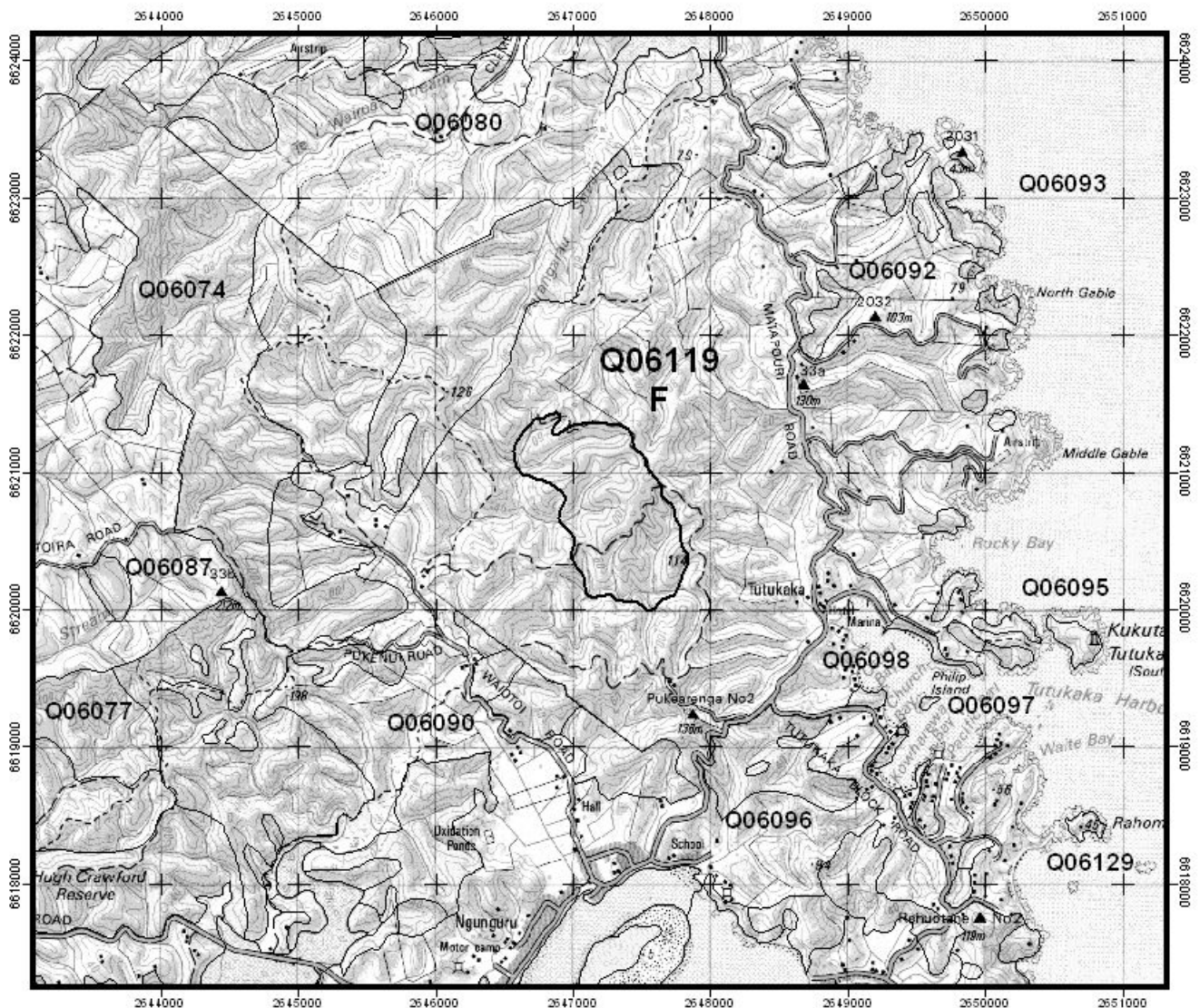


TUTUKAKA FOREST

Survey no. Q06/119
Survey date 29 May 1997
Grid reference Q06 472 207
Area 104 ha
Altitude 40-114 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Rimu forest on ridge
- (c) Totara forest on hillslope
- (d) Taraire-totara-towai forest on hillslope



Tutukaka Forest Q06/119

Each grid is 1000m x 1000m
and = 100 ha
S = shrubland
F = forest
W = wetland
E = estuarine
D = duneland

Landform/geology

Steeply dissected hillcountry of Waipapa Terrane greywacke and microdiorite subvolcanic intrusions.

Vegetation

A large forest remnant surrounded by plantation *Eucalyptus* sp. and pines.

(a) The northern end of the site is dominated by taraire forest. Karaka, rimu, tanekaha, totara, kauri, and towai are frequent. Kohekohe, rewarewa, lancewood, mahoe, and puriri are present in low numbers.

