

TIMARU DISTRICT

SIGNIFICANT NATURAL AREAS
SURVEY

FRASER PROPERTY



Report prepared for Timaru District Council by Mike Harding
March 2013

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner:Fraser
Valuation References:24810/111.00
Address:Raincliff Road, RD12, Pleasant Point.
Location:.....On the east side of Raincliff Road, Totara Valley.
Ecological District:Geraldine Ecological District.
TDC Land Type: 'Soft Rock Hills and Downs'
Land Environments:N3.1a.

ECOLOGICAL CONTEXT:

The property covers the eastern part of a prominent limestone landform on the south side of the Opihi River near Totara Valley. The property lies in Geraldine Ecological District.

It is likely that the original vegetation of this area was predominantly podocarp-hardwood forest, dominated by matai and totara. Shrubland, treeland and tussockland may have occupied steeper slopes and disturbed sites. Limestone bluffs supported specialised flora, and valley floors would have supported areas of wetland vegetation.

Today the original forest cover in this part of Geraldine Ecological District is largely confined to remnants in gullies or on steep slopes associated with limestone scarps. Otherwise, the indigenous vegetation of the ecological district is substantially depleted or modified. The indigenous fauna would have originally been significantly more numerous and diverse, with a greater range of birds, lizards and invertebrates than is presently found in the area.

SIGNIFICANT AREAS ON THE PROPERTY:

Indigenous vegetation on the property comprises hardwood forest, scrub, shrubland, sparsely vegetated rockland associated with limestone bluffs, and small areas of wetland vegetation on the valley floor. The property lies near to areas of indigenous forest, shrubland and rockland vegetation on adjoining properties, contributing to the network of fauna habitat in the wider area. This part of the ecological district is a stronghold for a remnant South Canterbury population of long-tailed bat; a threatened (nationally critical) species.

The property was surveyed as part of the District-wide survey of Significant Natural Areas during January 2013. One area, comprising approximately ? hectares, is regarded as Significant Natural Area (SNA) when assessed against the District Plan criteria. This SNA is listed in the table below.

Area No.	Area Name	Central grid reference	Aprox. size (ha)	Vegetation/habitat type
345b	Raincliff Road Scarp	J38: 510-659		Hardwood forest; shrubland; rockland.

The boundaries of this SNA are illustrated 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.



The un-described cushion chickweed (Colobanthus aff. strictus) is present on the property.

OTHER AREAS INSPECTED ON THE PROPERTY:

The restored wetland vegetation along the valley-floor stream and the large dolines (sinkholes) above (east of) the SNA were inspected. Although these areas do not presently support vegetation that meets significance criteria, both areas have ecological value. The landowners' efforts to protect and restore these areas are worthwhile and commendable.

TIMARU DISTRICT SNA SURVEY

SNA 345b

Area Name: Raincliff Road Scarp

Location (central map reference): J38: 510-659

Ecological District: Geraldine

Surveyors: Alice Shanks

Property: Fraser

Nearest Locality: Totara Valley

Area Size (ha): ?

Altitude (m): 120-160

Survey Time: 4 hours

Survey Date: 31-01-13

General Description:

This SNA lies on a west-facing limestone scarp alongside Raincliff Road. At its northern end it adjoins indigenous vegetation extending along the scarp onto an adjacent property (SNA 345a).



SNA 345b

Plant Communities:

Two main plant communities are present: indigenous hardwood forest and scrub; and, lower-growing plant species on the limestone scarp and boulders (herbfield/rockland). These plant communities are described separately below. Naturalized (exotic) species are indicated with an asterisk*.

Indigenous hardwood forest and scrub:

This plant community is present as semi-continuous patches on steeper slopes, notably at the lower edge of the limestone scarp or among limestone boulders below the scarp. Broadleaf and pohuehue

are the dominant canopy species. Other canopy species are cabbage tree, mahoe, five-finger, native bindweed and lawyer. Also present are koromiko, *Coprosma propinqua*, matagouri and a single bush of the tree daisy *Olearia odorata*.

Herbfield/rockland:

Exposed limestone scarps and boulders are sparsely vegetated, with mostly low-growing plants occupying pockets and ledges. Indigenous species present include: *Colobanthus* aff. *strictus* (an un-described cushion chickweed confined to South Canterbury limestone), *Einadia allanii* (at risk; naturally uncommon), *Chaerophyllum novae-zelandiae* (a locally uncommon rosette herb), *Echinopogon ovata*, *Parietaria debilis* and *Asplenium lyallii*.

