

TIMARU DISTRICT
SIGNIFICANT NATURAL AREAS
SURVEY

S&J DEANS
PEEL FOREST



Report prepared for Timaru District Council by Mike Harding
September 2010

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: Steve and Jenny Deans
Valuation References: 24640/030.00
Address: Rangitata Gorge Road, Peel Forest
Location: Between Rangitata Gorge Road and Mills Bush, Peel Forest Park Scenic Reserve.
Ecological District: Orari/High Plains Ecological District.
TDC Land Type: Plains.
Land Environment: N3 (eastern South Island undulating plains and hills).

ECOLOGICAL CONTEXT:

The property lies on a gently sloping terrace with incised stream gullies adjacent to Mills Bush (Peel Forest Park Scenic Reserve) at Peel Forest. It lies at the boundary of Geraldine, Orari, Low Plains and High Plains ecological districts, though has characteristics most representative of lower altitude parts of the Orari Ecological District. The original vegetation of this area would have been predominantly podocarp-hardwood forest, with localized areas of kowhai-kanuka forest and shrubland alongside active stream channels. Minor areas of matagouri-*Coprosma-Olearia* shrubland and small wetlands were likely to have been present on recently disturbed surfaces. The indigenous fauna would have been significantly more numerous and diverse, with a greater range of birds, lizards and invertebrates than is presently found in the area.

Indigenous vegetation on the property comprises podocarp-hardwood forest, podocarp-hardwood treeland and wetland vegetation associated with an excavated pond. This vegetation is adjacent to other indigenous vegetation protected within Mills Bush and the regionally-important Peel Forest Park Scenic Reserve. The property lies within the known distribution of the South Canterbury population of long-tailed bat (a nationally endangered species).

SIGNIFICANT AREAS ON THE PROPERTY:

The property was surveyed as part of the District-wide survey of Significant Natural Areas during August 2010. Three areas, totalling approximately 2.7 hectares, are regarded as a Significant Natural Areas (SNAs) when assessed against the District Plan criteria. These SNAs are listed in the table below.

| Area No. | Area Name | Central grid reference | Aprox. size (ha) | Vegetation/habitat type |
|----------|----------------|------------------------|------------------|---------------------------------------|
| 682a | Deans Forest | K37: 701-997 | 1.39 | Podocarp-hardwood forest |
| 682b | Deans Treeland | K37: 701-996 | 0.77 | Podocarp-hardwood forest and treeland |
| 682c | Deans Wetland | K37: 702-997 | 0.6 | Podocarp-hardwood forest and wetland |

These SNAs are illustrated on the attached aerial photograph and described in greater detail on the SNA Survey Forms in this report. Note that the boundaries of the SNAs are indicative, rather than precise. These areas meet the ecological criteria in the Timaru District Plan (criteria i-vi, pages B18-B19) and are considered to be sustainable with appropriate management (criterion vii, page B19). SNAs are subject to confirmation by Council after regarding the matters listed in the District Plan (pages B19-B20). It is expected that SNAs will eventually be listed in the District Plan by way of a notified plan change.

At present, consent is required from Council for clearance of areas of indigenous vegetation or habitat which meet the Interim Definitions in the District Plan. Clearance includes burning, spraying with herbicides and over-planting. SNAs encompass most, but not necessarily all, areas of vegetation and habitat which meet the Interim Definitions.

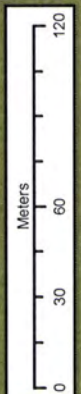
To assist with the protection and management of any SNA, landowners can apply to Council for financial assistance. Any questions regarding the protection, management and use of SNAs should be directed to the District Planner.

OTHER AREAS INSPECTED ON THE PROPERTY:

Other areas of indigenous vegetation and habitat on the property were inspected, including individual large trees of totara, broadleaf, narrow-leaved lacebark and kowhai in the paddock adjacent to the wetland (SNA 682c). These trees have value as specimen trees (the totara has a trunk diameter of 168cm) and as habitat for birds, but do not quite meet the significance criteria in the Timaru District Plan. Failure of these trees to meet the significance criteria does not mean that they are not important for nature conservation or the protection of indigenous biodiversity; it simply means that they do not (as assessed at this time) quite meet the criteria in the Timaru District Plan.

