

## NOTES ON THE HAHEI ISLANDS AND ADJACENT MAINLAND, HAHEI, COROMANDEL PENINSULA

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### SUMMARY

The Hahei Islands consist of two main islands, Mahurangi and Motueka (or Motu Iki), and several small islets. Being close to the mainland they have considerable potential as scenic and/or wildlife reserves. Tuatara (*Sphenodon punctatus*) may be present on one island.

### INTRODUCTION

The Hahei Islands, located about 10km east of Whitianga and within 2km of the mainland (Fig. 1), have received little attention from the scientific community. They are, however, of considerable historical interest as Captain Cook landed on one of the smaller islands in 1769 and briefly described its small pa (Beaglehole 1955, p.202).

The largest island, Mahurangi (Fig. 2), has recently been gazetted a recreation reserve and included in the Hauraki Gulf Maritime Park. As much of the island is presently in grass botanists and ornithologists alike may have a rare opportunity of observing its slow regeneration to native bush, and consequent change in bird life.

No detailed surveys of the flora and fauna of the remaining islands have been made, but the marine life has been recorded by scuba divers for many years, and geological and archaeological studies are nearing completion. The Hahei area is becoming increasingly popular for recreational pursuits and it is essential that the islands' wildlife, vegetation and historic sites be preserved for future generations to study and enjoy.

### BRIEF HISTORY OF THE AREA

When Captain Cook visited Mercury Bay in November 1769 he observed that the local Maori inhabitants were poor "to the highest degree", they had no plantations, many were without houses, and others resided on small fortified islands (Beaglehole, 1955, pp.192-203). This impoverished state of the local population he considered "may be due to the frequent wars in which they are certainly engaged. . . ." (Beaglehole, p.203).

Constant attacks on the Ngatihei people of Mercury Bay were conducted by the Ngati Whanaunga, Ngati Tamatera and Ngapuhi up until about 1835. In 1818 the Ngapuhi chief Te Morenga and 600 of his warriors slaughtered 300 to 400 of the local inhabitants in revenge for his sister's death, and Hongi Hika also claimed to have taken 2000 prisoners of which 600 were killed (Grayland 1963, p.34).

In 1852 Commander Drury charted the coastline and islands of Mercury Bay (Drury 1857), and at this time only 6 Europeans lived at Whitianga (Jolliffe

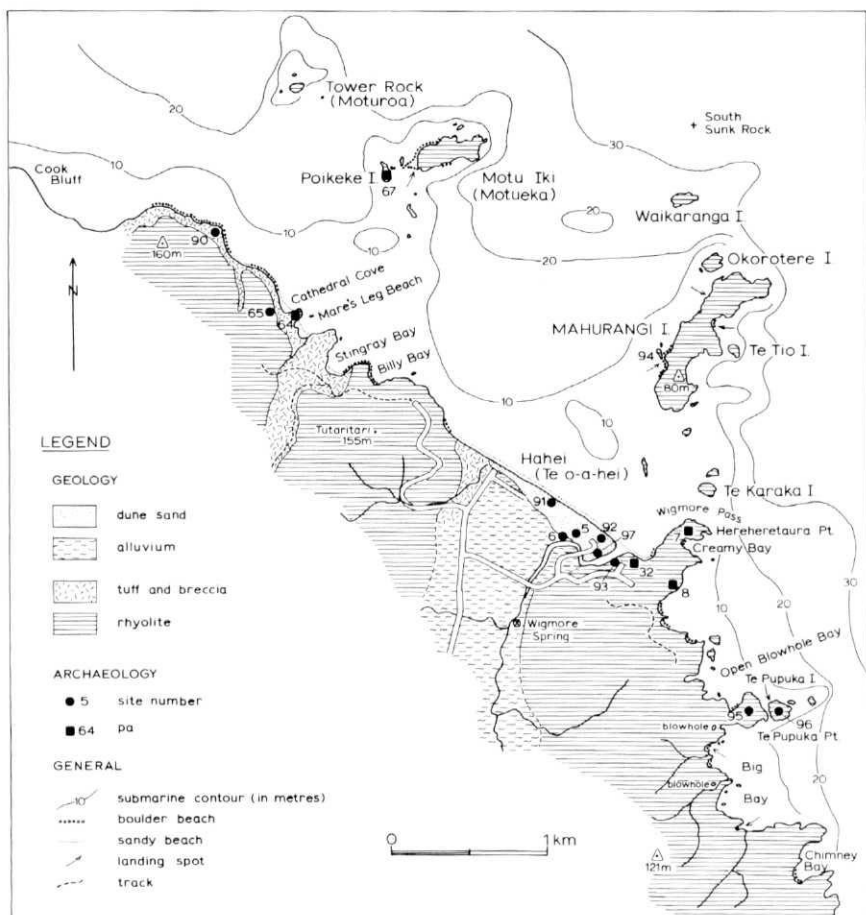


Fig. 1. Geological and general location map of the Hahei Islands and adjacent mainland.

