

TUATARANUI HEADWATERS

Survey no. O04/125
Survey date 2 November 1994
Grid reference O04 538 740
Area 32.3 ha
Altitude 120-300 m asl

Ecological unit

(a) Secondary totara shrubland on steep hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units.

Vegetation

Totara shrubland in steep gullies with tutu and towai and occasional manuka, mamaku, puriri and kahikatea. The surrounding land has been planted in pines.

Fauna

NI brown kiwi (Category A threatened species).

Significance

Habitat for threatened species and riparian protection in steep headwaters.

Linked to Puhoi Reserve (O04/126) through pine plantation.

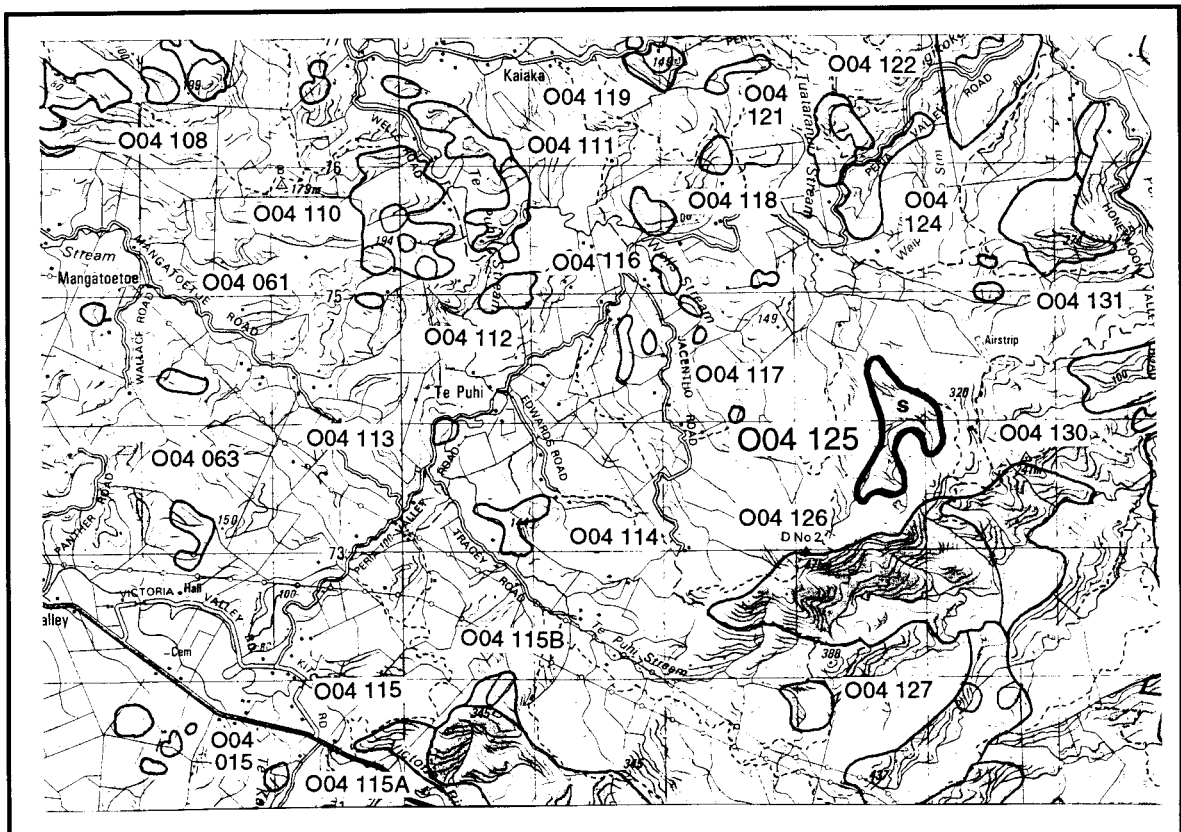


Figure 104. Tuataranui Headwaters, O04 125

Each grid is 1000 m × 1000 m and equals 100 ha. s = shrubland.

PUHOI RESERVE

Survey no. O04/126
Survey date 2 November 1994
Grid reference O04 540 730
Area 240 ha
Altitude 150-475 m asl

Ecological unit

- (a) Taraire-towai forest on hillslope
- (b) Open manuka shrubland on hillslope
- (c) Towai-manuka shrubland on hillslope

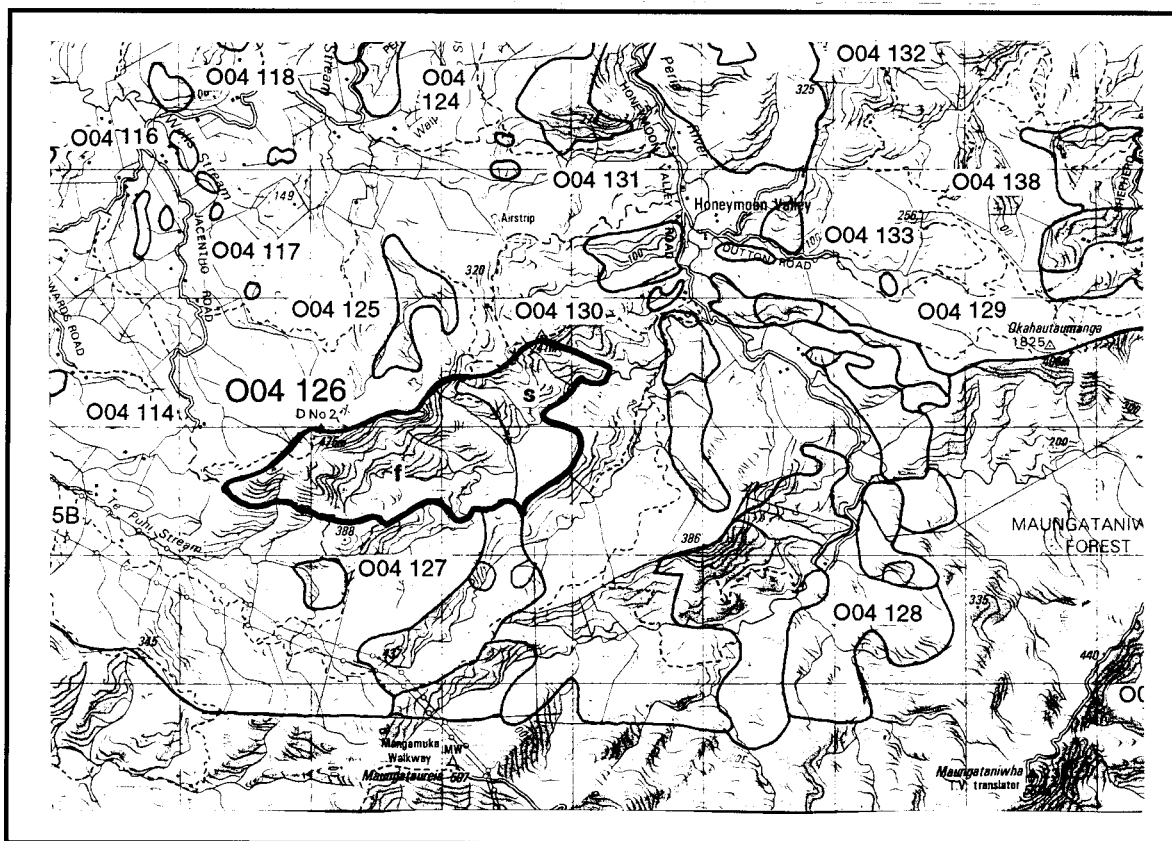
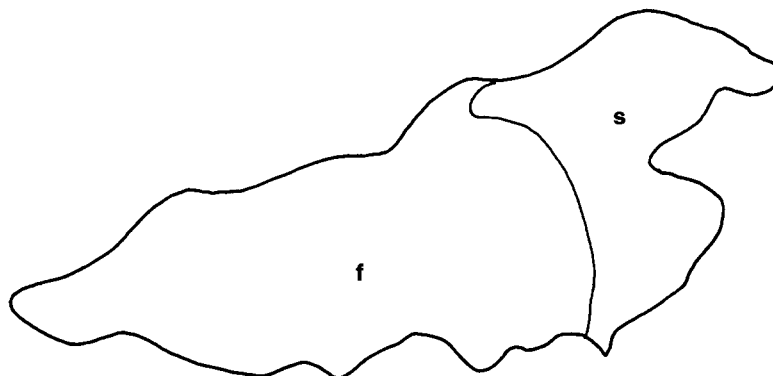


Figure 105. Puhoi Reserve, O04 126
Each grid is 1000 m x 1000 m and equals 100 ha.
f = forest; s = shrubland.



Landform/geology

Hill country of Tangihua Complex igneous rock units.

Vegetation

This area adjoins Maungataureia (O04/127) as well as being linked to other sites in Honeymoon Valley itself.

Type (a) Taraire-towai forest. Tall forest with northern rata emergent over tawa, rimu, rewarewa, puriri, hinau, kohekohe, pukatea, totara, kahikatea and a wide variety of understorey species including dense supplejack and parataniwha. Although this area was logged in 1979 and contains extensive logging tracks (some of which are infested with mistweed and Mexican devilweed, others grassy) the structure of the forest is still intact and birdlife is abundant.

Type (b) Open manuka shrubland on hillslope. Just under half of the area is mixed regeneration. On margins, ridges and old logging clearings there are scattered patches of grass with manuka, ring fern, mistweed and Mexican devilweed, and with towai, mamaku, tutu, totara, rewarewa and white rata vine.

Type (c) Towai-manuka shrubland. In the gullies of the regenerating area is tall secondary towai with frequent manuka. Totara, rewarewa and mamaku also occur.

Fauna

NI brown kiwi (Category A threatened species), NZ pigeon (Category B threatened species), NI tomtit (regionally significant species); kauri snail (Category C threatened species).

Significance

A large, diverse area, linked by regenerating shrubland, fernland and scrub with the Maungataniwha Forest to the south, providing an extended habitat for several significant and threatened bird species.

Representative site for towai-taraire forest and manuka-towai shrubland.

The site is owned by the NZ Native Forest Restoration Trust and protected by covenant under the Queen Elizabeth II National Trust.

MAUNGATAUREIA

Survey no.	O04/127
Survey date	23 September 1994
Grid reference	O04 540 720
Area	92.2 ha
Altitude	160-437 m asl

Ecological unit

- (a) Open manuka shrubland on hillslope
- (b) Towai shrubland on hillslope
- (c) Ringfern fernland on hillslope
- (d) Taraire forest on hillslope
- (e) Taraire-towai forest on hillslope
- (f) Bracken fernland on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units.

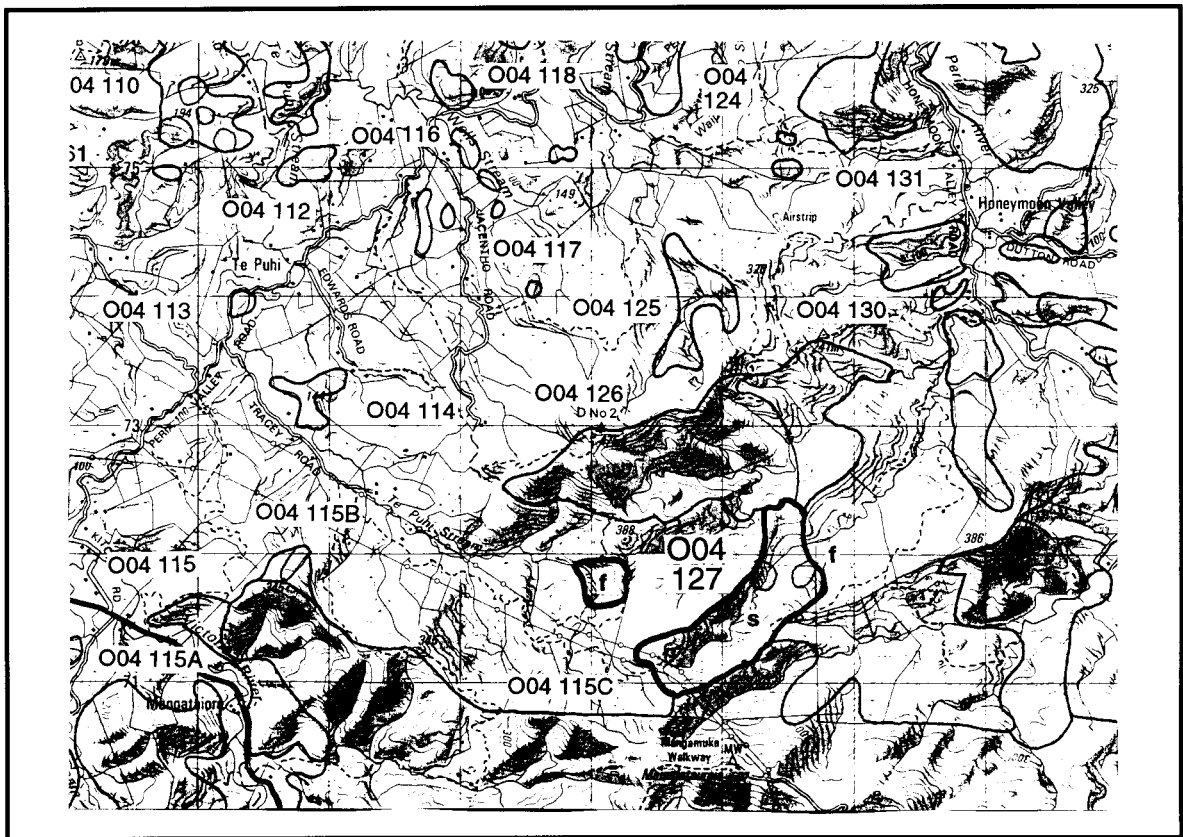
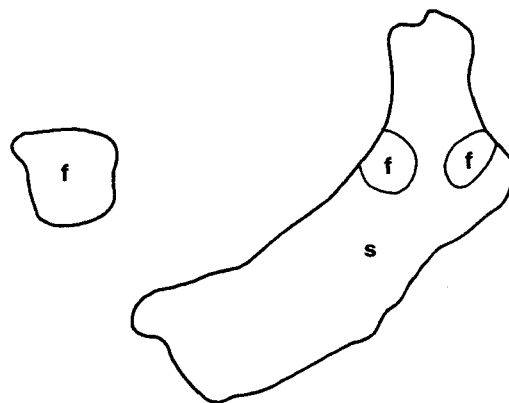


Figure 106. Maungataureia, O04 127
 Each grid is 1000 m x 1000 m and equals 100 ha.
 f = forest; s = shrubland.



Vegetation

The gullies below Maungataureia are reverting from farmland.

Type (a) Manuka shrubland. Consists mainly of manuka with bracken and isolated towai, totara, puriri, rewarewa and tree fern.

Type (b) Towai shrubland. In some gullies low towai is dominant. To the north the regeneration is more advanced and consists mostly of tall towai with totara and manuka, and occasional puriri.

Type (c) Ringfern fernland. Some of the hillsides are mainly ring fern with manuka, towai and occasional totara.

Type (d) Taraire forest. Within the above types are several taraire dominant remnants. Other species occurring include totara, kanuka, puriri, rewarewa, tanekaha, kauri and kahikatea.

Type (e) Towai-taraire forest. To the west is an outlying taraire-towai remnant containing kahikatea, totara, rewarewa and rimu.

Fauna

NI brown kiwi (Category A threatened species) and NZ pigeon (Category B threatened species).

Significance

An extensive area, linking the Puhoi Reserve with Maungataniwha Forest to the south, providing an extended habitat for several important species.

HONEYMOON VALLEY ROAD END

Survey no.	O04/128
Survey date	23 September 1994
Grid reference	O04 570 715
Area	175 ha
Altitude	100-300 m asl

Ecological unit

- (a) Bracken-gorse scrub on hillslope
- (b) Towai shrubland on hillslope
- (c) Taraire-towai forest on hillslope
- (d) Taraire forest on hillslope
- (e) Secondary rimu-totara forest on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units.

Vegetation

Type (a) Bracken-gorse scrub.

Type (b) Towai shrubland. Both of Types (a) and (b) form a mosaic at the end of Honeymoon Valley Road.

Type (c) Taraire-towai forest. A small area near the flats is taraire-towai-dominant with tawa and northern rata. Matai, pukatea and kawaka occur occasionally along with other common forest species.

Type (d) Taraire forest. On both sides of the Peria River is tall taraire-dominant forest, some with plentiful tawa and kohekohe, or else towai. Pukatea, hinau, kawaka and northern rata are present along with other common forest species. Closer to Maungataniwha Forest, rimu is emergent.

Type (e) Rimu-totara forest. On the ridge near the house, is a small area of rimu-totara forest with frequent taraire as well as kauri, northern rata, puriri, rewarewa and nikau.

Significant flora

Kawaka - notable in the Ecological District.

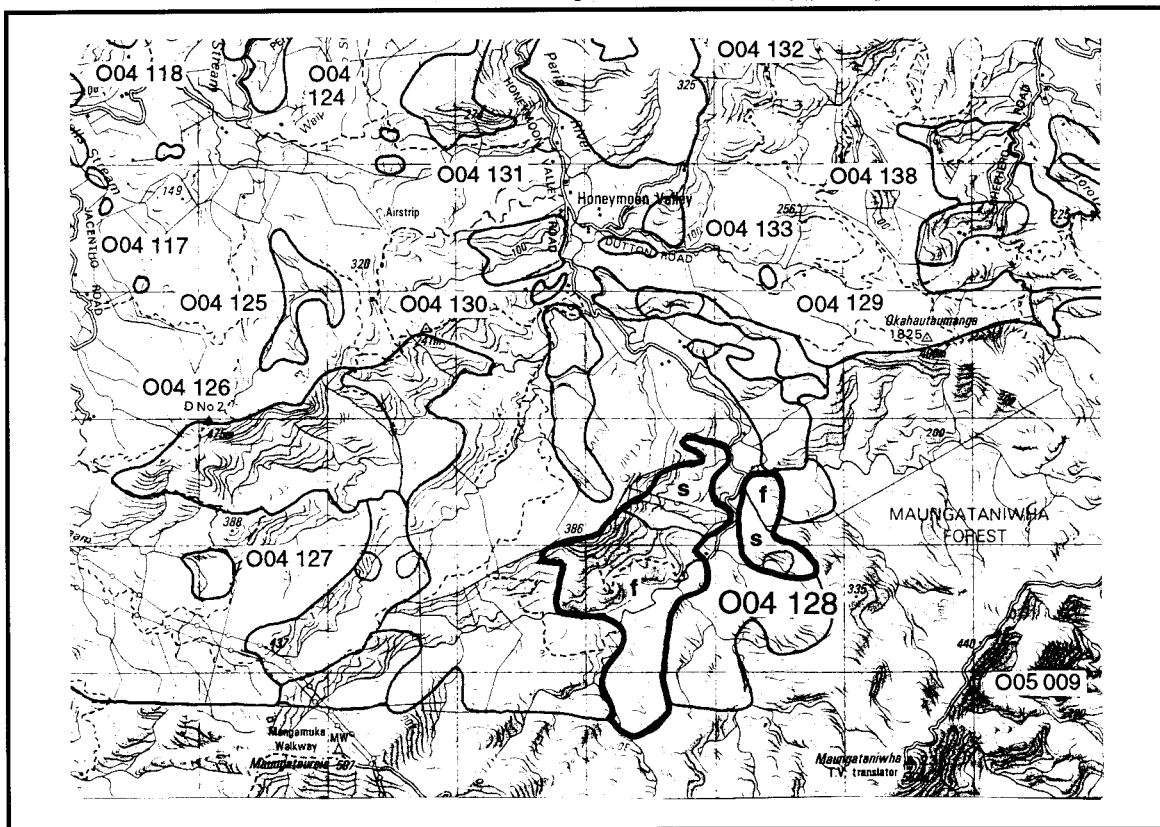
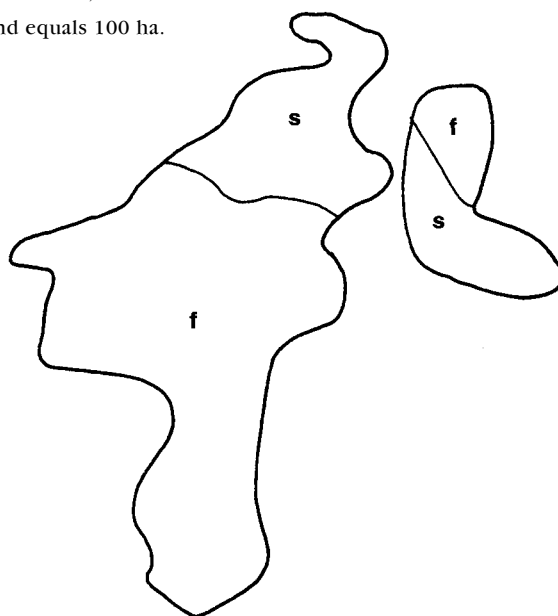


Figure 107. Honeymoon Valley Road End, O04 128
 Each grid is 1000 m × 1000 m and equals 100 ha.
 f = forest; s = shrubland.



