# 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 *Amborbyiida dunniae* (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.

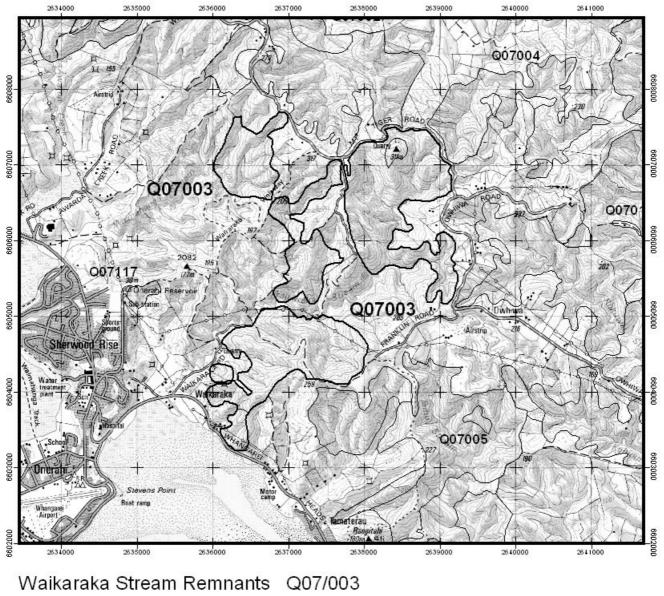
Representative site for type (b) totara-towai forest.

# WAIKARAKA STREAM REMNANTS

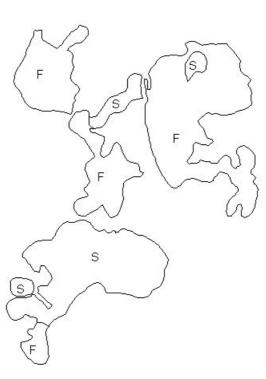
Survey no.	Q07/003
Survey date	20 May 1997
Grid reference	Q07 361 042, Q07 370 061, Q07 375 041, Q07 384 063
Area	520 ha (331 ha forest, 189 ha shrubland)
Altitude	40-311 m asl

#### 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



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



- (e) Kanuka/manuka-kahikatea-totara forest on hillslope
- (f) Kanuka/manuka-towai shrubland on hillslope
- (g) Kanuka/manuka shrubland on hillslope
- (h) Totara forest on hillslope
- (i) Kanuka/manuka-rimu forest on hillslope

#### Landform/geology

Steep dissected hillcountry of Waipapa Terrane greywacke.

#### Vegetation

(a) The northern part of the site is composed predominantly of secondary forest, with a small area of kanuka/manuka-tanekaha shrubland around the trig. Emergent kauri and rimu are present in small numbers within this shrubland area.

(b) To the east of this area is a small piece of totara-towai secondary forest. This area contains a high diversity of species in low numbers, including rimu, rewarewa, kauri, kahikatea, taraire, tanekaha, and karaka.

(c) The majority of the northern end of the site consists of towai forest. Rimu and taraire are frequent, with the occasional tanekaha, rewarewa, puriri, kahikatea, and northern rata.

(d) Within this area are some small patches of kauri secondary forest on the ridges, which also contain frequent rimu.

(e) In the north-west corner of the site, adjacent to the road, is a small piece of kanuka/manuka-kahikatea-totara secondary forest. Frequent species include rimu and puriri, with occasional emergent rewarewa and kauri.

(f) On the western side of the road, as seen from Waikaraka Walkway, is an area of kanuka/manuka-towai shrubland, with frequent totara and tawa, and occasional five-finger, and emergent rewarewa and kauri.

Type (c) vegetation is repeated in the large secondary forest area to the south. Associated species include frequent rimu, puriri, totara, and taraire, and occasional nikau, kawaka, and emergent kauri and rewarewa.

(g) The majority of the southern area of the site is composed of kanuka/manuka shrubland. Totara and tree ferns are frequent within this shrubland, with occasional puriri. On the south-west side of the shrubland, adjacent to Waikaraka Road, totara, rimu, rewarewa, kahikatea, and puriri occur occasionally.

