Christchurch District Plan Site of Ecological Significance

Site Significance Statement

Site name: Western Slopes of Mid Prices Valley

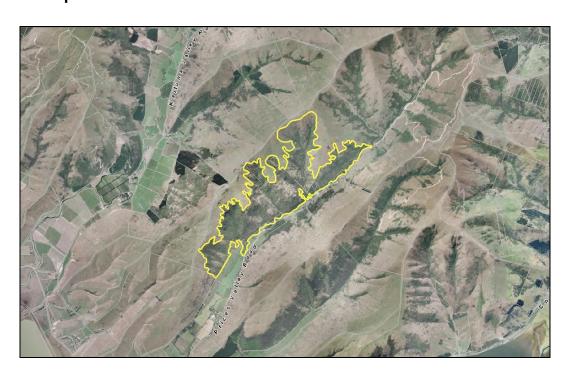
Site number: SES/H/20

Physical address of site: Prices Valley, Little River

Summary of Significance:

This site is significant because it contains a large area of relatively intact and diverse indigenous vegetation that includes rare and representative communities that support a very diverse range of indigenous taxa. This includes an outstanding number of nationally Threatened and At Risk indigenous plants, fish, aquatic invertebrates and terrestrial invertebrates (including large populations of some At Risk plant species), a number of plant and invertebrate species that are endemic to Banks Peninsula or uncommon within the ecological region or ecological district, seven plant species and two invertebrate species that are at their distributional limits on Banks Peninsula. It contains two ecosystems that are originally rare on a national scale. The site is well buffered, plays an important role in maintaining ecological processes in the wider landscape and is part of an important network of areas in Prices Valley and in the surrounding area. It also provides important habitat for indigenous forest birds, lizards and terrestrial invertebrates.

Site Map



Additional Site Information

Ecological District: Herbert

Area of SES (ha): 290.61

Central point (NZTM): E1576984, N5154581

Site Description

This site is the western side of Prices Valley above the Prices Valley QEII covenant. It is covers an extensive area of steep forested slopes and gullies with rock bluffs and scarps with very high ecological values. The altitudinal range of the site is approximately 80 to 580 m above sea level. The Department of Conservation identified the site as a Recommended Area for Protection (Herbert RAP 11 – Lower Prices) (Wilson 1992).

The site is covered in a complex mosaic of indigenous dominated vegetation including remnant podocarp treeland, podocarp/broadleaved-hardwood forest, kanuka forest, treeland, scrub, shrublands, tussocklands and grasslands. The main vegetation communities identified at the site by Walls unpubl. data (2015) are:

- Kahikatea-matai-lowland totara/lowland ribbonwood-narrow leaved lacebarkkowhai treeland on lowland alluvial surfaces
- Matai-lowland totara/mixed broadleaf second-growth hardwood forest on lowland hill slopes
- Kanuka forest and treeland on lowland hill slopes
- Indigenous small-leaved scrub and shrubland on lowland hill slopes
- (Prostrate kowhai-Coprosma crassifolia)/lichens-(moss spp.) rockland on numerous cliffs, shelves and major outcrops of basaltic rock in the site.
- Indigenous small-leaved shrubs/silver tussock/exotic pasture on lowland hill slopes
- Silver tussock-hard tussock tussockland on hill slopes above 250m above sea level

It supports a very high diversity of plant taxa and is distinctive for the abundance of nationally and locally rare and uncommon species such as fierce lancewood, fragrant tree daisy, *Teucridium parvifolium* and bamboo grass. It is also of importance because of the high number of plant taxa that are at their distributional limits on Banks Peninsula.

Extent of Site of Ecological Significance

The site includes the indigenous dominated vegetation communities on the western slopes of the site and the kahikatea-matai-lowland totara/lowland ribbonwood-narrow leaved lacebark-kowhai treeland growing amongst pasture on the valley floor.

Assessment Summary

The Lower Prices Valley Site has been evaluated against the criteria for determining significant indigenous vegetation and significant habitats of indigenous fauna listed in Appendix 3 of the Canterbury Regional Policy Statement (Environment Canterbury, 2013) (see below). Under these criteria the site is ecologically significant because it meets the representativeness (criteria 1 and 2), rarity/distinctiveness (criteria 3, 4, 5 and 6), diversity and pattern (criterion 7) and ecological context criteria (criteria 8 and 10).

Assessment against Significance Criteria

Representativeness

1. Indigenous vegetation or habitat of indigenous fauna that is representative, typical or characteristic of the natural diversity of the relevant ecological district. This can include degraded examples where they are some of the best remaining examples of their type, or represent all that remains of indigenous biodiversity in some areas.

Overall, the vegetation communities within the site are representative of those that would have been present in the Herbert Ecological District at a baseline of 1840. The site supports a complex mosaic of indigenous dominated vegetation including areas of old growth and secondary forest. These communities are regenerating strongly where stock access is impeded and support an outstanding diversity of plant taxa including a high number of nationally At Risk species and species at their distributional limits on Banks Peninsula.

Podocarp treeland comprised of large remant kahikatea, matai and totara survive on the alluvial flats of the main valley amongst scattered broadleaved-hardwood trees. The canopy, understorey and ground tiers are completely absent and the large podocarp trees survive amongst grazed exotic pasture. However, lowland alluvial podocarp forest is extremely rare on Banks Peninsula. Although this vegetation community is highly degraded examples such as this are significant under this criterion.

The mature regenerating secondary forest and treeland on the slopes above the valley floor has remnant matai and totara trees and is characterised by canopy species such as lowland ribbonwood, narrow-leaved lacebark, ngaio, titoki, five-finger, fierce lancewood, tarata, broadleaf, mahoe, kowhai and kaikomako that are typical of this vegetation type in the ecological district. The undergrowth, although depleted by domestic stock and feral deer, is very dense and diverse in places (Walls unpubl. data 2015). Within these forested areas there is a high proportion of indigenous plant species. These communities are representative of regenerating lowland secondary forests in the ecological district.

The extensive rock outcrops and faces are still relatively intact structurally and compositionally (Walls unpubl. data 2015).

Other parts of the site reflect more recent farming practices. These areas are dominated by scrub and shrublands and silver and fescue tussock. Shrublands and scrub reflect past forest clearance and farming, but are extensive, in good

condition and composed almost exclusively of indigenous species that would have been present in 1840.

Tussock grassland on higher slopes have been modified by stock and exotic pasture grasses and herbs are abundant and foxglove is common. This vegetation community is not significant under this criterion.