Fauna

NI brown kiwi (Category A threatened species), NZ pigeon (Category B threatened species).

Significance

Large area of tall diverse forest, adjacent to Maungataniwha Forest, providing high quality habitat, and containing threatened species.

The area of rimu-totara forest, although small in extent, is the only example of its type in the Ecological District and is uncommon in the Ecological Region.

SOUTHEAST HONEYMOON VALLEY

Survey no. O04/129
 Survey date 23 September 1993
 Grid reference O04 575 730
 Area 69.4 ha
 Altitude 80-280 m asl

Ecological unit

- (a) Manuka shrubland on hillslope
- (b) Manuka-towai shrubland on hillslope

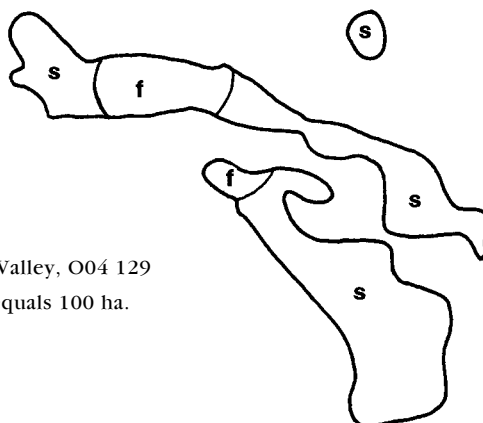
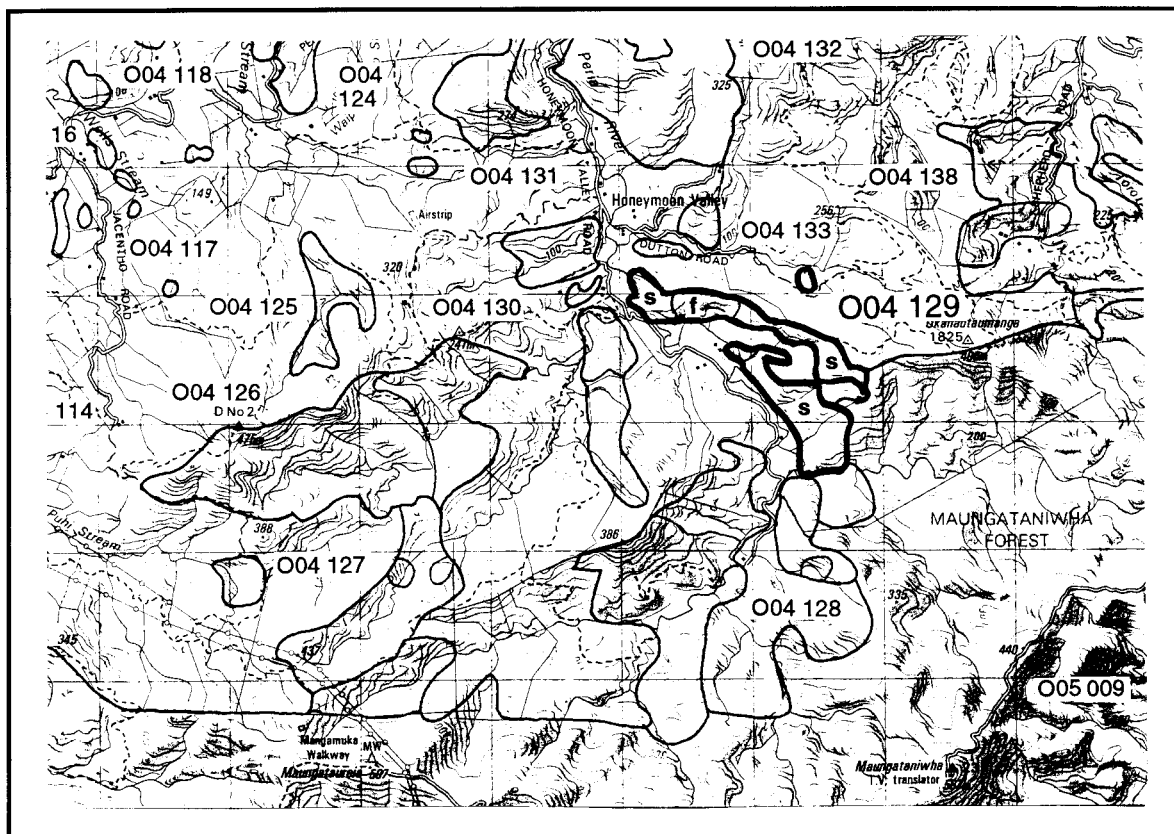


Figure 108. Southeast Honeymoon Valley, O04 129
 Each grid is 1000 m x 1000 m and equals 100 ha.
 f = forest; s = shrubland.

- (c) Towai shrubland on hillslope
- (d) Secondary totara forest on hillslope
- (e) Secondary towai forest on hillslope
- (f) Taraire-puriri forest on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units and adjoining Holocene alluvial flats along the Peria River Valley.

Vegetation

Types (a) to (e). On the eastern side of Honeymoon Valley Rd is a band of shrubland, manuka- or towai-dominant, and secondary towai or totara forest, which links up to Maungataniwha Forest. Mamaku, rewarewa, puriri and totara occur occasionally, with a conspicuous presence of Mexican devilweed.

Type (e) Secondary towai forest. About 10% of the area is secondary towai forest with totara and kahikatea, as well as occasional rimu, puriri and mamaku. Type (f) Taraire-puriri forest. Slightly more than 10% of the area is taraire-puriri dominant with towai, and also containing rimu, kahikatea, karaka, kohekohe, rewarewa, matai, nikau and lancewood.

Fauna

NI brown kiwi (Category A threatened species) and NZ pigeon (Category B threatened species).

Significance

Provides a linkage between Maungataniwha Forest and habitats to the north including Peria River(O04/132).

Habitat and corridor for kiwi and NZ pigeon.

HONEYMOON VALLEY CULVERT

Survey no.	O04/130
Survey date	23 September 1994
Grid reference	O04 558 735
Area	75.5 ha
Altitude	100-140 m asl

Ecological unit

- (a) Manuka-towai shrubland on hillslope
- (b) Taraire forest on hillslope
- (c) Manuka-gorse-grass association on hillslope
- (d) Manuka shrubland on hillslope
- (e) Towai shrubland on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units and adjoining Holocene alluvial flats along the Peria River Valley.

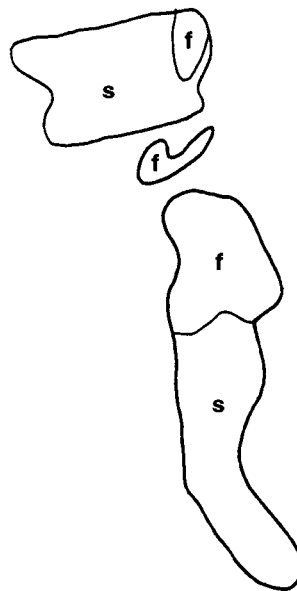
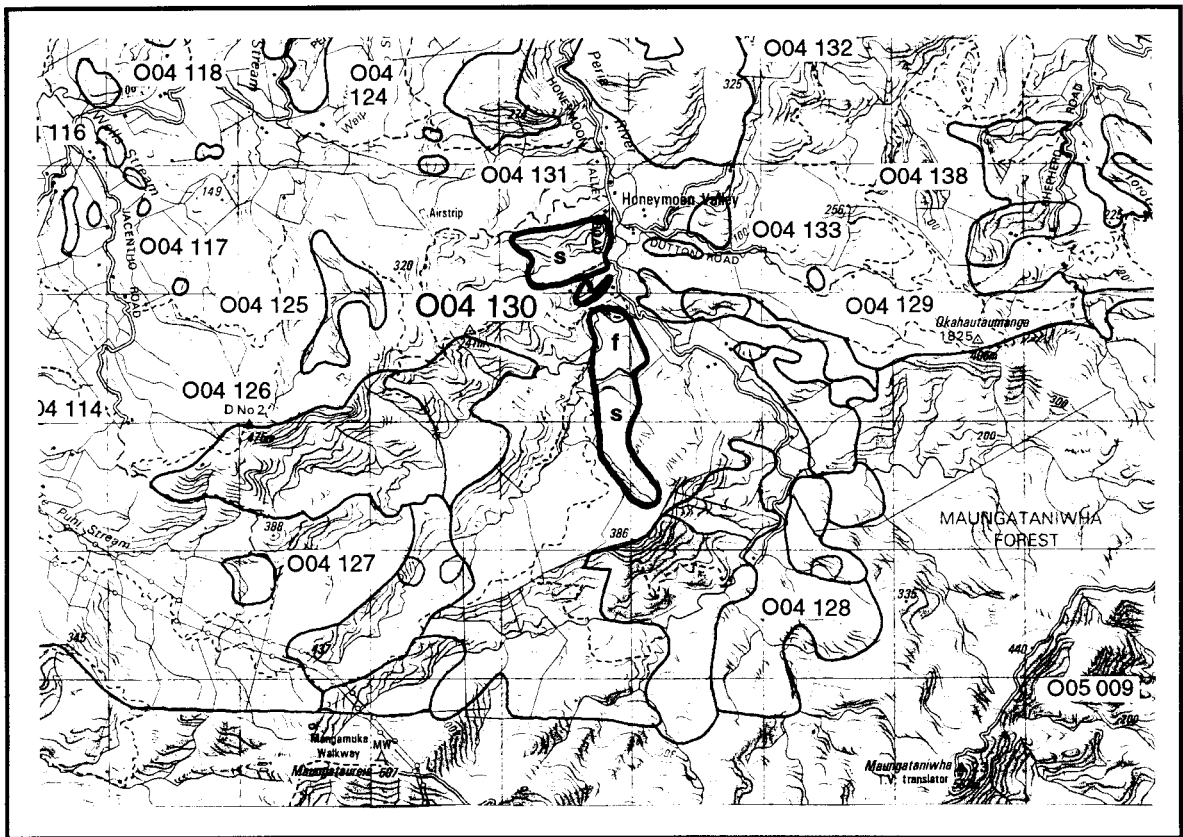


Figure 109. Honeymoon Valley Culvert, O04 130
 Each grid is 1000 m x 1000 m and equals 100 ha.
 f = forest; s = shrubland.

Vegetation

Type (a) Manuka-towai shrubland. Opposite Dutton Rd is a large area of manuka-towai shrubland with mamaku, totara, isolated puriri and some bracken.

Type (b) Taraire forest. A small taraire remnant with totara occurs near the road on the corner of (a). Further down the road, upstream of the culvert, is a good stand of tall taraire forest with totara and towai. This area contains several podocarps including kawaka, as well as puriri and northern rata.

Type (c) Manuka-gorse-grass association. From here a band of regenerating vegetation runs south to some high ridge tops which contains open areas of grass with isolated puriri or totara.

Type (d) Manuka shrubland. Up to about 3 m tall, occurring with (c).

Type (e) Towai shrubland. Occurs near Honeymoon Valley Rd. Mamaku, puriri and totara are frequent. Bracken and kahikatea are occasional.

Significant flora

Kawaka - notable in the Ecological District.

Fauna

NI brown kiwi (Category A threatened species) and NZ pigeon (Category B threatened species).

Significance

Good diversity in the main bush; remaining vegetation acts as a linkage between Maungataniwha Forest and other habitats to the north.

Likely to provide habitat and corridor for kiwi and NZ pigeon.

CHADWICK 274

Survey no.	O04/131
Survey date	12 September 1995
Grid reference	O04 550 755
Area	48.7 ha
Altitude	60-270 m asl

Ecological unit

- (a) Taraire-towai forest on hillslope
- (b) Manuka-kanuka shrubland on hillslope
- (c) Secondary kanuka forest on hillslope
- (d) Taraire forest on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units and adjoining valley in Mangakahia Complex siliceous mudstone to the north-east.

Vegetation

Type (a) Towai-taraire forest. A large area of tall broadleaf forest located on a prominent landscape containing a wide range of other species including kauri, matai, northern rata and pukatea, which was logged for larger specimens in the recent past. The understorey is mainly nikau, mamangi and lacebark with a shrub layer of mahoe, mapou and occasional pate. This area is fenced.

Type (b) Manuka-kanuka shrubland. A small area that also contains some eucalyptus and pines links this area to Type (c).

Type (c) Kanuka forest. In a gully with kahikatea and totara. Puriri and kauri are also present here.

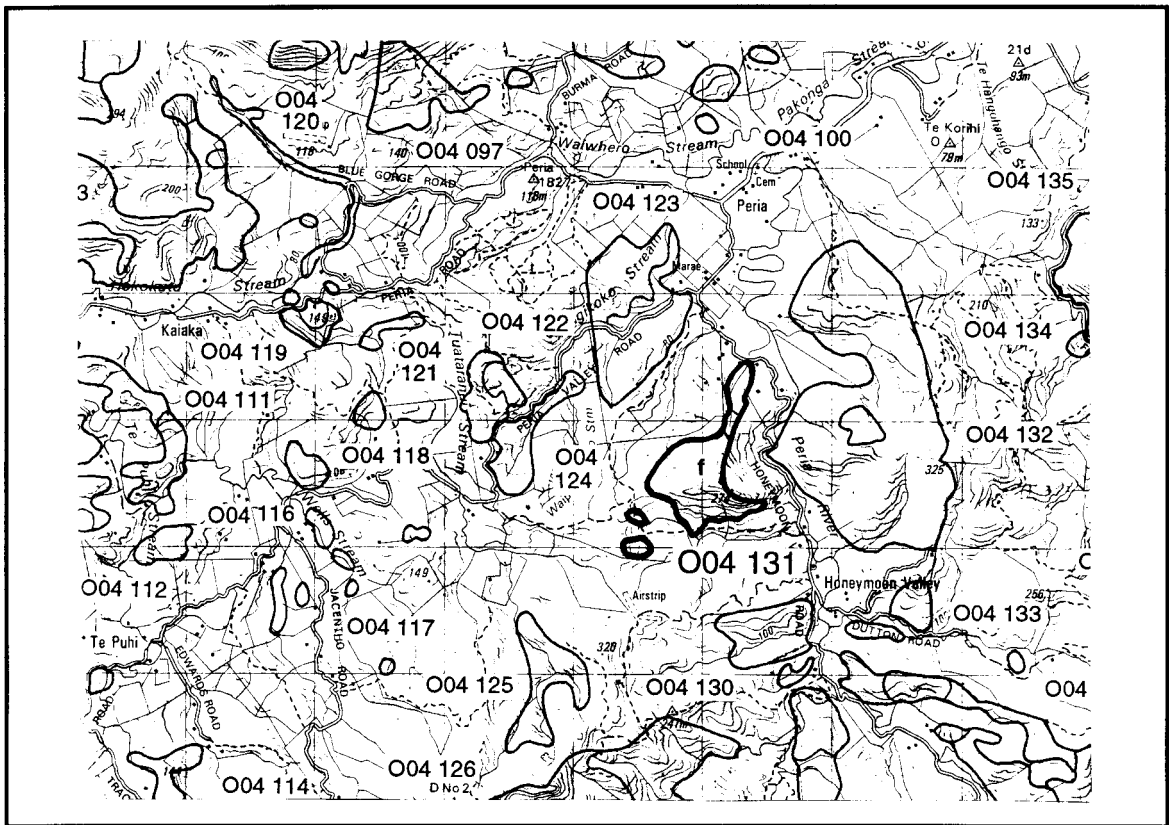
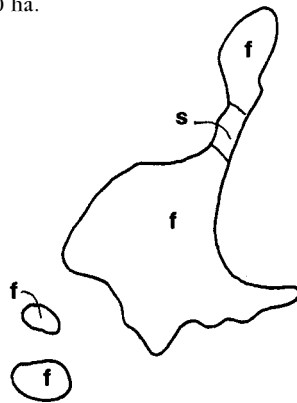


Figure 110. Chadwick 274, O04 131

Each grid is 1000 m x 1000 m and equals 100 ha.

f = forest; s = shrubland.



Type (d) Taraire forest. To the west, two small taraire-dominant remnants with frequent puriri are adjacent. Northern rata, kahikatea, totara and rewarewa are also present.

Fauna

NI brown kiwi (Category A threatened species), kauri snail (Category C threatened species).

Significance

A large, diverse area which is a conspicuous feature in the landscape and habitat for threatened species.

PERIA RIVER

Survey no.	O04/132
Survey date	12 September 1994
Grid reference	O04 564 760
Area	201.9 ha [c. 80 ha cleared since survey]
Altitude	40-325 m asl

Ecological unit

- (a) Manuka-kanuka shrubland on hillslope
- (b) Puriri forest on hillslope
- (c) Taraire-towai forest on hillslope
- (d) Towai-mamaku shrubland on hillslope
- (e) Manuka-towai shrubland on hillslope
- (f) Towai forest on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units in the southern part and Mangakahia Complex sandstone and siliceous mudstone to the north.

Vegetation

Type (a) Manuka-kanuka shrubland. South of Peria is an extensive area of manuka-kanuka shrubland. About one-third of this is about 6 m tall and contains isolated mamaku and puriri. Within and on the perimeter are numerous small areas where there is either a greater degree of weediness or else more advanced regeneration with species such as kauri, tanekaha and kahikatea emerging.

There are also two small areas of forest remnants:

Type (b) Puriri forest. With taraire, tanekaha, kahikatea and kauri and isolated northern rata, rewarewa and totara.

Type (c) Towai-taraire forest. Slightly larger than (b), with kanuka and also contains northern rata, kauri, puriri, rimu, tanekaha and totara.

South of this (the area known locally as the 'Honeymoon Valley Kiwi Reserve'), the vegetation is mainly either:

Type (d) Towai-mamaku shrubland. Tall shrubland with manuka and occasional puriri; or

Type (a) with isolated mamaku and towai; or

Type (e) Towai-manuka shrubland. With frequent bracken and mamaku. Occasional puriri, gorse and Mexican devilweed occur.

Again, within this are smaller, more weedy areas as well as a towai remnant (Type (f)) with taraire and several other species in small numbers.

Fauna

NI brown kiwi (Category A threatened species).

Significance

Kiwi habitat and riparian buffer.