Birds/Fauna Observed:

Native birds observed during this survey were fantail, silvereye, grey warbler and paradise shelduck (nearby). This limestone scarp and nearby habitat are a stronghold for the South Canterbury population of long-tailed bat, a threatened (nationally critical) species.

Notable Flora, Fauna and Habitats:

Important features of this area are: the presence of an exposed limestone scarp and the habitat it provides for specialized limestone plants; the presence of at-risk (*Einadia allanii*) and un-described (*Colobanthus* aff. *strictus*) plant species, locally uncommon plant species (*Chaerophyllum novae-zelandiae*); and, the habitat the area provides for long-tailed bat (a nationally critical species).

Notable Plant and Animal Pests:

Barberry, plum, cotoneaster, ivy, burdock and Chewings fescue are the most important plant pests present. Barberry is present at the north end of the site; plum and burdock are scattered throughout. Cotoneaster and ivy are not at the site but present near the homestead. The fruits of these two species are readily dispersed by birds, so pose a threat to the limestone scarp vegetation. The grass, Chewings fescue, smothers low-growing indigenous plant species on exposed limestone. Gorse is present along the upper margin of the area, though does not pose a significant threat and is probably beneficial for regeneration of indigenous woody species. Animal pests were not surveyed.

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

The steeper slopes and limestone scarp, including the areas of indigenous vegetation within this SNA are fenced at the top and bottom of the slopes. The area adjoins a similar area of indigenous vegetation at its northern end (SNA 345a).

Condition and Management Issues:

The forest canopy and limestone scarp vegetation is in relatively good condition. Cattle have damaged the vegetation margin and understorey along the base of the scarp. The most important management issues are control of plant pests, including invasive species present nearby, and protection of the vegetation margins from cattle.

Property Owner Comment:

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	M/H	Woody plant communities are moderately representative of the original vegetation. Vegetation on exposed limestone is more representative.
Rarity	H	Provides habitat for a threatened (nationally critical) species (long-tailed bat), supports an at risk plant species (<i>Einadia allanii</i>) and an un-described plant species (<i>Colobanthus</i> aff. <i>strictus</i>). Lies within an acutely threatened Level IV land environment (N3.1a).
Diversity and pattern	M	The SNA provides limestone habitat (including exposed rock and boulders) and patches of indigenous forest and shrubland.
Distinctiveness/special features	M	The area is part of a larger limestone scarp that is clearly visible from Raincliff Road.
Other Criteria		
Size/shape	M/H	A relatively large area for this part of Geraldine Ecological District, though with a long narrow shape and not well buffered.
Connectivity	M	Adjoins other areas of indigenous vegetation and limestone habitat.
Long-term Sustainability	M	Some plant and animal pest control is probably required to protect ecological values in the long term.

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

This area has been informally protected by the landowners. The upper margin is well protected and buffered by gorse scrub. The steepness of the slope and presence of large boulders limit its suitability for further farm development.

Discussion:

This area easily meets the District Plan criteria for a Significant Natural Area. Important features of the area are: the presence of exposed limestone scarp and the habitat it provides for specialized limestone plants; the presence of at-risk (*Einadia allanii*) and un-described (*Colobanthus* aff. *strictus*) plant species, locally uncommon plant species (*Chaerophyllum novae-zelandiae*); and, the habitat the area provides for long-tailed bat (a nationally critical species).

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)

barberry*	<i>Berberis glaucocarpa</i>
broadleaf.....	<i>Griselinia littoralis</i>
burdock*.....	<i>Arctium minus</i>
cabbage tree/ti rakau.....	<i>Cordyline australis</i>
Chewings fescue*.....	<i>Festuca rubra</i> ssp. <i>commutata</i>
cotoneaster*.....	<i>Cotoneaster</i> sp.
five-finger.....	<i>Pseudopanax arboreus</i>
gorse*.....	<i>Ulex europaeus</i>
ivy*.....	<i>Hedera helix</i>
koromiko.....	<i>Hebe salicifolia</i>
lawyer.....	<i>Rubus schmidelioides</i>
mahoe/whiteywood.....	<i>Melicytus ramiflorus</i>
matagouri.....	<i>Discaria toumatou</i>
native bindweed.....	<i>Calystegia tuguriorum</i>
plum*.....	<i>Prunus</i> sp.
pohuehue.....	<i>Muehlenbeckia australis</i>