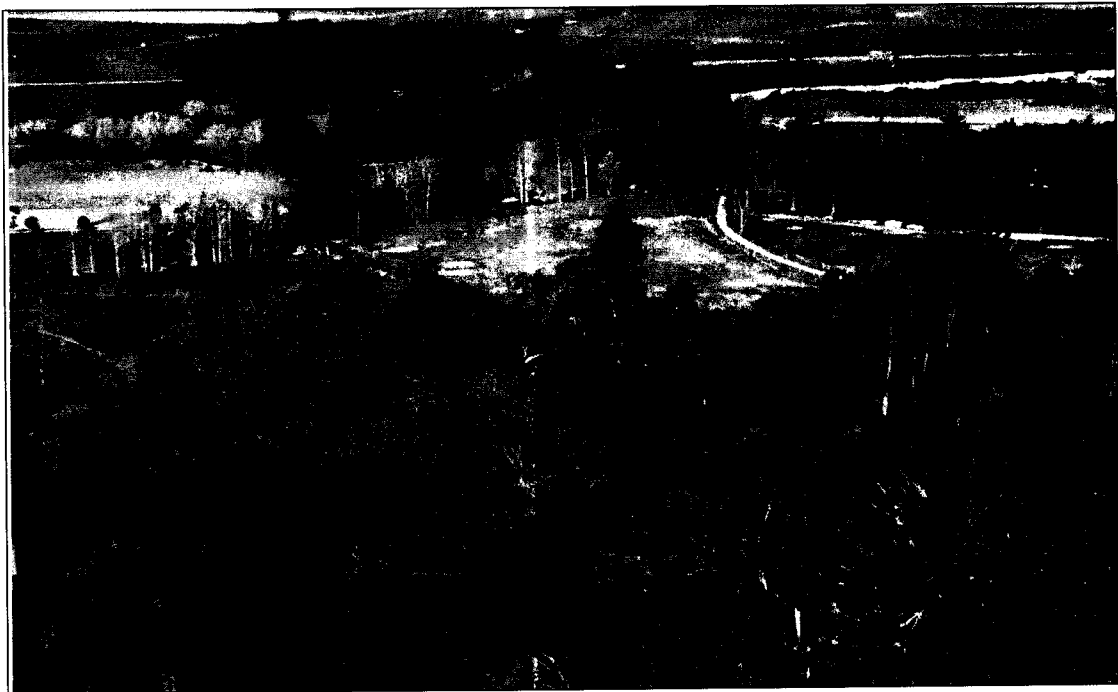


TIMARU DISTRICT
SIGNIFICANT NATURAL AREAS
SURVEY

CASEY PROPERTY
SCOTSBURN



Report prepared for Timaru District Council by Mike Harding
December 2010

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: Mary Casey
Valuation References: 24640/054.01 and 24640/054.02
Address: Horsfall Road, Peel Forest
Location: On lower hill slopes west of lower Scotsburn Stream.
Ecological District: Orari Ecological District.
TDC Land Type: Hard Rock Hills and Downs.
Land Environment: Q2 (Southeastern Hill Country).

ECOLOGICAL CONTEXT:

The property lies at the base of moderately-steep slopes on the foothills west of lower Scotsburn Stream near Peel Forest. It lies in the Orari Ecological District, though is close to the Geraldine and High Plains ecological districts. 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. 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 an area of intact podocarp-hardwood forest with large remnant podocarps (kahikatea, matai and totara). This vegetation lies near to other indigenous vegetation on adjacent properties and that protected within the regionally-important Peel Forest Park Scenic Reserve. The property lies close to 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 September 2010. One area, totalling approximately three hectares, is regarded as a Significant Natural Area (SNA) when assessed against the District Plan criteria.