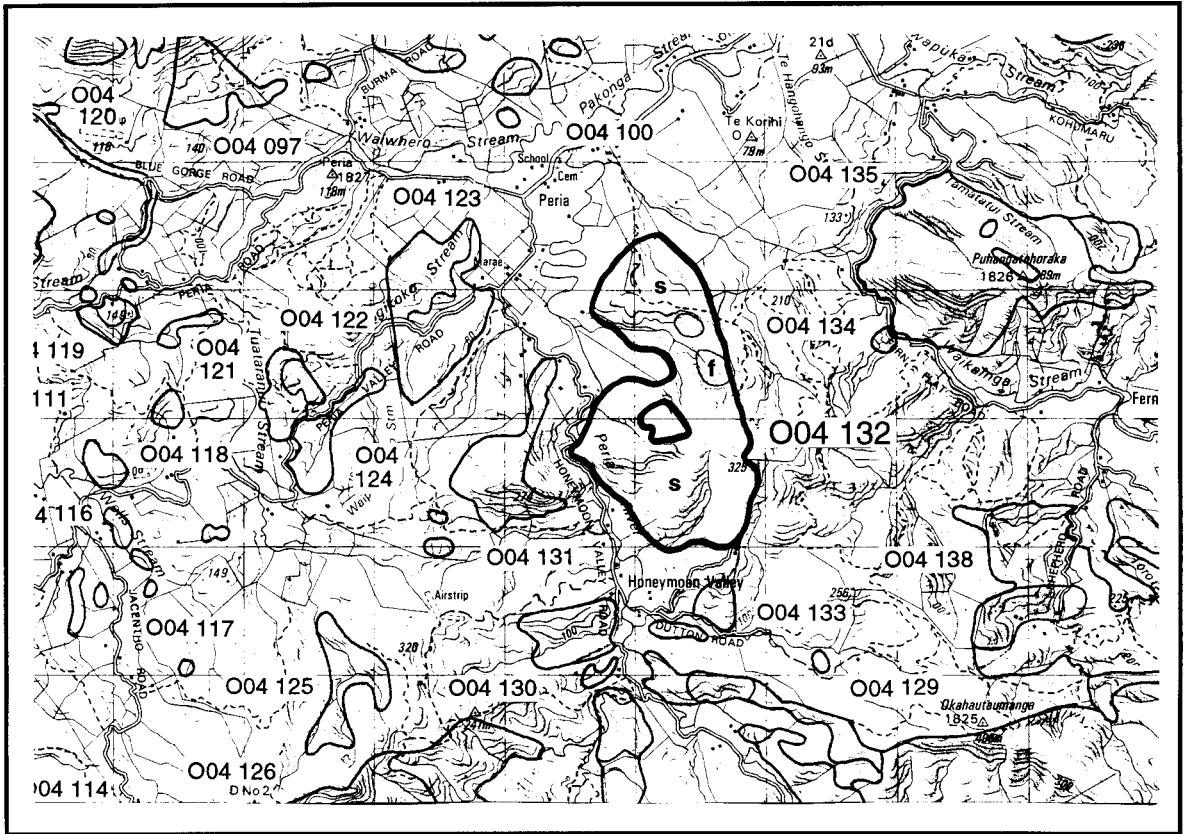
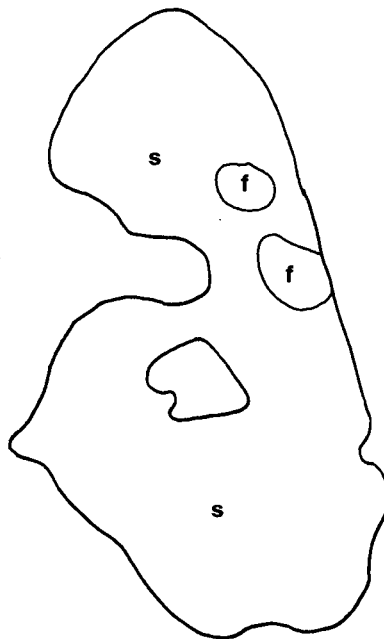


Figure 111. Peria River, O04 132
 Each grid is 1000 m x 1000 m and equals 100 ha.
 f = forest; s = shrubland.



AHITAHİ

Survey no. O04/134
Survey date 12 September 1994
Grid reference O04 579 767
Area 2.8 ha
Altitude 50-100 m asl

Ecological unit

(a) Puriri forest on steep hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units.

Vegetation

A small puriri dominant remnant on a steep hillside above the Waikainga Stream, across the road from the south side of Puhangatahoraka (O04/135). Kahikatea, totara and taraire occur frequently with rimu, rewarewa, nikau, kohekohe and karaka scattered.

Fauna

Not surveyed.

Significance

Representative site for puriri dominance which is a nationally restricted vegetation type.

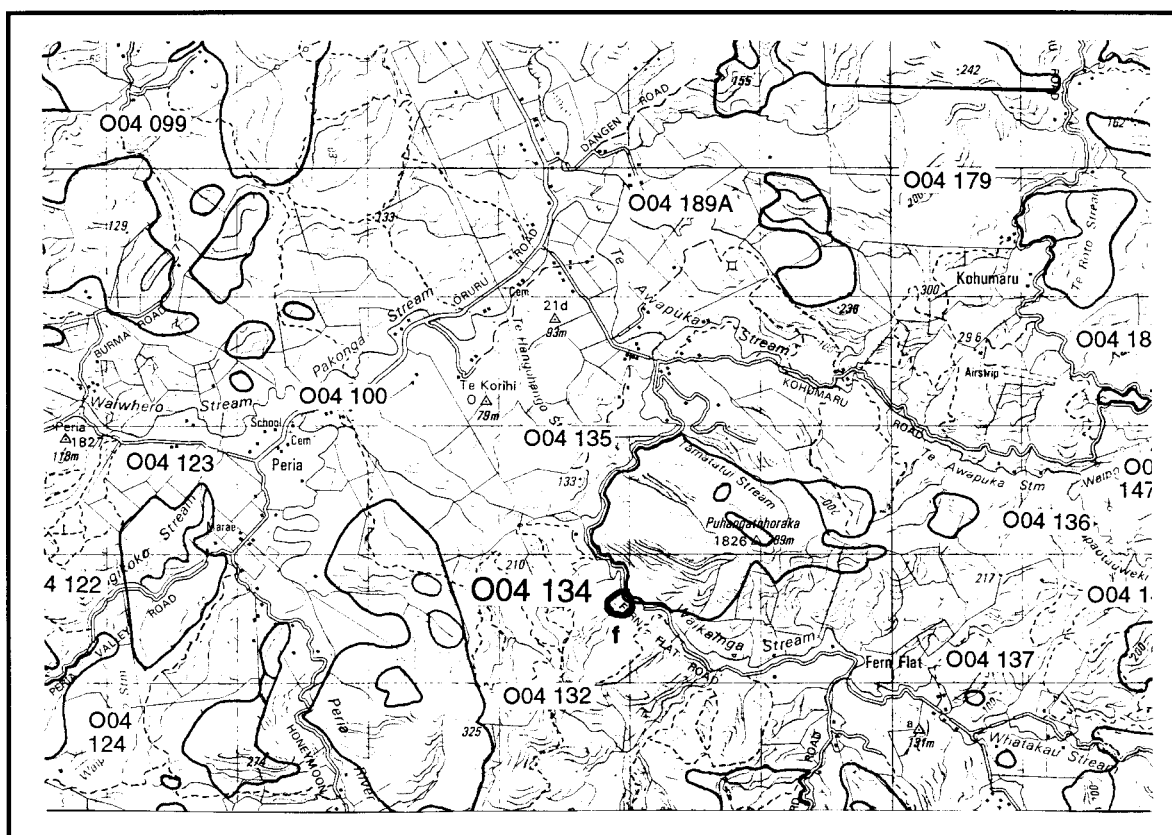


Figure 112. Ahitahi, O04 134

Each grid is 1000 m × 1000 m and equals 100 ha. f = forest.

SHEPHERD RD

Survey no.	O04/138
Survey date	October 1994
Grid reference	O04 600 746
Area	211.3 ha
Altitude	80-225 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Towai-totara shrubland on hillslope
- (c) Puriri-taraire forest on hillslope
- (d) Secondary totara forest on hillslope
- (e) Manuka-kanuka shrubland on hillslope
- (f) Towai-manuka shrubland on hillslope
- (g) Towai shrubland on hillslope
- (h) Manuka-totara shrubland on hillslope
- (i) Bracken fernland on hillslope
- (j) Manuka-mamaku shrubland on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units.

Vegetation

This catchment of the Waikunga stream is about two-thirds shrubland and one-third forest.

Type (a) Taraire forest. In the Toro Stream catchment, the bush is taraire-dominant with frequent towai. Other species occurring are northern rata, kauri, rimu, pukatea, totara, rewarewa, tawa, kahikatea, kohekohe, puriri, titoki, hinau, nikau and mamaku.

On the western side of Shepherd Rd, is a high-quality stand with an even and closed canopy similar to the taraire dominant type described above, with karaka and kawaka occurring occasionally as well.

Type (b) Totara-towai forest. A small area with occasional kauri, rewarewa, kawaka and manuka.

On the western side of Shepherd Rd, there is also a small area of secondary totara-towai forest with manuka and occasional rewarewa, five-finger and mamaku.

Type (c) Puriri-taraire forest. A tiny remnant of puriri dominance with frequent taraire and occasional hinau, rimu, northern rata, totara and rewarewa occurs in the upper west of the valley.

Type (d) Secondary totara forest. On the north-east side of the valley is an area of secondary totara, some of which is entirely totara, and a larger area where manuka and towai occur frequently and kahikatea, lacebark, mahoe, tutu, pate and mamaku occur occasionally.

The main shrubland types are:

Type (e) Manuka-kanuka shrubland. Tall shrubland with totara, towai, mahoe and five-finger scattered throughout. Midway up the valley there is less five-finger, and rewarewa, rimu, mamaku, tutu or pate occur.

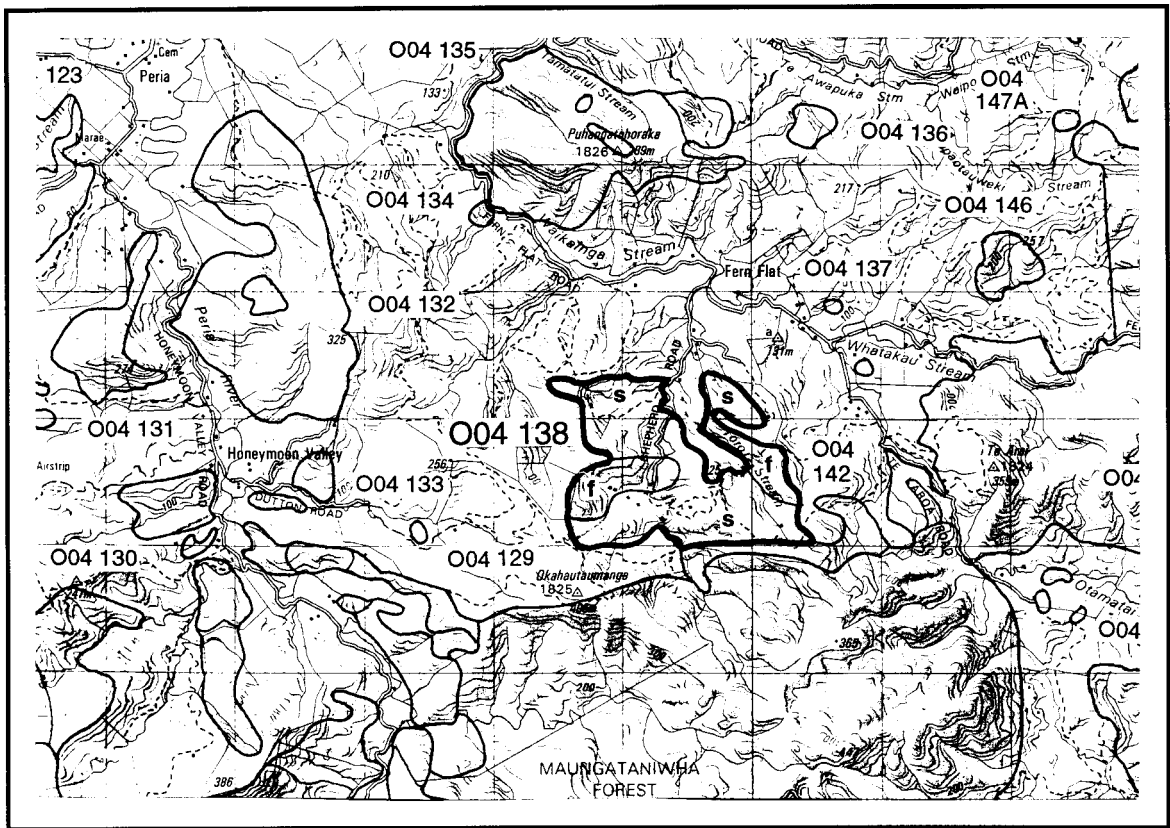
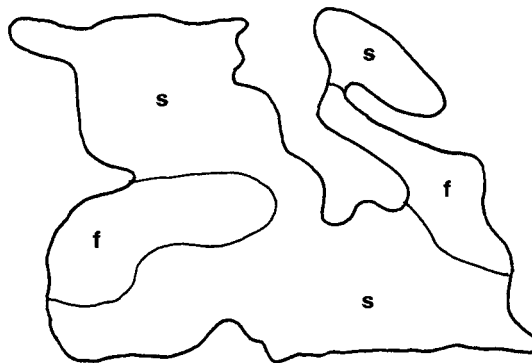


Figure 113. Shepherd Road, O04 138

Each grid is 1000 m x 1000 m and equals 100 ha.

f = forest; s = shrubland.



Shrubland between 2 and 4 m with abundant tree ferns and occasional totara, five-finger, pate, tutu, hangehange and mahoe also occurs.

Type (f) Manuka-towai shrubland. With totara, mahoe and mamaku.

Type (g) Towai shrubland. To 4 m with manuka, bracken, mistweed, Mexican devilweed, hangehange, tutu, mahoe, mamaku and five-finger. Towai to 6 m with manuka and taraire and occasional rewarewa, puriri, totara, kahikatea, lancewood, mamaku and nikau.

Type (h) Totara-manuka shrubland. To 4 m with open grass and occasional rimu.

Type (i) Bracken fernland. Mistweed and Mexican devilweed is likely to be frequent or common, with manuka, mamaku and occasional towai, lacebark, pate, mahoe, tutu, grass, pampas and hangehange.

Type (j) Manuka-mamaku shrubland. With occasional mahoe, totara and rangiora.

Significant flora

Kawaka - notable in the Ecological District.

Fauna

NI brown kiwi (Category A threatened species)

Significance

A large area which is habitat for kiwi.

Representative site for taraire forest and manuka-mamaku shrubland.

74 ha (at GR O04 595 743) is protected under a Queen Elizabeth II National Trust covenant.

TE KAROA

Survey no.	O04/144
Survey date	October 1994
Grid reference	O04 645 760
Area	1311.9 ha
Altitude	60-360 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Taraire-rimu forest on hillslope
- (c) Taraire-towai forest on hillslope
- (d) Secondary kahikatea forest on toeslope
- (e) Secondary towai-totara-kahikatea forest on hillslope
- (f) Secondary totara-mamaku forest on hillslope
- (g) Secondary totara-kahikatea forest on hillslope
- (h) Towai-mamaku shrubland on hillslope
- (i) Manuka shrubland on hillslope
- (j) Mamaku shrubland on steep hillslope
- (k) Towai shrubland on hillslope
- (l) Towai-manuka shrubland on hillslope
- (m) Secondary kanuka forest on hillslope and ridge
- (n) Secondary towai forest on hillslope
- (o) Secondary rewarewa forest on hillslope
- (p) Kauri forest on hillslope
- (q) Nikau-kahikatea forest on toeslope

Landform/geology

Hill country of Tangihua Complex igneous rock units.

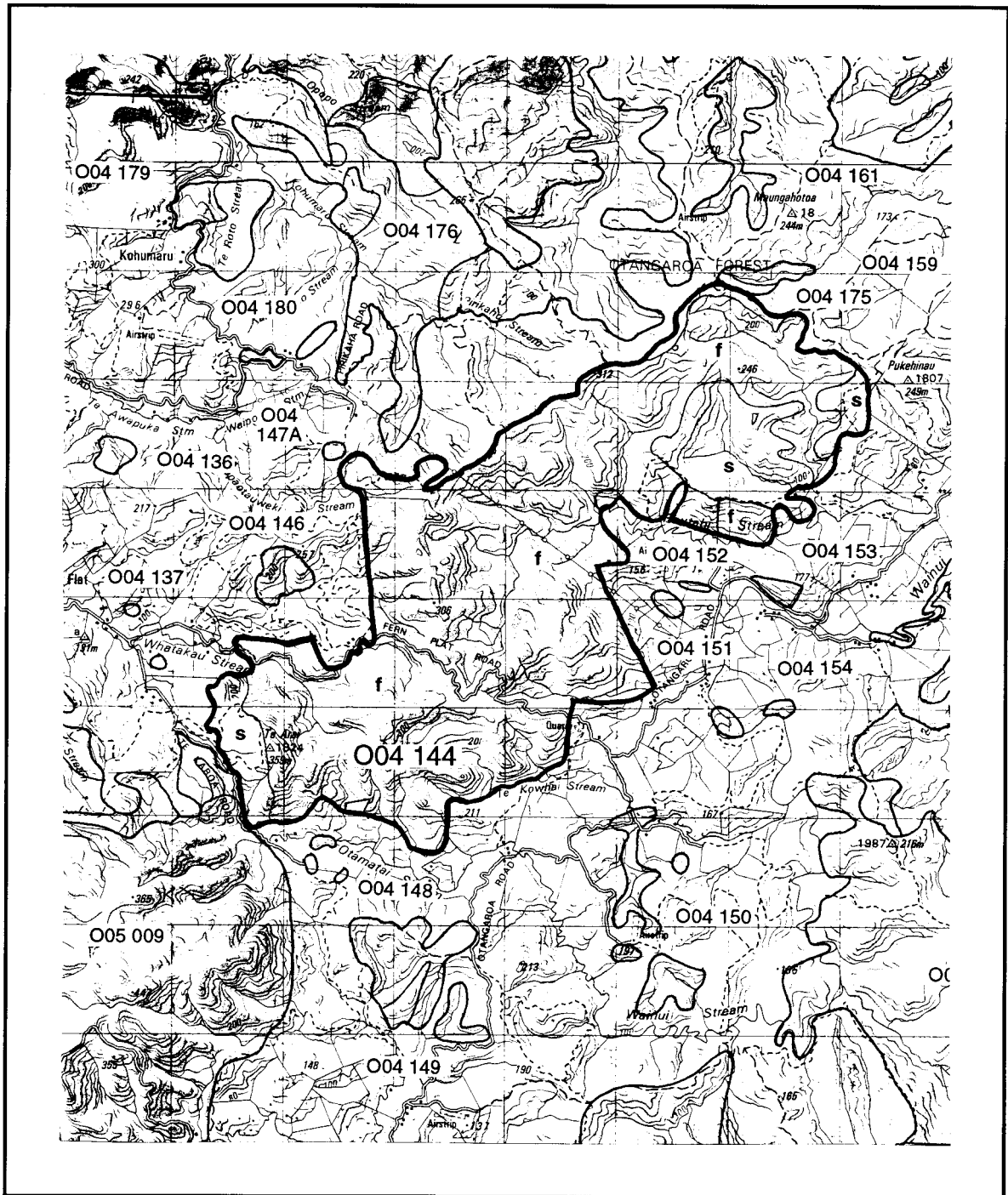
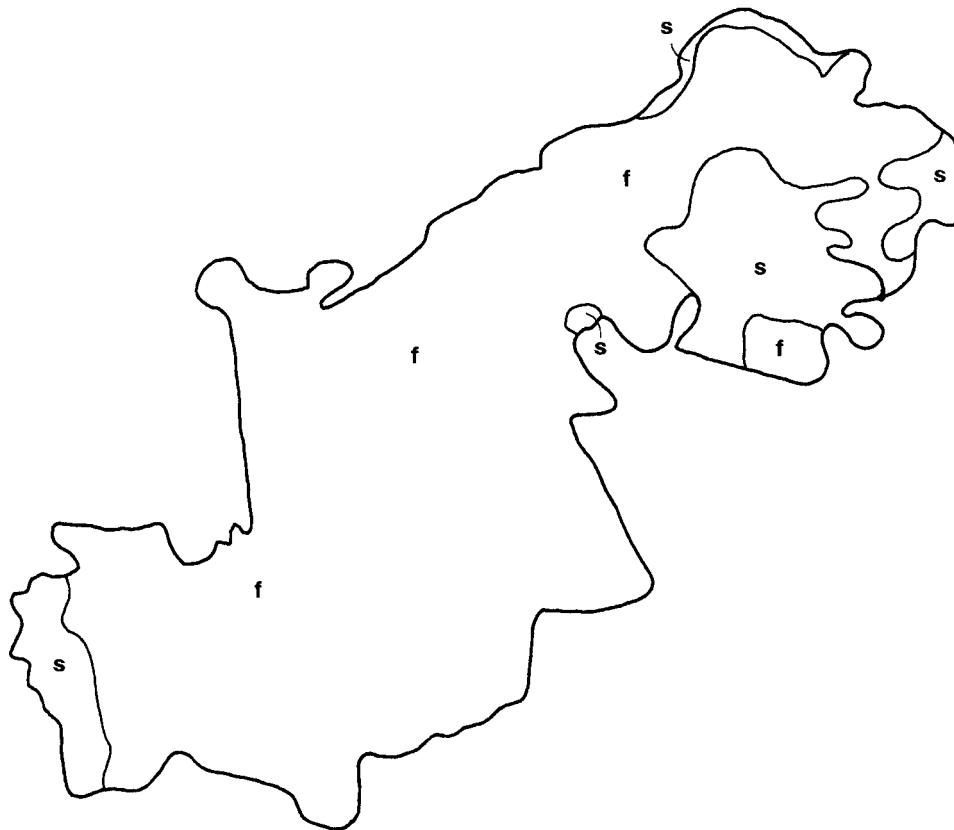


Figure 114 (above and opposite). Te Karoa, O04 144
 Each grid is 1000 m × 1000 m and equals 100 ha.
 f = forest; s = shrubland.

