

**TIMARU DISTRICT**  
**SIGNIFICANT NATURAL AREAS**  
**SURVEY**

**FERGUSON PROPERTY**  
**TE MOANA**



Report prepared for Timaru District Council by Mike Harding  
July 2015



# TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

## PROPERTY REPORT

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### PROPERTY DETAILS:

**Owner:** ..... Alan and Shirley Ferguson  
**Valuation Reference:** ... 24670/006.05  
**Address:** ..... 54a Gilberthorpes Road, Christchurch 8042  
**Location:** ..... Hae Hae Te Moana River South Branch (upper valley)  
**Ecological District:** ..... Orari  
**TDC Land Type:**..... 'Hard Rock Hills and Downs'  
**Land Environments:** ..... Q2.1a

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### ECOLOGICAL CONTEXT:

The property lies in the upper valley of the Hae Hae Te Moana River South Branch, just above (southwest of) the confluence of Griffiths and Frasers streams. It comprises steep slopes from an altitude of approximately 400m in the lower valley to over 700m on higher slopes. The property lies within Orari Ecological District (McEwen, 1987) and within the Q2.1a Level IV Land Environment as defined by Leathwick *et al* (2003). Indigenous vegetation within this land environment is regarded as 'critically under-protected' (Walker *et al*, 2005).

The original vegetation of this area would have been predominantly hardwood forest with emergent podocarps (totara and matai). 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 is one of a number of small forest remnants and regenerating forest in this part of the ecological district.

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### SIGNIFICANT AREAS ON THE PROPERTY:

Indigenous vegetation on the property comprises regenerating indigenous forest and associated scrub, shrubland and tussockland. The shrubland/forest margin habitat supports a population of an 'at risk' (declining) plant species, as listed by de Lange *et al* (2012), coral broom (*Carmichaelia crassicaulis* subsp. *crassicaulis*). Populations of several other 'at risk' and 'threatened' plants are present in the vicinity and may be present on the property. Eastern falcon/karearea, an 'at risk' species (Roberston *et al*, 2012), is present in the area. The property lies near to areas of indigenous vegetation on other properties, contributing to the network of fauna habitat in the wider area.

The property was surveyed as part of the District-wide survey of Significant Natural Areas during June 2015. One area, comprising approximately five hectares, is regarded as a Significant Natural Area (SNA) when assessed against the District Plan criteria. The boundary of this SNA is illustrated on the aerial photograph below and the values described on the SNA 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 in the long term, or 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, track construction, spraying with herbicides and over-planting. 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.