1852). Robert Wigmore took up land at Hahei in 1866, after first visiting the area in the 1840's (Harsant 1966), and the Harsant family, who intermarried with the Wigmores, have farmed the area since the early 1900's.

#### NAMES OF SOME ISLANDS

Captain Cook's chart of Mercury Bay (Skelton 1955, Chart XIV) clearly shows all the islands of the Hahei group, but only Tower Rock is named. Fortunately Sir Joseph Banks recorded the Maori names for some of the islands (Beaglehole 1955, p.201 footnote) and these, together with names for some of the smaller islands, are the ones shown on the present topographic map (NZMS1

Sheet N44 Whitianga). However, alternative names for a few of the islands are known and these are listed below.

*Tower Rock*: So named by Cook, but recorded by Banks as being called Ko Moturoa (Beaglehole 1955, p.201 footnote). On Drury's (1857) chart and on Sheet N44 the name has been abbreviated to Moturoa.

*Motueka*: If Banks recorded the name correctly this island should be called Motu Iki (Beaglehole, p.201 footnote). Motu Iki is also the name shown on Drury's chart but on Sheet N44 appears as Motueka. Lee (1950) states that the island was originally named Te Kuraetanga-o-taku-ihu (the outward curve of the nose) by the chief Hei as he was passing northwards in the Te Arawa canoe. Lee also records the name of Motu Heka, which is probably the origin of "Motueka" on modern maps.

*Mahurangi*: Beaglehole (1955, p.201 footnote) discusses Banks' recording of the name for the island and suggests that it was probably called Te rua mahau (the shelter cave) or Te rua a Mahurangi (the cave of Mahurangi). Drury's (1857) chart however gives the alternative names of Te Tui or Mahurangi; Te Tui may have referred to the islet on the east side of Mahurangi, which is now called Te Tio (the oyster).

It is worth mentioning here that "Hahei" is abbreviated from the original name of Te o-a-hei, which can be translated either as the "bay..." or "belongings of Hei" (Mrs F. Harsant, pers. comm). Heriheritaura is spelt Heriheri-tauru on Drury's chart, but this is likely to be an error.

#### ARCHAEOLOGY

Sixteen archaeological sites have now been recorded in the area (Fig. 1), which fall into the following classes:

Headland pa	(3)	Flaking floors	(2)
Island pa	(2)	Midden or working floor	(1)
Ridge peak pa	(1)	Ovens	(2)
Middens	(4)	Burial	(1)

In addition, there is some historical evidence for Mahurangi Island having been used by the Ngapuhi while attacking Hereheretaura Pa (site N44/7; Fig. 2). Of the six sites recorded in the dunes behind Hahei Beach itself, all have now been totally or partially destroyed, mostly through land development. Sites along the coast to the north and south, and on the nearby islands are therefore now the only recorded ones that contain a virtually undisturbed record of the former Maori occupation of the area.

As yet, little is known about the early Maori population of Hahei. Artefacts collected from Hereheretaura (site N44/7) suggest that this pa belongs to a "regional aspect of the Classic Maori phase" (Green 1970, pp.29-30), but a single 1A type adze from the same locality points to earlier occupation. The wide variety of Archaic and Classic Maori adzes collected from the area by the late Mr H. Harsant (Harsant Collection), the extensive working floors (others almost certainly exist beneath the dunes), and occurrence of Mayor Island obsidian flakes in some of the sites clearly indicate early occupation of the area.

On the other hand, small pa on the offshore islands may be a much later feature. When Cook visited the small pa on Poikeke Island (Beaglehole 1955,



Fig. 2. View of Mahurangi Island from the ridge peak pa (site N44/8) at the south end of Hahei Beach. Hereheretaura Pa (site N44/7) in foreground, and Mercury Islands in far distance.

pp.201-202) he apparently did not observe the nearby mainland pa at Mare's Leg (Te Mautohe Pa) and Hereheretaura; they had presumably been abandoned. It seems likely then that the Ngatihei, much reduced in numbers by the constant attacks of the Ngapuhi and others in the 1700's, retreated to small strongholds on the outlying islands. These, although lacking fresh water, were at least more readily defended than the larger mainland pa.