(b) Within this area, ridges are dominated by rimu forest. Kauri and totara are frequent, with rewarewa less common.

(c) South of this area, the vegetation is composed of totara forest. Frequent species are rimu, taraire, kauri, and tanekaha, with occasional rewarewa.

(d) On the south side of the track, the most common species are taraire, totara, and towai. Kauri, rimu, and tanekaha are less common, with the occasional rewarewa, karaka, tawa, and puriri.

Fauna

NI brown kiwi (Serious Decline) present in moderate to high numbers in the wider area in 2004 (R. Pierce, pers. comm.), kukupa (Gradual Decline), NI fantail, grey warbler, tui. Other Regionally Significant birds (red-crowned kakariki and NI tomtit) are present in a contiguous site (Q06/074), and are likely to visit Tutukaka Forest.

Significance

Presence of threatened species. The site is buffered by pines, and contains some mature kauri.

Representative site for type (b) rimu forest, and the only record of this type in the Ecological District.

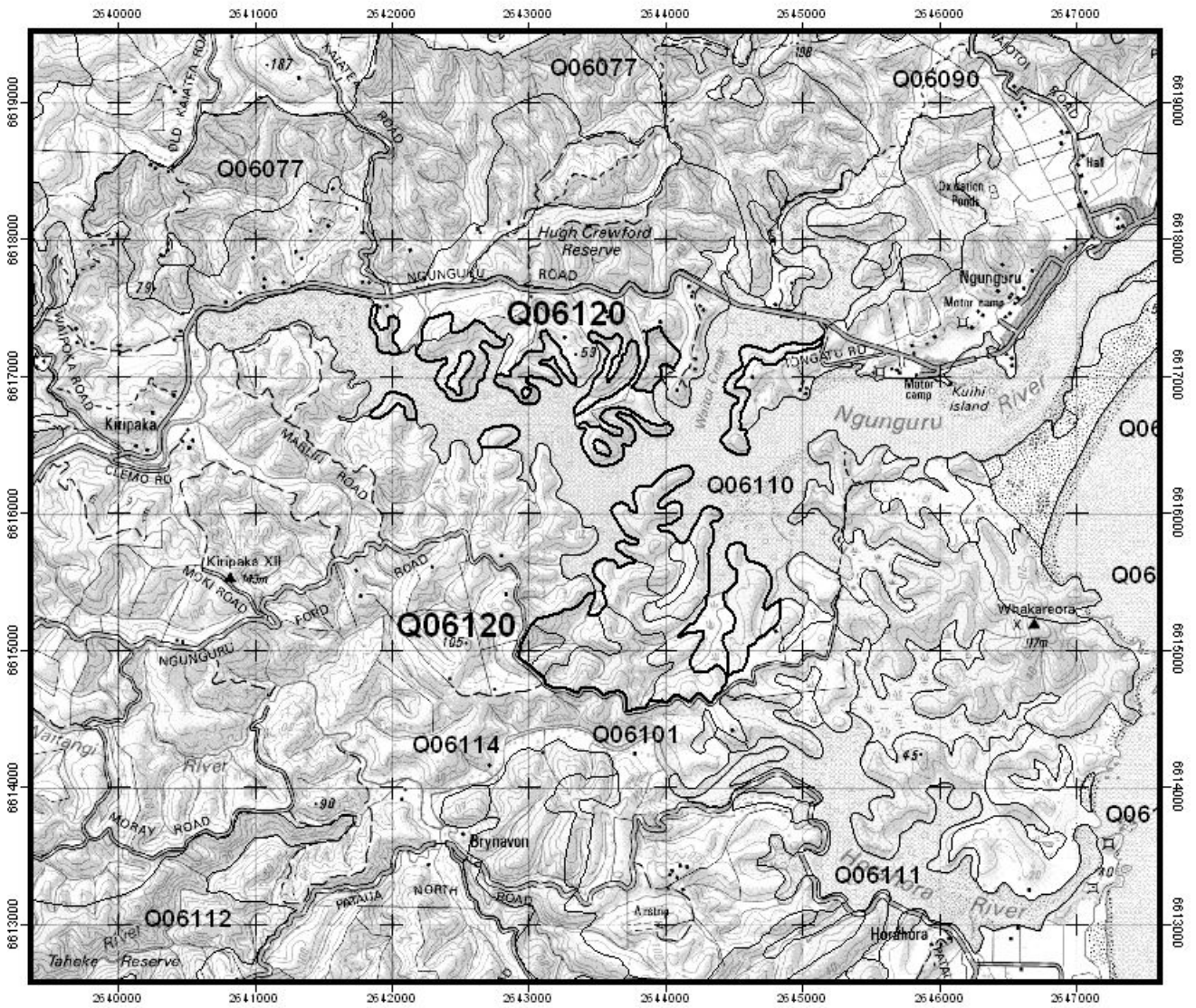
87.8 ha at this site are a reserve administered by the Department of Conservation.