*Prickly shield fern is the dominant ground-cover at most parts of the site*

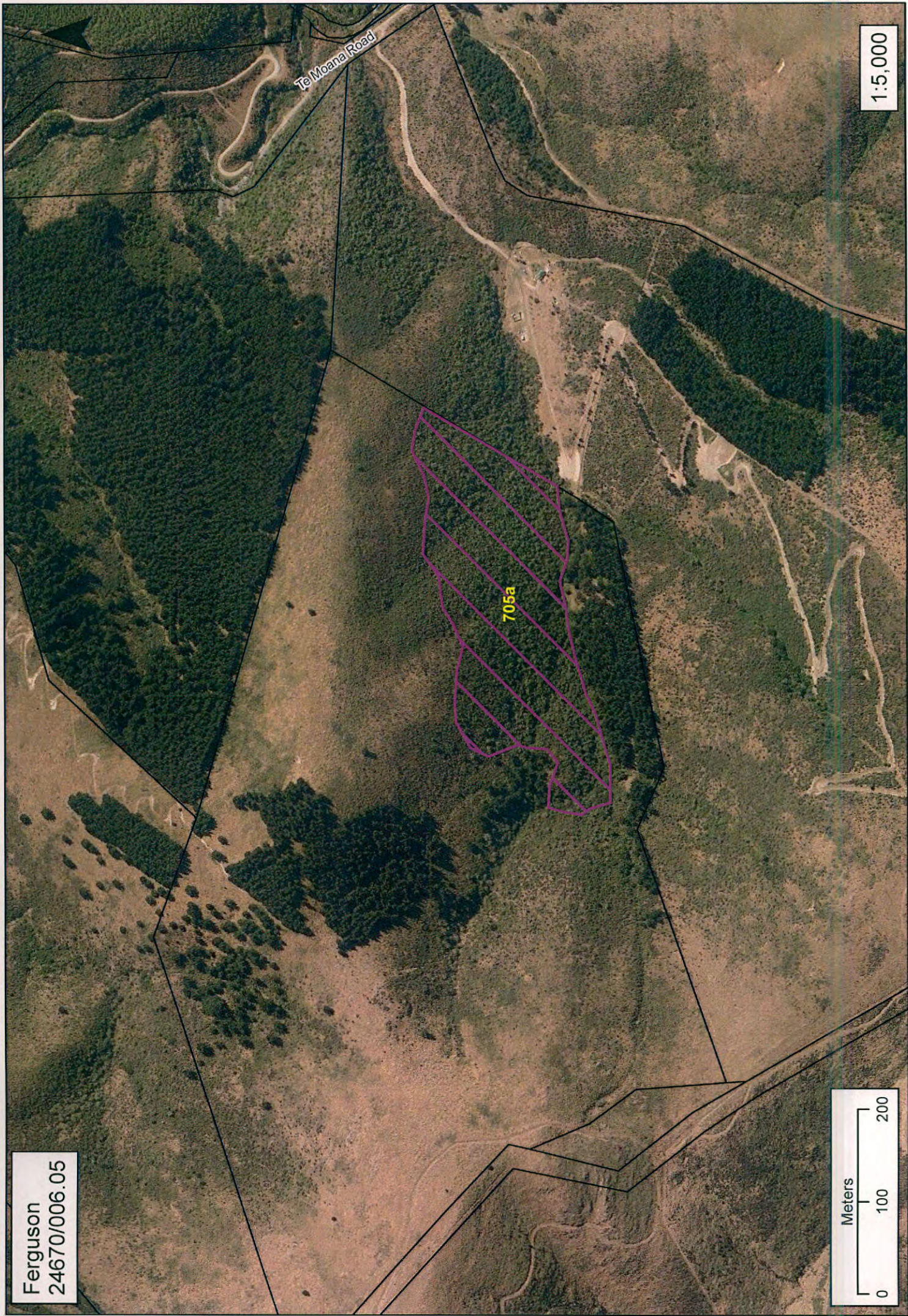


Ferguson  
24670/006.05

Te Moana Road

705a

1:5,000





<b>Area Name:</b>	<b>Property:</b> Ferguson
<b>Ecological District:</b> Orari	<b>Nearest Locality:</b> Te Moana
<b>Central map ref. (NZTM):</b> 1440710E-5121040N	<b>Area Size (ha):</b> 5.2
<b>Surveyors:</b> Mike Harding	<b>Altitude (m):</b> 400-500
	<b>Survey Time:</b> 4 hours
	<b>Survey Date:</b> 16-06-15

### General Description:

This site lies on a moderately steep south-facing slope of the main valley on the property. It is part of a larger area of young indigenous forest that extends onto the adjacent property and, on that property, is protected by a QEII covenant.

### Plant Communities:

The core of the site supports indigenous hardwood forest. This plant community grades on upper slopes to shrubland and tussockland. These plant communities are described below. Naturalized (exotic) species are indicated with an asterisk\*.

The forest canopy at most parts of the site is dominated by broadleaf and matipo. Other canopy species are mountain ribbonwood, cabbage tree, wineberry, hybrid wineberry, lancewood, three-finger/five-finger, marbleleaf, fuchsia, kowhai, mountain akeake, koromiko, mingimingi, lawyer, pohuehue, native jasmine and native bindweed. The forest understorey is relatively open. Plant species present are marbleleaf, matipo, broadleaf, lancewood, yellowwood, weeping mapou and lawyer.

Prickly shield fern is the dominant forest floor plant at most parts of the site. Other ground-cover species are wall lettuce\*, hairy pennywort, cardamine, mountain kiokio, *Blechnum penna-marina*, male fern\*, necklace fern, *Asplenium richardii*, *Asplenium hookerianum*, hen and chickens fern, *Asplenium appendiculatum*, hound's tongue fern, foxglove\*, hookgrass and seedlings of broadleaf, mountain ribbonwood, matipo and *Coprosma* species. Less commonly present are *Libertia ixioides* and common shield fern. Species commonly present near the stream are pate, *Blechnum fluviatile*, *Blechnum minus*, *Blechnum chambersii* and bush lily.