The hill slopes and valley floor forest margins support an assemblage of indigenous invertebrates that is close in composition to what would be expected of lowland forest in the ecological district, although there are a few notable absences. It includes a particularly high number of species that are Threatened and At Risk, endemic to Banks Peninsula and uncommon in the ecological district. Of the 264 species recorded only nine (3.4%) were exotic (Wildland Consultants and Boffa Miskell unpubl. data 2015). Using Coleoptera as a sample group¹, for the Wongan Hills valley floor and hill slopes indigenous Coleoptera species made up 94.8% and 96.3% of the total beetle fauna collected. These are very high proportions for predominantly secondary vegetation communities compared to other surveyed sites and indicate the invertebrate fauna is highly natural. A list of the invertebrate species recorded at the site is provided in Appendices 2 and 3.

2. Indigenous vegetation or habitat of indigenous fauna that is a relatively large example of its type within the relevant ecological district.

The site is significant under this criterion.

The site is one of the most extensive areas of indigenous vegetation (podocarp/hardwood forest and treeland, second growth hardwood forest and treeland, kanuka forest and treeland, scrub, shrubland, and tussockland) in the Herbert Ecological District.

Rarity/Distinctiveness

3. Indigenous vegetation or habitat of indigenous fauna that has been reduced to less than 20% of its former extent in the Region, or relevant land environment, ecological district, or freshwater environment.

The site is significant under this criterion.

The forest within the site is significant under this criterion because forest has been reduced to less than 20% of its former extent in the ecological district. Banks Peninsula, including the Herbert Ecological District, was almost entirely forested prior to the arrival of humans (Harding 2009, Wilson 2013). The present extent of all indigenous forest (excluding manuka and/or kanuka) in the ED is estimated to be 7% (10.9% including manuka and/or kanuka) (New Zealand Landcover Database (Version 4)).

Large emergent remnant podocarps (kahikatea, matai, and lowland totara) occur on the valley floor and in gullies on the slopes. Remnants of old growth forest are extremely rare on Banks Peninsula. Old growth forest has been reduced to approximately 800 ha or <1% of its original extent on Banks Peninsula (Wilson

¹ The proportion of indigenous species to the total number of beetle species collected provides a useful indication of the intactness of the invertebrate fauna (Boffa Miskell and Wildland Consultants 2015).

2009). In particular remnant podocarp trees on the alluvial valley floor are extremely rare anywhere on Banks Peninsula (Wilson 1992) and even remnant trees growing amongst pasture are significant under this criterion.

Seral vegetation communities such as secondary kanuka forest and treeland and small leaved shrubland and scrub that occur within the site have expanded their range in the ecological district as a result of human disturbance. However, the extent of all indigenous woody vegetation in the ecological district is estimated to be only 10.9% (New Zealand Landcover Database (Version 4)).

4. Indigenous vegetation or habitat of indigenous fauna that supports an indigenous species that is threatened, at risk, or uncommon, nationally or within the relevant ecological district.

The site is significant under this criterion.

It supports an outstanding number of nationally Threatened and At Risk indigenous species including plants, fish, aquatic invertebrates and terrestrial invertebrates. It also supports a number of plant and invertebrate species that are endemic to Banks Peninsula or uncommon within the ecological region or ecological district.

Plants

Nationally At Risk plant species (de Lange et al. 2013) recorded from the site are:

- Aciphylla subflabellata (At Risk Declining) a few plants in tussockland on the upper slopes (Walls unpubl. data 2015)
- Coprosma virescens (At Risk Declining) abundant throughout the site (Walls unpubl. data 2015, Jensen unpubl. data 2014).
- Olearia fragrantissima (At Risk Declining) frequent in secondary broadleaved forest and treeland and in shrubland and scrub (Walls 2001, unpubl. data 2015)
- *Teucridium parvifolium* (At Risk Declining) (Walls unpubl. data 2015, Jensen unpubl. data 2014)
- Hebe strictissima (At Risk Naturally Uncommon, endemic to Banks Peninsula) (Walls unpubl. data 2015, Jensen unpubl. data 2014)
- Festuca actae (At Risk Naturally Uncommon, endemic to Banks Peninsula) (Walls unpubl. data 2015)
- Leptinella minor (At Risk Naturally Uncommon, endemic to Banks Peninsula) (Walls unpubl. data 2015)
- Pseudopanax ferox (At Risk Naturally Uncommon) abundant in secondary broadleaved forest and treeland and in shrubland and scrub (Walls unpubl. data 2015) (Walls unpubl. data 2015)
- Senecio glaucophyllus subsp. basinudus (At Risk Naturally Uncommon) (Walls unpubl. data 2015)

Plant species recorded from the site (Walls unpubl. data 2015) that are "uncommon to rare or very local" on Banks Peninsula (Wilson 2013) are:

- Australina pusilla (Jensen unpubl. data 2014)
- Carex secta (Walls unpubl. data 2015)
- Carex virgata (Walls unpubl. data 2015)

- Phlegmariurus varius (Jensen unpubl. data 2014)
- Lastreopsis velutina (Walls unpubl. data 2015, Jensen unpubl. data 2014)
- Leptospermum scopariium (Jensen unpubl. data 2014)
- Melicytus micranthus (Walls unpubl. data 2015)
- Microlaena polynoda (Walls unpubl. data 2015) uncommon in Banks Ecological Region and in Canterbury (Wilson 1992)
- Pellaea calidirupium (Walls unpubl. data 2015) rare in ecological district and region (Wilson 1992)
- Pyrrosia eleagnifolia (Walls unpubl. data 2015, Jensen unpubl. data 2014)
- Raukaua anomalus (Walls unpubl. data 2015)

Invertebrates

Nationally Threatened and At Risk invertebrate species recorded from the site (Wildland Consultants and Boffa Miskell unpubl. data 2015) are:

- Epichorista lindsayi (Threatened Nationally Endangered)
- New genus and species (*Teucridium* miner) (Threatened Nationally Vulnerable)
- Orchymontia banksiana Ordish a cascade beetle (Threatened Nationally Endangered)
- Costachorema caddisfly (Threatened Nationally Vulnerable)
- New genus and species Teucridium miner (Threatened Nationally Vulnerable)
- Declana griseata (At Risk Declining)
- Tatosoma agrionata (At Risk Declining)
- Zelleria sphenota (mistletoe miner) (At Risk Declining)
- Stathmopoda endotherma (moth) (At Risk, Naturally Uncommon) (Patrick 2014)
- Mimopeus granulosus (Breme) darkling beetle (At Risk Naturally Uncommon, endemic to Banks Peninsula)
- Zeadelium zealandicum (Bates) darkling beetle (At Risk Naturally Uncommon)
- Stanwellia kaituna (spider) (Naturally Uncommon) (C. Vink pers. comm. 2014)
- Cantuaria borealis (spider) (Naturally Uncommon) (C. Vink pers. comm. 2014)

