TIMARU DISTRICT

SIGNIFICANT NATURAL AREAS SURVEY

ROBINSON PROPERTY

Report prepared for Timaru District Council by Mike Harding
June 2015

TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

PROPERTY REPORT

PROPERTY DETAILS:

Owner: .....Paul and Judy Robinson
Valuation Reference: ...24810/027.00
Address: .....Three Mile Bush Road
Location: .....Southern lower slopes of Mt Gay, Opihi valley
Ecological District: .....Geraldine
TDC Land Type:.....'Soft Rock Hills and Downs'
Land Environments:.....N3.1a; N3.1d; Q2.2a

ECOLOGICAL CONTEXT:

The property lies on lower southern slopes of Mt Gay, near Totara Valley. It is in Geraldine Ecological District (McEwen, 1987). Limestone scarps on the property lie within the Q2.2a Level IV Land Environment as defined by Leathwick *et al* (2003). Other parts lie within the N3.1b and N3.1d land environments. Indigenous vegetation within these land environments is regarded as acutely-threatened or chronically under-protected (Walker *et al*, 2005).

It is likely that the original vegetation of this area was predominantly podocarp-hardwood forest, dominated by matai, totara, kowhai, broadleaf and other hardwood trees. 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 patches of forest, shrubland, herbfield and sparsely vegetated rockland associated with limestone bluffs. These habitats support populations of two 'at risk' (naturally uncommon) plant species, as listed by de Lange *et al* (2012), and several uncommon and yet to be described species restricted to limestone. The property lies near to areas of indigenous vegetation on other properties, contributing to the network of fauna habitat in the wider area. This part of the ecological district is within the range of a remnant South Canterbury population of long-tailed bat; a threatened (nationally critical) species.

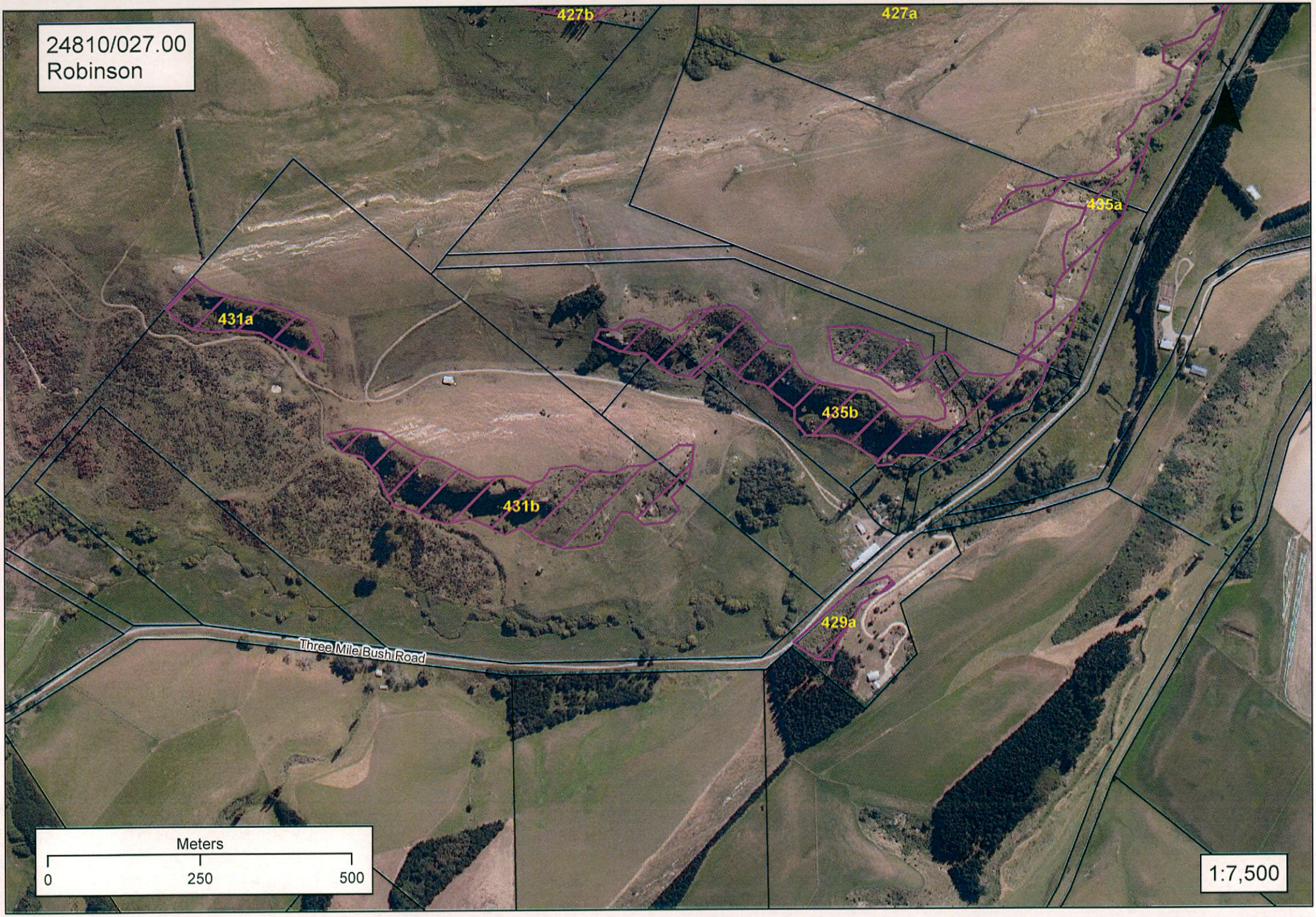
The property was surveyed as part of the District-wide survey of Significant Natural Areas during March 2015. Four areas, comprising approximately 15 hectares, are regarded as Significant Natural Areas (SNAs) when assessed against the District Plan criteria. These SNAs are listed in the table below.