S&J Deans Property
24640/030.00

1:2,500



TIMARU DISTRICT SNA SURVEY

SNA 682a

Area Name: Deans Forest

Location (central map reference): K37: 701-997

Ecological District: Orari/High Plains boundary

Surveyors: Mike Harding

Property: Steve and Jenny Deans

Nearest Locality: Peel Forest

Area Size (ha): 1.39

Altitude (m): 300

Survey Time: 2 hours

Survey Date: 04-08-10

General Description:

This SNA lies on a gently sloping terrace, bisected by a deeply incised stream, adjacent to Mills Bush at Peel Forest.

Plant Communities:

Two main plant communities are present: podocarp-hardwood forest and treeland. These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

Podocarp-hardwood forest:

This community comprises most of the SNA. The forest canopy is dominated in most places by totara. Other canopy species are kahikatea, matai, wineberry, mahoe, fuchsia, five-finger, broadleaf, narrow-leaved lacebark, lancewood, lowland ribbonwood, marbleleaf, kaikomako, cabbage tree, bush lawyer and pohuehue.

Understorey species are mapou, mahoe, shrubby mahoe, wheki-ponga, five-finger, poataniwha, horopito, pate, *Neomyrtus pedunculata*, pokaka, matipo, *Coprosma rotundifolia*, *Coprosma rhamnoides*, *Coprosma crassifolia*, white climbing rata, leather-leaf fern, bush lawyer and occasional saplings of kahikatea.

Dominant ground-cover species are prickly shield fern and, in places, hound's tongue fern and white climbing rata. Other ground-cover species present are bidibid, bush lily, hookgrass, *Carex solandri*, hen and chickens fern, hanging spleenwort, *Blechnum penna-marina*, *Blechnum fluviatile* and seedlings of kahikatea, native jasmine, broadleaf, five-finger, marbleleaf, mahoe, mapou, *Clematis* sp. and *Coprosma* species.

Additional species present at damper sites are crown fern, swamp kiokio, *Blechnum chambersii*, *Blechnum procerum* and *Leptopteris hymenophylloides*.

Additional species present on the forest margin are narrow-leaved mahoe, lemonwood, turepo, kanuka, weeping mapou, *Coprosma tayloriae*, foxglove*, *Hypolepis ambigua*, necklace fern, bracken and hard fern. Other native species have been planted at the forest margins, including southern rata, rimu and red beech.

Treeland:

This community occupies the northwest corner of the SNA. It comprises scattered tall trees with an open (grazed) understorey. Dominant canopy species are narrow-leaved lacebark, lowland ribbonwood and totara. Other canopy or sub-canopy species are pokaka, kahikatea, kaikomako, fuchsia and broadleaf.

The most important species in the open forest understorey is *Coprosma rotundifolia*. Also present are *Coprosma rubra*, *Coprosma propinqua*, horopito, leather-leaf fern (on tree trunks) and mistletoe.

The ground-cover is predominantly pasture grasses, with moss and occasional *Hypolepis ambigua* ferns.

Birds/Fauna Observed:

Native birds observed during this brief survey were bellbird, grey warbler, rifleman, fantail and kereru (NZ pigeon).

Notable Flora, Fauna and Habitats:

Important features of this area are the location of the area adjacent to protected indigenous forest (Mills Bush), the presence of podocarps (totara, kahikatea and matai), the diversity of plant species, the presence of locally uncommon plant species (*Coprosma rubra*, shrubby mahoe and *Neomyrtus pedunculata*), the habitat the area provides for forest birds including rifleman (an 'at risk' species) and the contribution the area makes to the network of fauna habitat in the Peel Forest area.

Notable Plant and Animal Pests:

The forest is free of invasive plant pests, though sycamore* is present nearby. Animal pests were not surveyed.

Boundaries (buffering, fencing, adjoining plant communities and habitats):

The area is well buffered by its location adjacent to Mills Bush. Parts of the area are fenced from grazing and other parts in the deeply incised stream are inaccessible to domestic stock. The area is contiguous with an extensive area of protected indigenous forest in Peel Forest Park Scenic Reserve.

Condition and Management Issues:

The parts of the area that are protected from grazing are in very good condition with no invasive plant pests and a very diverse understorey. Grazed parts of the forest, especially the area of treeland at the northwest corner, are more open and less diverse. The presence of several very large totara stumps indicates past logging of the forest.