Endemic invertebrate species recorded from the site (Wildland Consultants and Boffa Miskell unpubl. data 2015) are:

- Hemiandrus sp. a ground weta BP endemic
- Megadromus guerinii (Chaudoir) a ground beetle BP endemic
- Molopsida strenua (Broun) a ground beetle southernmost known collection
- Holcaspis elongella (White) a ground beetle Canterbury endemic
- Celatoblatta peninsularis (cockroach) (endemic to Banks Peninsula)
- Kikihia new species (cicada) (endemic to Banks Peninsula)
- Zelanda kaituna (endemic to Banks Peninsula)
- Stanwellia kaituna (spider) (endemic to Banks Peninsula) (C. Vink pers. comm. 2014)
- Cantuaria borealis (spider) (endemic to Banks Peninsula) (C. Vink pers. comm. 2014)

Invertebrates recorded from the site (Wildland Consultants and Boffa Miskell unpubl. data 2015) that are uncommon in the Herbert Ecological District are:

- Calicotis crucifera
- Nola parvitis
- Pasiphila rivalis
- Scoparia molifera
- Philocryptica polypodii

Fish

Nationally At Risk fish species (Goodman et al. 2014) recorded from the site (EOS unpubl. data 2015) are:

- Inanga (At Risk Declining)
- Longfin (eel At Risk Declining)
- Redfin bully (At Risk Declining)

Aquatic invertebrates

A nationally Threatened aquatic invertebrate (Grainger et al. 2014) was recorded in Prices Valley Stream (EOS unpubl. data 2015):

- Orchymontia banksiana (Threatened Nationally Endangered)
- 5. The site contains indigenous vegetation or an indigenous species at its distribution limit within Canterbury Region or nationally.

The site is significant under this criterion.

The number of species at their distributional limits is a feature of the site. There are seven plant species that are at their distributional limits on Banks Peninsula (Wilson 2013) including five species are at their southern national distributional limits, one is at its southern regional limit and one is at its northern national limit. There is also two invertebrate species at their southern national distributional limits, including one which is a new southern limit.

Plants

Species at their southern national distributional limits are:

- Titoki (Alectryon excelsus) (southern national limit) (Walls unpubl. data 2015)
- Akeake (Dodonaea viscosa) (southern national limit) (Walls unpubl. data 2015, Jensen unpubl. data 2014)
- Native passion vine (Passiflora tetrandra) (southern national limit) (Walls unpubl. data 2015)
- Kawakawa (*Piper excelsum*) (southern national limit) (Walls unpubl. data 2015, Jensen unpubl. data 2014)
- Shining spleenwort (Asplenium oblongifolium) (southern national limit) (Jensen unpubl. data 2014)

The species at its southern regional distributional limit is:

• Pigeonwood (*Hedycarya arborea*) (southern regional limit) (Walls unpubl. data 2015, Jensen unpubl. data 2014)

The species at its northern regional distributional limit is:

• Fragrant tree daisy (*Olearia fragrantissima*) (northern national limit) (Walls 2001, unpubl. data 2015)

Invertebrates

Invertebrate species at their southern national distributional limits are:

- Philocryptica polypodii (southern national limit)
- "Cnephasia" incessana (new southern national limit)
- Dysnocryptus pallidus (Broun), fungus weevil at it's (southern national limit)
- *Molopsida strenua* (Broun) a ground beetle (southernmost known collection)
- 6. Indigenous vegetation or an association of indigenous species that is distinctive, of restricted occurrence, occurs within an originally rare ecosystem, or has developed as a result of an unusual environmental factor or combinations of factors.

The site is significant under this criterion.

There are basic igneous bluffs, scarps and rock outcrops throughout the site that support indigenous vegetation (Walls unpubl. data 2015). At a national scale these features are an originally rare ecosystem (Williams et al. 2007). There are seepages and flush wetlands on the slopes above the basin at the head of the valley. These are also an 'originally rare' ecosystem on a national scale (Williams et al. 2007).

The site is distinctive for the abundance of species such as fierce lancewood, fragrant tree daisy, *Teucridium parvifolium* and bamboo grass that are otherwise uncommon on Banks Peninsula. It is also distinctive for the high number of plant taxa that are at their distributional limits on Banks Peninsula (refer to criterion 5) (Walls unpubl. data 2015, Jensen unpubl. data 2014).

Diversity and Pattern

7. Indigenous vegetation or habitat of indigenous fauna that contains a high diversity of indigenous ecosystem or habitat types, indigenous taxa, or has changes in species composition reflecting the existence of diverse natural features or ecological gradients.

The site has a high diversity of vegetation communities and habitat types, including rocklands, seepages, broadleaved-hardwood forest with podocarps, kanuka forest, treelands, scrub, shrublands, tussocklands and grasslands. They occur as a mosaic across the site as a result of climatic variation associated with aspect and altitude, soil variation and disturbance. An altitudinal sequence of

500m, from approximately 80 to 580 m above sea level, means there are coastal, lowland and montane elements in the vegetation. As a result of diversity of the vegetation communities and the large altitudinal gradient the site supports an outstanding diversity of plant taxa. Recent (rapid) botanical surveys (Jensen unpubl. data 2014, Walls unpubl. data 2015) recorded 130 indigenous species within the site.

The site also contains a diverse indigenous invertebrate fauna. A recent relatively brief survey by Wildland Consultants and Boffa Miskell (2015) recorded 255 indigenous species. The diversity of indigenous beetle species is very high (93 species) on the valley floor and high on the hill slopes (77 species). This sample indicates a very species-rich indigenous invertebrate assemblage reflecting the diversity of indigenous vegetation communities and habitats. A list of the invertebrate species recorded at the site is provided in Appendices 2 and 3.

Ecological Context

8. Vegetation or habitat of indigenous fauna that provides or contributes to an important ecological linkage or network, or provides an important buffering function.

The site is significant under this criterion.

It is a very large, relatively compact, area. The large size of the site and its high habitat diversity mean that it is sufficiently large to sustain the ecosystems present and that it plays an important role in maintaining ecological processes in the wider landscape. It is well buffered by regenerating indigenous scrub, shrubland and tussockland and these seral communities within the site provide connectivity between indigenous forest patches in the gullies.