Area No.	Area Name	Map reference (NZTM)	Aprox. size (ha)	Vegetation/habitat type
429a		1437893E-5103166N	0.7	treeland; shrubland; rockland
431a		1436911E-5103669N	1.4	forest; shrubland; rockland
431b		1437360E-5103388N	5.3	forest; shrubland; rockland
435b		1437862E-5103557N	7.2	forest; shrubland; rockland

The boundaries of these SNAs are illustrated on the aerial photograph and the values described on the SNA 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 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.


24810/027.00
Robinson
427b
427a
435a
431a
435b
431b
429a
Three Mile Bush Road
Meters
0
250
500
1:7,500

TIMARU DISTRICT SNA SURVEY

SNA 429a

Area Name:
Property: Robinson
Ecological District: Geraldine
Nearest Locality: Totara Valley
Central map ref. (NZTM): 1437893E-5103166N
Area Size (ha): 0.7 **Altitude (m):** 180
Surveyors: Mike Harding
Survey Time: ½ hour **Survey Date:** 17-03-15

General Description:

This small area lies on the southeast side of Three Mile Bush Road, on the limestone scarp below the property homestead. It is a low but prominent scarp that has been fenced from grazing for some time. An overhang of the scarp is fenced to protect Maori rock art. Thick vegetation at the site limited the scope of this survey.

Plant Communities:

The site supports scattered trees and shrubs, with denser vegetation nearer the scarp. This vegetation is described below. Naturalized (exotic) species are indicated with an asterisk*.

Trees and shrubs present at the site are broadleaf, kowhai, cabbage tree, matipo, hawthorn*, elderberry*, pohuehue, mingimingi and native broom. Between the patches of trees and shrubs is a dense (un-grazed) sward of grass dominated by cocksfoot*, Chewings fescue* and hemlock*. Other species present here are native bindweed, scrub pohuehue, leafless lawyer, bittersweet*, yarrow* and horehound*. Closer to the road is an area of dense (planted) pampas*, part of which has been recently sprayed.

Additional species present on the scarp are weeping mapou and Himalayan honeysuckle*.

SNA 429a, viewed from across the valley

Birds/Fauna Observed:

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

Notable Flora, Fauna and Habitats:

The important feature of this area is the presence of indigenous vegetation on limestone, a 'naturally uncommon' ecosystem listed as 'nationally vulnerable' (Holdaway *et al*, 2012). It also provides a small area of habitat for native birds. The presence of Maori rock art adds interest.

Notable Plant and Animal Pests:
The most important plant pest at this site is pampas, which appears to have been planted. This invasive species has light wind-blown seed which could easily spread to other sensitive sites in the area. Hawthorn, elderberry and Himalayan honeysuckle are present, of which hawthorn poses the greatest threat. Animal pests were not surveyed.