Property Owner Comment:

The property owners are interested to fence the area from domestic stock.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

| Primary Criteria | Rank | Notes |
|----------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Representativeness | M/H | A good example of indigenous forest typical of the ecological district and containing a large number of species that are representative of the original vegetation. |
| Rarity | M | Provides good habitat for an 'at-risk' species (rifleman) and potential habitat for a 'nationally-endangered' species (long-tailed bat). Supports three locally uncommon plant species. |
| Diversity and pattern | M | A relatively diverse range of plant species is present. |
| Distinctiveness/special features | M | The deeply incised stream gully is a notable feature. |
| Other Criteria | | |
| Size/shape | L/M | A relatively small area, but well buffered. |
| Connectivity | M/H | Adjoins protected forest on one boundary. |
| Long-term Sustainability | M/H | Some animal pest control may be required and management of grazing will probably be required to maintain ecological values. |

Final Consideration (of other matters: Section D, page B-19 of Timaru District Plan):

Most parts of the area have been informally protected by the landowners. The area has very limited potential for farm development.

Discussion:

This area meets the District Plan criteria for a Significant Natural Area. Important features of the area are the location of the area adjacent to protected indigenous forest (Mills Bush), the presence of podocarps (totara, kahikatea and matai), the diversity of plant species, the presence of locally uncommon plant species (*Coprosma rubra*, shrubby mahoe and *Neomyrtus pedunculata*), the habitat the area provides for forest birds including rifleman (an 'at risk' species) and the contribution the area makes to the network of fauna habitat in the Peel Forest area.

TIMARU DISTRICT SNA SURVEY

SNA 682b

Area Name: Deans Treeland

Location (central map reference): K37: 701-996

Ecological District: Orari/High Plains

Surveyors: Mike Harding

Property: Steve and Jenny Deans

Nearest Locality: Peel Forest

Area Size (ha): 0.77

Altitude (m): 300

Survey Time: ½ hour

Survey Date: 04-08-10

General Description:

This SNA lies in two small incised gullies and on the intervening terrace adjacent to Rangitata Gorge Road near Peel Forest.

Plant Communities:

Two main plant communities are present: podocarp-hardwood forest in the gullies and podocarp-hardwood treeland on the terrace. These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

Podocarp-hardwood forest:

The forest canopy is mostly dominated by narrow-leaved lacebark and lowland ribbonwood and, in the southern gully, by fuchsia and wineberry. Other canopy species are totara, kahikatea, broadleaf, kaikomako, cabbage tree, sycamore* (in southern gully), bush lawyer and pohuehue.

Understorey species are matipo, lemonwood, kaikomako, horopito, mahoe, *Coprosma rotundifolia*, pate, wheki-ponga, poataniwha, elderberry* and bush lawyer.

Ground-cover species are prickly shield fern, hen and chickens fern and bidibid.

Species commonly present on the forest margin are *Coprosma propinqua*, *Coprosma rubra*, kanuka, lawyer, pohuehue, native jasmine, elderberry*, *Hypolepis ambigua*, black nightshade*, blackberry*, horehound* and cocksfoot*.

Treeland:

This community comprises scattered patches of trees in a grazed paddock between the two small gullies. Indigenous trees present are totara, narrow-leaved lacebark, lowland ribbonwood and small horopito trees. Mistletoe and leather-leaf fern are present on the trees.

Birds/Fauna Observed:

Native birds observed during this brief survey were bellbird, grey warbler and fantail.

Notable Flora, Fauna and Habitats:

Important features of this area are the presence of podocarp trees (totara and kahikatea), other large canopy trees (narrow-leaved lacebark and lowland ribbonwood), a locally-uncommon plant species (*Coprosma rubra*), the habitat the area provides for forest birds and the buffering the vegetation provides to the small streams.

Notable Plant and Animal Pests:

Sycamore is the most important plant pest present. There are at least two small sycamore trees in the southern gully. This species poses a significant threat to areas of indigenous forest. There are substantial infestations of sycamore nearby at Peel Forest. Animal pests were not surveyed.

Boundaries (buffering, fencing, adjoining plant communities and habitats):

The narrow patches of forest in this SNA are well buffered by their locations in incised gullies. The treeland represents a depleted remnant of the forest and is not well buffered. The area lies close to other SNAs on the property (SNA 682a and SNA 682c) and to an extensive area of protected forest in Peel Forest Park Scenic Reserve.