The site is part of an important network of areas in Prices Valley and in the surrounding area. Extensive areas of the western slopes of Prices Valley are likely to be an important ecological corridor for indigenous fauna (birds, lizards and invertebrates) and for the dispersal of plants within the valley. In the wider area the site is part of a network of forested areas of high ecological value including the Kaituna Valley Scenic Reserve, Okana Valley, Waikoko Stream and Lathams that are important 'stepping stones' for the movement and dispersal of indigenous fauna such as New Zealand pigeon.

The vegetation within the site buffers Prices Valley Stream, which provides habitat for indigenous aquatic fauna. The role that the established indigenous vegetation within the site plays in reducing sediment and nutrient into this stream is particularly important because it flows directly into the Kaituna Lagoon, Lake Ellesmere/Te Waihora. Catchment wide solutions for reducing nutrient inputs into this internationally important coastal lake is a priority for its management (Hughey and Taylor 2009).

9. A wetland which plays an important hydrological, biological or ecological role in the natural functioning of a river or coastal system.

The site is not significant under this criterion. The only wetlands within the site are a few small flushes with *Carex secta* (Walls unpubl. data 2015). These are

very limited in extent and do not meet the threshold for significance under this criterion.

10. Indigenous vegetation or habitat of indigenous fauna that provides important habitat (including refuges from predation, or key habitat for feeding, breeding, or resting) for indigenous species, either seasonally or permanently.

The site is important permanent and seasonal habitat for a range of common indigenous birds. It includes a large area of relatively diverse indigenous vegetation including forest and mature podocarp trees (lowland totara, matai and kahikatea). Bird species that use the site for feeding and breeding are New Zealand pigeon, bellbird, South Island robin, grey warbler, South Island fantail, silvereye, welcome swallow, New Zealand pipit, New Zealand kingfisher, Australasian harrier, spur winged-plovers and white-faced heron (Walls unpubl. data 2015, Wilson 1992, Head n.d).

The site provides important habitat for diverse range of indigenous invertebrates and includes a particularly high number of species that are Threatened and At Risk, endemic to Banks Peninsula and uncommon in the ecological district (Wildland Consultants and Boffa Miskell 2015). It also provides important habitat for skinks and geckos (Walls unpubl. data 2015).

Site Management

Existing Protection Status

The site is not legally protected.

Threats and risks	Management recommendations	Support package options
Domestic stock: Existing fences are well maintained and streams on the property, including within the site, are being progressively fenced to exclude domestic stock. Sheep and cattle are grazed throughout the remainder of the site at moderate intensity. This is preventing or impeding natural vegetation regeneration, especially in the more accessible parts of the forests, treelands, scrub and shrublands (Walls unpubl. data 2015).	Continue fencing riparian stream margins. Consider implications of stock grazing in relation to management of indigenous vegetation communities. Removing stock from the site would allow more natural vegetation regeneration and promote understorey development of forested areas.	 Advice and guidance for landowners about benefits to biodiversity of stock management options and stock fencing maintenance. Assistance where appropriate. Collaborate with ECan re. stock fencing along waterways.
Biodiversity pest plants: In some areas property old man's beard is well established and widespread, elderberry occurs at low altitude but is uncommon and there are a few wilding pines (Walls unpubl. data 2015). Cotoneaster simonsii, Japanese honeysuckle, wilding radiata pines, macrocarpa and elderberry were recorded (Jensen unpubl. data 2014).	 Consider controlling old mans beard, wilding conifers, Cotoneaster simonsii and Japanese honeysuckle. Consider ongoing surveillance for other biodiversity pest plants such as Darwin's barberry. 	 Advice and guidance for landowners about monitoring and control of pest plants. Assistance available where appropriate.
Pest animals: feral deer, rabbits, hares and possums were recorded within the site and other	Control of pest animals (e.g. by trapping, poisoning or shooting) using a multi- species control programme	Advice and guidance for landowners about monitoring and control of pest animals.

widespread pest animals are almost certainly present (Walls unpubl. data 2015).	would benefit native fauna (birds, lizards and larger invertebrates). However, due to the time and cost of establishing and maintaining such a control programme and the lack of barriers to invasion, only consider implementing an animal pest control programme if long-term, effective control can be ensured. Consider monitoring the site for deer (and goats and pigs (and their sign)) and controlling them, if possible, when they are present within the site.	Assistance available where possible.
Sulphur-crested cockatoos. This species is numerous within the adjacent QEII covenant and also uses the site. Sulphur-crested cockatoos have the potential to alter the ecology of the site, for example by competing for fruits and seeds with native bird species, and as seed predators (Willems 1999).	 Monitor cockatoo numbers. Consider undertaking research (e.g. in collaboration with local universities) to determine the potential effects of cockatoos on the ecology of the site. 	 Discussions with landowners about cockatoo population and potential impact on ecosystems. Collaborate with universities and landowners over the potential for a research and management programme.