This SNA is illustrated on the attached aerial photograph and described in greater detail on the SNA Survey Form in this report. Note that the boundaries of the SNA are indicative, rather than precise. This area meets the ecological criteria in the Timaru District Plan (criteria i-vi, pages B18-B19) and is 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 ON THE PROPERTY:

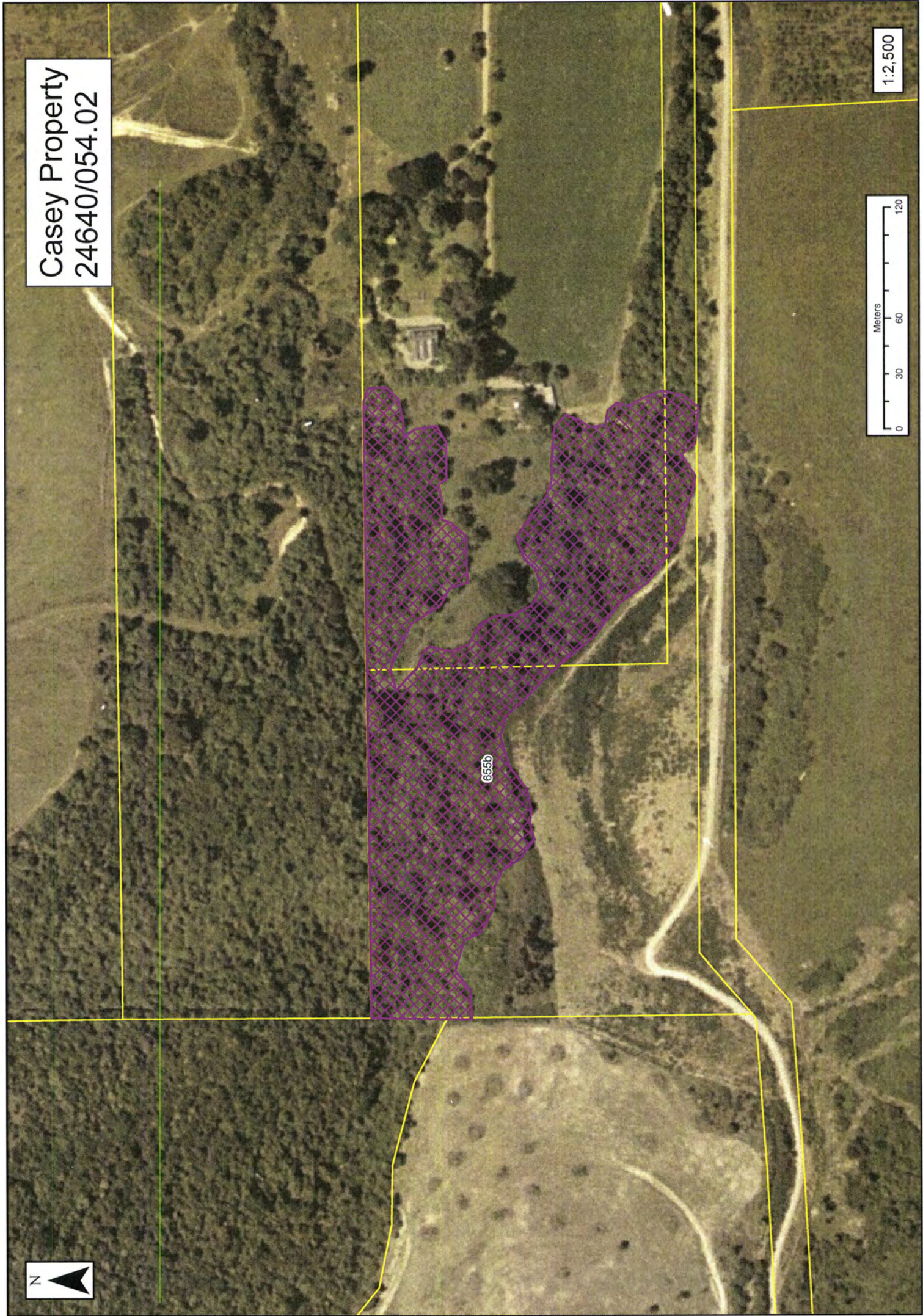
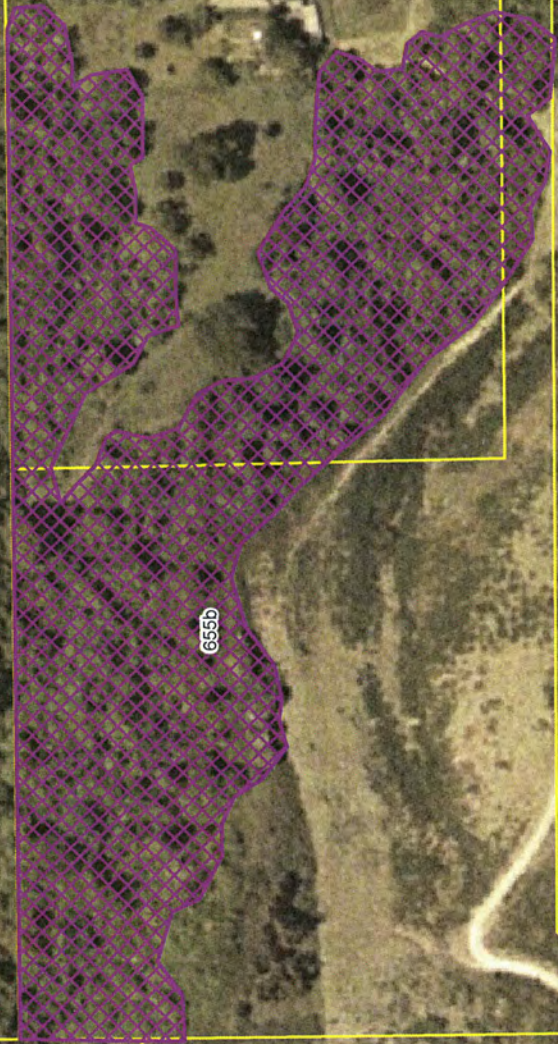
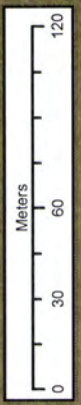
A narrow strip of forest is present alongside the stream, downstream from the SNA described in this report. This area of forest is mostly dominated by young sycamore trees. However, there is a good range of indigenous species in the forest understorey, mostly close to the stream.