## BOTANY

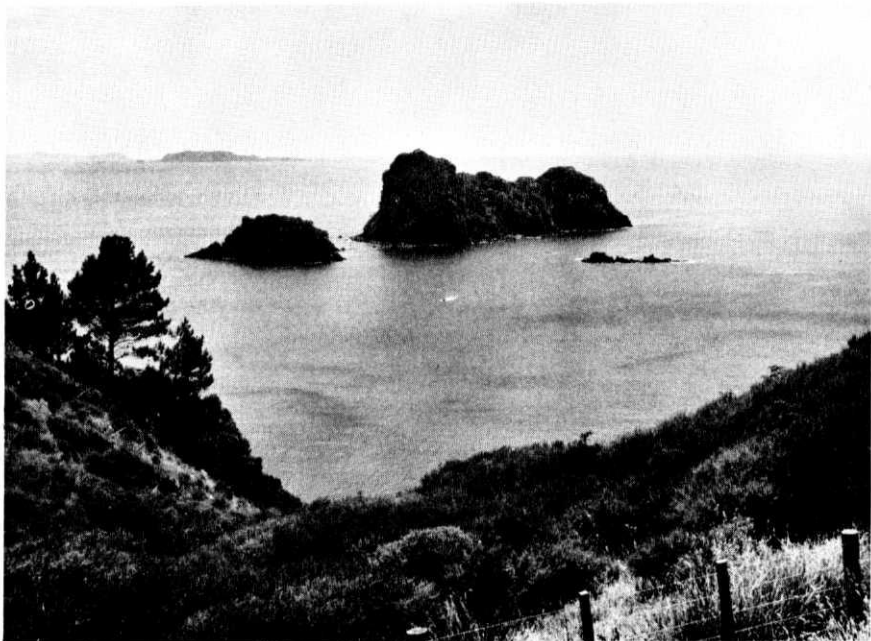
### Mahurangi Island

The vegetation of Mahurangi has been described by Atkinson (1972) in an unpublished report. Although the island consists mostly of open grassland, 57 species of vascular plants were recorded, 4 of which were ferns. Since the island was used for grazing sheep until recently, burning-off was conducted at regular intervals in order to maintain a grass cover and as a result gorse (*Ulex europaeus*) has invaded parts of the east side of the island.

The former presence of kauri (*Agathis australis*) on Mahurangi is shown by the discovery, earlier this century, of gum in soils near the south end of the island. A considerable amount of kauri gum was also recovered from clay beneath the sand dunes at Hahei Beach itself (Harsant 1966).

### Te Pupuka Island

Some plants were collected by the author from Te Pupuka Island in January 1976 and identified by Dr Atkinson (Appendix 1). Of the 31 species



**Fig. 3. View of Motueka (or Motu Iki) and Poikeke Island from the southwest.**

recorded, 16 also occur on Mahurangi, but in contrast only 3 (as against 21) are introduced plants. This island has also been burnt off (as evidenced by pieces of charcoal and charred roots), but not for at least 30 years (Mr F. Harsant, pers. comm.), and judging from air photos taken in 1944, probably over 50 years ago. Even today a mixture of bracken, ti tree, gorse, hakea and some other small tree species still cover the central portion of the island, so that total regeneration to native forest will probably take another 20 years or more.

#### **Other islands**

No detailed botanical survey of the remaining islands has yet been made, but Poikeke Island possesses a mixed forest 5-10m high which includes karaka (*Corynocarpus laevigatus*), five-finger (*Neopanax arboreus*) and pohutukawa (*Metrosideros excelsa*), and adjacent Motueka contains stands of pohutukawa amongst an open, mixed canopy (Fig. 3). Motueka (or Motu Iki) does not appear to have been burnt off for some time, but Te Karaka Island still shows evidence of burning off, though this probably occurred at least 80-100 years ago.

### **BIRDS**

#### **Poikeke Island**

Although no birds have been observed by the author a collection of bones (Appendix 2) indicates the recent presence of Diving Petrel (*Pelecanoides urinatrix*), Grey-faced Petrel (*Pterodroma macroptera*), and probable Spotted

Shag. Remains of Grey-faced Petrel egg shells were also found.

