## **BICKERSTAFFE RAIL STATION FOREST**

Survey no. Q08/152

Survey date 29 November 2005

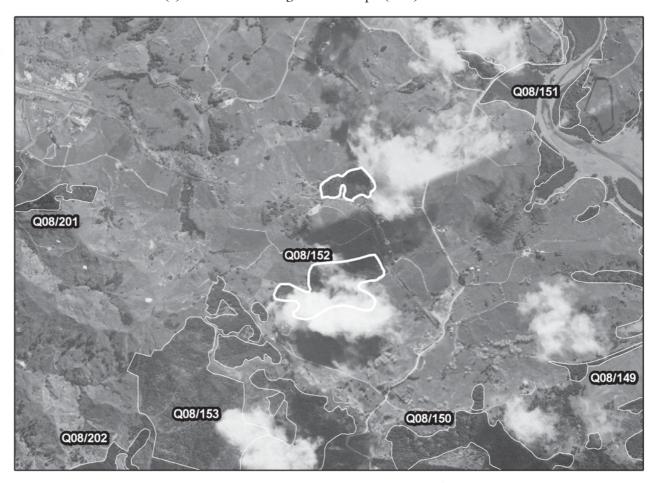
Grid reference Q08 322 623 (2 remnants)

Area 21.7 ha

Altitude 20-117 m asl

# Ecological units

(a) Totara forest on gentle hillslope (60%)



# Q08/152 Bickerstaffe Rail Station Forest

S = Shrubland

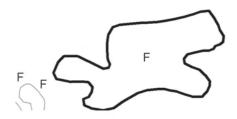
F = Forest

W = Wetland

E = Estuarine







169

- (b) Totara-kahikatea forest in gully (30%)
- (c) Totara-rimu forest on ridge top (10%)

#### Landform/geology

Hillslopes and gullies underlain by melange (undifferentiated Mangakahia & Motatau Complex lithologies).

## Vegetation

This site comprises two indigenous forest remnants in the vicinity of the old rail station at Bickerstaffe, near Maungaturoto. The railway line runs between the two, disappearing into a tunnel just west of the northernmost remnant. The two remnants are some 500 m apart, but share a common forest type (a), and would presumably have been continuous before the intervening land was cleared for pastoral agriculture and mining.

- (a) The main forest type has a canopy dominated by totara with frequent ti kouka and kanuka, and occasional kowhai and mamaku. Occasional emergent kahikatea and matai are present.
- (b) The lower gully of the southern remnant (which has a small creek flowing through it) is dominated by totara, and has common emergent kahikatea. Frequent puriri and emergent rimu occur. Also present are several species at less than 5% canopy cover, including kowhai, karaka, ti kouka, titoki, taraire, tanekaha and hinau.
- (c) Around a ridge top in the southern remnant there are stands of totara and rimu.

#### Fauna

Australasian harrier, kingfisher.

## Significance

This site is representative for two ecological units: (a) totara forest on gentle hillslope, and (c) totara-rimu forest on ridge top. Two separately-owned but contiguous QEII Open Space Covenants (10.1 ha in total, or 47% of the site) cover the middle section of the southern forest remnant (ecological units (b) and (c)).

#### **BICKERSTAFFE FOREST AND SHRUBLAND**

Survey no. Q08/153

Survey date 29 November 2005

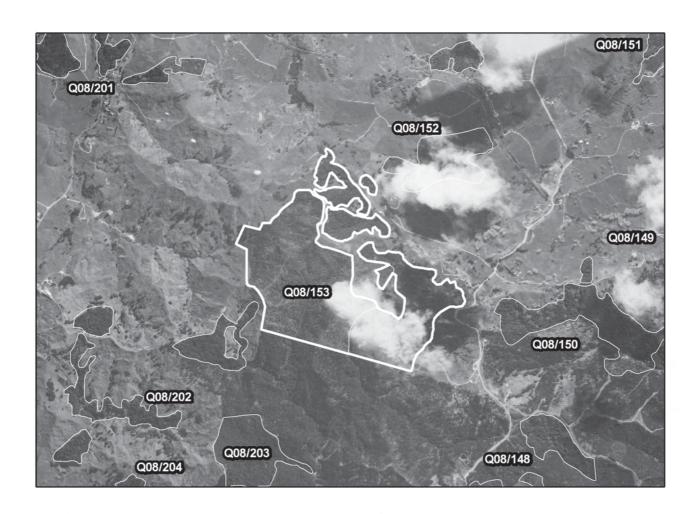
Grid reference Q08 316 614 (4 remnants)