(h) At the southern end of the shrubland is a small area of secondary forest. Adjacent to Whangarei Heads Road, totara is the dominant species. Kanuka/ manuka is frequent, with occasional puriri.

(i)To the north of this area, the secondary forest is dominated by kanuka/ manuka, with emergent rimu common. Kauri, tanekaha, kahikatea, rewarewa, and puriri all occur occasionally.

### Significant flora

Kawaka (Sparse).

#### Fauna

NI brown kiwi (Serious Decline) present in the past, kukupa (Gradual Decline), NI tomtit (Regionally Significant), tui, and common bush birds. Longfin eel (Gradual Decline), giant bully (Regionally Significant), banded kokopu (Regionally Significant).

The snail Amborbytida dunniae (Gradual Decline).

# Significance

Presence of threatened and regionally significant species. A large secondary forest/shrubland area, which is contiguous with several other forest areas.

Representative site for type (c) towai forest, type (e) kanuka/manukakahikatea-totara forest, type (g) kanuka/manuka shrubland, and type (i) kanuka/manuka-rimu forest. Only record of type (e) in the Ecological District.

193.1 ha at this site are protected; 2.2 ha by a Queen Elizabeth II National Trust covenant, 51 ha are a reserve administered by the Whangarei District Council and 140 ha are a Scenic Reserve administered by the Department of Conservation.

# PARKES ROAD BUSH

Survey no.	Q07/004
Survey date	4 August 1997
Grid reference	Q07 392 076
Area	170 ha (156 ha forest, 14 ha shrubland)
Altitude	100-230 m asl

# Ecological unit

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

# Landform/geology

Deeply incised valleys in hillcountry of Waipapa Terrane greywacke.

#### Vegetation

(a) The majority of the site consists of totara secondary forest. Kauri, some of which are mature, are frequent, along with towai. Other species include rimu, rewarewa, kahikatea, and nikau.

(b) On the eastern edge of the site is a small piece of kauri forest, which is mostly at the ricker stage. Rimu is frequent.

(c) Throughout the site are areas of kanuka/manuka secondary forest, which also contains taraire, towai, and totara, as well as rimu, puriri, and rewarewa in low numbers.

(d) Several small areas of kanuka/manuka shrubland are present on the edges of the site.

#### Fauna

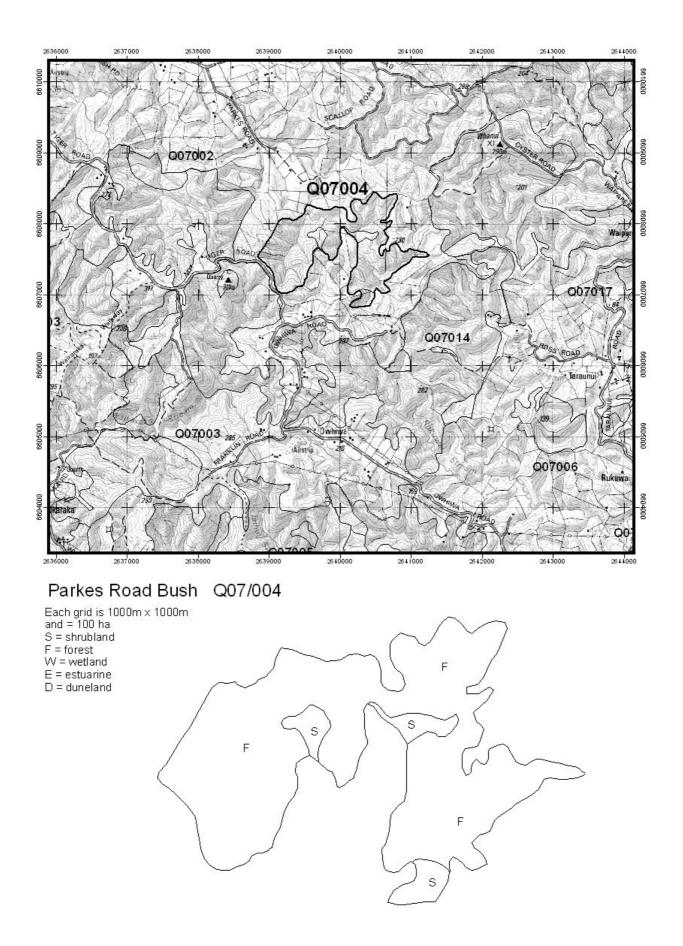
Kukupa (Gradual Decline).