References

- Boffa Miskell Ltd. and Wildland Consultants Ltd. 2015. *Banks Peninsula Entomological Survey: Prices Valley Wongan Hills*. Unpublished data collected for the Christchurch City Council. (CCC TRIM: 15/223375).
- de Lange, P. J., Rolfe, J. R., Champion, P. D., Courtney, S. P., Heenan, P. B., Barkla, J. W., Cameron, E.K., Norton, D.A., Hitchmough, R. A. (2013). *Conservation status of New Zealand indigenous vascular plants, 2012* (New Zealand Threat Classification Series No. 3). Department of Conservation, Wellington.
- EOS Ecology Ltd. (2015). Banks Peninsula Entomological Survey: Prices Valley Stream. Unpublished data collected for Christchurch City Council. (Trim: 15/160094).
- Environment Canterbury. (2013). *Canterbury Regional Policy Statement 2013*. Environment Canterbury.
- Goodman, J.M.; Dunn, N.R.; Ravenscroft, P.J.; Allibone, R.M.; Boubee, J.A.T.; David, B.O.; Griffiths, M.; Ling, N.; Hitchmough, R.A.; Rolfe, J.R. (2014) Conservation status of New Zealand freshwater fish, 2013. *New Zealand Threat Classification Series 7.* Department of Conservation, Wellington. 12 p.
- Grainger, N.; Collier, K.; Hitchmough, R.; Harding, J.; Smith, B.; Sutherland, D. 2014: Conservation status of New Zealand freshwater invertebrates, 2013. *New Zealand Threat Classification Series 8*. Department of Conservation, Wellington. 28 p.
- Harding, M. A. (2009). Canterbury Land Protection Strategy: A Report to the Nature Heritage Fund Committee. Wellington: Nature Heritage Fund.
- Head, N. (No date). *Nature Heritage Fund Application: Prices Valley. Assessment Relative to Ecological Criteria.* Unpublished Report, Department of Conservation.
- Hughey, K.F.D. and Taylor K.J.W. (eds). (2009). *Te Waihora/Lake Ellesmere: State of the Lake and Future Management.* EOS Ecology, Christchurch. 150pp.
- Jensen, C. (2014). *Botanical survey results Palmer Property, Lower Prices Valley*. Unpublished data, collected for Christchurch City Council. (Trim: 14/1459149).
- New Zealand Landcover Database (Version 4). http://www.lcdb.scinfo.org.nz/. Retrieved 24/11/2014.
- Patrick, B.H. (2014). Conservation status of five data deficient moth taxa. Unpublished report prepared by Wildland Consultants Ltd for the Department of Conservation. Report No. 3419. 15 pages.
- Walls, G. (2015). *Botanical survey results Wongan Hills, Lower Prices Valley.* Unpublished data, collected for Christchurch City Council. (Trim: 15/191240).
- Wildland Consultants Ltd. and Boffa Miskell Ltd. (2015). Banks Peninsula Entomological Survey: Lower Prices Valley. Unpublished data collected for the Christchurch City Council. (TRIM: 14/1549396).
- Williams, P. A., Wiser, S., Clarkson, B. R., & Stanley, M. C. (2007). New Zealand's historically rare terrestrial ecosystems set in a physical and physiognomic framework. *New Zealand Journal of Ecology* 31(2), 119–128.
- Wilson, H.D. 2009. *Natural History of Banks Peninsula*. Canterbury University Press, Christchurch. 144 pp.

Wilson, H.D. (2013). *Plant Life on Banks Peninsula*. Manuka Press, Cromwell. 412 pp.

Assessment completed by: Scott Hooson **Date:** 27 February 2015

Statement completed by: Scott Hooson 27 February 2015

Statement updated by: XXX Date: XXX

PLEASE NOTE THIS STATEMENT IS BASED ON INFORMATION AVAILABLE AT THE TIME OF WRITING. DUE TO THE DYNAMIC NATURE OF ECOSYSTEMS, FUTURE REASSESSMENT OF THE SITE MAY BE NECESSARY TO REFLECT ANY CHANGES IN KNOWLEDGE OF ITS ECOLOGICAL SIGNIFICANCE.

Appendix 1: Plant Species List

Plant species recorded during botanical surveys (sourced from Walls unpubl. data (2015) and Jensen unpubl. data (2014)).

Scientific Name	Common Name(s)
Indigenous species	
Acaena anserinifolia	bidibidi, piripiri
Alectryon excelsus	titoki
Arthropodium candidum	grass lily, repehinapapa
Asplenium appendiculatum	ground spleenwort
Asplenium flabellifolium	necklace fern
Asplenium flaccidum	hanging spleenwort, raukatauri
Asplenium gracillimum	
Asplenium hookerianum	Hooker's spleenwort
Asplenium oblongifolium	·
Australina pusilla	
Austroderia richardii	toetoe
Blechnum chambersii	lance fern
Blechnum fluviatile	kiwakiwa
Blechnum penna-marina	little hard fern
Calystegia tuguriorum	NZ bindweed
Cardamine debilis	NZ bitter cress
Carex forsteri	forest sedge
Carex secta	purei, tussock sedge
Carex virgata	tussock sedge
Carmichaelia australis	native broom, common broom
Carpodetus serratus	putaputaweta
Cheilanthes sieberi	hot rock fern
Clematis afoliata	leafless clematis
Clematis foetida	yellow clematis
Clematis paniculata	puawananga
Convolvulus waitaha	elfin bindweed
Coprosma areolata	mikimiki
Coprosma crassifolia	thick-leaved coprosma, mikimiki
Coprosma propinqua	mingimingi, mikimiki
Coprosma rhamnoides	scrub coprosma
Coprosma rigida	stiff coprosma
Coprosma robusta	karamu
Coprosma rotundifolia	round-leaved coprosma
Coprosma virescens	mikimiki
Cordyline australis	cabbage tree, ti kouka
Corokia cotoneaster	korokio
Crassula sieberiana	dwarf stonecrop
Dacrycarpus dacrydioides	kahikatea
Dichondra repens	Mercury Bay weed
Discaria toumatou	matagouri, wild irishman
Dodonaea viscosa	akeake
Epilobium nummalariifolium	willow herb
Festuca actae	Banks Peninsula blue tussock

Fuchsia excorticata Griselinia littoralis broadleaf Haloragis erecta Haloragis erecta Hebe strictissima Hedycarya arborea Helichrysum lanceolatum Hierochloe redolens Hoheria angustifolia Hydrocotyle heteromeria Hydrocotyle moschata Hydrocotyle lacetom Hydrocotyle moschata Hydrocotyle lacetom Hydrocotyle moschata Hydrocotyle lacetom Hydrocotyle moschata Hydrocotyle moschata Hydrocotyle moschata Hydrocotyle moschata Hydrocotyle moschata Hydrocotyle lacetom Hydrocotyle moschata Hydrocotyle	Festuca novae-zelandiae	fescue tussock
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Phormium tenaxflax, harakekePiper excelsumkawakawa	Pellaea rotundifolia	round-leaved fern, tarawera
Piper excelsum kawakawa	Pennantia corymbosa	kaikomako, ducks foot
·	Phormium tenax	flax, harakeke
Pittosporum eugenioides tarata lemonwood	Piper excelsum	kawakawa
i iliala, idilala idilala	Pittosporum eugenioides	tarata, lemonwood