NGUNGURU REMNANTS

Survey no.	Q06/120
Survey date	26 June 1997
Grid reference	Q06 439 171, Q06 435 170, Q06 430 170, Q06 445 168, Q06 423 171, Q06 420 167, Q06 437 165, Q06 427 165, Q06 446 152, Q06 419 173, Q06 436 154
Area	242 ha (181 ha forest, 61 ha shrubland)
Altitude	0-100 m asl

Ecological unit

- (a) Kanuka/manuka-rimu-totara forest on hillslope
- (b) Kanuka/manuka-kauri-totara forest on hillslope
- (c) Kanuka/manuka-totara forest on hillslope
- (d) Kanuka/manuka-kauri forest on hillslope
- (e) Totara forest on hillslope
- (f) Kanuka/manuka-tanekaha shrubland on hillslope



Ngunguru Remnants Q06/120

Each grid is 1000m x 1000m

and = 100 ha

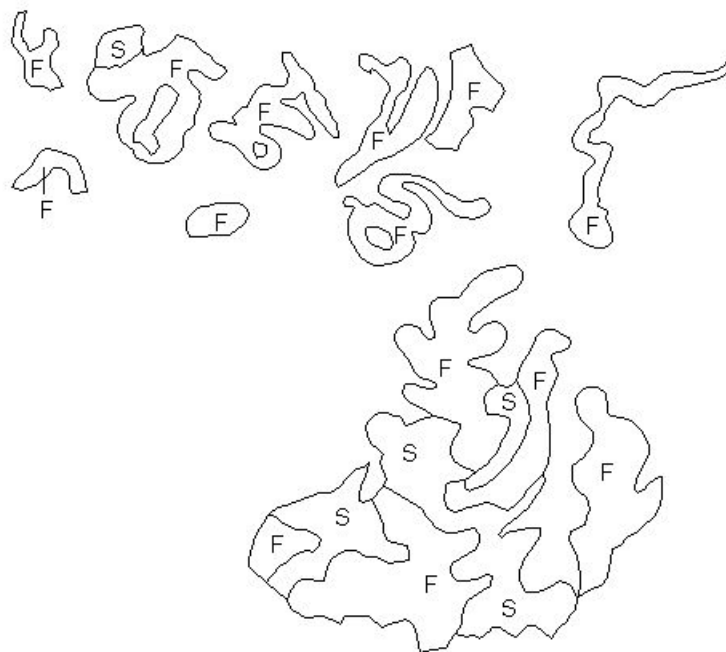
S = shrubland

F = forest

W = wetland

E = estuarine

D = duneland



(g) Kanuka/manuka shrubland on hillslope

Landform/geology

Coastal hills of Waipapa Terrane greywacke adjoining Ngunguru Estuary.

Vegetation

Series of coastal forest and shrubland remnants bordering the northern and southern sides of the Ngunguru Estuary.

(a) The westernmost remnant, near Ngunguru Road, is a thin strip of kanuka/manuka-rimu-totara forest, with frequent tanekaha and occasional kauri, puriri, kowhai, and rewarewa.

(b) Moving eastwards, there are several areas of kanuka/manuka-kauri-totara forest. Rimu is frequent within these areas, along with occasional kahikatea, puriri, tanekaha, and rewarewa.

(c) Kanuka/manuka-totara secondary forest is also found on the northern side of the estuary. Frequent species are kauri and tanekaha, with northern rata, towai, rimu, and puriri less common.

(d) There are also several pieces of kanuka/manuka-kauri forest in this area, particularly on the drier ridges. Tanekaha is usually frequent, with rewarewa in low numbers.

(e) On the point to the east of Waitoi Creek is a narrow strip of totara secondary forest. Frequent species associated with this vegetation type are puriri, pohutukawa, tanekaha, and kanuka/manuka. Rewarewa, taraire, kowhai, towai, and kauri are less common.

(f) This area merges with an area of kanuka/manuka-tanekaha shrubland, which borders the Ngunguru Road. Totara and rewarewa are also present.

Immediately to the south of the above site, on the southern side of the estuary, type (c) vegetation is repeated on the points jutting out into the estuary, and the forested areas of the main southern remnant. Puriri and tanekaha are frequent, with occasional kauri.

(g) Kanuka/manuka shrubland occurs throughout this main remnant, and can also be found in several small remnants to the west. Associated species include totara, tanekaha, pohutukawa, and puriri.

Fauna

NI brown kiwi (Serious Decline) were formerly present on the south side, and are now very rare or absent. Kukupa (Gradual Decline), common bush birds.