Boundaries (buffering, fencing, adjoining plant communities and habitats):
This SNA covers the fenced area between the road and the limestone scarp and also the northeast end of the scarp which supports a kowhai tree. It is a small site, but is well buffered and protected.

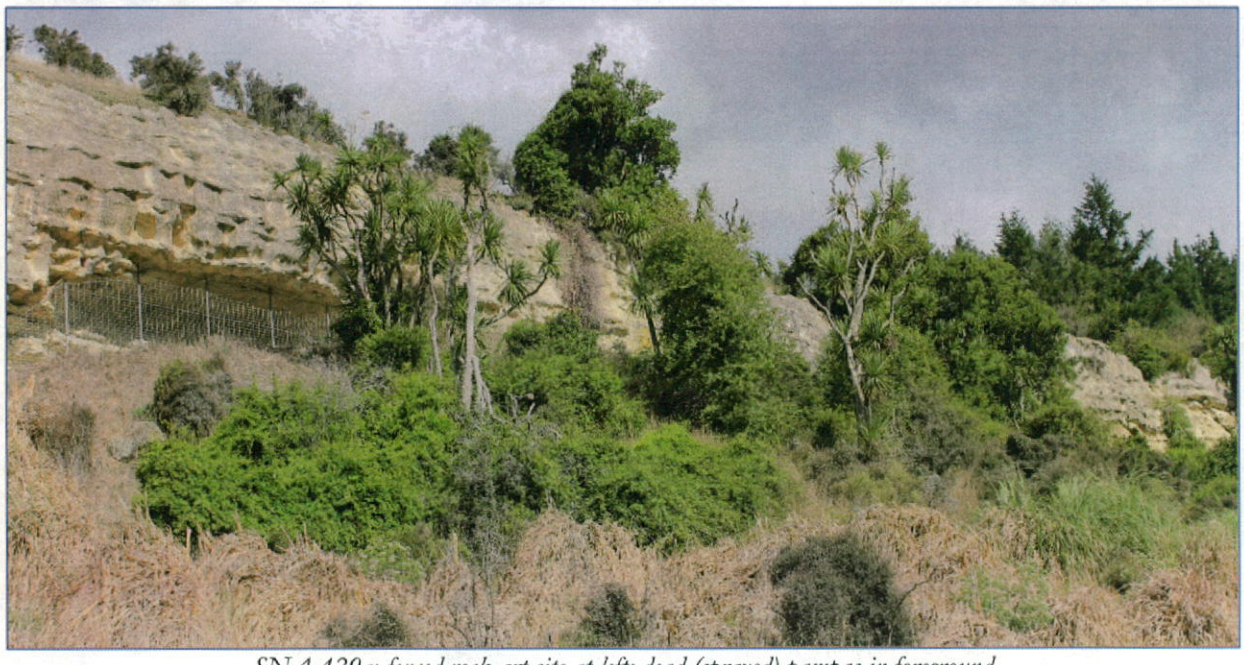
ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	**M**	Depleted indigenous vegetation representative of the area and typical of that present on smaller limestone scarps.
Rarity	**M**	Indigenous vegetation on limestone is a naturally uncommon ecosystem.
Diversity and pattern	**L/M**	Plant species diversity is relatively low.
Distinctiveness/special features		The presence of Maori rock art is notable, though not relevant to this ecological assessment.
Other Criteria		
Size/shape	**M**	A small site, but well buffered and protected.
Connectivity	**M**	Lies close to other areas of indigenous vegetation on limestone.
Long-term Sustainability	**M**	Some plant pest control will probably be necessary to maintain ecological values in the long term.

Property Owner Comment:
Mr Robinson indicated that he would like to plant native species at the site to enhance its values. He has sprayed pampas at the site.

Final Consideration (of other matters: Section D, page B-19 of Timaru District Plan):
This area appears to have been deliberately set aside and protected for some time, probably because of the presence of rock art. It is a small area that has very limited potential for farm development. Its location beside the road gives the area some amenity value.

Discussion:
This site only just meets the District Plan criteria for an SNA. It is small and modified but does support representative limestone vegetation and provides useful habitat for native birds. Continued control of pampas is recommended.