Condition and Management Issues:

Indigenous vegetation in the treeland is in poor condition. There is no regeneration and some tree trunks are affected by cattle. However, the trees still provide important habitat. Forest in the gullies is more intact, though threatened by sycamore.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

| Primary Criteria | Rank | Notes |
|----------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Representativeness | M/H | A good example of indigenous forest typical of that remaining in the ecological district and supporting species that are representative of the original vegetation. |
| Rarity | L/M | Provides habitat for an 'at-risk' species (rifleman) (observed nearby) and a locally-uncommon plant species (<i>Coprosma rubra</i>). May provide habitat for a nationally-endangered species (long-tailed bat). |
| Diversity and pattern | L/M | Plant species diversity is low and substantially reduced from that originally present. |
| Distinctiveness/special features | L/M | Some large old trees are present. |
| Other Criteria | | |
| Size/shape | L/M | A relatively small area with a narrow shape. |
| Connectivity | M | Well connected to an extensive area of protected indigenous forest. |
| Long-term Sustainability | M | Forest in the gullies is likely to retain its ecological values with some management (notably weed control); the treeland will eventually decline unless there is regeneration of canopy species. |

Final Consideration (of other matters: Section D, page B-19 of Timaru District Plan):

The parts of this area in the gullies have been informally protected by the landowners. Other parts of the area are grazed as part of a larger paddock.

Discussion:

This area only just meets the District Plan criteria for a Significant Natural Area. Important features of the area are the presence of podocarp trees (totara and kahikatea), other large canopy trees (narrow-leaved lacebark and lowland ribbonwood), a locally-uncommon plant species (*Coprosma rubra*), the habitat the area provides for forest birds and the buffering the vegetation provides to the small streams. Its location at the boundary of the High Plains Ecological District enhances its significance.



The treeland portion of SNA 682b

TIMARU DISTRICT SNA SURVEY

SNA 682c

Area Name: Deans Wetland

Location (central map reference): K37: 702-997

Ecological District: Orari/High Plains

Surveyors: Mike Harding

Property: Steve and Jenny Deans

Nearest Locality: Peel Forest

Area Size (ha): 0.6

Altitude (m): 300

Survey Time: ¼ hour

Survey Date: 04-08-10

General Description:

This SNA lies on a terrace beside Rangitata Gorge Road, adjacent to Mills Bush near Peel Forest.

Plant Communities:

Two main plant communities are present: podocarp-hardwood forest and sedgeland (wetland). These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

Podocarp-hardwood forest:

The forest canopy is dominated by kahikatea. Trunk diameters (at breast height) of the larger kahikatea trees range between 65 and 105cm. Other canopy species are totara, narrow-leaved lacebark, broadleaf, mahoe, marbleleaf, fuchsia, pokaka, pohuehue and native jasmine.

The forest understorey is dominated by *Coprosma rotundifolia*. Other understorey species are *Neomyrtus pedunculata*, horopito, lawyer and leather-leaf fern (on tree trunks).

Ground-cover species are prickly shield fern, *Hypolepis ambigua*, bush lily, hairy pennywort, bidibid, *Carex solandri* and creeping buttercup*.

Species commonly present on the forest margin are horopito, *Coprosma rotundifolia*, *Coprosma propinqua*, *Coprosma tayloriae*, *Neomyrtus pedunculata*, weeping mapou, *Raukaua anomalus*, native convolvulus, *Hypolepis ambigua*, foxglove*, soft rush* and mistletoe (on horopito).

Sedgeland:

This plant community is dominated by toetoe, *Carex secta*, flax and a number of other planted species around the margins of an excavated pond and associated ditches. It is contiguous with the forest described above and includes scattered kahikatea trees.

Birds/Fauna Observed:

Native birds observed during this brief survey were bellbird, fantail, rifleman and paradise shelduck.

Notable Flora, Fauna and Habitats:

Important features of this area are the presence of a stand of kahikatea trees, wetland vegetation and open-water habitat for birds, the presence of an 'at-risk' bird species, locally-uncommon plant species (*Raukaua anomalus* and *Neomyrtus pedunculata*) and the location of the area adjacent to an extensive area of protected indigenous vegetation in Peel Forest Park Scenic Reserve.

Notable Plant and Animal Pests:

No significant woody plant pests were observed. Areas of low-stature vegetation are dominated in places by cocksfoot and other pasture species. Animal pests were not surveyed.

Boundaries (buffering, fencing, adjoining plant communities and habitats):

This area has a good shape and is relatively large for a wetland. It is securely fenced from stock.

Condition and Management Issues:

The area is in good condition and its condition will continue to improve under the existing management. The property owners have put considerable effort into the creation, restoration and protection of open-water habitat and wetland vegetation.