Significance

Presence of threatened species. Remnants provide a buffer for the Ngunguru Estuary.

Representative site for type (a) kanuka/manuka-rimu-totara forest, and type (b) kanuka/manuka-kauri-totara forest. Only record of type (a) in the Ecological District.

14 ha at this site are protected by a Queen Elizabeth II National Trust covenant.

Ecological unit

(a) Towai forest on hillslope

Landform/geology

Hydrothermally altered and mineralised Waipapa Terrane greywacke overlain by a deeply weathered basaltic lava flow (Kerikeri Volcanics).

Vegetation

This site is composed of three remnants surrounded by plantation pines. The area is dissected by a road, and the northern remnant has a quarry adjacent to it.

(a) Towai is the dominant canopy species. Kauri and rewarewa are frequent emergents, especially on the northern side. Less common species include kahikatea, tanekaha, totara, titoki, and emergent rimu.

Fauna

NI brown kiwi (Serious Decline) were present in low numbers in the early 2000s (R. Pierce, pers. comm.). Kauri snail (Gradual Decline) and the snail *Schizoglossa worthyae* (Sparse) present. Common bush birds utilise the area.

Significance

Presence of kiwi and threatened snails. A good example of towai forest, which is buffered by pines on all sides.

Representative site.

42.4 ha at this site are protected; 23.1 ha as a Conservation Covenant, 1.2 ha are a reserve administered by the Whangarei District Council and 18.1 ha are reserves administered by the Department of Conservation.

WARO LIMESTONE SCENIC RESERVE

Survey no.	Q06/122
Survey date	26 March 2003
Grid reference	Q06 271 229
Area	7 ha
Altitude	100 m asl

Ecological unit

(a) Titoki-totara forest on hillslope

Landform/geology

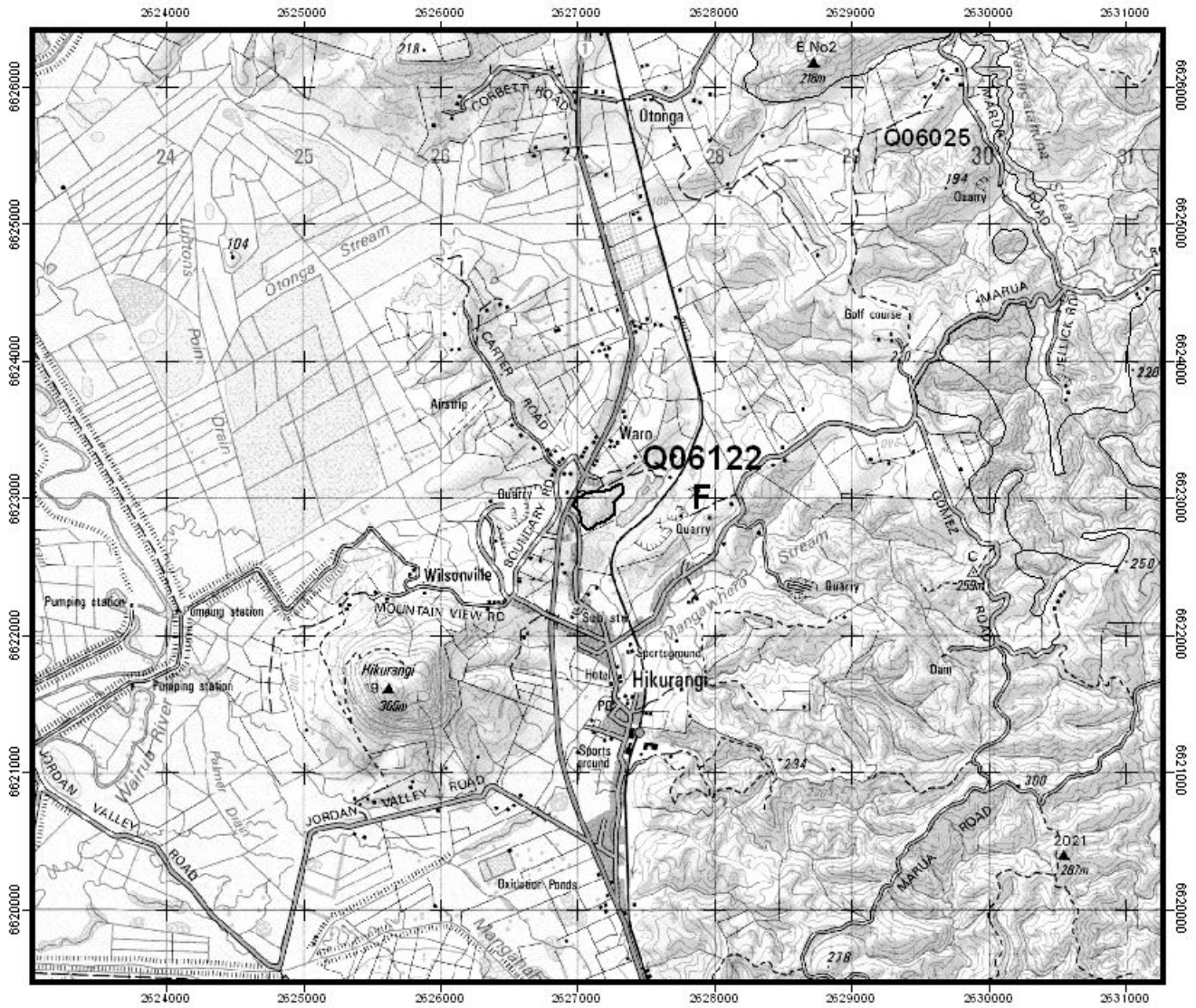
Remnant knoll of limestone karst comprising coarse bioclastic limestone weathered into fluted blocks and pinnacles.