#### Significance

Presence of kukuoa.

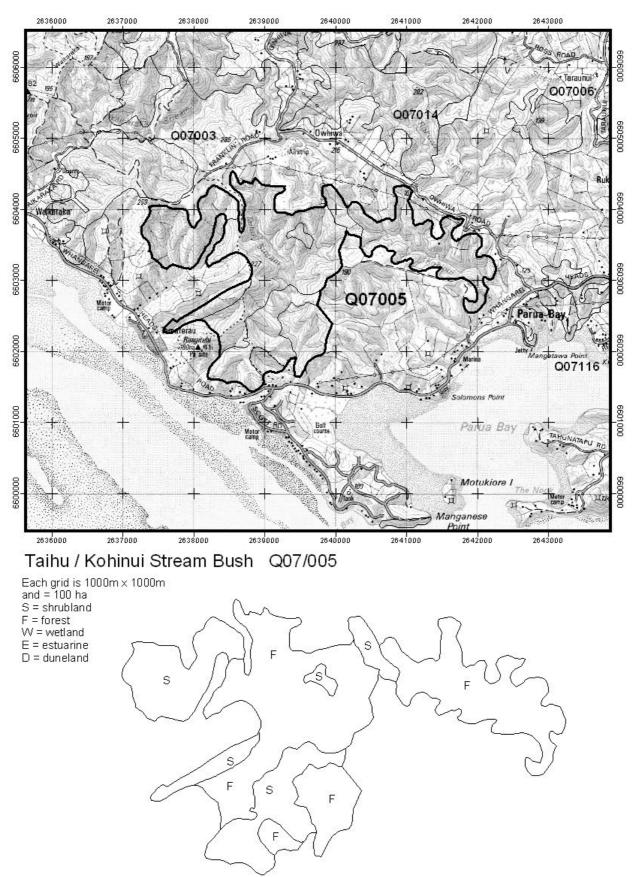
Contiguous with large, adjacent remnants.

Representative site for type (a) totara forest.



# TAIHU/KOHINUI STREAM BUSH

Survey no.	Q07/005
Survey date	4 August 1997
Grid reference	Q07 397 029, Q07 426 022



Area	614 ha (405 ha forest, 209 ha shrubland)
Altitude	20-227 m asl

#### Ecological unit

- (a) Kanuka/manuka shrubland on hillslope
- (b) Mamaku fernland on hillslope
- (c) Taraire-kanuka/manuka forest on hillslope
- (d) Totara-kanuka/manuka-taraire forest on hillslope
- (e) Totara-kanuka/manuka forest on hillslope

# Landform/geology

Deeply incised valleys in hill country of Waipapa Terrane greywacke.

## Vegetation

(a) Shrubland areas on the western side of the site, as well as several places on the southern side of the site, consist of kanuka/manuka.

(b) Within the shrubland area on the western side is an area dominated by mamaku, which also contains small amounts of totara and kanuka/manuka.

(c) The area around the Taihu Stream consists primarily of taraire-kanuka/ manuka secondary forest. Frequent species include rimu and totara, with occasional kahikatea, rewarewa, and puriri.

(d) Moving south, the forest area becomes dominated by totara-kanuka/ manuka-taraire secondary forest, with rimu, puriri, and kauri also present.

(e) Totara-kanuka/manuka secondary forest dominates the area around the Kohinui Stream. Associated species include rimu, kauri, tanekaha, rewarewa, and puriri, with kahikatea and taraire occasional.