Vegetation

A large contiguous area of land between Te Karoa and Kenana Rds.

Type (a) Taraire forest. Between Te Karoa and Fern Flat Rd most of the area is tall broadleaf-podocarp forest which is taraire-dominant. In the northern sector, emergent rimu is co-dominant (Type (b)). Associated species are northern rata, towai, totara, rewarewa, kohekohe, miro, kahikatea, kauri and kanuka.



Near Te Arai, taraire dominates, with towai frequent along with northern rata. Matai, pukatea and kauri also occur here.

East of Fern Flat Rd, taraire is dominant with towai, rewarewa, puriri and emergent rimu and northern rata. The canopy is very diverse, with kahikatea, totara, tanekaha, pukatea, hinau, miro, kawaka, matai, lancewood, kohekohe, tawa, emergent kauri, nikau and tree ferns.

Type (c) Towai-taraire forest. Occurs on the north-west and southern sides. As well as the species mentioned above, tawa is present.

Type (d) Secondary kahikatea forest. Occurs on the fringe of the southern spur of the forest.

On the margins between Te Karoa and Fern Flat Rd, where there has been some modification, there are various forms of regeneration. On the northern side there is:

Type (e) Towai-kahikatea-totara forest. A small area near the road on the western side.

Type (f) Totara-mamaku forest. With towai and occasional puriri, pate, mahoe, tutu as well as macrocarpa and open grass.

Type (g) Totara-kahikatea forest. With occasional towai, mamaku and northern rata (less than 1%).

To the south is:

Type (h) Towai-mamaku forest. With totara, rewarewa, mahoe and tutu (west of the quarry).

Type (i) Manuka shrubland. To 4 m with totara and occasional five-finger, towai, mamaku, mamangi and mahoe.

Type (j) Mamaku shrubland. With frequent mahoe.

On the western margins can be found:

Type (k) Towai shrubland. Tall vegetation with occasional pate, mahoe, mamaku, rimu and five-finger or with frequent mamaku and manuka, as well as totara, kahikatea, rewarewa and puriri.

Type (l) Towai-manuka shrubland. Between 4 and 6 m with occasional rewarewa and five-finger.

Small areas of other forms of towai and manuka shrubland also occur. On the margins, east of Fern Flat Rd the vegetation tends to be less mature. There are three main types of regenerating vegetation:

Type (m) Secondary manuka-kanuka forest. Either with tanekaha, kauri and rimu or with towai, rewarewa and cabbage tree. Both occur on the eastern margin of the habitat.

Type (n) Secondary towai forest. With rewarewa and tree fern. Other species occurring in the regenerating areas are totara, kahikatea, rimu, mahoe, five-finger, pate, makamaka, mamangi, *Gabnia* sp., pampas, and the occasional puriri.

Type (o) Secondary rewarewa forest. Several very small pockets occur at the end of Airstrip Rd, and on the northern edge of the habitat in which towai and nikau are locally common or frequent. Associated species are mamaku, mahoe, puriri, five finger, pate and makamaka.

Type (p) Kauri forest. East of Fern Flat Rd there is a very small area of emergent kauri dominance within Type (a).

Type (q) Nikau-kahikatea forest. Occurs near the end of Te Karoa Rd with frequent wheki and occasional rewarewa and lacebark.

Significant flora

Kawaka - notable in the Ecological District.

Fauna

NI brown kiwi (Category A threatened species), NZ pigeon (Category B threatened species), NI tomtit (regionally significant species); kauri snail (Category C threatened species); banded kokopu (Category C threatened species).

Significance

A large intact habitat of tall mature forest adjoining the Maungataniwha Range and linking northwest to the Otangaroa and Kohumaru complexes, important for viable populations of species such as NI brown kiwi and NZ pigeon.

In addition, it is floristically diverse, with some of the best rimu stands remaining in the District, mainly in the Te Karoa Reserve.

It is a representative site for taraire forest, towai-taraire forest, kahikatea forest, kauri forest, manuka and manuka-kanuka shrubland and mamaku tree fern. It is

the only site in the Ecological District where towai-rewarewa forest, rewarewa-nikau forest, rewarewa forest and taraire-rimu forest have been recorded.

Protected land within this site includes 166.7 ha of Scenic Reserve and 550 ha of stewardship land administered by the Department of Conservation and 93.5 ha of land on the southern side, east of Fern Flat Rd, protected by Queen Elizabeth II National Trust covenant.

LACOLMVILLE

Survey no. O04/146
Survey date 19 July 1994
Grid reference O04 620 763
Area 17.2 ha
Altitude 140-240 m asl

Ecological unit

(a) Taraire forest on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units.

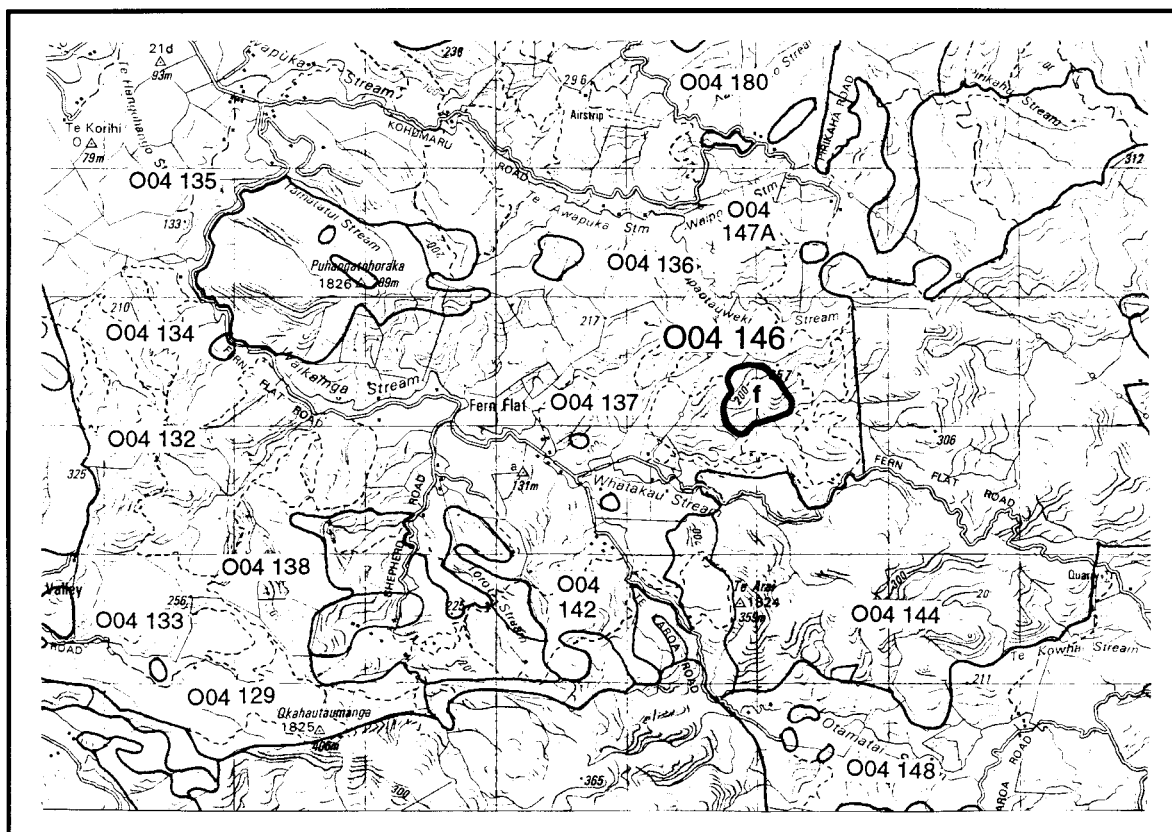


Figure 115. Lacolmville, O04 146

Each grid is 1000 m x 1000 m and equals 100 ha. f = forest.

Vegetation

A tall, taraire-dominant forest remnant with frequent rewarewa. Miro, totara, puriri, mamaku and emergent rimu are scattered throughout. At the time of survey, the large number of feral goats in the vicinity were impacting heavily on the understorey.

Fauna

NI brown kiwi (Category A threatened species).

Significance

Habitat for kiwi and near to O04/144.

OTANGAROA

Survey no.	O04/149
Survey date	24 November 1994
Grid reference	O04 635 728
Area	81 ha [c. 20 ha cleared since survey]
Altitude	70-200 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Secondary towai-totara-kauri forest on ridge
- (c) Manuka shrubland on hillslope
- (d) Ringfern-bracken-grass association on hillslope

Landform/geology

Hill country of Mangakahia Complex sandstone and siliceous mudstone.

Vegetation

Type (a) Taraire forest. Most of the area is taraire forest with frequent towai. Rimu, rewarewa, kahikatea, pukatea, tanekaha, puriri, northern rata, totara, kohekohe, manuka, nikau and tree ferns are scattered throughout. The understorey consists of kiekie, pigeonwood, mapou, *Coprosma spatbulata* and *C. rhamnoides* (Kingett-Mitchell).

Type (b) Secondary towai-totara-kauri forest. Comprises about 10% with occasional rimu, rewarewa, tanekaha and tawa.

Type (c) Manuka shrubland. About 2-3 m tall, occurs on the margins.

Type (d) Ringfern-bracken-grass association. Open grass areas with ringfern and bracken as well as a little manuka also occur on the margins.

Fauna

NI brown kiwi (Category A threatened species).

Significance

A reasonably large area with a diverse canopy, close to the Maungataniwha Range and a partial linkage from that forest to Puketi-Omahuta Forest to the south.

A representative site and only site in the Ecological District where the towai-totara-kauri forest association has been recorded.

Habitat for threatened species.

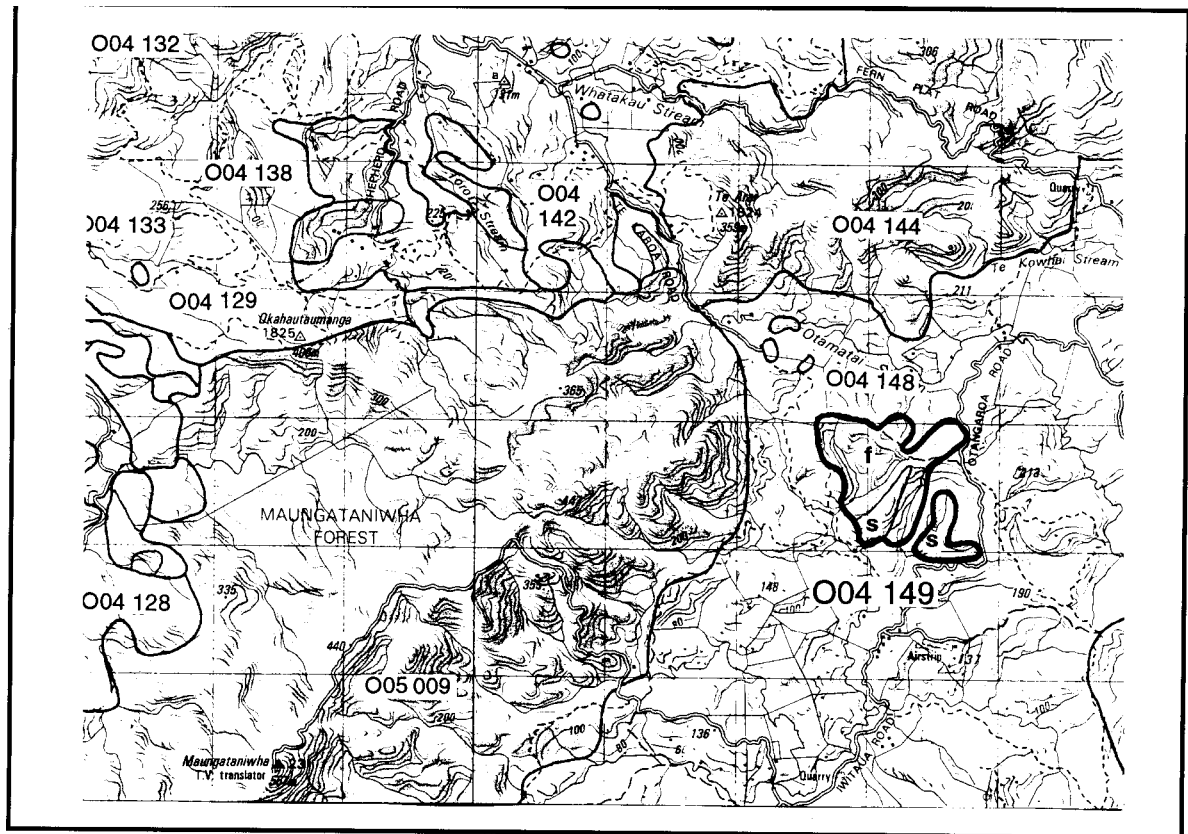
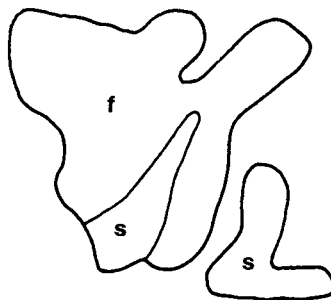


Figure 116. Otangaroa, O04 149
 Each grid is 1000 m x 1000 m and equals 100 ha.
 f = forest; s = shrubland.



LINSSEN (OTANGAROA RD)

Survey no. O04/150
 Survey date 15 December 1994
 Grid reference O04 653 735
 Area 46.6 ha
 Altitude 80-200 m asl

Ecological unit

(a) Towai shrubland on hillslope

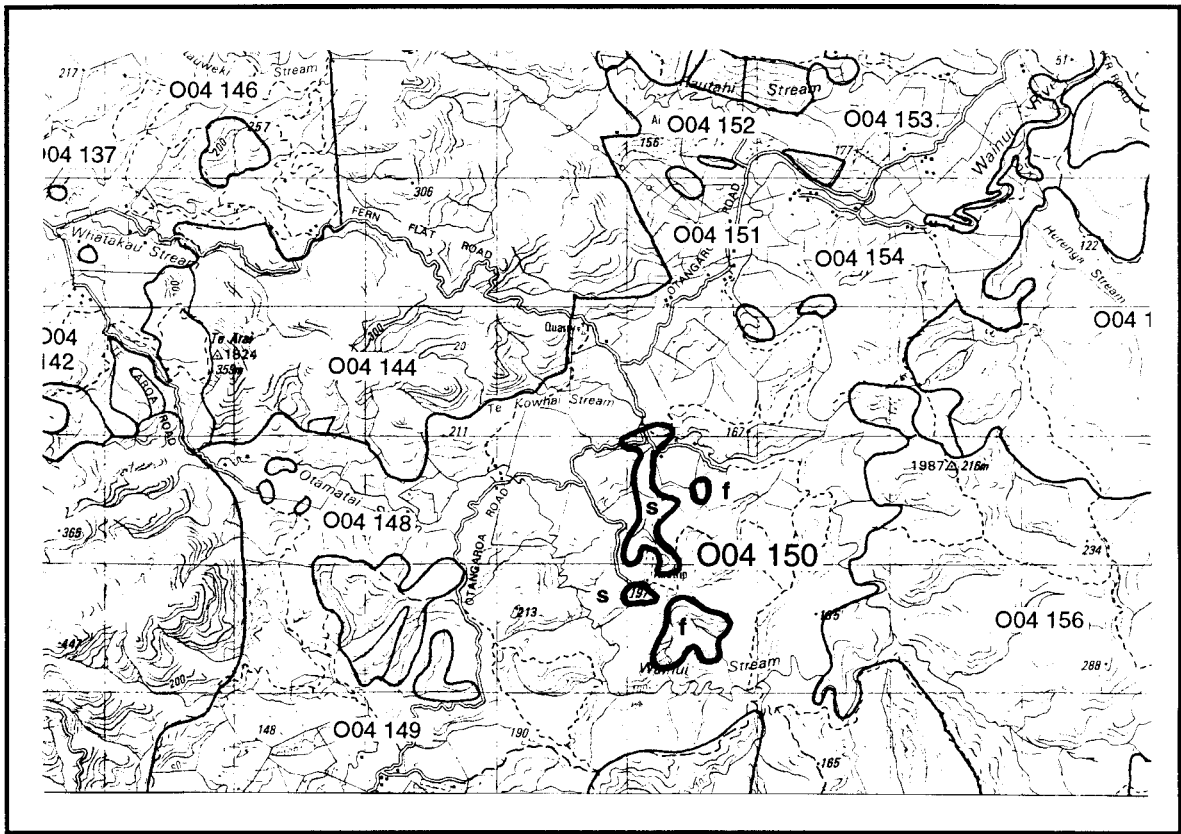
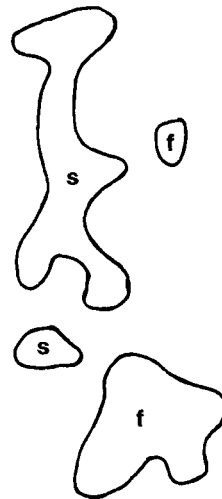


Figure 117. Linssen, O04 150

Each grid is 1000 m x 1000 m and equals 100 ha.

f = forest; s = shrubland.



(b) Secondary totara-kanuka forest on hillslope

(c) Manuka shrubland in gully

(d) Taraire forest on hillslope

Landform/geology

Valleys in hill country of Mangakahia Complex siliceous mudstone in the west, and Motatau Complex calcareous mudstone to the east.

Vegetation

A series of discontinuous habitats.

Type (a) Towai shrubland. On the road edge is a small area of towai shrubland with kanuka, bracken and mamaku from which kauri snails are reported.

Type (b) Kanuka-totara shrubland. Across the gully is tall kanuka shrubland with abundant totara and occasional rewarewa and tanekaha.