Vegetation

(a) The site consists of predominantly titoki-totara forest, with karamu and mapou. Occasional emergent species are puriri, puka, kahikatea, and ti kouka. Other species at this site include karaka, kawakawa, mahoe, pate, and nikau. The site has a patchy, low canopy of 2-4 m, and numerous weeds, especially privet, on the edges.

Fauna

Three species of threatened landsnail: Punctidae sp. 13 (Nationally Endangered), Punctidae sp. 64 (Nationally Endangered), and Punctidae sp. 251 (Nationally Endangered).



Waro Limestone Scenic Reserve Q06/122

Each grid is 1000m x 1000m

and = 100 ha

S = shrubland

F = forest

W = wetland

E = estuarine

D = duneland

Significance

Representative site, and one of only four areas of limestone in the Ecological District.

Presence of threatened landsnails.

6.4 ha at this site are protected; 0.8 ha are a reserve administered by the Whangarei District Council and 5.6 ha are a reserve administered by the Department of Conservation.

HORAHORA DUNES

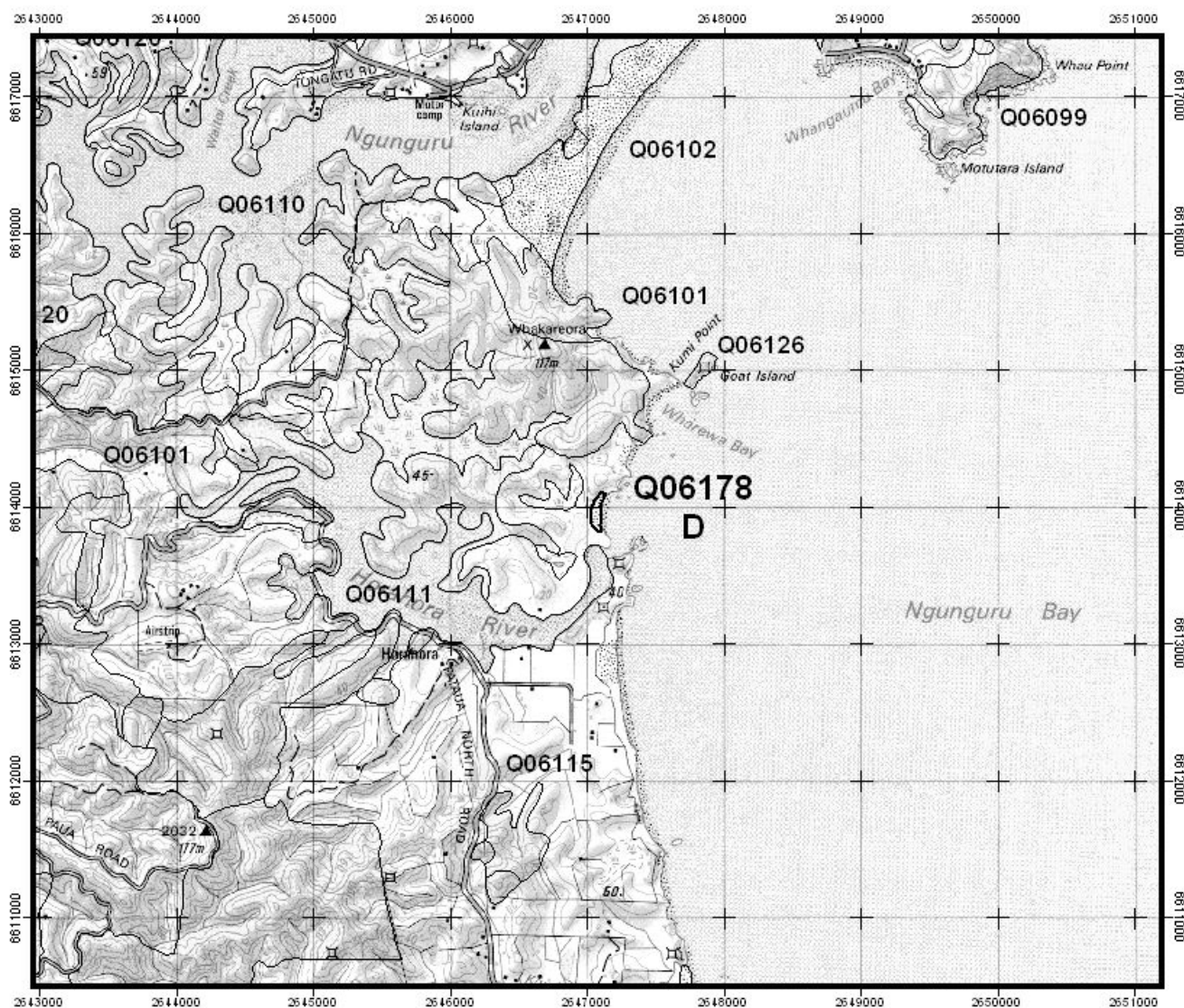
Survey no. Q06/178
Survey date 1995
Grid reference Q06 470 139
Area 1.7 ha
Altitude sea level