Ditter and an artist to the	Lababa blash as Cas
Pittosporum tenuifolium	kohuhu, black matipo
Plagianthus regius	lowland ribbonwood, manatu
Pneumatopteris pennigera	gully fern
Poa cita	silver tussock
Podocarpus totara	lowland totara
Polystichum oculatum	shield fern
Polystichum vestitum	prickly shield fern
Prumnopitys taxifolia	matai, black pine
Pseudopanax arboreus	five-finger
Pseudopanax crassifolius	lancewood
Pseudopanax ferox	fierce lancewood
Pseudowintera colorata	horopito
Pteridium esculentum	bracken
Pterostylis graminea	greenhood
Pyrrosia eleagnifolia	leather leaf fern
Ranunculus reflexus	hairy buttercup, maruru
Raukaua anomalus	
Ripogonum scandens	supplejack, kareao
Rubus cissoides	bush lawyer, tataramoa
Rubus schmidelioides	bush lawyer, tataramoa
Rubus squarrosus	leafless lawyer, tataramoa
Scandia geniculata	climbing aniseed
Schefflera digitata	pate
Senecio glaucophyllus	yellow rock groundsel
Sophora microphylla	kowhai, small-leaved kowhai
Sophora prostrata	prostrate kowhai, dwarf kowhai
Stellaria decipiens	
Streblus heterophyllus	turepo, small-leaved milk tree
Teucridium parvifolium	taropo, eman roa roa mine noo
Teucrydium parvifolium	
Uncinia leptostachya	hook grass
Urtica ferox	ongaonga, tree nettle
Viola cunninghamii	native violet
Wahlenbergia gracilis	harebell
Transcipia graeme	Harobon
Exotic Species	
Exolic Openies	
Agrostis capillaris	brown top
Aira caryophyllea	silvery hair grass
Anthoxanthum odoratum	sweet vernal
Anthriscus caucalis	beaked parsley
Bellis perennis	daisy
Bromus diandrus	ripgut brome
טוטוועט עומוועועט	I ripgut brottie
Coractium alamoratum	
Cerastium glomeratum	chickweed
Cirsium arvense	chickweed Californian thistle
Cirsium arvense Cirsium vulgare	chickweed Californian thistle Scotch thistle
Cirsium arvense Cirsium vulgare Clematis vitalba	chickweed Californian thistle Scotch thistle old man's beard
Cirsium arvense Cirsium vulgare Clematis vitalba Cotoneaster simonsii	chickweed Californian thistle Scotch thistle old man's beard Khasia berry
Cirsium arvense Cirsium vulgare Clematis vitalba Cotoneaster simonsii Critesion murinum	chickweed Californian thistle Scotch thistle old man's beard Khasia berry barley grass
Cirsium arvense Cirsium vulgare Clematis vitalba Cotoneaster simonsii Critesion murinum Cupressus macrocarpa	chickweed Californian thistle Scotch thistle old man's beard Khasia berry barley grass macrocarpa
Cirsium arvense Cirsium vulgare Clematis vitalba Cotoneaster simonsii Critesion murinum Cupressus macrocarpa Cynosurus echinatus	chickweed Californian thistle Scotch thistle old man's beard Khasia berry barley grass macrocarpa rough dogstail
Cirsium arvense Cirsium vulgare Clematis vitalba Cotoneaster simonsii Critesion murinum Cupressus macrocarpa	chickweed Californian thistle Scotch thistle old man's beard Khasia berry barley grass macrocarpa

Digitalis purpurea	foxglove
Echium vulgare	vipers bugloss
Galium aparine	cleavers
Geranium molle	dovesfoot cranesbill
Holcus lanatus	Yorkshire fog
Hypochoeris radicata	catsear
Juglans regia	walnut
Leycesteria formosa	Himalayan honeysuckle
Lolium perenne	ryegrass
Lonicera japonica	Japanese honeysuckle
Marrubium vulgare	horehound
Mycelis muralis	wall lettuce
Orobanche minor	broomrape
Pinus radiata	radiata pine, Monterey pine
Rosa rubiginosa	sweet brier/briar
Rubus fruticosus agg.	blackberry
Rumex acetosella	sheeps sorrel
Sambucus nigra	elderberry
Silybum marianum	variegated thistle
Sisymbrium officinale	hedge mustard
Stellaria media	chickweed
Trifolium dubium	suckling clover
Trifolium repens	white clover
Ulex europaeus	gorse
Verbascum thapsus	woolly mullein
Vicia sativa	vetch
Vitttadinia gracilis	purple fuzzweed

Appendix 2: Invertebrate Species List for the Mid Prices Valley "Flats"

Sourced from Wildland Consultants and Boffa Miskell unpubl. data (2015)

Note: Light trapping was only undertaken on the flats at the bottom of the hill slope on the western side of Mid Prices Valley.

Order	Family	Scientific Name	Common Name	Species Status
Indigenous sp	pecies			
_				
Orthoptera	Anostostomatidae	Hemiandrus sp.	a ground weta	BP endemic
<u> </u>	Gryllidae	Bobilla sp.	small field cricket	
Blattodea	14.1		a cockroach	
Isoptera	Kalotermitidae	Kalotermes brouni Froggatt	drywood termite	
Mantodea	Mantidae	Orthodera	NZ praying mantis	
Mantouea	iviantique	novaezealandiae (Colenso)	NZ praying manus	
Phasmatodea				
Hemiptera: Homoptera	Flatidae	Siphanta acuta (Walker)	green planthopper	
Hemiptera: Heteroptera	Acanthosomatidae	Oncacontias vittatus (Fabricius)	a shield bug	
•	Aradidae	Ctenoneurus sp.	a flat bug	
		Aneurus sp.	a flat bug	
	Miridae	Romna sp.	a bent-backed bug	
	In			
	Reduviidae	Empicoris rubromaculatus (Blackburn)	thread bug	
		Ploiaria antipodum Bergroth	antipodean assassin bug	
	Rhyparochromidae	genus and species indet		
Megaloptera	Corydalidae	Archichauliodes diversus (Walker)	dobsonfly	
Neuroptera	Hemerobiidae	Micromus tasmaniae (Walker)	Tasmanian lacewing	
Coleoptera	Anobiidae	Leanobium flavomaculatum Espanol	a borer beetle	
		Leanobium undulatum (Broun)	a borer beetle	
		Ptinus sp.	a spider beetle	
		Xenocera sp.	a borer beetle	