#### Fauna

NI brown kiwi (Serious Decline) reported in 2003, possibly still present (R. Pierce, pers. comm.). Kukupa (Gradual Decline).

Giant bully (Regionally Significant), banded kokopu (Regionally Significant).

The snail Amborhytida dunniae (Gradual Decline).

### Significance

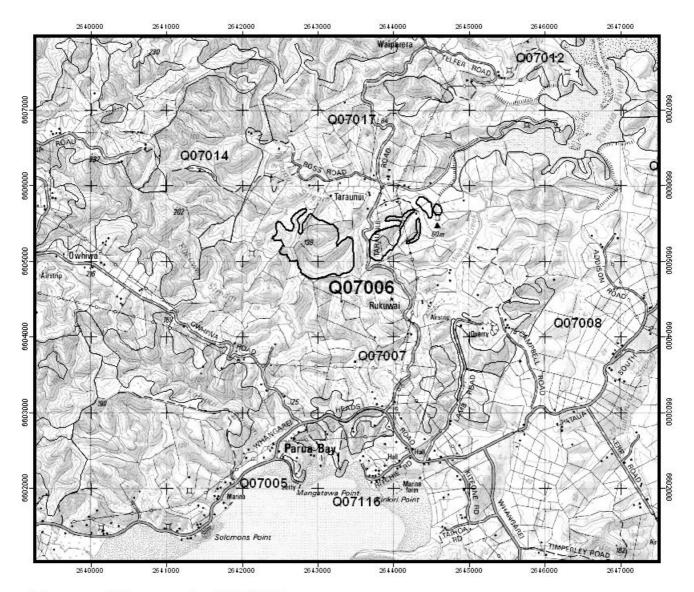
Presence of threatened and regionally significant species. The site is contiguous with large, adjacent forest areas.

Representative site for type (b) mamaku fernland, and type (c) taraire-kanuka/ manuka forest. Only record of type (c) in the Ecological District.

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

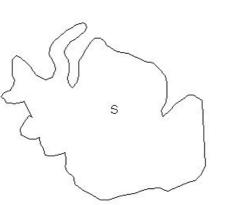
# **TARAUNUI REMNANTS**

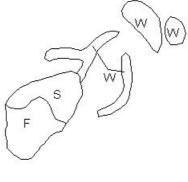
Survey no.	Q07/006
Survey date	6 April 1997
Grid reference	Q07 429 052, Q07 438 052, Q07 444 057, Q07 445 056, Q07 443 054
Area	80 ha (7 ha forest, 64 ha shrubland, 9 ha wetland)
Altitude	20-139 m asl



# Taraunui Remnants Q07/006

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





# Ecological unit

- (a) Kanuka/manuka shrubland on hillslope
- (b) Totara forest on hillslope
- (c) Kauri forest on hillslope
- (d) Open water in artificial pond

# Landform/geology

Dissected hillcountry of Waipapa Terrane greywacke.

#### Vegetation

This site is composed of two small remnants, one on either side of Taraunui Road, and several artificial ponds.

(a) The larger remnant, on the western side of the road, is dominated by kanuka/manuka shrubland with frequent totara. Occasionally occurring species include puriri, rewarewa, tree fern, and emergent kauri and rimu.

The smaller remnant also has an area of type (a) vegetation on the northern side, with frequent totara and puriri, and a few kahikatea.

(b) The remainder of the remnant is composed of secondary forest. Totara dominates the southern end of the remnant, with frequent tanekaha and puriri, and the occasional rewarewa.

(c) To the north of this area is a clump of kauri, with frequent totara and puriri within it.

(d) Four artificial ponds are present downstream of the remnants, and these feed into the upper reaches of the Taiharuru Estuary.