Type (c) Manuka shrubland. In the stream gullies is manuka shrubland between 2 and 4 m with occasional totara and mamaku. Adjacent to the airstrip is a small manuka shrubland amongst pine trees, with kauri, tanekaha, towai and five-finger emergent. NZ tomtit were noted here, having apparently used the pines as a corridor from larger forest areas in the vicinity.

Type (d) Taraire forest. On a nearby hillside is a small taraire remnant with occasional puriri, totara, kahikatea and rewarewa.

A larger broadleaf-podocarp remnant runs down the south-facing gullies towards the Wainui Stream. It is taraire-dominant with towai, rewarewa, totara, rimu, kahikatea, puriri and kauri scattered throughout.

Fauna

Kauri snail (Category C threatened species), NI tomtit (regionally significant species). NI brown kiwi (Category A threatened species) likely, as present in adjacent area.

Significance

Type (a) is habitat for kauri snail.

Type (b) forms a riparian buffer, with one area harbouring NI tomtit.

OMAHUTA OUTLIER

Survey no.	O04/155
Survey date	15 December 1994
Grid reference	O04 655 715
Area	166.5 ha [most, if not all, cleared since survey]
Altitude	90-160 m asl

Ecological unit

(a) Manuka shrubland on hillslope

Landform/geology

Hill country in Mangakahia Complex sandstone and siliceous mudstone.

Vegetation

Manuka shrubland with towai, kahikatea and mamaku.

Fauna

NI brown kiwi (Category A threatened species).

Significance

A large site joined to the larger habitat of Omahuta Forest (Puketi Ecological District). Further surveying of this area to determine its full values is recommended.

Representative example of manuka shrubland, and habitat for kiwi.

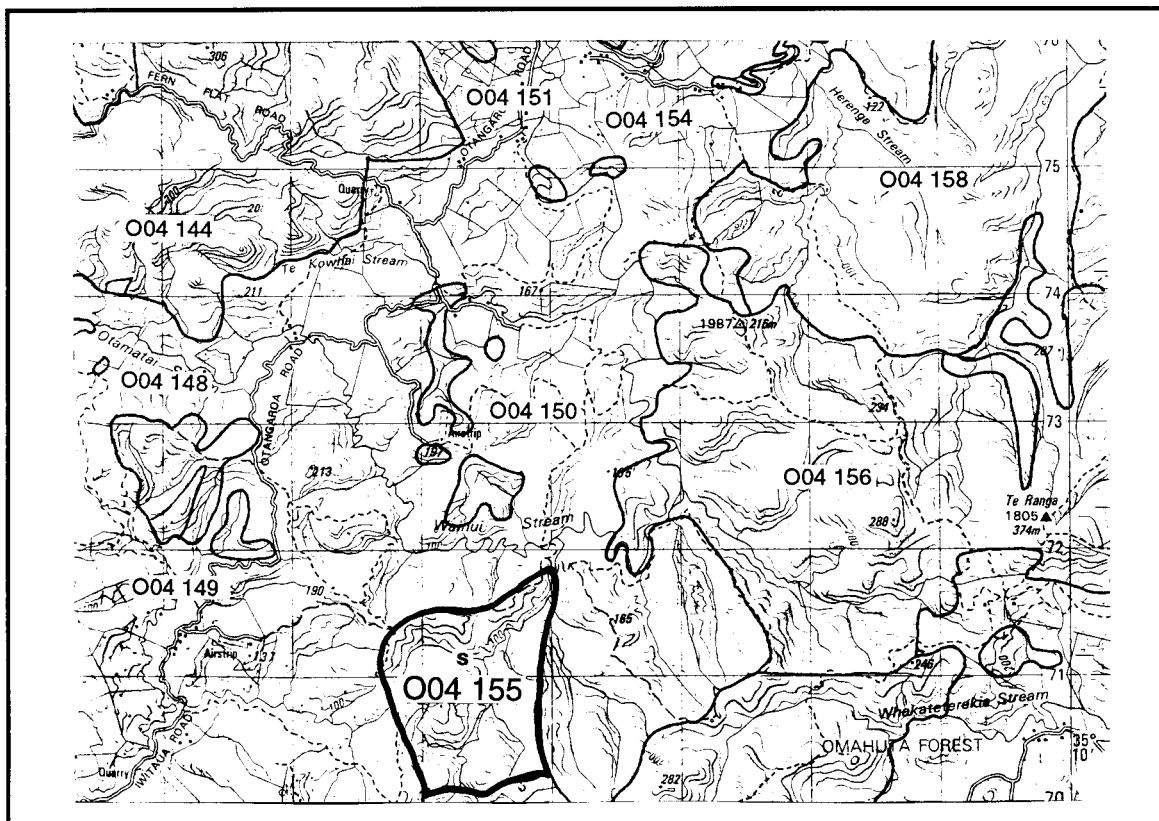


Figure 118. Omahuta Outlier, O04 155
 Each grid is 1000 m x 1000 m and equals 100 ha. s = shrubland.

TE RANGA

Survey no.	O04/156
Survey date	December 1994, 1 June 1995
Grid reference	O04 690 740, P04 715 720
Area	1570 ha approx. [Part of this site is subject to a logging permit under the Forest Act.]
Altitude	40-374 m asl

Ecological unit

- (a) Manuka-kanuka shrubland on hillslope
- (b) Bracken-ringfern fernland on hillslope
- (c) Manuka-gorse shrubland on hillslope
- (d) Towai-manuka-kanuka shrubland on hillslope
- (e) Secondary manuka-kanuka forest on hillslope
- (f) Secondary towai-totara forest on hillslope
- (g) Secondary kauri-tanekaha-northern rata forest on hillslope
- (h) Towai-taraire forest on hillslope
- (i) Secondary towai forest on hillslope
- (j) Towai forest on hillslope
- (k) Secondary totara forest on hillslope
- (l) Taraire forest on hillslope
- (m) Secondary towai-kanuka forest on hillslope

Landform/geology

Hill country in Mangakahia Complex sandstone and siliceous mudstone lithofacies in the east, and Motatau Complex calcareous mudstone, sandstone in the west. There is a Kerikeri volcanics basalt flow remnant on Te Ranga, with basalt alluvium downslope.

Vegetation

The majority of this site is a mosaic of regenerating and cut-over forest which is part of a northern outlier of Omahuta Forest.

The area can be divided into three:

1. The northern sector, which is mostly regeneration up to 15 or more years old (at the time of survey) on Landcorp's Takakuri Station, but includes some adjacent private land.

Type (a) Manuka-kanuka shrubland. Most of this area is manuka shrubland, mainly 1-2 m tall, with towai, mamaku and *Hakea*, but a small amount is up to 4 m with occasional emergent kahikatea.

Type (b) Bracken-ringfern fernland. A small amount on the western edge.

Type (c) Manuka-gorse scrub. Occurs on the western margin.

2. The middle sector which consists of regenerating shrubland and secondary forest of a variety of types:

Type (d) Towai-manuka-kanuka shrubland. To 6 m tall with frequent rewarewa and occasional totara and mamaku. The canopy is fairly open with an understorey of bracken, ring fern, grass and tree ferns.

Type (a) Manuka-kanuka shrubland, 2-3 m tall with up to 90% coverage. About 20% of the canopy is towai, totara and kahikatea 6-10 m tall.

Type (e) Secondary manuka-kanuka forest:

- about 6 m tall having an even, closed canopy with emergent totara, kahikatea and puriri,
- about 8 m tall with rewarewa, towai, tanekaha and rimu emerging,
- with kauri rickers, rimu and tanekaha emergent.

Type (f) Secondary totara-towai forest. Occurs on the northern margin with frequent kahikatea and occasional mamaku, rimu, manuka and lacebark.

Type (g) Secondary kauri-tanekaha-northern rata forest with toatoa.

3. The southern sector which is mainly tall forest which has been selectively logged in the past:

Type (h) Taraire-towai forest. Tall forest with totara, puriri and kahikatea, rimu, tawa, rewarewa, miro, kauri, tanekaha, tawa, karaka, nikau, and northern rata. Kauri dominance occurs on some ridges. There is generally a thick understorey of nikau, ferns and shrubs, and a sub-canopy of kohekohe. (Three areas of DOC land are included within this wider area.)

Type (i) Secondary towai forest. With kahikatea, rimu, totara, tanekaha and puriri; and

Type (e) with the same associated species.

Type (j) Towai forest. Occurs on the summit (south-western side) with northern rata, totara, rimu, kahikatea and rewarewa.

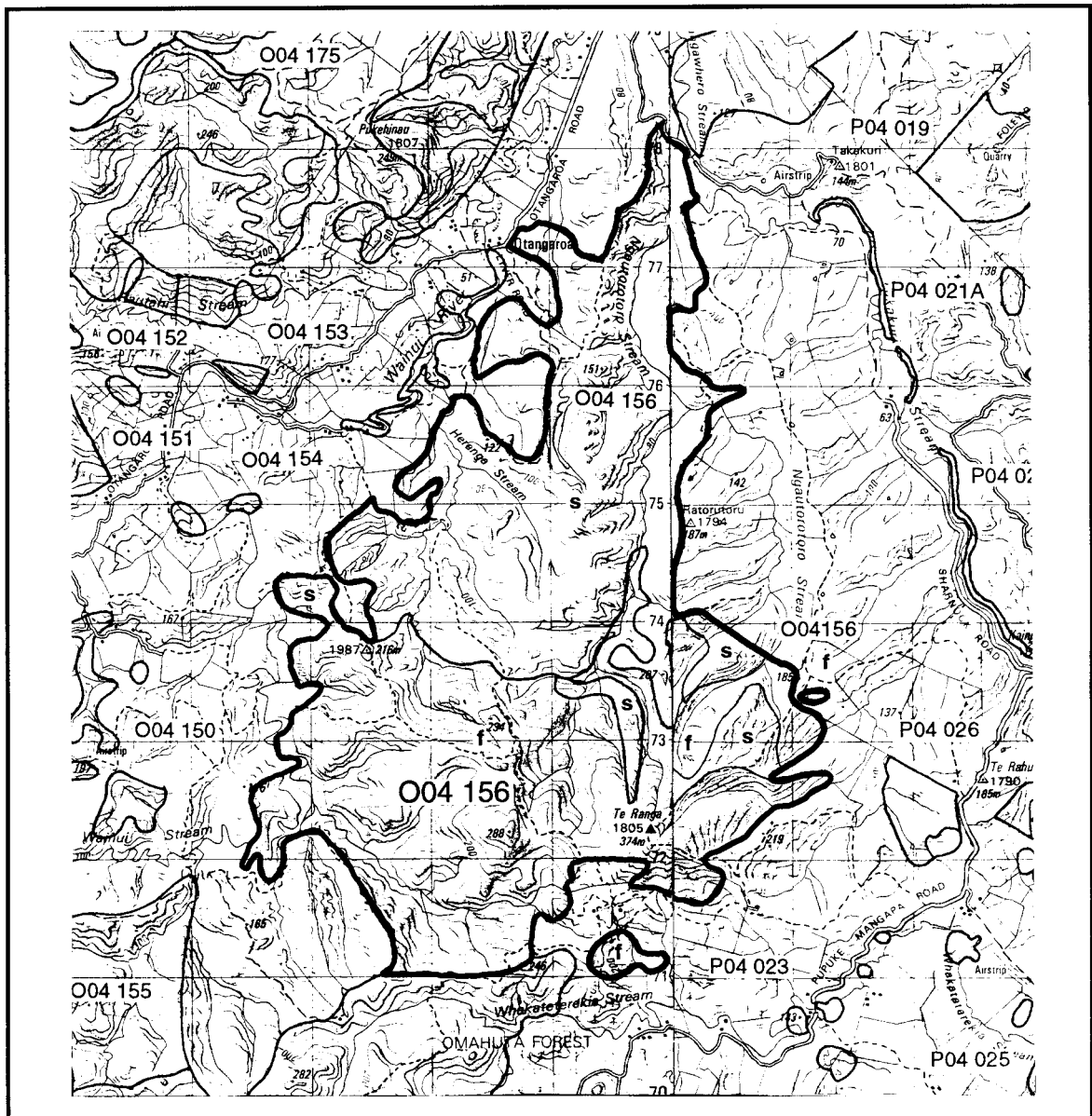


Figure 119 (above and opposite). Te Ranga, O04 156
 Each grid is 1000 m x 1000 m and equals 100 ha.
 f = forest; s = shrubland.

Type (k) Secondary totara forest. With occasional kahikatea.

Type (l) Taraire forest. Occurs in the southern part of the block and to the south and east of Te Ranga peak. Associated species are totara, puriri, tawa, rewarewa and emergent rimu, rata and occasional kahikatea and kauri.

Type (m) Towai-kanuka forest. Occurs in the south-east with frequent kauri and occasional totara and rimu.

Fauna

NI brown kiwi (Category A threatened species); NI tomtit (regionally significant species); kauri snail (Category C threatened species).

Significance

A large, diverse area of habitat contiguous with Omahuta Forest, and important for several threatened fauna species.



This site is providing a considerable degree of water and soil protection in the upper reaches of the Oruaiti River system.

Representative site for towai-taraire forest, primary and secondary towai forest, secondary kauri forest, manuka-kanuka forest, secondary towai-kanuka forest and manuka-towai forest. It is the only site in the Ecological District where kauri-northern rata-tanekaha-toatoa association has been recorded.

This site includes 195 ha in three enclaves of protected land administered by the Department of Conservation as part of Omahuta Conservation Park, with a further 409.9 ha recently purchased and gazetted as Scenic Reserve.

PUKEHINAU

Survey no.	O04/159
Survey date	19 July 1994
Grid reference	O04 685 785
Area	212.7 ha
Altitude	40-250 m asl

Ecological unit

- (a) Manuka-kanuka shrubland
- (b) Towai-taraire forest on hillslope
- (c) Secondary kauri-tanekaha forest on ridge and hillslope
- (d) Taraire forest on hillslope
- (e) Towai forest on hillslope
- (f) Taraire-kahikatea forest on toeslope

Landform/geology

Hill country of Tangihua Complex igneous rock units, adjoining Holocene alluvial flats along the Wainui River Valley.

Vegetation

A mosaic of secondary mixed forest and regenerating shrublands.

Type (a) Manuka-kanuka shrubland. About half of the area, either side of Kenana Rd, is manuka-kanuka shrubland between 1 and 4 m, much of it containing *Hakea* and gorse. Tanekaha, totara, rewarewa, five-finger and tree ferns occur occasionally.

Type (b) Towai-taraire forest. Opposite the Te Aroha marae, is an area of towai-taraire forest with frequent tanekaha. Northern rata, rewarewa, totara, kauri, rimu, matai, kahikatea, kanuka and tree ferns also occur.

Type (c) Secondary kauri-tanekaha forest. There is also a small area of vigorously regenerating kauri up to 12 metres, co-dominant with tanekaha. Rimu, tawa and kanuka occur occasionally.

Type (d) Taraire forest. On the flanks of Pukehinau itself, including some gully remnants, is taraire-dominant forest with towai, northern rata, tanekaha and rewarewa. Rimu, puriri, totara, titoki, karaka, mamangi and tree ferns are scattered throughout.

Two small areas have frequent tanekaha and kauri, with occasional rimu, totara, kahikatea, rewarewa, towai, and nikau, and frequent towai and rewarewa with scattered miro, matai, kawaka, kauri, northern rata, rimu, tanekaha and tree ferns.

Type (e) Towai forest. Comprises < 5% and occurs within Type (d) with frequent taraire and kauri, northern rata, rimu, totara, rewarewa, puriri and tree ferns scattered.

Type (f) Taraire-kahikatea forest. Occurs on the toe slope with nikau, tree ferns and swamp maire occurring occasionally.

The forest on Pukehinau is bordered by manuka-kanuka shrubland (Type (a)), with totara, towai, rewarewa and tree ferns.

Significant flora

Swamp maire - uncommon in the Ecological District.

Kawaka - notable in the Ecological District.

Fauna

NI brown kiwi (Category A threatened species); NZ pigeon (Category B threatened species), NI fernbird (regionally significant species) present in shrubland near Kenana Rd.

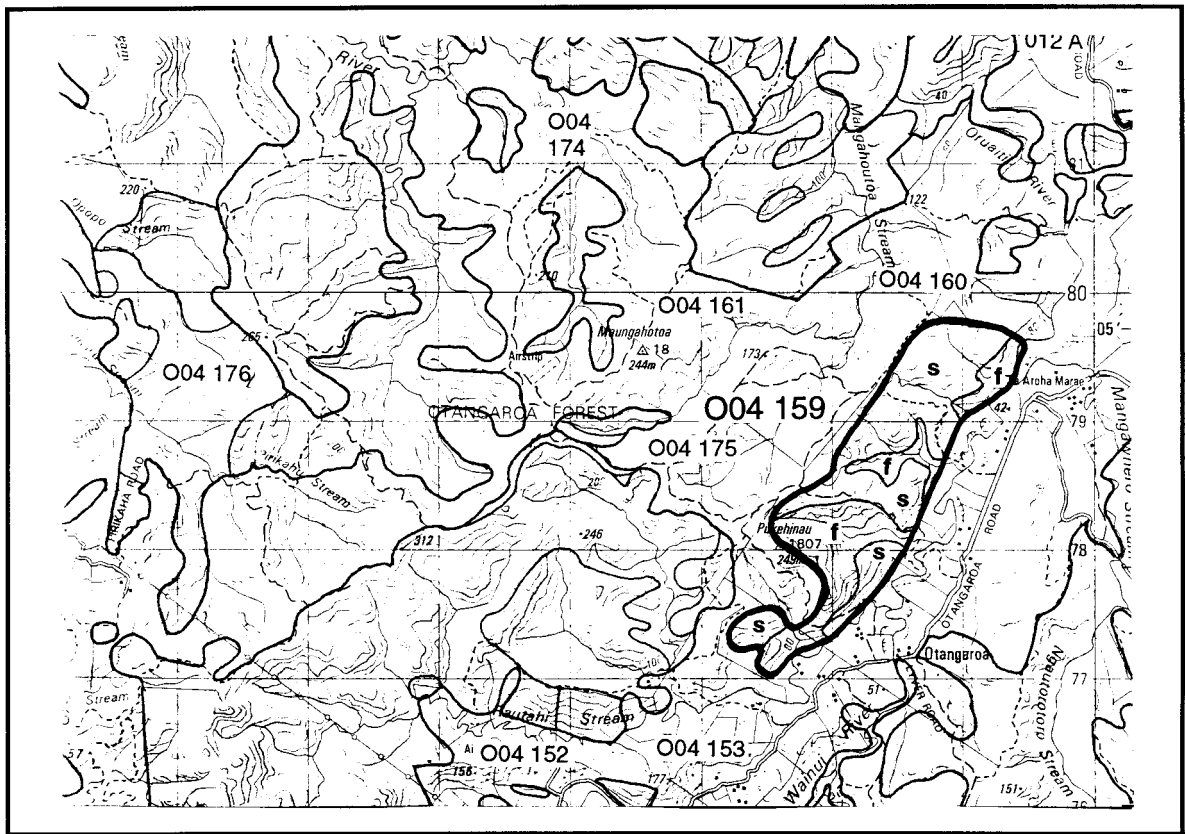
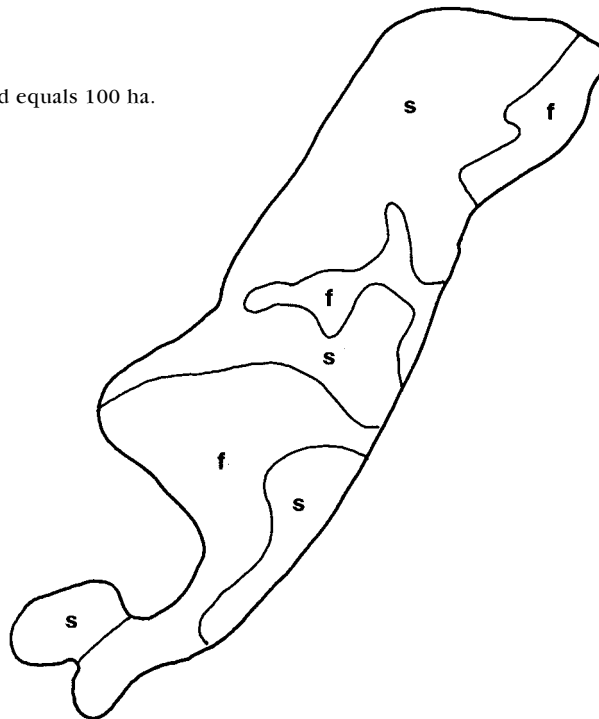


Figure 120. Pukehinau, O04 159

Each grid is 1000 m x 1000 m and equals 100 ha.

f = forest; s = shrubland.