*The lower part of SNA 705a viewed from the property boundary*

Species present at the forest margin or in forest openings are *Coprosma rigida*, *Coprosma dumosa*, *Coprosma rugosa*, *Coprosma crassifolia*, mountain wineberry, hybrid wineberry, scrambling fuchsia, tutu, mountain flax, Himalayan honeysuckle\*, *Gaultheria crassa*, bracken, scrub pohuehue, lawyer, bush lawyer, *Clematis marata*, prickly shield fern, *Hypolepis ambigua*, bidibid, *Blechnum penna-marina* and creeping buttercup\*.



Additional species present on a rocky spur at the centre of the site are porcupine shrub, matagouri, golden speargrass, bush snowberry, sweet brier\*, native broom and a small population of coral broom (*Carmichaelia crassicaulis* ssp. *crassicaulis*): an 'at risk' (declining) species (de Lange *et al*, 2012).

On higher slopes the forest grades to shrubland and tussockland. On damper slopes this community is dominated by mountain flax, tutu, prickly shield fern and narrow-leaved snow-tussock. On drier slopes the community is dominated by mingimingi, *Coprosma dumosa* and *Coprosma rugosa*.

### Birds/Fauna Observed:

Native birds observed during this survey were bellbird, fantail, rifleman, silvereve and harrier. Also likely to be present are grey warbler, tomtit, kereru and falcon.

### Notable Flora, Fauna and Habitats:

Important features of the site are the presence of an 'at risk' (declining) plant species (coral broom), the diversity of plant species present (at least 61 vascular species), the habitat the area provides for forest birds, and that it is connected to an area of protected (QEII covenant) forest. Other 'at risk' and 'threatened' plant species have been recorded nearby and may be present on the property: scrambling broom (*Carmichaelia kirki*), Canterbury tree broom (*Carmichaelia torulosa*) and *Teucrium parvifolium*.

### Notable Plant and Animal Pests:

The site is free of invasive plant pests. The naturalized species that are present (e.g. sweet brier, Himalayan honeysuckle, male fern) do not pose a significant threat to the forest community. Introduced broom (*Cytisus scoparius*) is present nearby and does pose a threat to open plant communities (shrubland and tussockland). Animal pests were not surveyed, though possum sign was observed and feral pigs are likely to be present. Mr Ferguson advises that wallabies have been seen at the site and that the neighbour controls feral pigs.

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

The proposed boundary of this area is drawn to include the taller (older) regenerating forest. Adjacent shrubland and tussockland is important as it buffers the forest and will eventually regenerate to forest but, at present, does not meet the District Plan significance criteria. Forest at the site extends down valley onto an adjacent property. On that property it is protected by a QEII covenant and includes a population of scrambling broom (*Carmichaelia kirki*). The site lies near to other areas of regenerating indigenous forest in the upper Te Moana valley.

### Condition and Management

Forest at this site is in good condition. The main management issues are continued control of animal pests, notably possums and feral pigs (and wallaby).

## ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M	Regenerating indigenous forest, moderately representative of the original vegetation and typical of that remaining in the ecological district.
Rarity	M	Supports a population of an 'at risk' plant species (coral broom).
Diversity and pattern	M	Moderate plant species diversity.
Distinctiveness/special features	M	The abundance of kowhai at the core of the site is an important feature.
<b>Other Criteria</b>		
Size/shape	M	A small site but with a good shape and well buffered.
Connectivity	M	Is part of a larger area of forest and lies close to other areas of indigenous forest, contributing to the network of forest bird habitat in the area.
Long-term Sustainability	M/H	Some wild animal control maybe required to maintain ecological values in the long term.

H=high; M=moderate; L=low

### Property Owner Comment:

Mr Ferguson says that they are keen to protect the forest and to encourage regeneration of forest on adjacent slopes. He thinks fierce lancewood (*Pseudopanax ferox*) may be present.



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

This area has been informally protected from clearance by the landowners. It lies on moderately steep slopes which have only limited potential for farming, though would be suitable for forestry. A recently-constructed vehicle track traverses slopes just above the area.

**Discussion:**

This site meets the District Plan criteria for a significant natural area (SNA). Important values are the presence of an 'at risk' (declining) plant species (coral broom), the diversity of plant species present (at least 61 vascular species), the habitat the area provides for forest birds, and that the area is connected to an area of protected (QEII covenant) forest.