#### Fauna

Grey duck (Nationally Endangered), matuku (Nationally Endangered), pateke (Nationally Endangered), Caspian tern (Nationally vulnerable), white-fronted tern (Serious Decline) visiting, black shag (Sparse), little black shag (Sparse), grey teal (Regionally Significant), Australasian harrier, little shag, NZ kingfisher, NZ shoveler, paradise shelduck, pied stilt, pukeko, white-faced heron,

# Significance

Presence of threatened and regionally significant species, particularly on and around the ponds.

# **RUKUWAI REMNANTS**

Q07/007
6 June 1997
Q07 444 029, Q07 445 035
21 ha (10 ha forest, 11 ha shrubland)
20-60 m asl

#### Ecological unit

- (a) Totara forest on hillslope
- (b) Kanuka/manuka-totara shrubland on hillslope

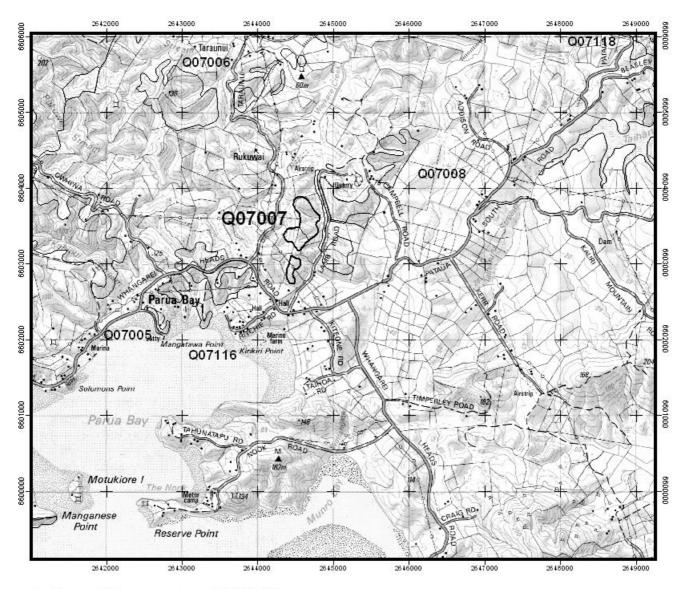
# Landform/geology

Hillcountry of Waipapa Terrane greywacke.

#### Vegetation

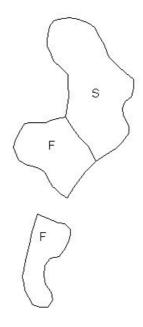
Two small remnants lying between Taraunui and Lamb Roads.

(a) The small southern remnant, as well as the forested section of the northern remnant, are dominated by totara secondary forest. A high diversity of species are frequent throughout this forest type, including rimu, kauri, kahikatea, taraire, puriri, and kanuka/manuka.



# Rukuwai Remnants Q07/007

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



(b) The remainder of the site is composed of kanuka/manuka-totara shrubland. Rimu, kauri, puriri, and tanekaha are all present in low numbers.

#### Fauna

Kukupa (Gradual Decline).

## Significance

Presence of a threatened species.

Partial linkage function, and protection of water and soil values.

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

# **CAMPBELL ROAD REMNANTS**

Survey no.	Q07/008
Survey date	21 May 1997
Grid reference	Q07 452 038, Q07 457 043, Q07 450 031, Q07 450 035, Q07 448 037
Area	64 ha (41 ha forest, 19 ha shrubland, 4 ha wetland)
Altitude	20-60 m asl

#### Ecological unit

- (a) Totara forest on hillslope
- (b) Kanuka/manuka-rimu-tanekaha shrubland on hillslope
- (c) Kauri-rimu forest on ridge
- (d) Raupo-jointed twig rush wetland on flat
- (e) Raupo-reed meadow grass wetland on flat
- (f) Kanuka/manuka-totara forest on hillslope
- (g) Kahikatea forest on hillslope
- (h) Kanuka/manuka-rimu-totara forest on hillslope

# Landform/geology

Hillcountry of Waipapa Terrane greywacke.

# Vegetation

Three small forest remnants, one with an adjacent small wetland.