Indigenous species present are: mahoe, cabbage tree, wineberry, lemonwood, fuchsia, narrow-leaved lacebark, pohuehue, *Coprosma rotundifolia* (dominant in places), *Coprosma propinqua*, bush lawyer, prickly shield fern, pate, *Blechnum chambersii*, *Blechnum fluviatile*, *Hypolepis ambigua*, hen and chickens fern, necklace fern and hairy pennywort.

This area has some potential for restoration. The best way to restore indigenous forest to this area would be to kill the canopy (seeding) sycamore trees, leave the dead trees standing to provide roost sites for birds, remove domestic stock (perhaps progressively from parts of the area), control other woody weeds (especially gorse, broom and elderberry) and reduce competition for seedlings of indigenous species (perhaps by selectively weeding areas). Such restoration, while ambitious, would have a high chance of success due to the abundant seed sources nearby and the healthy resident bird population. Restored indigenous forest in this area would complement that within the SNA and would help buffer the stream.

Casey Property
24640/054.02

1:2,500



TIMARU DISTRICT SNA SURVEY

SNA 655b

Area Name: Scotsburn Homestead Forest
Location (central map reference): J37: 675-960
Ecological District: Orari
Surveyors: Mike Harding

Property: Casey
Nearest Locality: Peel Forest
Area Size (ha): 2.97 **Altitude (m):** 320-350
Survey Time: 2½ hours **Survey Date:** 22-09-10

General Description:

This SNA lies on lower hill slopes alongside a small stream near the old Scotsburn Homestead. The forest of this SNA is contiguous with forest on adjoining properties to the north and west.