SNA 429a: fenced rock art site at left; dead (sprayed) pampas in foreground

TIMARU DISTRICT SNA SURVEY

SNA 431a

Area Name:
Ecological District: Geraldine
Central map ref. (NZTM): 1436911E-5103669N
Surveyors: Mike Harding

Property: Robinson
Nearest Locality: Totara Valley
Area Size (ha): 1.4 **Altitude (m):** 280-300
Survey Time: 1 hour **Survey Date:** 17-03-15

General Description:

This SNA covers a small but steep limestone bluff at the western edge of the outcropping limestone on the property. It is near to the other areas of indigenous vegetation on the property (SNAs 431b and 435b). An extensive area of shrubland is present on slopes below this bluff, but this vegetation is not considered significant when assessed against the District Plan criteria.

Plant Communities:

The main plant community is trees, shrubs and other sparse vegetation on the limestone bluff, with small patches adjacent to the bluff. This vegetation is described below. Naturalized (exotic) species are indicated with an asterisk*.

Indigenous plant species present on or associated with the exposed limestone are broadleaf, cabbage tree, mahoe, five-finger, mountain akeake, matipo, pohuehue, mingimingi, weeping mapou, native broom, koromiko, elderberry*, black nightshade*, *Libertia ixioides*, toatoa, *Geranium* aff. *brevicaule*, *Carex breviculmis*, hairy pennywort, *Hydrocotyle heteromeria*, *Epilobium nummularifolium*, *Poa imbecilla*, *Lagenifera pumila*, *Asplenium lyallii* and maidenhair fern.

Areas of shrubland below the scarp are dominated by matagouri. Other species present are mingimingi, elderberry*, gorse* (sprayed), native broom, pohuehue, silver tussock, *Carex coriacea*, Californian thistle* and pasture grasses*.

SNA 431a

Birds/Fauna Observed:

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

Notable Flora, Fauna and Habitats:

Important features of this area are: the presence of indigenous vegetation on limestone, a 'naturally uncommon' ecosystem listed as 'nationally vulnerable' (Holdaway *et al*, 2012); the presence of an un-described limestone species (*Geranium* aff. *brevicaule*); and the habitat the area provides for native birds.

Notable Plant and Animal Pests:
Elderberry and gorse are the most important woody plant pests present, though neither pose a significant threat to the limestone habitat. More important are naturalized grasses and herbs, such as Chewings fescue, narrow-leaved plantain and mouse-ear hawkweed. Animal pests were not surveyed.

Boundaries (buffering, fencing, adjoining plant communities and habitats):
Vegetation at this relatively small area is buffered by its location on a steep limestone bluff. It is grazed as part of a larger paddock, though grazing pressure is not high. It lies close to other areas of indigenous vegetation on limestone.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	**M**	Indigenous vegetation that is moderately representative and typical of vegetation remaining on limestone bluffs in the area.
Rarity	**M**	Indigenous vegetation on limestone is a naturally uncommon ecosystem. Supports an uncommon limestone plant species (*Geranium* aff. *brevicaule*).
Diversity and pattern	**M**	Plant species diversity is moderate.
Distinctiveness/special features	**L/M**	The presence of a single mature weeping mapou tree is notable.
Other Criteria		
Size/shape	**M**	A small area that is well buffered by its location.
Connectivity	**M**	Lies close to other areas of indigenous vegetation on limestone.
Long-term Sustainability	**M**	Some plant pest control may be necessary to maintain ecological values in the long term.

Final Consideration (of other matters: Section D, page B-19 of Timaru District Plan):
This site lies on a steep area of exposed limestone and is unsuitable for farm development. The area of extensive shrubland on lower slopes (outside the SNA) is notable, and worthy of protection, but does not presently meet the District plan criteria for significant indigenous vegetation.

Discussion:
This area meets the District Plan criteria for an SNA. Important features are the presence of indigenous vegetation on limestone, the presence of an uncommon limestone plant species (*Geranium* aff. *brevicaule*) and a single mature weeping mapou tree.