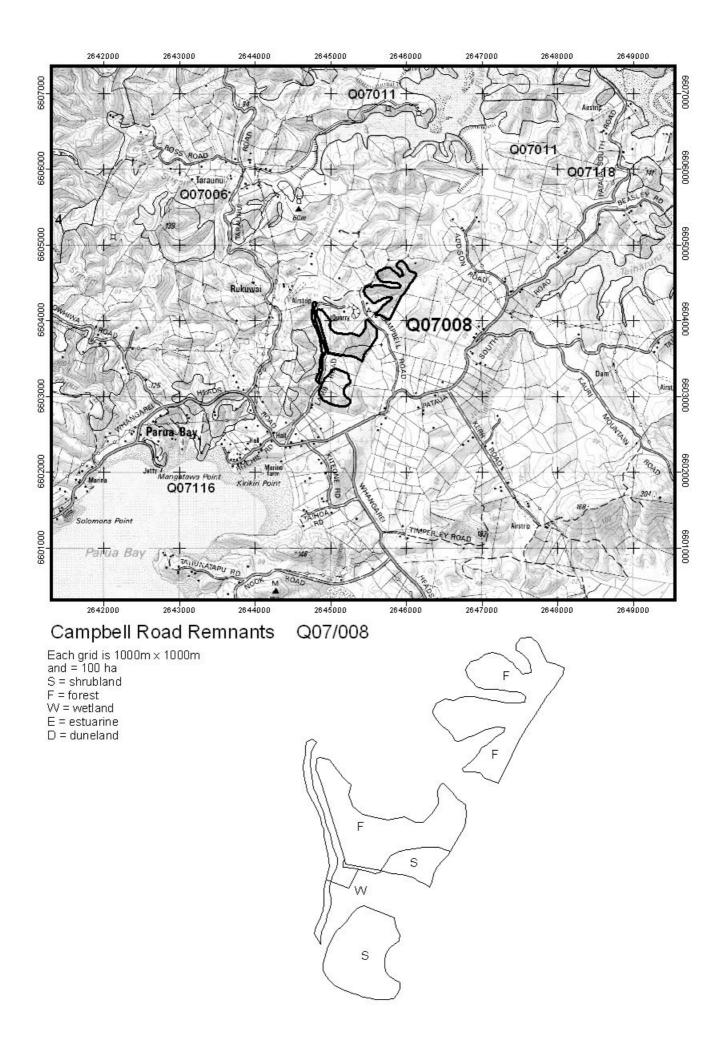
(a) The remnant to the north of Campbell Road is comprised of totara forest, with frequent kanuka/manuka, and occasional kahikatea, tanekaha, rimu, kauri, rewarewa, and puriri.

Type (a) vegetation is repeated in the remnant to the south, with rimu, kauri, kahikatea, and tanekaha frequent.

(b) In the south-eastern corner of the site is an area of kanuka/manuka-rimutanekaha shrubland. Emergent kauri, kahikatea, and rewarewa occur occasionally.

(c) The ridges within this area have some small pockets of kauri-rimu forest, with frequent tanekaha.

(d) Along the southern border of this middle remnant is a small raupo-jointed twig rush wetland, with occasional harakeke, kahikatea and ti kouka. Swamp millet is the dominant ground cover.



(e) The wetland extends along the west side of Lamb Road, and is dominated by raupo and reed meadow grass. Harakeke is frequent, with occasional kahikatea, ti kouka and manuka.

(f) The northern part of the southern remnant along Lamb Road consists of kanuka/manuka-totara forest, with frequent rimu and kahikatea, and occasional tanekaha, rewarewa and kauri.

(g) This remnant contains a very small area of kahaikatea forest with totara and nikau.

(h) The southern part of this remnant consists of kanuka/manuka-rimu-totara forest with occasional kauri and towai.

# Fauna

Matuku (Nationally Endangered), spotless crake (Sparse). Previous records of *Amborbytida dunniae* (Gradual decline).

#### Significance

Presence of two threatened bird species.