Plant Communities:

The main plant communities present are stream-side podocarp-hardwood forest and lower hill-slope podocarp-hardwood forest. These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

Streamside podocarp-hardwood forest:

The forest canopy of the main part of the SNA comprises totara, broadleaf, five-finger, lemonwood, marbleleaf, mahoe, mapou, lancewood, pohuehue, native jasmine and bush lawyer, with emergent trees of kahikatea, totara, matai, narrow-leaved lacebark, lowland ribbonwood, kowhai and sycamore*. Turepo, fuchsia and horopito trees are present in the sub-canopy. Trunk diameters (cm at breast height) of the larger trees are: totara, 100-130; and kahikatea, 95-115.

The forest understorey is dominated by mahoe, mapou and turepo. Other understorey species are *Coprosma rotundifolia*, *Coprosma rigida*, *Coprosma rhamnoides*, *Coprosma crassifolia*, horopito, lancewood, elderberry*, poataniwha, bush lawyer, *Clematis marata*, saplings of kahikatea, and, on tree-trunks, hound's tongue fern, hanging spleenwort, leather-leaf fern and *Grammitis* sp. A small grove of soft tree fern is present in the forest near the northwest property boundary.

The forest floor is variously dominated by hen and chickens fern and prickly shield fern. Other ground-cover species are hound's tongue fern, *Pellaea rotundifolia*, hanging spleenwort, *Asplenium hookerianum* (rare), *Cardamine* aff. *debilis*, *Schizeilema trifoliolatum* (rare), sedge (*Carex* sp.) and seedlings of cabbage tree, kowhai, mapou, mahoe, lemonwood, kahikatea, poroporo, native jasmine and *Coprosma* species.

Additional species near the stream are pate, wheki-ponga, crown fern (rare), *Leptopteris hymenophylloides*, *Blechnum fluviatile*, *Blechnum chambersii* and *Leptolepis novae-zelandiae*.

Species present on the forest margin and in forest openings are fuchsia, wineberry, kanuka, cabbage tree, *Coprosma propinqua*, *Hypolepis ambigua*, bracken, native jasmine and pohuehue. Periwinkle* and violet* are present at the homestead forest margin.

Lower hill-slope podocarp-hardwood forest:

This part of the forest lies on the lower hill slopes. The forest canopy is dominated by mahoe, with emergent trees of kahikatea, matai, totara and lowland ribbonwood. Other canopy species are cabbage tree, kowhai, fuchsia and lancewood. One large kahikatea tree has a trunk diameter (at breast height) of 140cm; a large matai tree has a trunk diameter of 103cm.

The forest understorey is dominated by supplejack. Other understorey species are turepo, horopito, pate, marbleleaf, *Coprosma rotundifolia*, koromiko, soft tree fern (rare), rough tree fern (rare), kowhai, bush lawyer, native jasmine and, on tree trunks, white climbing rata, hound's tongue fern and hanging spleenwort.

Ground-cover species are hen and chickens fern, *Blechnum fluviatile*, *Blechnum chambersii*, swamp kiokio, *Leptolepis hymenophylloides*, *Lastreopsis glabella*, prickly shield fern, hound's tongue fern, *Asplenium hookerianum*, necklace fern, white climbing rata, pennywort, hairy pennywort, two plants of stinking iris* (both removed) and seedlings of supplejack, lemonwood, cabbage tree and kowhai.

Condition and Management Issues:

The forest is in good condition. The main management issues are removal of sycamore trees, monitoring of other plant pests and continued animal pest control.

