 3–4 per m<sup>2</sup>. At 16–17 cm long, rather stumpy looking with short tails, and a dark grey-black in colour with black markings, they are possibly the undescribed Poor Knights gecko (*Dactylocnemis* sp.).



**Figure 1.** Aerial view of the Pinnacles (High Peak Rocks) from the north-north-west, 25 October 2012. The Northern Pinnacle, Poor Knights Islands (centre), Eastern Pinnacle at left and Southern Pinnacle to right. Photo: Richard Robinson [www.depth.co.nz](http://www.depth.co.nz)

## Vegetation

Higher plant vegetation was generally confined to rock crevices on the exposed eastern side of the islet, and slightly more developed amongst the rocks on the summit. Mercury Bay weed (*Dichondra repens* J.R.Forst. & G.Forst.), ice plant (*Disphyma australe* (W.T.Aiton) N.E.Br.) and the two species of pigweed (*Chenopodium* spp.) formed mats amongst the gannet colony.

The large-leaved plant ('enormously' large-leaved according to my notebook) was ngaio (*Myoporum laetum* var. *decumbens* G.Simpson) and no puka was seen. Of the three ngaio leaves collected (AK 173030), the largest is 190 x 90 mm with margins entire in the lower fifth and serrate from there to the tip. The second leaf is 170 x 60 mm with almost entire margins (some minute serrations in the upper half), while the third is 153 x 74 mm with margins entire in the lower third and finely serrate above that. This

large-leaved form of ngaio was described as a variety by Simpson (1952) from a cultivated plant derived from the Poor Knights Islands. The variety was based mainly on its prostrate form, but also the large size of its leaves; while the Northern Pinnacle plant was reasonably erect it did have particularly large leaves which caused me to record it under the Simpson varietal name. The variability of the species on northern offshore islands is so great that it is generally now grouped under the polymorphic species name, e.g. Chinnock (2007). The pōhuehue (*Muehlenbeckia complexa* (A.Cunn.) Meisn.) vines were also very lush.

Further vascular plant vegetation was sighted on a terrace about half way up the island on the south-east side, but I did not climb down to explore it. The canopy appeared to be more-or-less continuous circa 0.5–1 m high, dominated by taupata (*Coprosma repens* A.Rich.) with much renga lily (*Arthropodium bifurcatum* Heenan,



**Figure 2.** (Left to right) Northern Pinnacle partly obscured, Southern Pinnacle in front, Eastern Pinnacle; from the south-west, 10 March 2008. Photo: Ewen Cameron.

A.D.Mitch. & de Lange) amongst it.

### Vascular plant species list

*Arthropodium bifurcatum* Heenan, A.D.Mitch. & de Lange

*Asplenium haurakiense* (Brownsey) Ogle

*Chenopodium triandrum* G.Forst.

*Chenopodium trigonon* Schult. subsp. *trigonon*

*Coprosma repens* A.Rich.

*Dichondra repens* J.R.Forst. & G.Forst.

*Disphyma australe* (W.T.Aiton) N.E.Br.

*Metrosideros excelsa* Sol. ex Gaertn.\*

*Muehlenbeckia complexa* (A.Cunn.) Meisn.

*Myoporum laetum* var. *decumbens* G.Simpson

*Samolus repens* (J.R.Forst. & G.Forst.) Pers.\*

*Sarcocornia quinqueflora* (Bunge ex Ung.-Sternb.) A.J.Scott

*Spergularia tasmanica* (Kindb.) L.G.Adams

*Tetragonia implexicoma* (Miq.) Hook.f.

renga lily

Hauraki Gulf spleenwort

pigweed

pigweed

taupata

Mercury Bay weed

ice plant

pōhutukawa

pōhuehue

ngaio

sea primrose

glasswort

New Zealand sea spurrey

native spinach

\* reported as seen from the boat by Ewen Cameron and Geoff Baylis on the western side of the island – small trees of pohutukawa and the sea primrose flowering.

I specifically noted that no adventive species were seen. More time and better coverage of the islet is certain to result in additional plant records. I would expect grasses such as coastal wind grass (*Lachnagrostis littoralis* (Hack.) Edgar) and sand wind grass (*L. billardierei* (R.Br.) Trin.); sedges such as knobby sedge (*Ficinia nodosa* (Rottb.) Goetgh., Muasya & D.A.Simpson) and dicotyledons such as shore groundsel (*Senecio lautus* G.Forst. ex Willd.) to occur on an island of this size.

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