#### **Waikaranga Island**

A colony of 50-60 White-fronted Tern (*Sterna striata*), and a few Red-billed and Black-backed gulls were observed on the island in January 1976.

#### **Mahurangi Island**

Veitch (1971) recorded eleven birds from the island and Atkinson (1972) a further two (Appendix 3); of these, 6 were introduced species and Starlings were the most common. Both observers also reported a few disused burrows, probably of the Grey-faced Petrel.

#### **Te Karaka Island**

Large burrows in loose sandy soil near the top of the island are, judging from a collection of bones (Appendix 2), probably of Grey-faced Petrel. Colonies of Red-billed Gull and White-fronted Tern were observed in January 1975, but were not seen again a year later. The terns may have shifted their breeding site (a common habit – Soper 1972) to Waikaranga.

#### **Te Pupuka Island**

Considerable numbers of petrel burrows, probably all Grey-faced Petrel (Appendix 2), were observed all around the top of the cliffs. Other birds were heard but not identified.

### **OTHER ANIMALS (MAMMALS AND REPTILES)**

#### **Goats**

The Wigmore family released goats on Mahurangi Is. in the late 1800's and early this century they numbered over 100 (Atkinson 1972). They were removed about 1915.

#### **Rats**

Atkinson (1972) recorded common droppings of the Norway rat (*Rattus norvegicus*) on Mahurangi Island, and Veitch (1971) also noted common sign.

A single pelvic bone of a rat was collected from Poikeke Is. (Appendix 2), but could not be identified to species level. In view of the short distance between Poikeke Island and Motu Iki it is very likely that rats are also present on the latter island.

Te Karaka Island is known locally as Rat Island, but no sign has been observed during recent visits.

#### **Tuatara**

Apparently the late Mr H. Harsant saw tuatara (*Sphenodon punctatus*) on Motu Iki and Te Karaka Island within the last 50-60 years (Mr J. Osborne, pers. comm.). No sightings have been made during short visits to these islands in recent years, but a small number might still be present on Motu Iki.

### **GEOLOGY**

The Hahei Islands are the eroded remnants of rhyolite domes erupted during the Pliocene to ?Early Pleistocene Periods i.e. between 2-12 million years ago (Moore, in prep). The viscous rhyolite lava probably issued from a series of fissures to form low dome-shaped features of oval or semi-circular outline. Several of these domes have previously been mapped by Harvey (1967) on the adjacent mainland (Fig. 1).

Along the coast west of Stingray Bay rhyolite lava flowed over and baked earlier deposited tuffs and breccias, and obsidian and perlite were formed along the contact. Some tuff was also deposited after eruption of the rhyolite. Open folds and complex contortions resulting from flow of the viscous lava are particularly well exposed along the coast south of Hahei and much of this rhyolite may have issued from a fissure located near the south end of Big Bay (Fig. 1). No contact with older tuffs and breccias has been observed along this stretch of coastline.

The Wigmore (Hot) Spring lies on the margin of one of the rhyolite domes and apparently was once a good bathing pool (Fraser and Adams 1907). Prior to Fraser and Adams' visit this was covered by a large slip, although "hot" water still issued from swampy ground on the stream bank in 1907. In recent years 3 bores have been put down to depths of 10-30m, but the maximum temperature recorded was only 26°C.

### ACKNOWLEDGEMENTS

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### REFERENCES

- Atkinson, I.A.E. 1972: Report on Mahurangi Island, Mercury Bay. (Unpublished).  
Beaglehole, J.C. (Ed.) 1955: The Journals of Captain James Cook on his Voyages of Discovery 1: the Voyage of the 'Endeavour' 1768-1771. Cambridge University Press. 684pp.  
Drury, B. 1857: Chart of Mercury Bay (surveyed in 1852).  
Fraser, C., Adams, J. 1907: The geology of the Coromandel Subdivision, Hauraki, Auckland. *N.Z. Geol. Surv. Bull.* 4.  
Grayland, E.C. 1963: Coasts of Treachery. Reed, Wellington. 207pp.  
Green, R.C. 1970: A Review of the Prehistoric Sequence in the Auckland Province (2nd Ed.). Publication of the Auckland Archaeological Society No. 1 and N.Z. Archaeological Association No. 2.  
Harsant, H.H. 1966: Points of interest and personalities of early day Gumtown and Whitianga. Unpublished manuscript.  
Harvey, C.C. 1967: Rock alteration in the south-east Whitianga area. Unpublished MSc thesis, University of Auckland.  
Jolliffe, J. 1852: New Zealand Journals. Unpublished manuscript.  
Lee, A.L. 1950: Whitianga (4th Ed.). Abel Dykes Ltd., Auckland. 64pp.  
Moore, P.R. (in prep.): Geology of the Hahei area, Coromandel Peninsula.  
Skelton, R.A. (Ed.) 1955: Portfolio of charts and views in Beaglehole, J.C. (Ed.) The Journals of Captain James Cook on his Voyages of Discovery.  
Soper, M.F. 1972: New Zealand Birds. Whitcombe and Tombs, Christchurch. 216pp.  
Veitch, C.R. 1971: Report on Mahurangi Island. Internal Affairs Dept File 30/3/28.