Property Owner Comment:

A kingfisher has been observed in this area since the survey.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

| Primary Criteria | Rank | Notes |
|----------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Representativeness | M/H | The kahikatea stand and associated wetland vegetation are highly representative of the original vegetation at poorly drained sites in this area. |
| Rarity | M | Provides habitat for an 'at-risk' bird species (rifleman) and two locally-uncommon plant species. Lowland wetlands are a nationally-rare ecosystem. |
| Diversity and pattern | M | Two main plant communities are present: podocarp-hardwood forest and sedgeland-flaxland. |
| Distinctiveness/special features | L/M | The number of kahikatea trees is a special feature. |
| Other Criteria | | |
| Size/shape | M | A moderate-sized area (especially for a wetland) with a good shape. |
| Connectivity | M | Lies very close to other SNAs and an extensive area of protected forest. |
| Long-term Sustainability | M | Some plant and animal pest control will probably be necessary to maintain the ecological values of the area in the long term. |

Final Consideration (of other matters: Section D, page B-19 of Timaru District Plan):

This area has been deliberately set aside for protection and restoration by the landowners.

Discussion:

This area meets the District Plan criteria for a Significant Natural Area. Important features of the area are the presence of a stand of kahikatea trees, wetland vegetation and open-water habitat for birds, the presence of an 'at-risk' bird species, locally-uncommon plant species and the location of the area adjacent to an extensive area of protected indigenous vegetation in Peel Forest Park Scenic Reserve.

TIMARU DISTRICT SNA SURVEY

Wetland Record Form

Wetland 682c

| | |
|----------------------------------------------------|-----------------------------------|
| Wetland name: Deans Wetland | Date: 04 August 2010 |
| Property: Steve and Jenny Deans | GPS/Grid Ref: K37: 702-997 |
| Altitude: 300m | No. of plots sampled: |
| Location: Rangitata Gorge Road, Peel Forest | Approximate size (ha): 0.6 |

| | | | |
|---------------------------------|---------------------|-------------------------|-------------------------|
| Classification: I System | IA Subsystem | II Wetland Class | IIA Wetland Form |
| Palustrine | Permanent | Shallow Water | Shore |

Surveyors: Mike Harding

| Indicator | Indicator components | Specify and Comment | Score 0-5 ¹ | Mean score |
|------------------------------------------------------|-----------------------------------------|-------------------------------------|------------------------|--------------|
| Change in hydrological integrity | Impact of manmade structures | Constructed ponds | 2 | 3.33 |
| | Water table depth | Appears stable | 5 | |
| | Dryland plant invasion | Pasture grasses | 3 | |
| Change in physico-chemical parameters | Fire damage | No evidence | 5 | 4.67 |
| | Degree of sedimentation/erosion | Low | 4 | |
| | Nutrient levels | No evidence | 5 | |
| | von Post index | | | |
| Change in ecosystem intactness | Loss in area of original wetland | Unclear | 3 | 3.5 |
| | Connectivity barriers | Appear largely intact | 4 | |
| Change in browsing, predation and harvesting regimes | Damage by domestic or feral animals | Stock excluded | 5 | 4.33 |
| | Introduced predator impacts on wildlife | Unclear | 3 | |
| | Harvesting levels | None apparent | 5 | |
| Change in dominance of native plants | Introduced plant canopy cover | Pasture grasses; soft rush | 3 | 3 |
| | Introduced plant understorey cover | Pasture grasses, creeping buttercup | 3 | |
| Total wetland condition index /25 | | | | 18.83 |

Main vegetation types: Sedgeland; flaxland; forest

Native fauna: Bellbirds, fantail, rifleman, paradise shelduck.

Other comments: Wetland comprises excavated ponds and adjacent wetland vegetation, including forest.

| Pressure | Rating ² | Specify and Comment |
|-----------------------------------------|---------------------|---------------------------------------|
| Modifications to catchment hydrology | 1 | Source stream diverted through ditch. |
| Water quality within the catchment | 0 | Very high: well protected. |
| Animal access | 2 | No stock. |
| Key undesirable species | 1 | Low numbers of undesirable species. |
| % catchment in introduced vegetation | 0 | Almost entirely in indigenous forest. |
| Other pressures | 0 | None apparent. |
| Total wetland pressure index /30 | 4 | |

Source: Clarkson *et al*, Handbook for monitoring wetland condition, Ministry for the Environment, August 2002.