Anthribidae	Cacephatus incertus (White)	a fungus weevil	
	Dysnocryptus pallidus Broun	a fungus weevil	at it's Southern limit
	Hoherius meinertzhageni (Broun)	a fungus weevil	
	Pleosporius bullatus (Sharp)	a fungus weevil	
	Xenanthribus hirsutus Broun	a fungus weevil	
Carabidae	Demetrida dieffenbachi (White)	a ground beetle	
	Holcaspis intermittens (Chaudoir)	a ground beetle	
	Megadromus guerinii (Chaudoir)	a ground beetle	BP endemic
	Molopsida strenua (Broun)	a ground beetle	southernmost known collection
	Notagonum submetallicum (White)		
Cerambycidae	Astetholea lepturoides Bates	a longhorn beetle	
	Hybolasius vegetus (Broun)	a longhorn beetle	
	Psilocnaeia linearis (Bates)	a longhorn beetle	
	Spilotrogia nr pulchella (Bates)	a longhorn beetle	
	Zorion guttigerum (Westwood)	a flower longhorn	
Cleridae	Lemida aptera (Sharp)	a checkered beetle	
	Phymatophaea Iongula Sharp	a checkered beetle	
Coccinellidae	Coccinella leonina Fabricius	orangespotted ladybird	
	Rhyzobius forestieri (Mulsant)	a ladybird	
	Veronicobius acceptus (Broun)	a ladybird	
	Veronicobius sp. Veronicobius sp.	a ladybird a ladybird	
	dark round	-	
	Veronicobius sp. dark elongate	a ladybird	
Corylophidae	Sericoderus sp.	a hooded beetle	
Cryptophagidae	Antarticotectus sp.	a silken fungus beetle	
	Micrambina' sp.	a silken fungus beetle	

Curculionidae	Cossoninae indet.	a weevil	
	Cryptorhyhchinae sp. indet.	a weevil	
	Entomininae sp. indet. 1	a weevil	
	Entomininae sp. indet. 2	a weevil	
	Entomininae sp. indet. 3	a weevil	
	Microcryptorhynchus sp.	a weevil	
	Pentarthrum sp 1	a weevil	
	Pentarthrum sp 2	a weevil	
	Peristoreus australis (Broun)	a flower weevil	
	Peristoreus sp. 1	a flower weevil	
	Peristoreus sp. 2	a flower weevil	
	Phloeophagosoma pedatum Wollaston	a weevil	
	Praolepra infusca Broun	a flower weevil	
	Praolepra squamosa Broun	a flower weevil	
	Psepholax sulcatus White	a pit weevil	
	Rhopalomerus antennalis (Broun)	a weevil	
Elateridae	Conoderus exsul (Sharp)	pasture wireworm	
	Panspoeus guttatus Sharp	a click beetle	
Histeridae	Parepierus sp.	a pill beetle	
Hydraenidae	Orchymontia banksiana Ordish	a cascade beetle	Nationally endangered; range restricted
Latridiidae	Bicava sp.	a mildew beetle	
	Corticaria sp.	a mildew beetle	
	Cortinicara hirtalis (Broun)	minute scavenger beetle	
	Lithostygnus sp.	a mildew beetle	
Lucanidae	Paralissotes reticulatus (Westwood)	reticulate stag beetle	
Mohridaa	Dacytoo' on blue	a flower beetle	
Melyridae	Dasytes' sp. blue	a flower beetle	
Mycetophagidae	Dasytes' sp. green Triphyllus' sp.	an ancient fungus beetle	
Nemonychidae	Rhinorhynchus rufulus (Broun)	a straight-horned weevil	
Oedemeridae	Selenopalpus aciphyllae Broun	a lax beetle	
	Thelyphassa lineata (Fabricius)	a lax beetle	

	Thelyphassa	a lax beetle	
Dtiliido	nemoralis (Broun)	o footboxin and	
Ptiliidae	Ptinella sp.	a feather-winged beetle	
Rhipiphoridae	Rhipistena lugubris Sharp	an antlered beetle	
Salpingidae	Salpingus bilunatus Pascoe	a bark mould beetle	
Scarabaeidae	Costelytra zealandica (White)	NZ grass grub	
	Odontria australis Given	a chafer beetle	
	Odontria varicolorata Given	a chafer beetle	
	Saprosites communis (Broun)	a small dung beetle	
Scirtidae	Cyphon sp. "black tips"	a marsh beetle	
	Cyphon sp. "plain"	a marsh beetle	
	Cyphon sp. "small, rounder"	a marsh beetle	
	Cyphon sp. "large dark"	a marsh beetle	
Scraptiidae	Nothotelus sp.	a soft leaping beetle	
Staphylinidae	Aleocharinae sp.	a rove beetle	
Staphyllilluae	indet. 1		
	Aleocharinae sp. indet. 2	a rove beetle	
	Atheta sp.	a rove beetle	
	Brachynopus scutellaris (Redtenbacher)	a rove beetle	
	Coprostygnus sp.	a rove beetle	
	Creophilus occulatus Fabricius	devil's coachhorse	
	Falagria sp.	a rove beetle	
	Otagonia sp.	a rove beetle	
Tenebrionidae	Artystona rugiceps Bates	a darkling beetle	
	Menimus sp.	a darkling beetle	
	Mimopeus granulosus (Breme)	a darkling beetle	BP endemic, listed as Naturally Uncommon, range restricted
	Mimopeus opaculus (Bates)	a false wireworm	
	Żeadelium zealandicum (Bates)	a darkling beetle	BP near endemic, listed as Naturally Uncommon; range restricted
The man state of a			
Trogosittidae	Pontonium on	a shield bastle	
Zonheridae	Rentonium sp.	a shield beetle	
Zopheridae	Notocoxelus sp.	a rough mould	

			beetle	
		Pristoderus	a rough mould	
		bakewelli (Pascoe)	beetle	
		Pristoderus nr	a rough mould	
		plagiatus (Broun)	beetle	
		Pristoderus sp.	a rough mould beetle	
		Pycnomerus sp.	a rough mould beetle	
Neuroptera	Hemerobiidae	Micromus tasmaniae (Walker)	Tasmanian lacewing	
Trichoptera	Leptoceridae	Hudsonema aliena	caddisfly	
	Leptoceridae	Triplectides obsoletus	caddisfly	
	Conoesucidae	Olinga feredayi	caddisfly	
		Pycnocentrodes aureolus	caddisfly	
	Hydrobiosidae	Costachorema	caddisfly	Nationally Vulnerable
		Hydrobiosis sp.	caddisfly	
Ephmeroptera	Coloburiscidae	Coloburiscus humeralis	spiny gilled mayfly	
	Leptophlebiidae	Deleatidium near angustum	mayfly	
	Ichthybotidae	Ichthybotus bicolor		
Lepidoptera	Micropterigidae	Sabatinca aenea		
	Hepialidae	Wiseana copularis	porina moth	
	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	Wiseana umbraculata	striped porina moth	
	Nepticulidae	Stigmella kaimanua	parsonsia miner	uncommon in ED
	Tineidae	Lysiphragma howesii		
	Gracillariidae	new genus and species	Teucridium miner	Nationally Vulnerable
	Depressariidae	Eutorna caryochroa		
	Gelechiidae	Anisoplaca achyrota		
	Oecophoridae	Barea exarcha		
		Gymnobathra hamatella		
		Izatha huttoni		
		Izatha katadiktya		
		Izatha copiosella		
		Phaeosaces		
		apocrypta		
		Phaeosaces		
		compsotypa Phaeosaces		