Significance

A fairly large area, almost contiguous with O04/156 Te Karoa, with reasonable diversity of canopy species and fruiting species to support NZ pigeon. The shrubland provides habitat for NI fernbird and NI brown kiwi.

Representative site for taraire-kahikatea forest and the only site in the Ecological District where a kauri-tanekaha forest association has been recorded.

ORUAITI HEADWATERS

Survey no.	O04/160
Survey date	1 September 1994
Grid reference	O04 695 808
Area	41.1 ha
Altitude	40-100 m asl

Ecological unit

- (a) Taraire-totara-kanuka forest on hillslope
- (b) Secondary kanuka forest on hillslope
- (c) Secondary totara-kanuka forest on hillslope
- (d) Manuka-kanuka shrubland on hillslope

Landform/geology

Hill country in Tangihua igneous rock units.

Vegetation

This site includes five predominantly secondary broadleaf-podocarp remnants, in fairly close proximity.

Type (a) Taraire-totara-kanuka forest. Occurs in the south-western block with frequent kauri and occasional northern rata, puriri, rimu, kahikatea, nikau, kohekohe, rewarewa, tanekaha and pukatea.

Type (b) Secondary kanuka forest. Also occurs in the south-western block with frequent kauri and totara and occasional rimu, tawa, taraire, tanekaha and rewarewa.

Type (b) is found in the northern and central block with frequent totara and occasional kauri, rewarewa, kahikatea, tanekaha, puriri, mamaku and towai.

Type (c) Secondary totara-kanuka forest. Occurs in the most easterly block with frequent taraire, kahikatea and towai. Rimu, kauri, nikau, rewarewa, puriri and pukatea are also present.

Type (d) Manuka-kanuka shrubland. Occurs on the western side of the northern block.

All blocks are apparently unfenced.

Fauna

NI brown kiwi (Category A threatened species).

Significance

The south-western remnant (GR O04 693 803) is a representative site and the only site in the Ecological District where a taraire-totara-kanuka forest association has been recorded.

The area provides a partial linkage to other areas of native vegetation, and is likely to be important for NZ pigeon and NI brown kiwi.

This site includes 10.1 ha protected under Queen Elizabeth II National Trust covenant and 4 ha of stewardship land administered by the Department of Conservation.

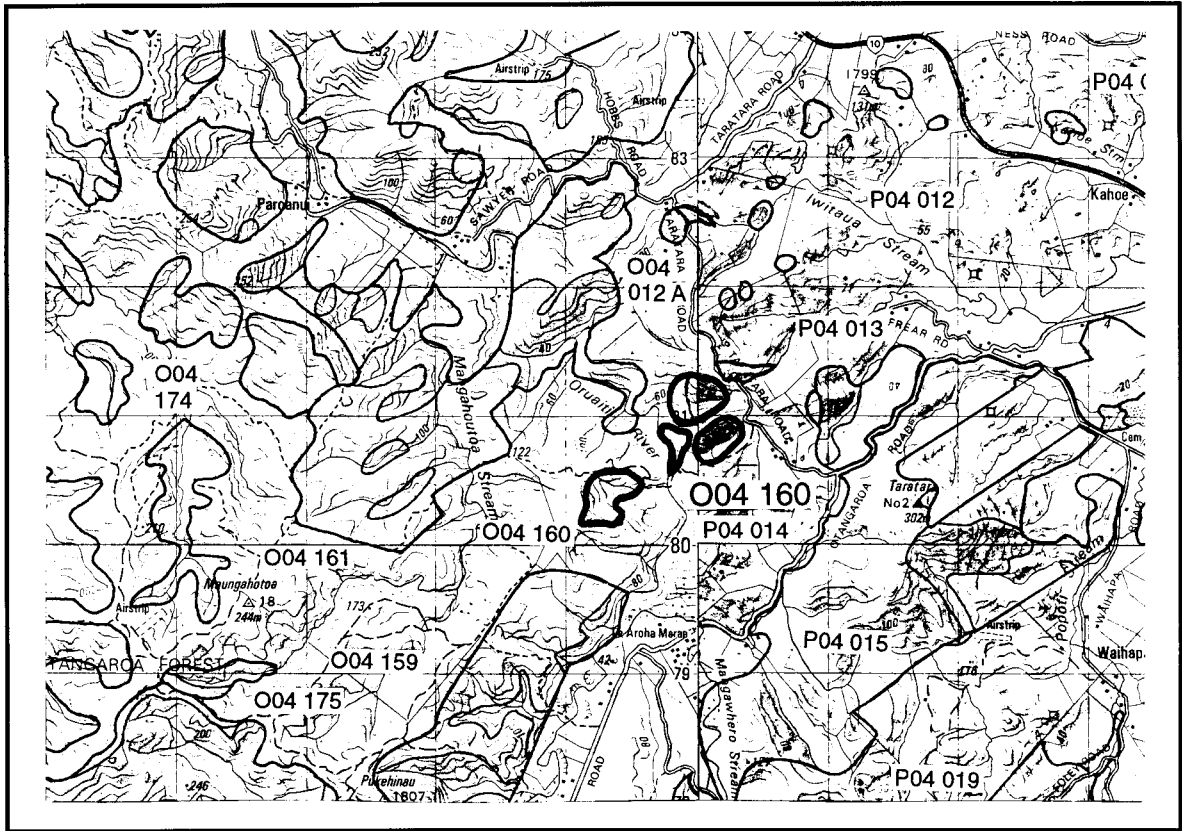
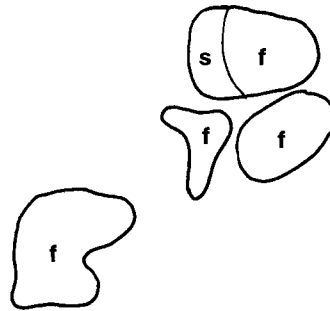


Figure 121. Oruaiti Headwaters, O04 160
 Each grid is 1000 m × 1000 m and equals 100 ha.
 f = forest; s = shrubland.



PAROANUI

Survey no.	O04/161
Survey date	July 1994
Grid reference	O04 680 830
Area	1062 ha [c. 115 ha cleared since survey]
Altitude	20-250 m asl

Ecological unit

- (a) Manuka-kanuka shrubland on hillslope
- (b) Manuka-gorse shrubland on hillslope

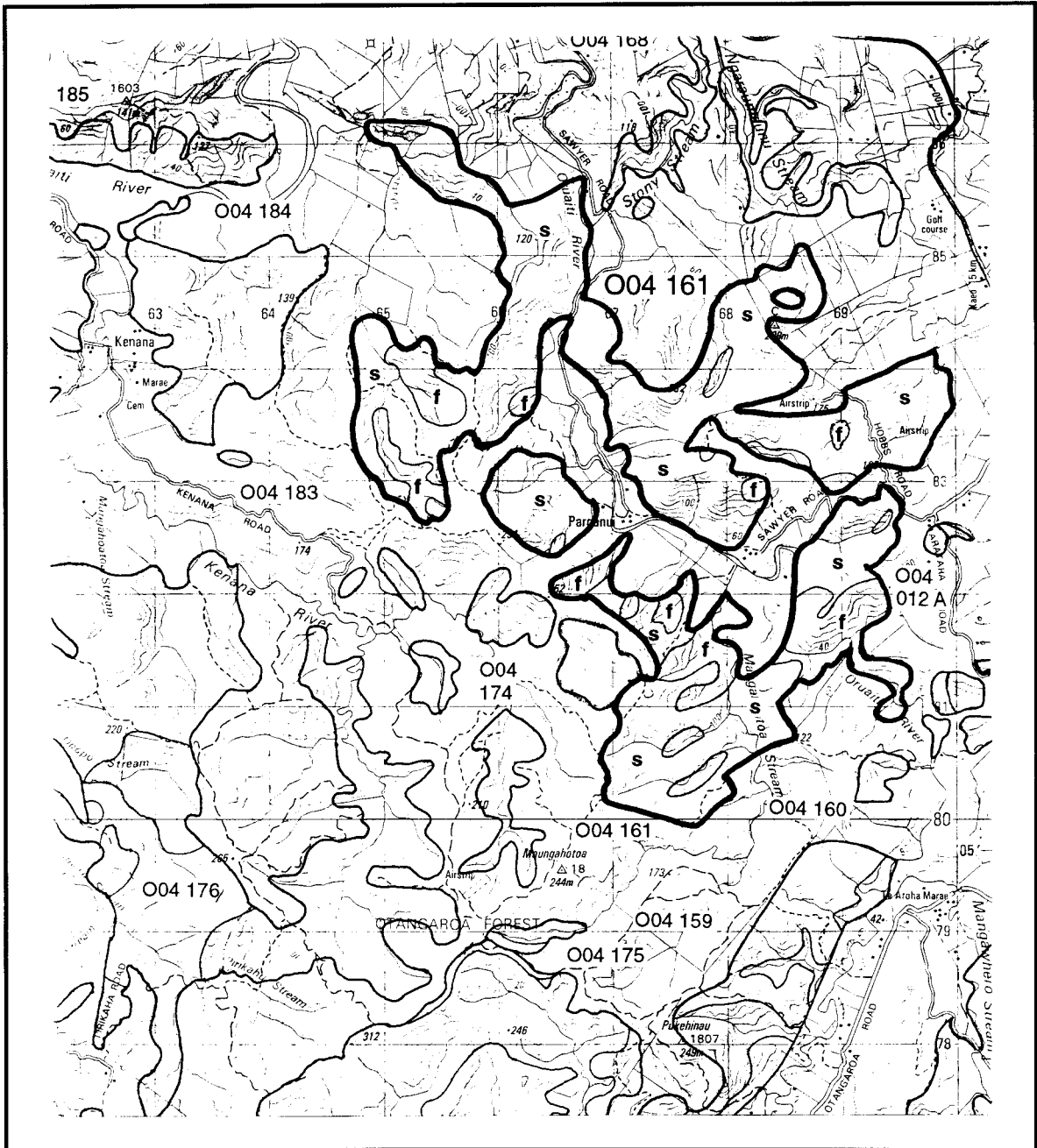
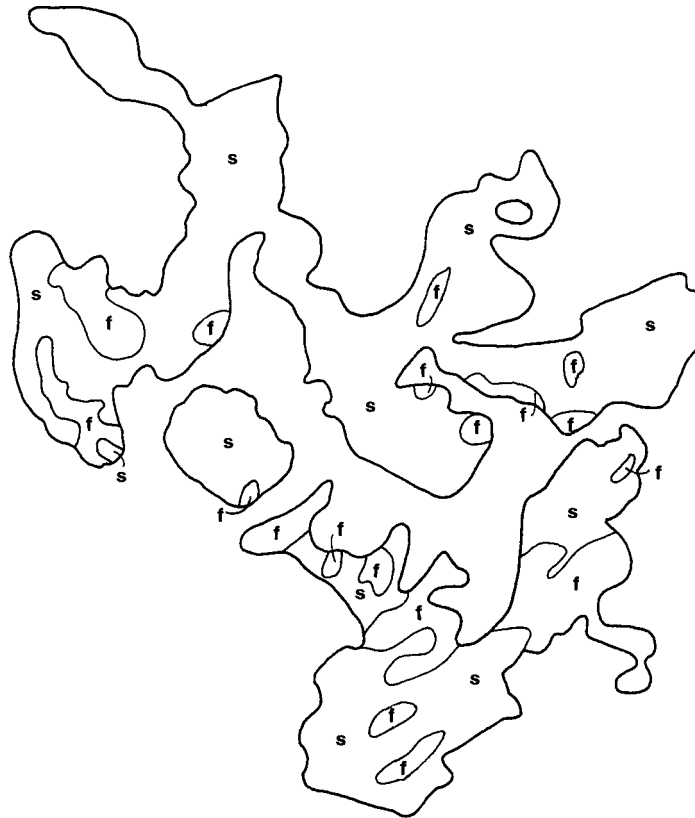


Figure 122 (above and opposite). Paroanui, O04 160

Each grid is 1000 m × 1000 m and equals 100 ha.

f = forest; s = shrubland.

- (c) Towai-mamaku-manuka-kanuka shrubland on moderate to steep hillslope
- (d) Secondary totara-towai-kanuka forest on hillslope
- (e) Secondary kahikatea-totara forest on hillslope
- (f) Towai-kanuka-kahikatea forest on hillslope
- (g) Taraire-kanuka forest on hillslope
- (h) Taraire forest on hillslope
- (i) Taraire-totara forest on hillslope
- (j) Secondary totara-kanuka forest on hillslope
- (k) Towai-taraire forest on hillslope



- (l) Taraire-totara-kahikatea forest on hillslope
- (m) Puriri-taraire forest on hillslope
- (n) Towai-kanuka-puriri forest in gully
- (o) Towai forest on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units.

Vegetation

This is an almost contiguous mosaic of regenerating shrubland and secondary forest in the Paroanui catchment.

Shrubland:

Type (a) Manuka-kanuka shrubland. The lower shrubland (under 4 metres) is mainly manuka dominant with some towai and mamaku. Occasional bracken and *Hakea* feature.

Type (b) Manuka-gorse shrubland. In the north-western 'arm', gorse is common, and cabbage tree and mahoe also occur.

Type (c) Towai-mamaku-manuka-kanuka shrubland. The taller shrubland grading into secondary forest (4-8 m tall) tends to be mainly kanuka, manuka and towai, with mamaku common. Totara, rewarewa and kahikatea are emerging through the canopy. There is the occasional pine tree.

The secondary forest is of varying types:

Type (d) Totara-towai-kanuka forest. On the east bank of the Oruaiti River, south of Sawyer Rd, taraire and kahikatea are frequent. Rewarewa, tawa,

kauri, pukatea, rimu, tanekaha, mamaku and emergent northern rata are occasional.

Type (e) Secondary kahikatea-totara forest. With frequent towai and occasional northern rata occurs in the Sawyer Rd area.

In the Maungahoutoa catchment, four forest types occur:

Type (f) Towai-kanuka-kahikatea forest. Rimu, kauri and rewarewa are occasional.

Type (g) Taraire-kanuka forest. With frequent tanekaha, kauri rickers and totara. Northern rata, puriri, karaka, rimu, pukatea and manuka are also present.

Type (h) Taraire forest. With frequent kanuka, kauri and occasional towai, rewarewa, puriri, kahikatea and mamaku.

Type (i) Taraire-totara forest. With locally frequent nikau, kahikatea and emergent rimu. Northern rata, kauri, puriri and rewarewa are scattered.

Type (j) Totara-kanuka forest. Occurs in two locations on the west bank of the Oruaiti River. Rewarewa, taraire and puriri are locally frequent. Northern rata, kauri, rimu, pukatea, kahikatea and mamaku are also present.

Type (k) Towai-taraire forest. With frequent totara occurs in the vicinity of Sawyer Rd. Also present are puriri, rewarewa, pukatea and northern rata.

Type (l) Taraire-totara-kahikatea forest. With frequent towai and occasional puriri occurs on the west bank of the Oruaiti River.

Type (m) Taraire-puriri forest. With locally frequent mamaku and occasional tawa, totara, kahikatea, rewarewa, kauri and towai occurs in gullies on the east bank of the Oruaiti River.

Type (n) Towai-kanuka-puriri forest. Occurs in a gully below the Hobbs Rd airstrip. Also present are kauri, tanekaha, northern rata, rewarewa, totara, kahikatea and cabbage tree.

Type (o) Towai forest. With frequent kanuka, otherwise similar to (m) occurs on the west bank of the Oruaiti River, north of Paraonui.

Fauna

NI brown kiwi (Category A threatened species), NI tomtit (regionally significant species) in the southern area of bush in the Goatian Valley.

Significance

A large contiguous habitat with NI brown kiwi present and extensive vegetation on steep terrain providing a riparian buffer in the Oruaiti River catchment.

Representative site for taraire-kanuka forest, kanuka-totara-puriri forest, taraire-totara-kahikatea forest and manuka-kanuka-towai-mamaku shrubland. It is the only site in the Ecological District where towai-kanuka-puriri forest has been recorded.

A Maori burial cave is reported in the Paroanui Valley, as well as other important cultural and archaeological sites at the end of Sawyer Rd.

29.4 ha is protected under a Queen Elizabeth II National Trust covenant.

NGARAUMAUNU STREAM TO SAWYER RD FORD

Survey no.	O04/168
Survey date	6 December 1994
Grid reference	O04 680 860
Area	137.9 ha
Altitude	20-100 m asl

Ecological unit

- (a) Manuka-kanuka shrubland in gully
- (b) Gorse scrub on gentle slope
- (c) Secondary totara-manuka-kanuka forest in valley bottom
- (d) Secondary totara-kahikatea forest on hillslope
- (e) Puriri-totara forest on hillslope
- (f) Puriri-taraire forest on hillslope
- (g) Secondary totara on alluvium

Landform/geology

Hill country of Tangihua Complex igneous rock units with Holocene alluvial flats in Stony and Ngarauaunu Stream valleys.

Vegetation

This site consists of stream bank and gully vegetation along part of the Stony Stream and its tributaries.

Type (a) Manuka-kanuka shrubland. The site is primarily manuka-kanuka shrubland up to 6 m tall but averaging 3 to 4 m. Occasional emergents are totara, tanekaha, kauri and cabbage tree.

Type (b) Gorse scrub. Found near the Golf Club with cabbage tree, and some ponderosa pines.

Type (c) Secondary totara-manuka-kanuka forest. Vigorous stands with kahikatea in the valley bottom of the Ngarauaunu Stream. Kauri, cabbage tree and pukatea are also present.

Along the banks of the Stony Stream, manuka and totara are common with frequent cabbage tree and isolated kahikatea.

On the slopes above the river are two pockets of more mature vegetation:

Type (d) Totara-kahikatea forest. With isolated kauri and pukatea.

Type (e) Totara-puriri forest. The larger remnant, with taraire and occasional tanekaha, rewarewa, rimu, kauri, tawa and kahikatea.

Type (f) Puriri-taraire forest. On the banks of a tributary just above the Sawyer Rd ford is a puriri-taraire remnant that also contains northern rata, kauri and pukatea as well as the more common totara, rewarewa, kahikatea and kanuka.

Type (g) Secondary totara forest. At the Sawyer Rd ford, the banks of the Stony Stream are lined with totara, matai and eucalyptus, giving extensive shade.

The Oruaiti River itself has tree-lined banks for much of its length, especially in the upper reaches.