**Appendix 1. List of plants from Te Pupuka Island.**  
(Identifications by Dr I.A.E. Atkinson, Botany Division, D.S.I.R.).

Species	Common name
<b>Trees and shrubs</b>	
<i>Brachyglottis repanda</i>	Rangiora
<i>Carmichaelia cunninghamii</i>	N.Z. Broom
<i>Cassinia retorta</i>	Tauhinu
<i>Coprosma</i> sp. (aff. <i>C. macrocarpa</i> )	Coastal Karamu
<i>Cyathodes fasciculata</i>	Mingimingi
<i>Geniostoma ligustrifolium</i>	Hangehange
<i>Hebe stricta</i>	Koromiko
<i>Hymenanthera novaezelandiae</i>	
<i>Leptospermum scoparium</i>	Manuka
<i>Macropiper excelsum</i>	Kawakawa
<i>Myrsine australis</i>	Mapou
<i>Olearia furfuracea</i>	Akepiro
<i>Pittosporum crassifolium</i>	Karo
<i>Pseudopanax lessonii</i>	Houpara
<i>Rhabdothamnus solandri</i>	Waiu-atua
<b>Herbs and sedges</b>	
<i>Astelia banksii</i>	Wharawhara
<i>Dianella nigra</i>	Blueberry
<i>Disphyma australe</i>	N.Z. Ice Plant
<i>Morelotia affinis</i>	Cutty grass
<i>Peperomia urvilleana</i>	
<i>Scirpus nodosus</i>	
<b>Ferns</b>	
<i>Adiantum cunninghamii</i>	Maidenhair
<i>Asplenium lucidum</i>	Shining spleenwort
<i>Phymatodes diversifolium</i>	Hound's Tongue

Additional species noted in the field were *Hakea sericea*, *Metrosideros excelsa*, *Phormium tenax*, *Pinus* sp., *Pteridium aquilinum*, *Ulex europaeus* and a ground orchid.

**Appendix 2. List of bones from some of the Hahei Islands.**  
(Identifications by F.C. Kinsky, National Museum).

**Poikeke Island**

Grey-faced Petrel (*Pterodroma macroptera*): 3 humeri, 1 pelvic (part), 1 coracoid, 1 part skull, egg shells.  
Diving petrel (*Pelecanoides urinatrix*): 1 humerus, 1 tibia.  
Spotted Shag? (juv.): 1 humerus  
Rat (*Rattus* sp.): 1 right pelvic bone.

**Te Karaka Island**

Grey-faced Petrel: 1 humerus, 1 ulna, 1 (right) ishium, 1 scapula, 1 tibia.



### **Te Pupuka Island**

Grey-faced Petrel: 2 skulls, 4 humeri, 2 ulnas, 1 carpometacarpus, 1 femur, egg shell.

### **Appendix 3. List of birds recorded on Mahurangi Island by Atkinson (1972) and Veitch (1971).**

#### **Introduced species**

Blackbird (*Turdus merula*)  
Chaffinch (*Fringilla coelebs*)  
House sparrow (*Passer domesticus*)  
Myna (*Acridotheres tristis*)  
Skylark (*Alauda arvensis*)  
Starling (*Sturnus vulgaris*)

#### **Native species**

Black-backed gull (*Larus dominicanus*)  
Grey warbler (*Gerygone igata*)  
Fantail (*Rhipidura fuliginosa*)  
Kingfisher (*Halcyon sancta*)  
Pied shag (*Phalacrocorax varius*)  
Pipit (*Anthus novaeseelandiae novaeseelandiae*)  
Silvereye (*Zosterops lateralis*)

Blue penguins (*Eudyptula minor*) have also been reported.