Representative site for types (d) raupo-jointed twig rush wetland, and type (e) raupo-reed meadow grass wetland, and the only records of these vegetation types in the Ecological District.

# TAIHARURU ESTUARY REMNANTS

Survey no.	Q07/009
Survey date	5 June 1997
Grid reference	Q07 503 077, Q07 491 049, Q07 500 072, Q07 499 079,
	Q07 493 053, Q07 498 071, Q07 498 070, Q07 490 074,
	Q07 482 073, Q07 486 069
Area	80 ha (48 ha forest, 32 ha shrubland)
Altitude	0-110 m asl

#### Ecological unit

- (a) Totara forest on hillslope
- (b) Kanuka/manuka shrubland on hillslope
- (c) Taraire-totara forest on hillslope
- (d) Kanuka/manuka-totara shrubland on hillslope
- (e) Pohutukawa coastal forest on hillslope
- (f) Kanuka/manuka-pohutukawa coastal forest on hillslope

#### Landform/geology

Coastal hills of Waipapa Terrane greywacke adjoining the Taiharuru Estuary.

## Vegetation

Series of small coastal remants bordering the Taiharuru Estuary.

(a) The remnant on the north-west corner of the estuary contains a small area of totara forest on the western side, with occasional kauri, rimu, puriri, rewarewa, and karaka.

(b) The majority of this remnant is composed of kanuka/manuka shrubland of up to 3 m in height. Totara is frequent, with occasional puriri.



E F (c) Within this remnant and adjacent to the estuary is a small area of tarairetotara secondary forest. Frequent species include kahikatea, kauri, rimu, kowhai, and karaka, with puriri less common.

On the eastern side of Pataua South Road is an area of shrubland dominated by type (b) vegetation on the northern side. Gorse is frequent.

(d) On the southern side of this remnant, adjacent to the estuary, kanuka/ manuka-totara shrubland occurs, with occasional puriri and ti kouka.

(e) Moving eastwards are two small pohutukawa coastal remnants. Kanuka/ manuka and puriri are frequent, with occasional kohekohe, kowhai, and harakeke.

On the opposite side of the estuary, adjacent to Taiharuru settlement, type (a) vegetation is repeated in two small remnants. Frequent species include puriri, kowhai, pohutukawa, and kanuka/manuka, with kauri less common.

The only other remnants on the Taiharuru Estuary are at the southern end of the estuary, at the end of Beasley Road. Type (e) vegetation is repeated in the northern remnant. Associated species include tanekaha, totara, and kowhai, as well as kauri in small amounts.

(f) The southern remnant consists of kanuka/manuka-pohutukawa forest with frequent totara. Rewarewa, kauri, and puriri occur occasionally

#### Fauna

Common forest birds. The snail *Liarea turriculata* "Manaia" (Range Restricted) is also present.

## Significance

The remnants contain a relatively high diversity of vegetation types, and are the few estuarine forest areas left on the Taiharuru Estuary. The remainder of the estuarine margin has been modified, and consists primarily of pasture. These remnants provide an important buffer function. Presence of a threatened landsnail.

Representative site for type (e) pohutukawa coastal forest.