Property Owner Comment:

The property owner is interested in increasing the area of forest by restoration of indigenous forest along the stream below the SNA. She also would like to encourage native birds around the homestead.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	H	A good example of podocarp-hardwood forest that is probably quite representative of the original forest of the area.
Rarity	M	Provides good habitat for an 'at-risk' bird species (rifleman) and supports three locally-uncommon plant species.
Diversity and pattern	M/H	A diverse forest community. Sixty indigenous plant species were recorded; a high number for forest of this type.
Distinctiveness/special features	M	The large old podocarp trees are a special feature.
Other Criteria		
Size/shape	M	A relatively small area though well buffered and effectively part of a larger area of forest.
Connectivity	M	Adjoins other indigenous forest along two boundaries.
Long-term Sustainability	M/H	Some plant and animal pest control will probably be required to maintain ecological values in the long term.

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

The property owner values the forest and is enthusiastic about its protection and management. The area adds considerable amenity value to the property. The location of the forest on steeper slopes adjacent to the stream limits its potential for farm development.

Discussion:

This area meets the District Plan criteria for a Significant Natural Area. Important features of the area are the presence of tall old podocarp trees, podocarp regeneration and locally-uncommon plant species (rough tree fern, tree nettle and *Leptolepia novae-zelandiae*) and the habitat the area provides for forest birds, including an 'at-risk' species (rifleman). The forest is probably representative of the original vegetation and makes an important contribution to the network of fauna habitat in the wider area.

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)	
bracken.....	<i>Pteridium esculentum</i>
broadleaf.....	<i>Griselinia littoralis</i>
broom*.....	<i>Cytisus scoparius</i>
bush lawyer.....	<i>Rubus cissoides</i>
cabbage tree/ti rakau.....	<i>Cordyline australis</i>
crown fern.....	<i>Blechnum discolor</i>
elderberry*.....	<i>Sambucus nigra</i>
five-finger.....	<i>Pseudopanax arboreus</i>
fuchsia.....	<i>Fuchsia excorticata</i>
gorse*.....	<i>Ulex europaeus</i>
hairy pennywort.....	<i>Hydrocotyle moschata</i>
hanging spleenwort.....	<i>Asplenium flaccidum</i>
hen and chickens fern.....	<i>Asplenium gracillimum</i>
horopito/pepperwood.....	<i>Pseudowintera colorata</i>
hound's tongue fern.....	<i>Microsorium pustulatum</i>
kahikatea/white pine.....	<i>Dacrycarpus dacrydioides</i>
kanuka.....	<i>Kunzea ericoides</i>
koromiko.....	<i>Hebe salicifolia</i>
kowhai.....	<i>Sophora microphylla</i>
lancewood.....	<i>Pseudopanax crassifolius</i>
leather-leaf fern.....	<i>Pyrrhosia 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>
matai/black pine.....	<i>Prumnopitys taxifolia</i>
narrow-leaved lacebark.....	<i>Hoheria angustifolia</i>
native jasmine.....	<i>Parsonsia</i> sp.
necklace fern.....	<i>Asplenium flabellifolium</i>
pate.....	<i>Schefflera digitata</i>
pennywort.....	<i>Hydrocotyle</i> sp.
periwinkle*.....	<i>Vinca major</i>
poataniwha.....	<i>Melicope simplex</i>
pohuehue.....	<i>Muehlenbeckia australis</i>
poroporo.....	<i>Solanum laciniatum</i>
prickly shield fern.....	<i>Polystichum vestitum</i>
rough tree fern.....	<i>Dicksonia squarrosa</i>
soft tree fern.....	<i>Cyathea smithii</i>
stinking iris*.....	<i>Iris foetidissima</i>
supplejack.....	<i>Ripogonum scandens</i>
swamp kiokio.....	<i>Blechnum minus</i>
sycamore*.....	<i>Acer pseudoplatanus</i>
totara.....	<i>Podocarpus totara</i>
tree nettle.....	<i>Urtica ferox</i>
turepo.....	<i>Streblus heterophyllus</i>
violet*.....	<i>Viola odorata</i>
wheki-ponga.....	<i>Dicksonia fibrosa</i>
white climbing rata.....	<i>Metrosideros diffusa</i>
wineberry.....	<i>Aristotelia serrata</i>