Geranium aff. brevicaule

TIMARU DISTRICT SNA SURVEY

SNA 431b

Area Name:
Ecological District: Geraldine
Central map ref. (NZTM): 1437360E-5103388N
Surveyors: Mike Harding

Property: Robinson
Nearest Locality: Totara Valley
Area Size (ha): 5.3 **Altitude (m):**
Survey Time: 1½ hours **Survey Date:** 17-03-15

General Description:

This SNA lies on a large limestone scarp at the southern part of the property. It lies close to other areas of indigenous vegetation on nearby limestone scarps. It is connected to SNA 431a along its lower slopes by an extensive area of shrubland, though this shrubland does not meet the District Plan criteria for significant indigenous vegetation.

Plant Communities:

Forest patches, shrubland, herbfield and sparsely vegetated rockland are present on or associated with the limestone bluff. These plant communities are described below. Naturalized (exotic) species are indicated with an asterisk*.

Forest species present on or below the limestone scarp are broadleaf, mahoe, five-finger, cabbage tree, elderberry* and pohuehue. Areas of shrubland below the scarp are dominated by mingimingi and matagouri. Other species present are native broom, leafless lawyer, mistletoe (on mingimingi) and scrub pohuehue. Between the shrubs is pasture dominated by exotic grasses and Californian thistle*, with occasional silver tussock.

Indigenous plant species on the exposed limestone or on steep slopes adjacent to the limestone are broadleaf, mahoe, koromiko, weeping mapou, mountain akeake, gooseberry*, *Libertia ixioides*, *Epilobium nummularifolium*, *Carex breviculmis*, *Lagenifera petiolata*, *Lagenifera pumila*, *Colobanthus* aff. *strictus*, *Geranium* aff. *brevicaule*, *Gingidia enysii*, woollyhead (*Craspedia* sp.), *Einadia allanii*, *Oxalis exilis*, *Hydrocotyle heteromeria*, *Asplenium hyallii*, maidenhair fern, hound's tongue fern, blue tussock, *Poa imbecilla*, blue wheat grass, *Parietaria debilis*, black nightshade*, burdock* and native bindweed.

High bluffs within SNA 431b

Birds/Fauna Observed:

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

Notable Flora, Fauna and Habitats:

Important features of this area are: the presence of indigenous vegetation on limestone, a 'naturally uncommon' ecosystem listed as 'nationally vulnerable' (Holdaway *et al*, 2012); the presence of two 'at risk' (naturally uncommon) plant species (*Einadia allanii* and *Gingidia enysii*), three un-described limestone species (*Colobanthus* aff. *strictus*, *Craspedia* sp. and *Geranium* aff. *brevicaule*); and the habitat the area provides for native birds.

Notable Plant and Animal Pests:

Elderberry and gooseberry are the most important woody plant pests present, though neither poses a significant threat to the limestone habitats. Exposed limestone is affected by ubiquitous naturalized species such as Chewings fescue and cocksfoot.

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

Vegetation at most parts of this site is well protected by its location on exposed rock or steep slopes. The site lies close to other areas of indigenous vegetation on limestone. It is grazed as part of a larger paddock, though grazing pressure is not high.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	**M/H**	A representative example of indigenous vegetation on limestone, typical of that at sites in this part of the ecological district.
Rarity	**M/H**	Indigenous vegetation on limestone is a naturally uncommon ecosystem; supports populations of 'at risk' and uncommon limestone plant species.
Diversity and pattern	**M**	Moderate plant species diversity.
Distinctiveness/special features		
Other Criteria		
Size/shape	**M/H**	A moderate-sized area that is reasonably well buffered.
Connectivity	**M**	Lies close to other areas of indigenous vegetation on limestone.
Long-term Sustainability	**M**	Some plant pest control may be required to maintain ecological values in the long term.

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

This site lies on steep slopes and exposed limestone and has very limited potential for farm development.

Discussion:

This area meets the District Plan criteria for an SNA. Notable features are the presence of indigenous vegetation on limestone, including 'at risk' and uncommon limestone plant species.

Gingidia enysii (bottom left) and Colobanthus aff. strictus (top).

TIMARU DISTRICT SNA SURVEY

SNA 435b

Area Name:
Ecological District: Geraldine
Central map ref. (NZTM): 1437852E-5103557N
Surveyors: Mike Harding

Property: Robinson
Nearest Locality: Totara Valley
Area Size (ha): 7.2 **Altitude (m):** 160-200
Survey Time: 3 hours **Survey Date:** 17-03-15

General Description:

This SNA occupies a large limestone scarp at the northeast part of the property. The scarp continues north onto the adjacent property (SNA 435a) and lies close to other areas of indigenous vegetation on limestone.