Ecological unit

(a) Sandfield on foredune

Landform/geology

Holocene sandy foredune.



Horahora Dunes Q06/178

Each grid is 1000m x 1000m

and = 100 ha

S = shrubland

F = forest

W = wetland

E = estuarine

D = duneland

Vegetation

A small area of foredune on the northern side of the Horahora River mouth. Vegetation consists of:

(a) Coastal sandfield, with occasional spinifex, knobby clubbrush, pohuehue, and exotic grasses, in the vicinity of a solitary pohutukawa.

Fauna

The threatened landsnail *Succinea archeyi* (Serious Decline).

Significance

Presence of a threatened landsnail.

The site includes a prehistoric Maori burial ground, which has been fenced in the past. The fence was no longer stock-proof in 1998 (Brook 1999).

ABBEY CAVES REMNANTS

Survey no.	Q07/001
Survey date	30 April 1997
Grid reference	Q07 352 097, Q07 338 096, Q07 332 089, Q07 344 088
Area	206 ha (73 ha forest, 133 ha shrubland)
Altitude	40–230 m asl

Ecological unit

- (a) Totara forest on hillslope
- (b) Totara–towai shrubland on hillslope
- (c) Kanuka/manuka shrubland on hillslope
- (d) Kanuka/manuka-tanekaha–totara shrubland on hillslope
- (e) Totara–rimu forest on hillslope
- (f) Kanuka/manuka–rimu shrubland on hillslope
- (g) Kanuka/manuka–tanekaha shrubland on hillslope
- (h) Puriri–totara forest on hillslope
- (i) Kauri–totara forest on ridge

Landform/geology

Dissected hillcountry in Te Kuiti Group glauconitic sandstone with karst topography on flaggy limestone in the west.

Vegetation

Site is composed of four separate remnants, each of which is dominated by shrubland.

(a) The eastern remnant, which is closest to Mount Tiger Road, is the largest of the four remnants. At the north end of this remnant is a small area of totara secondary forest, with frequent kauri, towai, puriri, and tree fern. Rimu, tanekaha, and rewarewa are present in low numbers, and a few mature *Pinus* sp. are scattered throughout the area.

(b) The eastern side of the site is composed primarily of totara–towai shrubland. Frequent species within this area are tanekaha, rimu, kauri, puriri, and tree fern. Kahikatea and rewarewa are present in low numbers.

(c) Adjacent to this shrubland area is a small piece of kanuka/manuka shrubland, of up to 3 m in height.

(d) The western side of the site is dominated by kanuka/manuka shrubland, with emergent tanekaha and totara common. Towai is frequent, with emergent rewarewa, kauri, and rimu occasional.

(e) The southern end of this remnant contains an area of totara-rimu regenerating forest. Other species include rewarewa, tanekaha, and puriri, with kahikatea, kauri, and nikau in low numbers.

Type (d) vegetation is repeated in the small remnant to the west of the previously described area. Towai is frequent within this area.

(f) The southern remnant is partially surrounded by plantation pines. This area contains a small area of kanuka/manuka shrubland, with emergent rimu common. Kahikatea is frequent, with occasional rewarewa and tanekaha.

(g) The remainder of the southern remnant is composed of kanuka/manuka-tanekaha shrubland. Emergent rewarewa and rimu are common, as well as towai and puriri. Emergent kauri occur in low numbers.

(h) The western remnant contains a large area of puriri-totara forest, with frequent kanuka/manuka and occasional kahikatea and karaka.

(i) The ridges in this remnant are dominated by kauri-totara forest, with frequent tanekaha and occasional kanuka/manuka.