¹ Assign degree of modification thus: 5=v. low/ none, 4=low, 3=medium, 2=high, 1=v. high, 0=extreme

² Assign pressure scores as follows: 5=very high, 4=high, 3=medium, 2=low, 1=very low, 0=none

Scientific names of species cited by common name in this report

(Note: this is not a complete species list; it is a list only of species cited by common name in this report)

| Common Name | Scientific name |
|-------------------------------|-------------------------------------------|
| (* = naturalised species) | |
| bidibid | <i>Acaena</i> sp. |
| blackberry* | <i>Rubus fruticosus</i> |
| black nightshade* | <i>Solanum nigrum</i> |
| bracken | <i>Pteridium esculentum</i> |
| broadleaf | <i>Griselinia littoralis</i> |
| bush lawyer | <i>Rubus cissoides</i> |
| bush lily | <i>Astelia</i> sp. |
| cabbage tree/ti rakau | <i>Cordyline australis</i> |
| clematis | <i>Clematis</i> sp. |
| cocksfoot* | <i>Dactylis glomerata</i> |
| creeping buttercup* | <i>Ranunculus repens</i> |
| crown fern | <i>Blechnum discolor</i> |
| elderberry* | <i>Sambucus nigra</i> |
| five-finger | <i>Pseudopanax arboreus</i> |
| flax | <i>Phormium tenax</i> |
| foxglove* | <i>Digitalis purpurea</i> |
| fuchsia | <i>Fuchsia excorticata</i> |
| hairy pennywort | <i>Hydrocotyle moschata</i> |
| hanging spleenwort | <i>Asplenium flaccidum</i> |
| hard fern | <i>Paesia scaberula</i> |
| hedge woundwort* | <i>Stachys sylvatica</i> |
| hen and chickens fern | <i>Asplenium bulbiferum</i> |
| hookgrass | <i>Uncinia</i> sp. |
| horehound* | <i>Marrubium vulgare</i> |
| horopito/pepperwood | <i>Pseudowintera colorata</i> |
| hound's tongue fern | <i>Microsorium pustulatum</i> |
| kahikatea/white pine | <i>Dacrycarpus dacrydioides</i> |
| kaikomako | <i>Pennantia corymbosa</i> |
| kanuka | <i>Kunzea ericoides</i> |
| kowhai | <i>Sophora microphylla</i> |
| lancewood | <i>Pseudopanax crassifolius</i> |
| lawyer | <i>Rubus schmidelioides</i> |
| leather-leaf fern | <i>Pyrrosia eleagnifolia</i> |
| lemonwood | <i>Pittosporum eugenioides</i> |
| lowland ribbonwood | <i>Plagianthus regius</i> |
| mahoe/whiteywood | <i>Melicytus ramiflorus</i> |
| mapou | <i>Myrsine australis</i> |
| marbleleaf/putaputaweta | <i>Carpodetus serratus</i> |
| matagouri | <i>Discaria toumatou</i> |
| matai/black pine | <i>Prumnopitys taxifolia</i> |
| matipo/kohuhu | <i>Pittosporum tenuifolium</i> |
| mistletoe | <i>Ileostylis micranthus</i> |
| narrow-leaved lacebark | <i>Hoheria angustifolia</i> |
| narrow-leaved mahoe | <i>Melicytus lanceolatus</i> |
| native convolvulus | <i>Calystegia tuguriorum</i> |
| native broom | <i>Carmichaelia</i> aff. <i>australis</i> |
| native jasmine | <i>Parsonsia</i> sp. |
| necklace fern | <i>Asplenium flabellifolium</i> |
| pate | <i>Schefflera digitata</i> |
| poataniwha | <i>Melicope simplex</i> |
| pohuehue | <i>Muehlenbeckia australis</i> |
| pokaka | <i>Elaeocarpus hookerianus</i> |
| prickly shield fern | <i>Polystichum vestitum</i> |

| | |
|--------------------------|-------------------------------|
| red beech..... | <i>Nothofagus fusca</i> |
| rimu/red pine..... | <i>Dacrydium cupressinum</i> |
| shrubby mahoe..... | <i>Melicytus micranthus</i> |
| soft rush*..... | <i>Juncus effusus</i> |
| southern rata..... | <i>Metrosideros umbellata</i> |
| swamp kiokio..... | <i>Blechnum minus</i> |
| sycamore*..... | <i>Acer pseudoplatanus</i> |
| toetoe..... | <i>Cortaderia richardii</i> |
| totara..... | <i>Podocarpus totara</i> |
| turepo..... | <i>Streblus heterophyllus</i> |
| weeping mapou..... | <i>Myrsine divaricata</i> |
| wheki-ponga..... | <i>Dicksonia fibrosa</i> |
| white climbing rata..... | <i>Metrosideros diffusa</i> |