Area 98.0 ha (43.0 ha forest, 55.0 ha shrubland)

Altitude 60-140 m asl

## Ecological units

- (a) Manuka-kanuka-mahoe shrubland on moderate to steep hillslope (56%)
- (b) Taraire forest on moderate to steep hillslope (19%)
- (c) Totara forest on moderate to steep hillslope (15%)
- (d) Taraire-pukatea forest in gully (5%)
- (e) Totara-puriri forest on moderate to steep hillslope (5%)

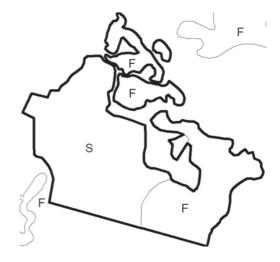


# Q08/153 Bickerstaffe Forest and Shrubland

F = Forest
W = Wetland
E = Estuarine

S = Shrubland





## Landform/geology

Hillslopes and gullies underlain by Cretaceous-Paleocene sandstone and mudstone (Mangakahia Complex).

## Vegetation

This site comprises a large area of indigenous shrubland forest (seventh largest in Otamatea ED Northland) centred on a hill between Marohemo and Bickerstaffe Roads, near the town of the Maungaturoto. The southern edge of the site abuts extensive radiata pine, and the remaining edges abut pasture or

occasionally, gorse scrub. The most mature vegetation in the site is in the southeastern corner, which is within a QEII Open Space Covenant (6.3 ha in total). This has been fenced since 1986 (3-wire fence) to exclude livestock, but feral goats, and smaller mammals can still access it (according to QEII National Trust records). Three small creeks have their origins within the site.

- (a) The main vegetation type is shrubland, dominated in varying percentages over the site by manuka, kanuka and mahoe. Many parts of the shrubland were not visible from public roads, therefore the composition and area covered by this type were estimated from field survey combined with study of recent aerial photography (flown in 2002). From both Marohemo and Bickerstaffe Roads it was possible to determine that gorse, ti kouka, totara and mamaku all appear frequently in the shrubland.
- (b) The vegetation on east-facing slopes in the QEII Open Space Covenant (as well as in some areas outside the covenant) comprises a richly diverse community in which taraire occupies at most 30% of the canopy and other prominent elements are kahikatea, totara and nikau (all below 20% canopy cover). Occasional species include mamaku, rewarewa, rimu, puriri, karaka, pukatea, titoki, putaputaweta, lancewood, kohekohe, tarata, ti kouka and kanuka.
- (c) In the northern part, near Bickerstaffe Rail Station Forest (Q08/152), there are isolated remnants of totara forest with frequent kahikatea and occasional tarata.
- (d) In the gully below and upstream of the QEII Open Space Covenant occurs an interesting forest of taraire mixed with an equal proportion of emergent pukatea. Frequent species in this mixture are mamaku, nikau and emergent kahikatea. Also present are tarata, rewarewa, titoki, karaka, lancewood and ti kouka.
- (e) In the northern area, totara forest occurs at the top of a small creek. Puriri is common with occasional nikau and taraire.

### Fauna

Not surveyed.

#### Significance

This site is representative for taraire forest on moderate to steep hillslope and taraire-pukatea forest in gully (the latter is not known from elsewhere in the Northland Conservancy part of the ED). It is significant for being one of the largest areas of contiguous shrubland and forest in Otamatea ED Northland, and includes a wide variety of habitat types. A QEII Open Space Covenant covers 6.3 ha of this site, which corresponds to part of type (b) taraire forest.