Fauna

Ngarauaunu and Stony Streams contain good diversity of native fish species including common bully, red-finned bully, blue-gilled bully, torrentfish,

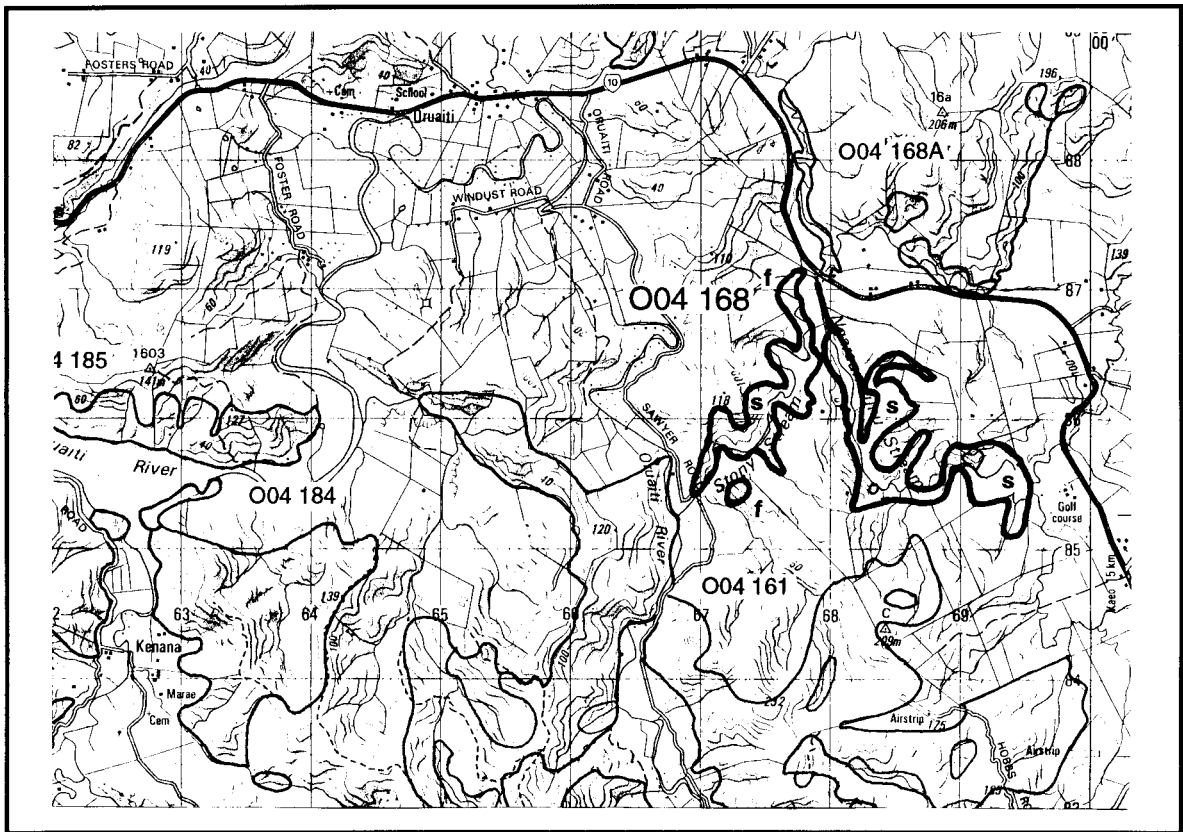
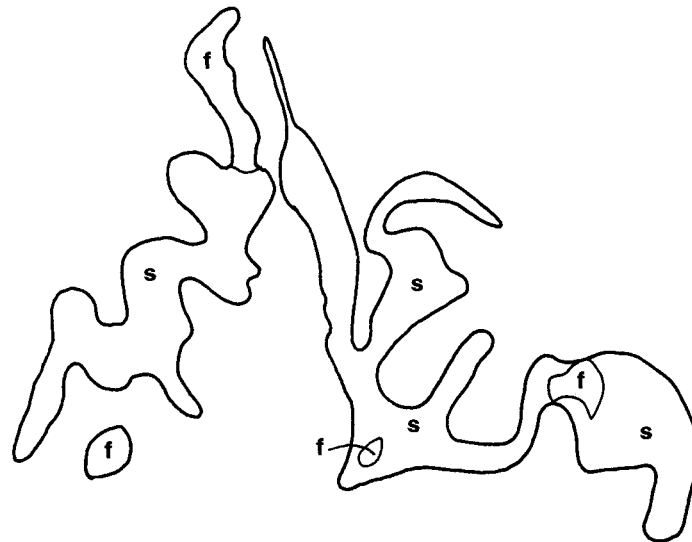


Figure 123. Ngarauamu Stream, O04 168
 Each grid is 1000 m x 1000 m and equals 100 ha.
 f = forest; s = shrubland.



common smelt, freshwater shrimp, koura, short- and long-finned eel. The riparian vegetation contributes considerably to the high water quality which supports this fauna, which is also reflected in the presence of mayflies and caddisflies.

Significance

Representative site for puriri-totara forest.

The area contains riparian vegetation which contributes both to water quality and its associated values of aquatic diversity.

KOHUMARU STATION

Survey no.	O04/174
Survey date	12 July 1994
Grid reference	O04 660 810
Area	173.5 ha
Altitude	60-220 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Towai-taraire forest on hillslope
- (c) Manuka-kanuka shrubland on hillslope
- (d) Kahikatea-nikau forest in gully
- (e) Secondary towai-kahikatea forest on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units with Holocene alluvial flats along the Kenana River valley.

Vegetation

This area consists of a number of broadleaf-podocarp remnants:

Type (a) Taraire forest. The smallest (GR O04 646 822) is taraire-dominant with puriri, towai and nikau. Also present are kauri, kahikatea, pukatea and rimu. The nearby remnant (GR O04 653 822) is similar, but puriri is less common, and northern rata present. There is also less diversity in the canopy.

Type (b) Towai-taraire forest. Further around the hillside (GR O04 661 799) is a larger area (40-50 ha) which is towai-taraire-dominant with mamaku and kanuka. Also present are kauri, northern rata, totara, puriri, kahikatea, pukatea and cabbage tree.

Almost contiguous (GR O04 668 815) is the best example. It is very similar to the above remnant but also has rewarewa, matai and rimu in the canopy.

Type (c) Manuka-kanuka shrubland. On the southern edge of GR O04 668 815 is a manuka-kanuka buffer which comprises about 30% of the area. This type also occurs adjacent to Type (e).

Type (d) Kahikatea-nikau forest. Below the Maungahotoa trig are remnants in the gullies where kahikatea and nikau are dominant, with taraire, towai and rewarewa. Kauri, northern rata, rimu, lancewood and puriri are also present.

Type (e) Towai-kahikatea forest. Close to Kenana Rd is the final site, half of which is towai-kahikatea-dominant with nikau, but also with rimu, puriri, kauri, rewarewa, totara, taraire, miro, pukatea, lancewood and kohuhu. The other half is manuka-kanuka shrubland (Type (c)) to 3 m tall with gorse and towai.

Fauna

NI brown kiwi (Category A threatened species).

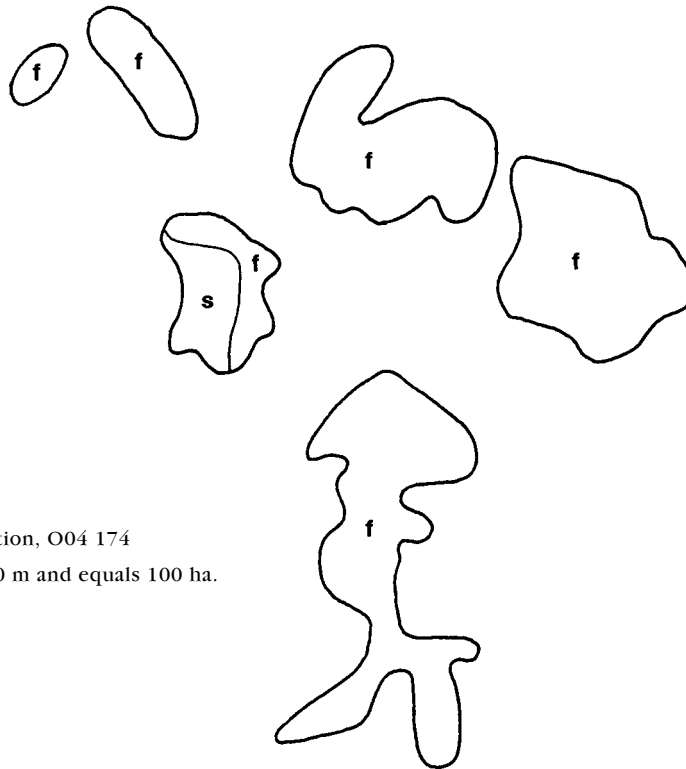
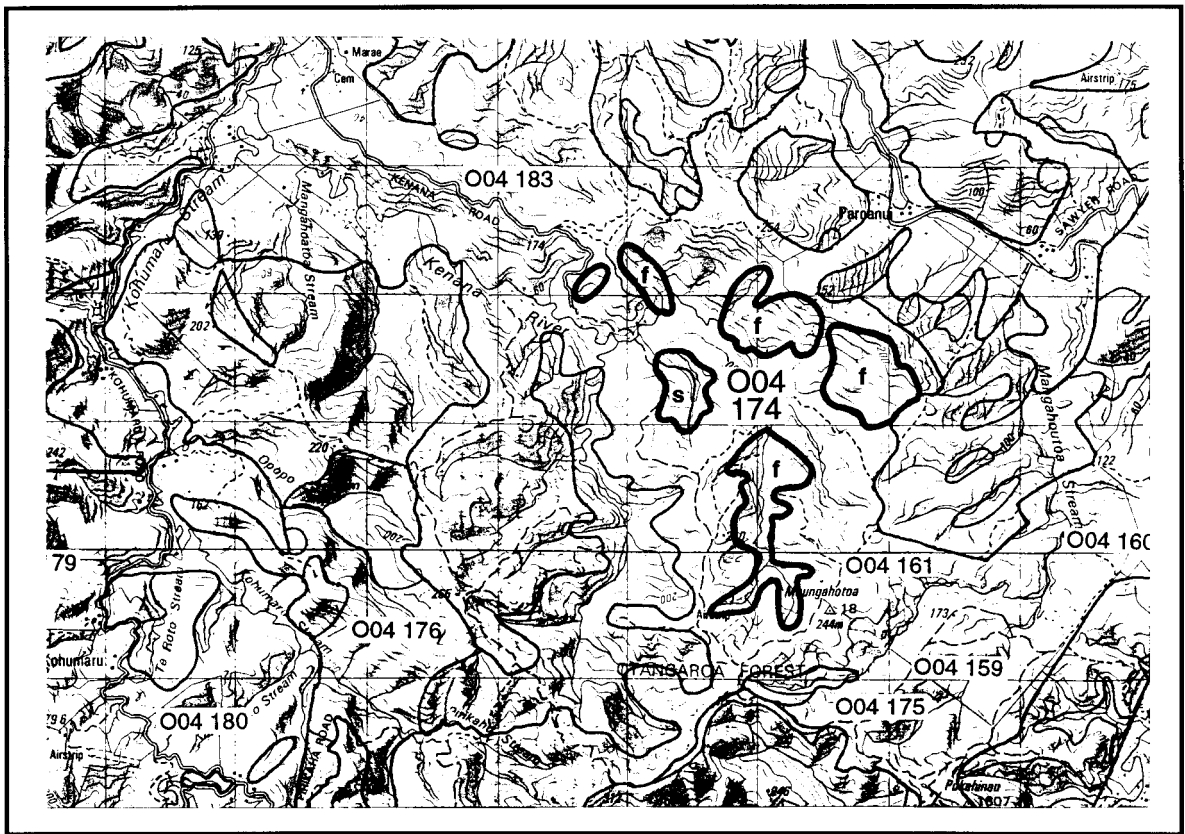


Figure 124. Kohumaru Station, O04 174

Each grid is 1000 m x 1000 m and equals 100 ha.

f = forest; s = shrubland.

Significance

Representative site for kahikatea-nikau forest.

The majority of the sites at GR O04 661799, O04 668 815, and below the Maungahatoa trig are stewardship land, comprising approximately 100 ha.

KOHUMARU

Survey no.	O04/176
Survey date	July 1994
Grid reference	O04 630 800
Area	907.6 ha
Altitude	20-320 m asl

Ecological unit

- (a) Taraire forest on hillslope
- (b) Secondary kauri forest on ridge
- (c) Manuka-kanuka shrubland on hillslope
- (d) Secondary totara-kanuka forest on hillslope
- (e) Manuka-kanuka forest on hillslope
- (f) Towai-taraire forest on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units.

Vegetation

This site includes most of the land between Kenana and Kohumaru Rds apart from the exotic pine plantations.

Type (a) Taraire forest. The headwaters of the Kenana River contain the most mature forest, the majority of which is tall taraire-dominant and covenanted within the Otangaroa Forest. Nikau, towai and northern rata also feature, with a diverse range of other canopy species present including kauri, rimu, totara, kahikatea, kohekohe, tanekaha, hinau, pukatea and rewarewa.

Type (b) Secondary kauri forest. There is a small area (< 5%) of kauri rickers with tanekaha and rimu and kanuka.

Type (c) Manuka-kanuka shrubland. Mamaku is locally frequent on the Kenana side. The Kohumaru side is mostly regenerating manuka-kanuka shrubland between 2 and 6 m tall. Mamaku, totara, towai and puriri are occasional emergents, and gorse, *Hakea* and wilding pine feature in some areas.

Type (d) Secondary totara-kanuka forest. In the lower catchment of the Kohumaru Stream, secondary totara-kanuka occurs with scattered rimu, tanekaha, rewarewa and five-finger.

Type (e) Manuka-kanuka forest. In the upper Opopo Stream catchment there is an extensive area of manuka-kanuka forest with frequent towai. Emerging through the canopy are kauri rickers, rimu, kahikatea, tanekaha and rewarewa.

Type (f) Towai-taraire forest. On the higher slopes is a considerable area of tall towai-taraire forest with rewarewa and kauri. Other canopy species present are northern rata, rimu, kahikatea, puriri, totara and tanekaha. One small area also contains titoki and karaka. There is a very small patch of tall emergent kauri. Kawaka is found in the upper Kohumaru Stream catchment.

Significant flora

The mistletoe *Ileostylus micranthus* (Declining) is found in a large population on isolated streamside totara around the junction of the Opopo and Kohumaru Streams.

Kawaka - notable in the Ecological District.

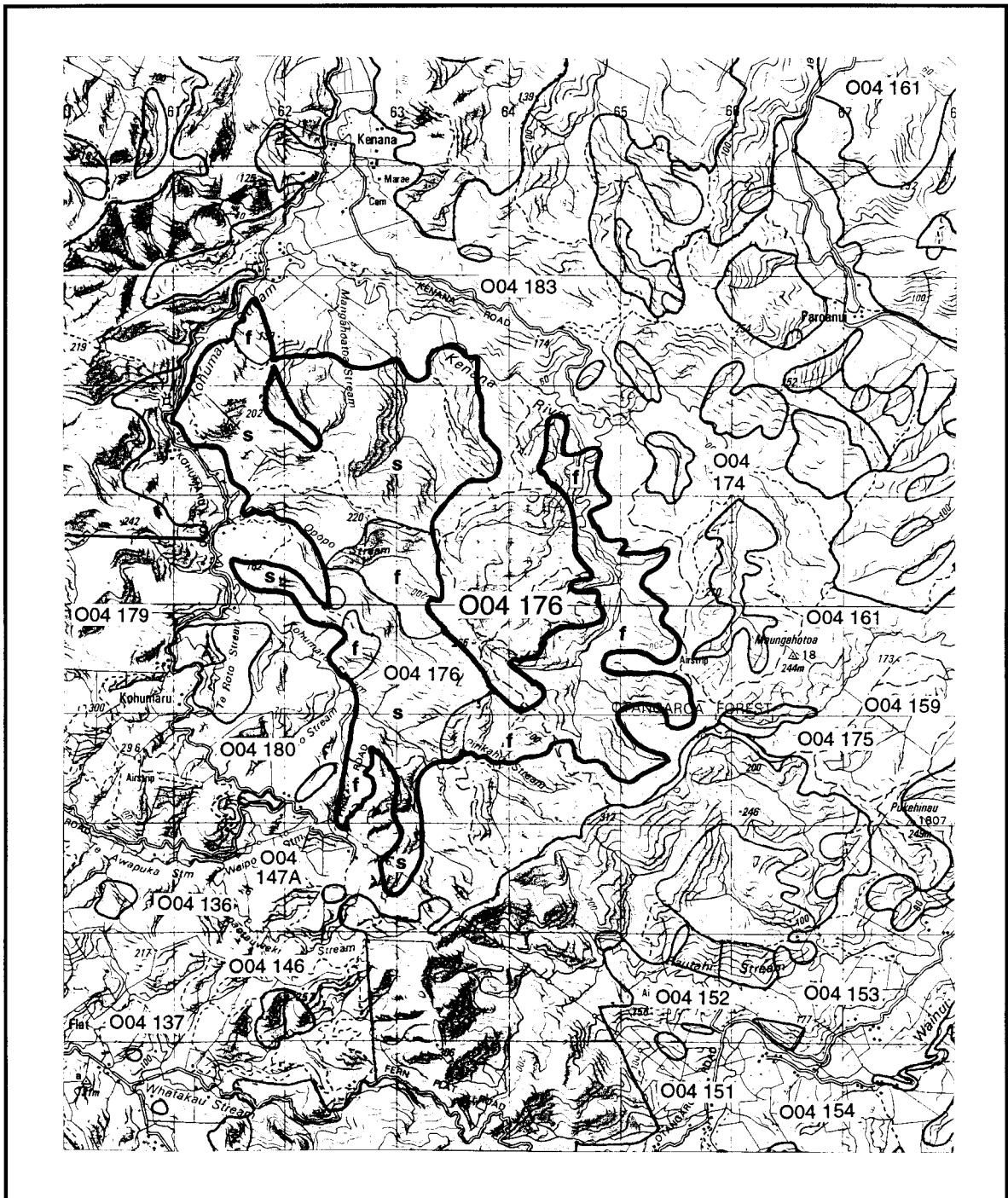


Figure 125 (above and opposite). Kohumaru, O04 176

Each grid is 1000 m × 1000 m and equals 100 ha.

f = forest; s = shrubland.

Fauna

NI brown kiwi (Category A threatened species), NZ pigeon (Category B threatened species), NI tomtit (regionally significant species); kauri snail (Category C threatened species); inanga, common bully.

Significance

A very large contiguous area of habitat, especially if the exotic plantations are considered as a corridor for NI brown kiwi and other birds.



Representative site for taraire forest, kanuka-manuka forest and secondary kauri forest and contains an abundant population of a threatened plant species (*Ileostylus micranthus*).

About 25% of this site (230 ha) is stewardship land administered by the Department of Conservation.

TE ROTO STREAM

Survey no.	O04/179
Survey date	19 July 1994
Grid reference	O04 613 797
Area	46.5 ha
Altitude	90-150 m asl

Ecological unit

- (a) Manuka-kanuka shrubland on hillslope
- (b) Secondary totara forest on gentle hillslope

Landform/geology

Valley in hill country of Tangihua Complex igneous rock units.

Vegetation

Type (a) Manuka-kanuka shrubland. The majority of the areas is manuka-kanuka shrubland between 2 and 6 m tall with occasional totara.

Type (b) Secondary totara forest. About 30% is secondary totara forest with taraire and kanuka. Rewarewa, kahikatea, rimu, pukatea, towai, kauri, nikau and emergent northern rata are also present.

Fauna

NI brown kiwi (Category A threatened species).