Significant flora

Adders tongue (Regionally Significant), *Parietaria debilis* (Regionally Significant).

Fauna

NI brown kiwi (Serious Decline) formerly present, kukupa (Gradual Decline), Australasian harrier, grey warbler, NZ kingfisher, NI fantail, shining cuckoo, silveryeye, tui. The site also provides habitat for the threatened snails Punctidae sp. 64 (Nationally Endangered), Punctidae sp. 251 (Nationally Endangered), and *Amborhytida dunni* (Gradual Decline).

Significance

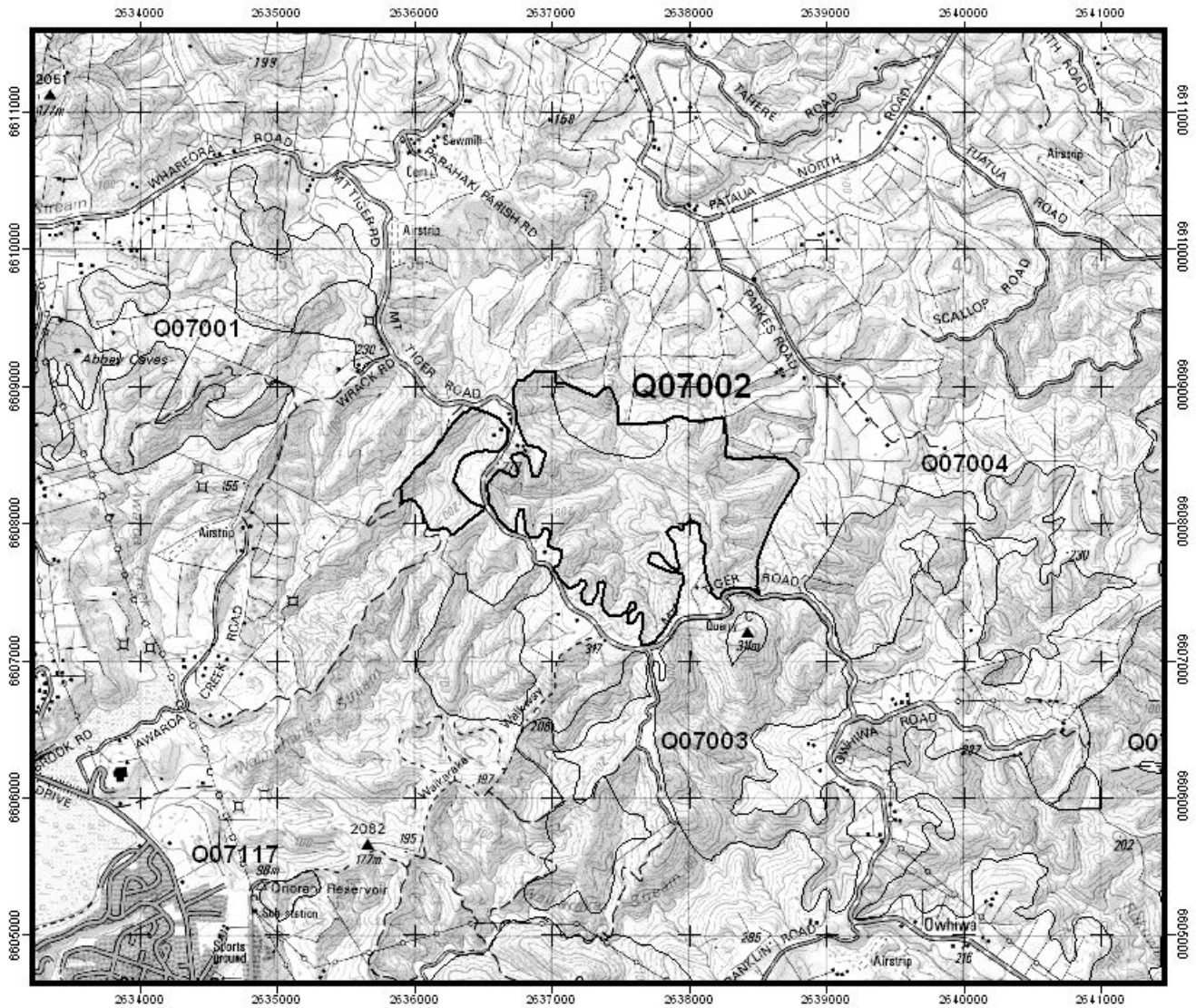
Provides habitat for kukupa, as well as several threatened Northland endemic snails and two regionally significant plants. One of only four limestone areas in the Ecological District. Contains an area of glauconitic sandstone, which is also rare in the Ecological District.