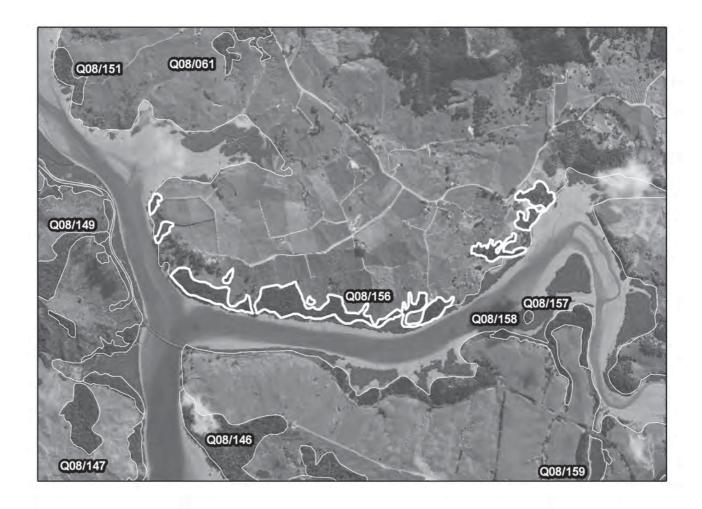
#### POINT CURTIS ROAD COASTAL FOREST REMNANTS

Survey no. Q08/156

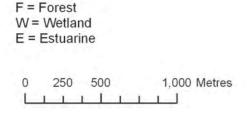
Survey date 2 December 2005

Grid reference Q08 365 610 (9 remnants)

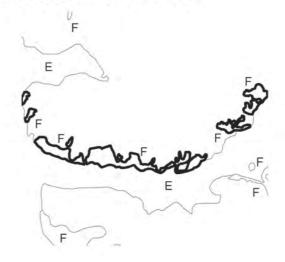
Area 27.1 ha
Altitude 0-60 m asl



# Q08/156 Point Curtis Road Coastal Forest Remnants



S = Shrubland



## Ecological units

- (a) Totara-kanuka forest on gentle hillslope (40%)
- (b) Totara-kahikatea forest on gentle coastal margin (35%)
- (c) Totara-kauri-kahikatea forest on gentle coastal margin (20%)
- (d) Kauri-totara forest on gentle coastal margin (5%)

# Landform/geology

Coastal hillslopes of Cretaceous sandstone and mudstone (Mangakahia Complex) and Oligocene micritic limestone (Mahurangi Limestone, Motatau Complex).

#### Vegetation

This site comprises a string of nine forest remnants along the southern coast of Point Curtis, which extends westwards from the foot of Pukeareinga out into the Kaipara Harbour, dividing the Wairau River from the Kaiwaka River. The remnants are narrow (at most 200 m wide) and fragmented, with various secondary forest types of different ages. Many parts appear to be fenced off from adjacent pasture.

- (a) The main forest type is dominated by totara in association with kanuka, frequent kahikatea, kauri, rimu, and occasional kowhai, ti kouka, karaka and large radiata pine. This generally occurs on the upper side of the remnants, adjacent to paddocks.
- (b) In one main area towards the centre of the site, totara-kahikatea forest with frequent kauri rickers occurs. There is an unusually high density of tall kahikatea spars.
- (c) At two points along the coast a forest of abundant totara with common emergent kauri rickers and kahikatea spars. Associated with these are frequent tanekaha and occasional ti kouka and lancewood.
- (d) At the western end, a relatively steep coastal ridge has stands of kauri rickers emergent over totara. Further east, similar topography also has a high density of kauri rickers, some of which extend down to the water's edge. Associated with this type are frequent kahikatea and tanekaha, and occasional puriri.

#### Fauna

Kingfisher.

## Significance

This site is representative for (c) totara-kauri-kahikatea forest on gentle coastal margin, which is not recorded elsewhere in the Northland Conservancy part of this ED.

## **DONALDSON'S FOREST**

Survey no. Q08/157

Survey date 13 January 2006 Grid reference Q08 380 606

Area 8.1 ha
Altitude 0-20 m asl

# Ecological unit

(a) Totara-kanuka-kowhai forest on gentle coastal margin (100%)

## Landform/geology

Coastal banks on Pleistocene alluvium.

# Vegetation

This site comprises a narrow (<150 m) coastal stretch of forest fringing a peninsula in the Kaiwaka River. The forest type appears to be quite consistent throughout: dominant totara with equally common kanuka and kowhai.

174