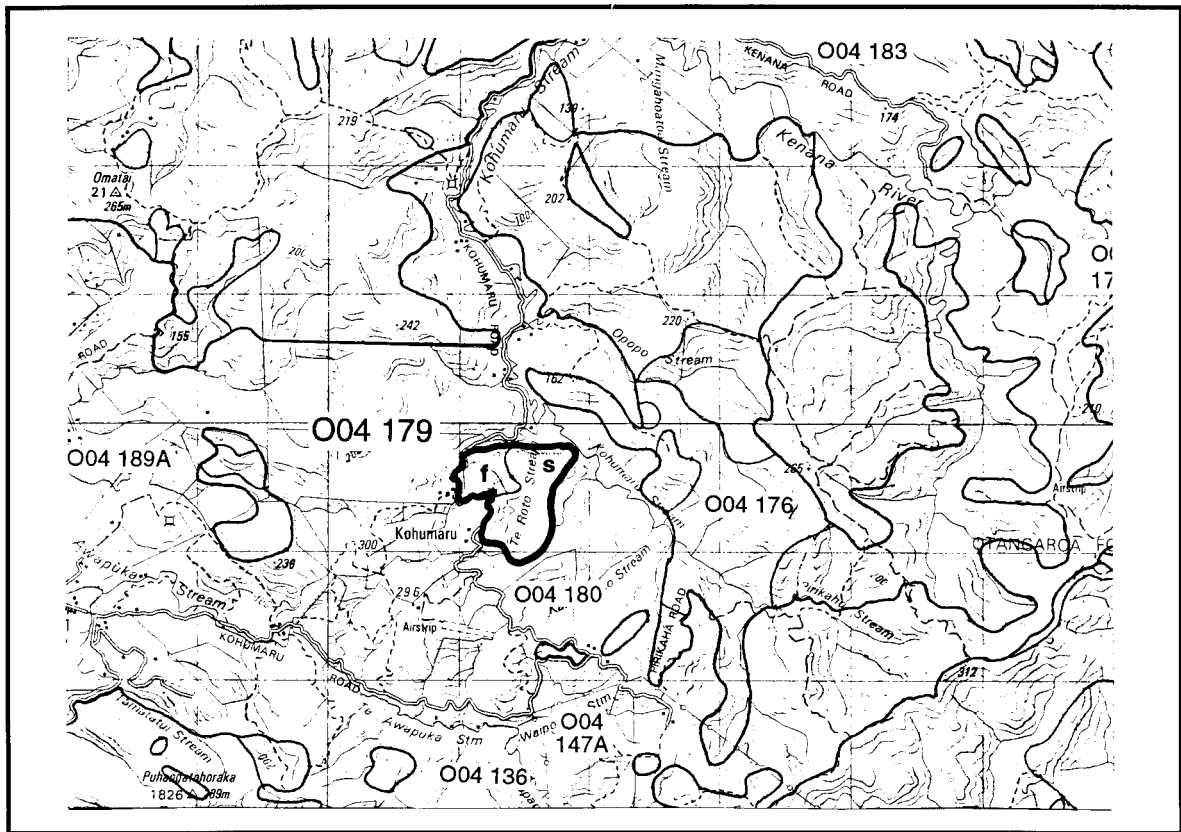
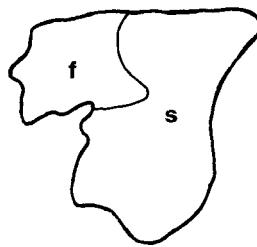


Figure 126. Te Roto Stream, O04 179

Each grid is 1000 m x 1000 m and equals 100 ha.

f = forest; s = shrubland.



Significance

Representative example of totara forest, located between two streams, buffered by shrubland.

KENANA RD SWAMP

Survey no.	O04/183
Survey date	26 July 1994
Grid reference	O04 637 833
Area	3.2 ha
Altitude	20 m asl

Ecological unit

(a) Raupo reedland in valley bottom

Landform/geology

Wetland in stream valley in Tangihua Complex hill country.

Vegetation

A raupo swamp with occasional cabbage trees. On the north-eastern hillside there is gorse and tree ferns, and on the south-western side is open paddock.

Fauna

Not surveyed.

Significance

Representative of a much diminished habitat type.

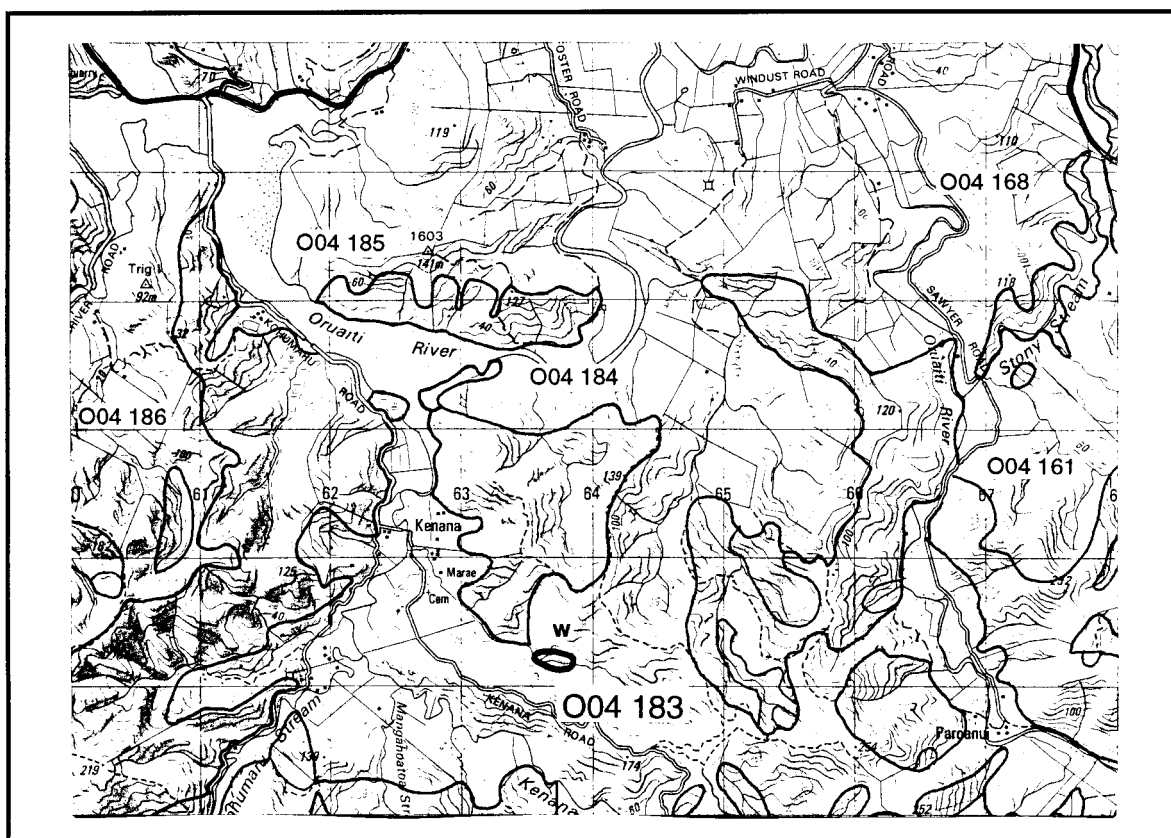


Figure 127. Kanana Road Swamp, O04 183

Each grid is 1000 m x 1000 m and equals 100 ha. w = wetland.

ORURU

Survey no.	O04/186
Survey date	August 1994
Grid reference	O04 595 820
Area	1107.7 ha
Altitude	sea level to 265 m asl

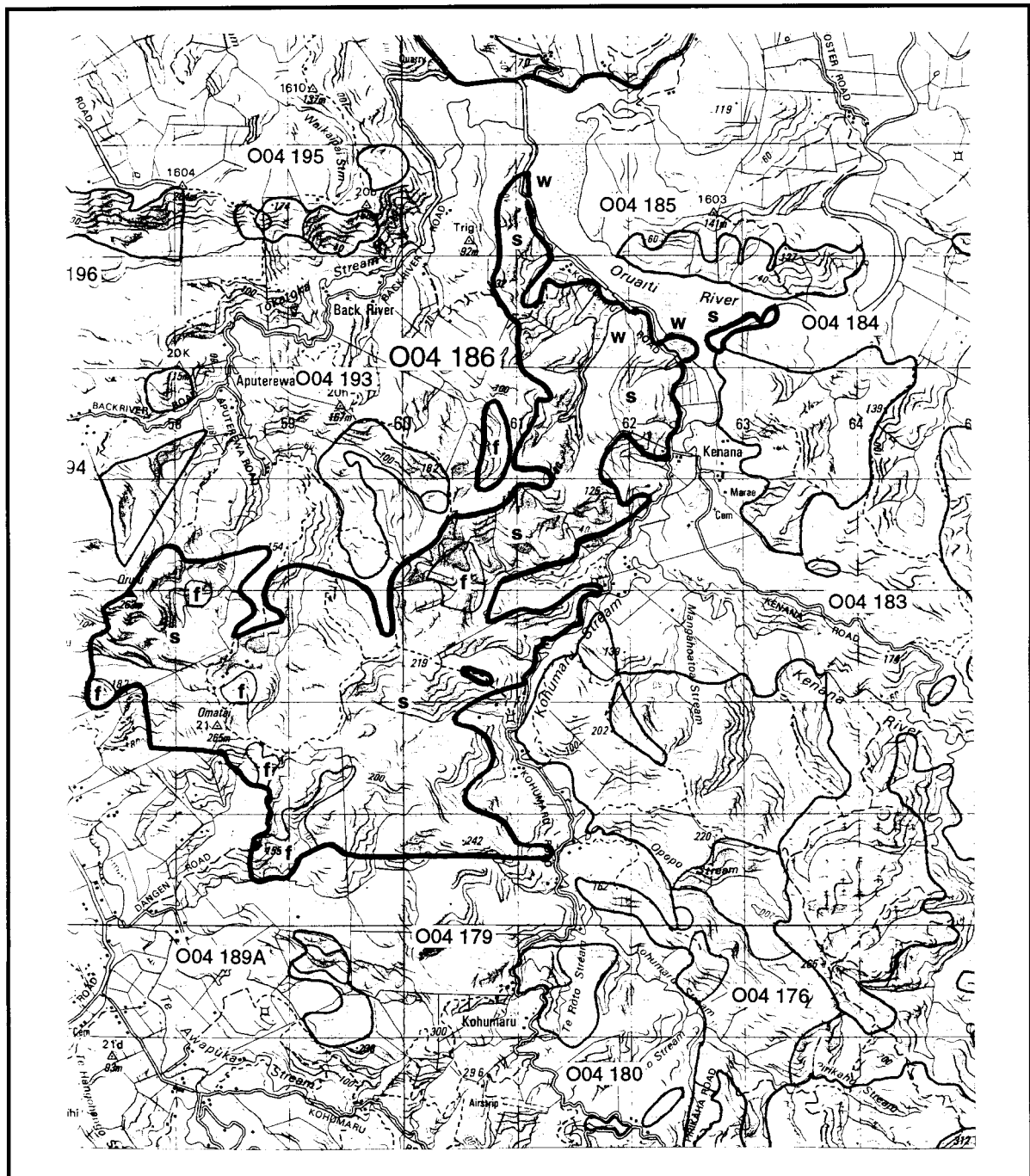
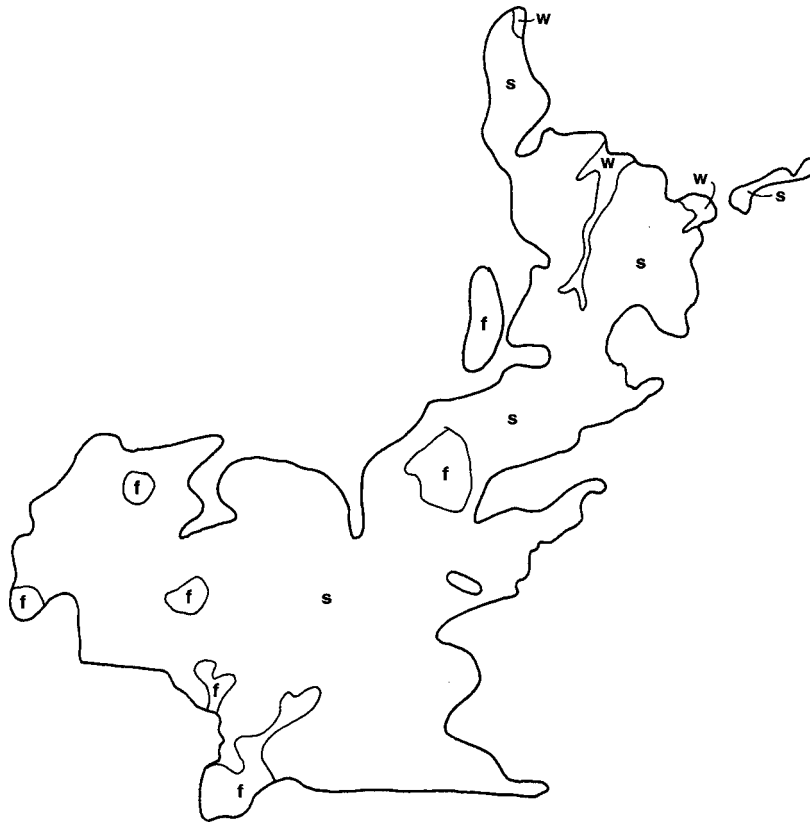


Figure 128 (above and opposite). Oruru, O04 186
 Each grid is 1000 m x 1000 m and equals 100 ha.
 f = forest; s = shrubland; w = wetland.

Ecological unit

- (a) Oioi association on alluvium
- (b) Manuka-*Juncus* swamp shrubland on alluvium
- (c) Raupo association on alluvium
- (d) Totara-*Coprosma propinqua* shrubland on alluvium
- (e) Manuka shrubland on hillslope
- (f) Manuka-gorse shrubland on hillslope
- (g) Gorse scrub on hillslope



- (h) Kanuka shrubland on hillslope
- (i) Manuka-kanuka shrubland on hillslope
- (j) Towai-kanuka forest on hillslope
- (k) Secondary kauri forest on hillslope
- (l) Taraire forest on hillslope
- (m) Taraire-towai forest on hillslope
- (n) Taraire-puriri forest on hillslope
- (o) Taraire-kanuka forest on hillslope
- (p) Puriri-kanuka forest on hillslope
- (q) Secondary kanuka forest on hillslope
- (r) Totara-kahikatea forest on hillslope
- (s) Cabbage tree forest on hillslope
- (t) Kanuka-rewarewa forest on hillslope
- (u) Taraire-rewarewa-kanuka forest on hillslope

Landform/geology

Hill country of Tangihua Complex igneous rock units and wetlands adjacent to Oruaiti River estuary.

Vegetation

A contiguous area (including some pine plantations) from the Oruaiti River to Omatai trig.

The wetlands include both salt and freshwater.

Type (a) Oioi wetland. Adjoins the mangroves along the Oruaiti. Raupo, sea rush, flax and manuka are locally frequent, with scattered cabbage tree, saltmarsh ribbonwood, *Coprosma propinqua* and totara.

On the southern fringe of this area, *C. propinqua* is dominant, with occasional cabbage tree.

Type (b) Manuka-*Juncus* swamp shrubland. Across the road from (a) with locally frequent *Gleichenia* sp. and occasional koromiko, cabbage tree and raupo.

Type (c) Raupo wetland. Between the road and the river, raupo is locally common with flax and wattle frequently occurring. Also present are cabbage tree, *Baumea articulata*, bracken and Mexican devilweed.

Type (d) Totara-*Coprosma propinqua* shrubland. At the confluence of the Oruaiti River and the Kohumaru Stream is a small remnant of riverine vegetation of totara and *Coprosma propinqua*. Kanuka is locally frequent; cabbage tree and kowhai are occasional.

Type (e) Manuka shrubland. The freshwater wetlands grade into manuka shrubland of 3-5 m in height. Towai, gorse and *Hakea* are locally frequent with cabbage tree and mamaku occasional.

Types (f) Manuka-gorse shrubland and (g) Gorse scrub. Large areas occur at the northern end, gorse and *Hakea* dominant. Manuka is still common, but diversity is low.

Type (h) Kanuka shrubland. A small area occurs south-west of Kenana with frequent mamaku and occasional totara and tutu. There is an extensive area in the southeastern sector, with frequent mamaku, totara, towai and cabbage tree and occasional rimu, puriri and rewarewa. *Hakea* is locally common.

Along Dangen Rd towai is common and rewarewa frequent with scattered lancewood and mamangi.

Type (i) Manuka-kanuka shrubland. The main vegetation type south of Kenana and on the Oruru side. Towai, rewarewa, mamaku, totara, cabbage tree, puriri and *Hakea* are scattered in the canopy. Rimu, ricker kauri, mahoe and tanekaha occur locally.

At the northern end of Dangen Rd mamangi occurs frequently with scattered cabbage tree, mamaku and kohuhu. Around Omatai, mamaku is frequent.

Type (j) Kanuka-towai shrubland. Along Dangen Rd occasional lancewood and mamangi occurs within this type. At the end of the road, rewarewa and nikau are frequent with occasional kahikatea, kawaka, northern rata, kauri, puriri, rimu and tanekaha.

In the upper Kohumaru area, puriri and nikau are frequent with occasional rewarewa, tanekaha, rimu and emergent northern rata.

Type (k) Secondary kauri. A small stand occurs east of Dangen Rd in a mosaic of manuka-kanuka-towai regeneration. Kanuka and tanekaha are frequent.

Type (l) Taraire forest. Occurs in pockets in the central mosaic of regeneration, with frequent towai and occasional puriri, totara, northern rata and emergent rimu. At Oruru, puriri, kanuka, towai and rewarewa are locally frequent with scattered rewarewa, nikau, totara, cabbage tree, kahikatea, titoki, pukatea, towai, rimu, emergent kauri, northern rata and wilding pine.

Type (m) Towai-taraire forest. At the northern end of Dangen Road is an area of more mature towai-taraire forest with rewarewa, nikau and tawa. Also present are northern rata, rimu, totara, tanekaha, kohekohe and karaka.

Type (n) Taraire-puriri forest. Found at the lower end of Dangen Rd. Emergent kauri occurs frequently with occasional northern rata, rimu, kahikatea, rewarewa, nikau, lancewood, kawaka, pukatea, white maire and towai.

Type (o) Taraire-kanuka forest. Found at Omatai. Nikau is frequent and puriri, rimu, kauri, northern rata, mamaku and totara occasional.

Type (p) Puriri-kanuka forest. Occurs in a gully east of the end of Dangen Rd with frequent towai and rewarewa. Also present are northern rata, kauri, pukatea and totara.

Type (q) Kanuka forest. A large area in the south eastern corner with frequent towai, totara, mamaku and cabbage tree and occasional rimu, puriri and rewarewa. At Omatai it is similar, except for the absence of totara and tanekaha in the canopy.

At the end of Dangen Rd, an area of kanuka forest occurs with occasional tanekaha, rimu and rewarewa scattered in the canopy.

In addition to the above, there are four small pockets with the following vegetation types:

Type (r) Totara-kahikatea forest. With towai and kanuka and occasional kauri and puriri (Dangen Rd).

Type (s) Cabbage tree forest. With puriri and kohekohe common and frequent kanuka (Oruru).

Type (t) Kanuka-rewarewa forest with frequent puriri and towai and occasional rimu and kauri rickers (Oruru).

Type (u) Taraire-rewarewa-kanuka forest with frequent northern rata and occasional kauri, puriri and nikau (Oruru).

Significant flora

Loxsona cunninghamii - regionally significant.

Kawaka - notable in the Ecological District.

Fauna

NI brown kiwi (Category A threatened species), NZ pigeon (Category B threatened species), NI fernbird, NI tomtit (both regionally significant species); kauri snail (Category C threatened species), *Peripatus* sp. (few records from Northland).

Significance

A very large diverse and contiguous habitat from mangrove to forest.

Good fernbird habitat occurs near the Oruaiti River; and other threatened bird species are present.

Representative site for kanuka forest, manuka-puriri forest, secondary kauri forest, cabbage tree forest, manuka-kanuka shrubland and oioi sedgeland. It is the only site in the Ecological District where manuka-*Juncus*, kanuka-taraire-rewarewa, kanuka-rewarewa and totara-*Coprosma propinqua* associations have been recorded.

Some regionally significant species which are uncommon (*Peripatus*) or with limited distribution (*Loxsona cunninghamii*) are also present.

This site includes 18.7 ha designated stewardship land and 56.4 ha recently purchased by the Department of Conservation, to be classified as Scenic Reserve.