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

# NGAMATENGAU POINT COASTAL REMNANTS

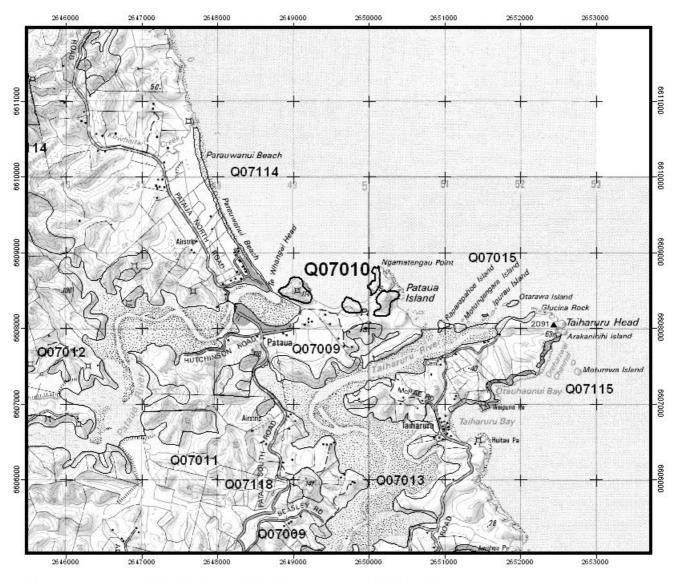
Survey no.	Q07/010
Survey date	5 June 1997 - 3 December 2004
Grid reference	Q07 502 083, Q07 501 086, Q07 490 084, Q07 497 082
Area	23 ha
Altitude	0-76 m asl

## Ecological unit

- (a) Harakeke-pohutukawa coastal association on steep hillslope
- (b) Pohutukawa coastal forest on hillslope
- (c) Kanuka/manuka-pohutukawa coastal forest on headland
- (d) Kanuka coastal forest on hillslope
- (e) Pohutukawa coastal forest on cliffs

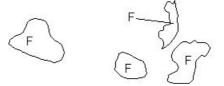
## Landform/geology

Coastal headland of Waipapa Terrane greywacke.



Ngamatengau Point Coastal Remnants Q07/010

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



# Vegetation

Four small coastal remnants.

(a) The western remnant consists of harakeke-pohutukawa coastal association on the north-east face. Houpara is frequent, with ti kouka and kowharawhara occasional.

(b) Old growth pohutukawa forest dominates the southern face of this remnant. Frequent species include puriri, kanuka/manuka, houpara and *Coprosma* spp.

Occasional species include tawapou, ti kouka, karaka, kahikatea, ponga, mahoe and whau.

(c) The remnants to the east along the coast consist of kanuka/manuka-pohutukawa coastal forest, with the occasional puriri and ti kouka.

(d) The larger remnant to the south-east is dominated by kanuka forest.

(e) The adjacent cliffs feature pohutukawa.

# Significant flora

*Calystegia tugoriorum* (Regionally Significant), tawapou (Regionally Significant).

## Fauna

Kukupa (Gradual Decline).

# Significance

The remnants contain old-growth pohutukawa forest, which is a rare forest type in Northland and a nationally threatened habitat type. Representative site for type (a) kanuka/manuka-pohutukawa coastal forest, and type (c) pohutukawa coastal forest.

Presence of a threatened bird species, and two plants of regional significance.

8.1 ha at this site are administered by the Department of Conservation.

# **PATAUA ESTUARY REMNANTS**

Survey no.	Q07/011
Survey date	26 June 1997
Grid reference	Q07 471 072, Q07 468 084, Q07 461 062, Q07 458 074,
	Q07 474 066, Q07 465 073, Q07 463 081, Q07 457 067,
	Q07 467 087
Area	109 ha (107 ha forest, 2 ha shrubland)
Altitude	0-80 m asl

#### Ecological unit

- (a) Kanuka/manuka shrubland on hillslope
- (b) Kauri coastal forest on ridge
- (c) Totara-kanuka/manuka forest on hillslope
- (d) Kanuka/manuka-kauri-totara forest on hillslope
- (e) Kanuka/manuka forest on hillslope
- (f) Kanuka/manuka-tanekaha-totara forest on hillslope
- (g) Totara forest on hillslope

#### Landform/geology

Coastal hills of Waipapa Terrane greywacke adjoining the Pataua Estuary.

#### Vegetation

Series of small coastal remnants bordering the Pataua Estuary.

(a) The northern side of Pataua Estuary contains three small coastal forest remnants. The remnant on the south-western side of the site consists of kanuka/ manuka shrubland, with frequent puriri, pohutukawa, totara, kohekohe, kowhai, and tree ferns. Several kahikatea are present near the estuary.

(b) The northern remnant is dominated by kauri secondary forest. Totara is frequent.