*Strongly regenerating forest at the edge of SNA 705a*



### 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.
bracken	<i>Pteridium esculentum</i>
broadleaf	<i>Griselinia littoralis</i>
broom*	<i>Cytisus scoparius</i>
bush lawyer	<i>Rubus cissoides</i>
bush lily	<i>Astelia fragrans</i>
bush snowberry	<i>Gaultheria antipoda</i>
cabbage tree/ti rakau	<i>Cordyline australis</i>
Canterbury tree broom	<i>Carmichaelia torulosa</i>
cardamine	<i>Cardamine debilis</i>
common shield fern	<i>Polystichum richardii</i>
coral broom	<i>Carmichaelia crassicaulis</i> ssp. <i>crassicaulis</i>
creeping buttercup*	<i>Ranunculus repens</i>
five-finger	<i>Pseudopanax arboreus</i>
foxglove*	<i>Digitalis purpurea</i>
fuchsia	<i>Fuchsia excorticata</i>
golden speargrass	<i>Aciphylla aurea</i>
hairy pennywort	<i>Hydrocotyle moschata</i>
hen and chickens fern	<i>Asplenium gracillimum</i>
Himalayan honeysuckle*	<i>Leycesteria formosa</i>
hookgrass	<i>Uncinia</i> sp.
hound's tongue fern	<i>Microsorium pustulatum</i>
hybrid wineberry	<i>Aristotelia serrata</i> X <i>fruticosa</i>
koromiko	<i>Hebe salicifolia</i>
kowhai	<i>Sophora microphylla</i>
lancewood	<i>Pseudopanax crassifolius</i>
lawyer	<i>Rubus schmidelioides</i>
male fern*	<i>Dryopteris filix-mas</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>
mingimingi	<i>Coprosma propinqua</i>
mountain akeake	<i>Olearia avicenniifolia</i>
mountain flax	<i>Phormium cookianum</i>
mountain kiokio	<i>Blechnum montanum</i>
mountain ribbonwood	<i>Hoheria lyallii</i>
mountain wineberry	<i>Aristotelia fruticosa</i>
narrow-leaved snow-tussock	<i>Chionochloa rigida</i>
native bindweed	<i>Calystegia tuguriorum</i>
native broom	<i>Carmichaelia</i> aff. <i>australis</i>
native jasmine	<i>Parsonsia heterophylla</i>
necklace fern	<i>Asplenium flabellifolium</i>
pate	<i>Schefflera digitata</i>
pohuehue	<i>Muehlenbeckia australis</i>
porcupine shrub	<i>Melicytus alpinus</i>
prickly shield fern	<i>Polystichum vestitum</i>
scrambling broom	<i>Carmichaelia kirkii</i>
scrambling fuchsia	<i>Fuchsia perscandens</i>
scrub pohuehue	<i>Muehlenbeckia complexa</i>
sweet brier*	<i>Rosa rubiginosa</i>
three-finger	<i>Pseudopanax colensoi</i>
totara	<i>Podocarpus totara</i>
tutu	<i>Coriaria sarmentosa</i>
wall lettuce*	<i>Mycelis muralis</i>



weeping mapou .....	<i>Myrsine divaricata</i>
wineberry .....	<i>Aristotelia serrata</i>
yellowwood.....	<i>Coprosma linariifolia</i>



*Coral broom*

### References Cited

de Lange, PJ; Rolfe, JR; Champion, PD; Courtney, SP; Heenan, PB; Barkla, JW; Cameron, EK; Norton, DA; Hitchmough, RA. 2012. *Conservation status of New Zealand indigenous vascular plants, 2012*. Department of Conservation, Wellington, New Zealand. 70p.

Leathwick, J; Wilson, G; Rutledge, D; Wardle, P; Morgan, F; Johnston, K; McLeod, M; Kirkpatrick, R. 2003. *Land Environments of New Zealand*. David Bateman Ltd.

McEwen, WM (editor). 1987. Ecological regions and districts of New Zealand, third revised edition (Sheet 4). *New Zealand Biological Resources Centre Publication No. 5*. Department of Conservation, Wellington, 1987.

Robertson, HA; Dowding, JE; Elliot, GP; Hitchmough, RA; Miskelly, CM; O'Donnell, CFJ; Powlesland, RG; Sagar, PM; Scofield, RP; Taylor, GA. 2012. Conservation status of New Zealand birds, 2012. *New Zealand Threat Classification Series 4*. Department of Conservation, Wellington.

Walker, S.; Price, R.; Rutledge, D. 2005. New Zealand's remaining indigenous vegetation cover: recent changes and biodiversity protection needs. *Landcare Research Contract Report LC0405/038*.