Representative site for all ecological units. Only record of types (b), (e), and (f) in the Ecological District, and the only record of types (a), (c), (g), (h) and (i) on this substrate.

23 ha at this site are protected; 8.7 ha by a Queen Elizabeth II National Trust covenant and 14.3 ha are a reserve administered by the Whangarei District Council.

MOUNT TIGER ROAD BUSH

Survey no.	Q07/002
Survey date	21 April 1997
Grid reference	Q07 362 083, Q07 376 081
Area	267 ha (242 ha forest, 25 ha shrubland)
Altitude	120-272 m asl



Mount Tiger Road Bush Q07/002

Each grid is 1000m x 1000m

and = 100 ha

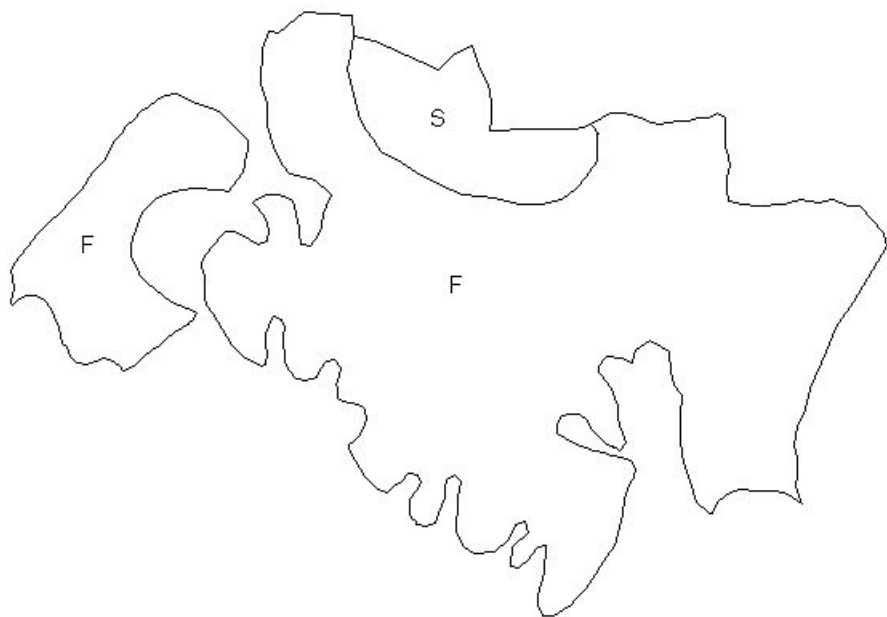
S = shrubland

F = forest

W = wetland

E = estuarine

D = duneland



Ecological unit

- (a) Towai forest on hillslope
- (b) Totara-towai forest on hillslope
- (c) Kanuka/manuka shrubland on hillslope

Landform/geology

Steep dissected hillcountry of Waipapa Terrane greywacke with an area of overlying Te Kuiti Group glauconitic sandstone in the west.

Vegetation

- (a) The area to the west of Mount Tiger Road is composed of towai secondary forest. Rimu, totara, taraire, and puriri are frequent, with occasional rewarewa, kauri, and tanekaha. This vegetation type extends across the road to the northern corner of the site. Kahikatea can also be found in this area.
- (b) The majority of the site consists of totara-towai secondary forest. Frequent species are tanekaha, puriri, taraire, and emergent rewarewa. Kahikatea, pukatea, and emergent rimu, northern rata, miro and kauri, can be found in low numbers.
- (c) The northern end of the site contains a small amount of kanuka/manuka shrubland, with frequent tree fern throughout.

Fauna

Kukupa (Gradual Decline), long-tailed cuckoo (Gradual Decline), NI tomtit (Regionally Significant), Australasian harrier, grey warbler, morepork, NZ kingfisher, NI fantail, shining cuckoo, silvereye, tui. Visiting NI kaka (Nationally Endangered), bellbird (Regionally Significant) and red-crowned kakariki (Regionally Significant). The snail *Amborhyiida dunniiae* (Gradual Decline). Banded kokopu (Regionally Significant) and shortfin eel present in the upper reaches of Awaroa Creek.

Significance

Presence of threatened and regionally significant species. This is a large area, contiguous with adjacent forest areas, which provides linkages along Mt Tiger ridge, used by several threatened species.

Representative site for type (b) totara-towai forest.

WAIKARAKA STREAM REMNANTS

Survey no.	Q07/003
Survey date	20 May 1997
Grid reference	Q07 361 042, Q07 370 061, Q07 375 041, Q07 384 063
Area	520 ha (331 ha forest, 189 ha shrubland)
Altitude	40-311 m asl

Ecological unit

- (a) Kanuka/manuka-tanekaha shrubland on hillslope
- (b) Totara-towai forest on hillslope
- (c) Towai forest on hillslope
- (d) Kauri forest on ridge