Plant Communities:

Indigenous plant communities present at this site are forest, shrubland, herbfield and sparsely vegetated rockland (bluff). These communities are described below. Naturalized (exotic) species are indicated with an asterisk*.

Forest is present at the central part of the site, on a prominent ledge, and at scattered locations elsewhere along the scarp. It is dominated by broadleaf, mahoe and pohuehue. Other species present are elderberry*, hawthorn*, wineberry, five-finger, cabbage tree, black nightshade*, burdock* (uncommon), bittersweet*, male fern*, *Hydrocotyle heteromeria* and seedlings of broadleaf.

Steep slopes below the scarp support areas of shrubland, dominated by mingimingi and matagouri. Other species present are elderberry*, hawthorn*, native broom, sweet brier*, gorse* (uncommon), native bindweed, native jasmine, leafless lawyer, silver tussock, necklace fern, Californian thistle*, nodding thistle* and pasture grasses*.

Shrubland is also present in the two large depressions (dolines) behind the scarp crest. It is dominated by mingimingi and matagouri. Also present are emergent cabbage trees, wineberry (uncommon), sweet brier*, gorse* (mostly sprayed), elderberry*, scrambling fuchsia, tree daisy (*Olearia odorata*), mistletoe (on mingimingi), pohuehue, *Parsonsia capsularis*, native bindweed and lawyer. At the southern margin of the shrubland there is a relatively extensive area of grassland dominated by the indigenous blue wheat grass (*Elymus solandri*). Small exposures of limestone within the shrubland support indigenous herbs, including *Epilobium nummularifolium*, pennywort and *Blechnum chambersii*.

The main part of the limestone bluff at SNA 435b

Steep slopes adjacent to the limestone scarp support a herbfield/grassland community, especially on damper (shaded) slopes at the west end of the site. Notable indigenous species present here are *Carex breviculmis*, *Epilobium nummularifolium* and woollyhead (*Craspedia* sp.).

Plant species present on or associated with the limestone scarp are broadleaf, mahoe, cabbage tree, five-finger, kowhai, wineberry, matipo, mountain akeake, koromiko, porcupine shrub, flax, *Libertia ixioides*, *Parietaria debilis*, bittersweet*, *Asplenium lyallii*, maidenhair fern, *Blechnum chambersii*, hound's tongue fern, *Colobanthus apetalus*, *Colobanthus* aff. *strictus*, *Geranium* aff. *brevicaule*, *Oxalis exilis*, cardamine, woollyhead, blue wheat grass and *Poa imbecilla*. Radiata pine* and cotoneaster* are present at northeast end. Large crack willow* trees are present near the stream at the base of the bluff.

Birds/Fauna Observed:
Native birds observed during this survey were bellbird, grey warbler, fantail and harrier.

Notable Flora, Fauna and Habitats:
Important features of this area are: the presence of indigenous vegetation on limestone, a 'naturally uncommon' ecosystem listed as 'nationally vulnerable' (Holdaway *et al*, 2012); the presence four un-described limestone species (*Cardamine* sp., *Colobanthus* aff. *strictus*, *Craspedia* sp. and *Geranium* aff. *brevicaule*); one locally-uncommon species (*Olearia odorata*); the high diversity of indigenous plant species (43 vascular species); the extent of the forest patch on the main ledge; and the habitat the area provides for native birds.

Notable Plant and Animal Pests:
Hawthorn and cotoneaster are probably the most important woody plant pests present. Elderberry, gorse and sweet brier are also present, though do not pose as great a risk to the limestone habitat. Grasses and herbs (especially Chewings fescue) pose a threat to limestone bluff communities. Animal pests were not surveyed.

Boundaries (buffering, fencing, adjoining plant communities and habitats):
Vegetation on the main scarp is protected from grazing animals. Elsewhere within the site it is buffered to some extent by the steepness of the slopes and apparently low grazing pressure (and absence of cattle and deer). The site is grazed as part of a larger paddock. It lies close to other areas of indigenous vegetation on limestone.

ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

Primary Criteria	Rank	Notes
Representativeness	**M/H**	A representative example of indigenous vegetation on limestone, typical of that remaining on larger bluffs in this part of the District.
Rarity	**M/H**	Limestone vegetation is a naturally uncommon ecosystem; the site supports populations of un-described limestone plant species.
Diversity and pattern	**M/H**	Plant species diversity is relatively high.
Distinctiveness/special features	**M/H**	The dense shrubland in the dolines and the relatively large area of forest on the main ledge are notable features.
Other Criteria		
Size/shape	**M/H**	A moderate sized site that is well buffered.
Connectivity	**M**	Lies close to other areas of indigenous vegetation on limestone.
Long-term Sustainability	**M**	Some plant pest control may be required to maintain ecological values in the long term.

Property Owner Comment:
Mr Robinson is interested in further protection of this site.

Final Consideration (of other matters: Section D, page B-19 of Timaru District Plan):
The landowners have deliberately set this area aside from development. The steepness of the slopes limit its potential for further development. Forest on the main ledge could be protected from grazing by repair of a gate. Gorse within the site has been controlled. Maori rock art is present at an overhang at the northeast part of the site.

Discussion:
This area easily meets the District Plan criteria for an SNA. Important features are the diversity and extent of indigenous vegetation on limestone, including uncommon limestone species, the size of the area and the habitat it provides for native birds. The vegetated dolines are a notable feature.

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 (* = naturalised species)	Scientific name
bittersweet*	*Solanum dulcamara*
black nightshade*	*Solanum nigrum*
blue tussock	*Poa colensoi*
blue wheat grass	*Elymus solandri*
broadleaf	*Griselinia littoralis*
burdock*	*Arctium minus*
cabbage tree/ti rakau	*Cordyline australis*
Californian thistle*	*Cirsium arvense*
cardamine	*Cardamine* sp.
Chewings fescue*	*Festuca rubra* ssp. *commutata*
cocksfoot*	*Dactylis glomerata*
cotoneaster*	*Cotoneaster* sp.
crack willow*	*Salix fragilis*
elderberry*	*Sambucus nigra*
five-finger	*Pseudopanax arboreus*
flax	*Phormium tenax*
gooseberry*	*Ribes uva-crispa*
gorse*	*Ulex europaeus*
hairy pennywort	*Hydrocotyle moschata*
hawthorn*	*Crataegus monogyna*
hemlock*	*Conium maculatum*
Himalayan honeysuckle*	*Leycesteria formosa*
horehound*	*Marrubium vulgare*
hound's tongue fern	*Microsorum pustulatum*
koromiko	*Hebe salicifolia*
kowhai	*Sophora microphylla*
lawyer	*Rubus schmidelioides*
leafless lawyer	*Rubus squarrosus*
mahoe/whiteywood	*Melicytus ramiflorus*
maidenhair fern	*Adiantum cunninghamii*
male fern*	*Dryopteris filix-mas*
matagouri	*Discaria toumatou*
matai/black pine	*Prumnopitys taxifolia*
matipo/kohuhu	*Pittosporum tenuifolium*
mingimingi	*Coprosma propinqua*
mistletoe	*Ileostylis micranthus*
mountain akeake	*Olearia avicenniifolia*
mouse-ear hawkweed*	*Pilosella officinarum*
narrow-leaved plantain*	*Plantago lanceolata*
native bindweed	*Calystegia tuguriorum*
native broom	*Carmichaelia* aff. *australis*
native jasmine	*Parsonsia heterophylla*
necklace fern	*Asplenium flabellifolium*
nodding thistle*	*Carduus nutans*
pampas*	*Cortaderia* sp.
pennywort	*Hydrocotyle novae-zelandiae*
pohuehue	*Muehlenbeckia australis*
porcupine shrub	*Melicytus alpinus*
radiata pine*	*Pinus radiata*
scrambling fuchsia	*Fuchsia perscandens*
scrub pohuehue	*Muehlenbeckia complexa*
silver tussock	*Poa cita*
sweet brier*	*Rosa rubiginosa*

toatoa	*Haloragis erecta*
totara	*Podocarpus totara*
tree daisy	*Olearia odorata*
weeping mapou	*Myrsine divaricata*
wineberry	*Aristotelia serrata*
woollyhead	*Craspedia* sp.
yarrow*	*Achillea millefolium*

The un-named limestone woollyhead (Craspedia sp.)

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