1		1	
	coarctatella		
	Tingena		
	hoplodesma		
	Tingena macarella		
	Tingena plagiatella		
Pterophoridae	Pterophorus		
	innotatalis		
	Platyptilia falcatalis	hebe plumemoth	
Tortricidae	Pyrgotis plagiatana		
			Capua
			semiferana
	Catamacta gavisana		
	Epichorista lindsayi		Nationally
	,		Endangered
	Harmologa		
	scoliastes		
	Planotortrix		
	excessana		
	3		
Thyrididae	Morova subfasciata		
TTIYTIQIQE	ויוטוטים שטומשטומומ		
Crambidae	Deana hybreasalis		
Ciambidae	Eudonia characta		
	Eudonia dinodes		
	Eudonia luminatrix		
	Eudonia philerga		
	Eudonia		
	submarginalis		
	Eudonia aff.		
	minualis		
	Gadira acerella		
	Glaucocharis		
	auriscriptella		
	Glaucocharis		
	interrupta		
	Glaucocharis		
	lepidella		
 	Glaucocharis		
	chrysochyta		
	Orocrambus		
	flexuosellus		
	Orocrambus		
	ramosellus		
	Orocrambus vittellus		
	Scoparia halopis		
	Udea flavidalis		
	Udea marmarina		
+	Uresiphita maorialis	kowhai moth	
	orosipriita maonans	NOWING HIGH	
GEOMETRIDAE	Asaphodes beata		
GLOWIE I NIDAE			
	Asaphodes		
	chlamydota		
	Austrocidaria		
	callichlora		-
	Austrocidaria		
	gobiata		

Dermaptera	Forficulidae	Forficula auricularia Linnaeus	European earwig	Dermaptera
-				
Exotic specie	<u> </u>			
	Erebidae	Rhapsa scotoscialis		
		etoropriota arrioa		
		Tmetolophota unica		
		Persectania aversa Proteuxoa comma		
		Meterana levis Persectania aversa		
		graminosa		
		Feredayia		
-	Noctuidae	Bityla defigurata		
		Xyridacma ustaria		
		suavis		
		rudisata Pseudocoremia		+
		Pseudocoremia		
		productata		
		Pseudocoremia		
		pergrata		
_		Pseudocoremia		
		indistincta		
		schistaria Pseudocoremia		
		Poecilasthena		
		Pasiphila urticae		
		Pasiphila testulata		
		Pasiphila sandycias		
		Pasiphila lunata		
		Pasiphila muscosata		
		Pasiphila bilineolata		
		Hydriomena rixata Ischalis fortinata		
		Helastia triphragma		
		Helastia cryptica		
		Helastia cinerearia		
		megaspilata		
		Homodotis		
		Gellonia dejectaria		
		verriculata		
		Epiphyrne undosata		
		Epiphyrne undosata		
		Declana junctilinea		
		Declana floccosa		Declining
		Declana griseata		At Risk,
		Doorana ogrogia	moth	
		Declana egregia	South Island zebra	
		sphragitis Cleora scriptaria		
		Chloroclystis		
		inductata		
		Chloroclystis		

	Archeocrypticidae	Archeocrypticus topali Kaszab		
	Brentidae	Exapion ulicis (Forster)	gorse seed weevil	
	Coccinellidae	Coccinella undecimpunctata Linnaeus	11-spotted ladybird	
	Curculionidae	Sitona discoideus Gyllenhal	Sitona weevil	
	Latridiidae	Aridius bifasciatum (Reitter)	a mildew beetle	
Lepidoptera	Lyonetiidae	Leucoptera spartifoliella (Hübner)	broom twigminer	Lepidoptera

Appendix 3: Invertebrate Species List for the Mid Prices Valley "Hill Slopes"

Sourced from Wildland Consultants and Boffa Miskell unpubl. data (2015)

Note: Light trapping was only undertaken on the flats at the bottom of the hill slope on the western side of Mid Prices Valley.

Order	Family	Scientific Name	Common Name	Species Status
Indigenous sp	pecies			
Orthoptera	Anostostomatidae	Hemiandrus n.sp.	BP ground weta	
	Gryllidae	Bobilla sp.	small field cricket	
	Tettigoniidae	Conocephalus sp.	tussock katydid	
Isoptera	Kalotermitidae	Kalotermes brouni Froggatt	drywood termite	
Mantodea	Mantidae	Orthodera	NZ praying mantis	
		novaezealandiae (Colenso)		
Phasmatodea				
Hemiptera: Homoptera	Flatidae			
Hemiptera: Heteroptera	Acanthosomatidae			
•	Aradidae			
	Lygaeidae	Rhypodes cognatus Eyles		
	Miridae	Diomocoris maoricus (Walker)	a bent-backed bug	
		Sidnia kinbergi (Stal)	Australian crop	
	Nabidae	Nabis maoricus (Walker)	Pacific damsel bug	
	Pentatomidae	Monteithiella humeralis (Walker)	a shield bug	
	Reduviidae			
	Rhyparochromidae	Targarema stali White		
Megaloptera	Corydalidae			
Neuroptera	Hemerobiidae	Micromus tasmaniae (Walker)	Tasmanian lacewing	
Coleoptera	Anobiidae	Leanobium flavomaculatum Espanol	a borer beetle	
		Sphinditeles sp.	a borer beetle	
		Anobiidae, gen.	a borer beetle	

		indet.		
	Anthribidae	Cacephates vates	a fungus beetle	
	, and an order	(Sharp)	a rangae seeme	
_		Hoherius	a fungus weevil	
		meinertzhageni		
		(Broun)		
		Pleosporius bullatus	a fungus weevil	
		(Sharp)		
	Byrrhidae	Epichorius sp.	a moss beetle	
	Carabidae	Ctenognathus sp.	a ground beetle	
		Demetrida	a ground beetle	
		dieffenbachi (White)		
		Holcaspis elongella	a ground beetle	Canterbury
		(White)		endemic
		Megadromus	metallic green	
		antarcticus	ground beetle	
		(Chaudoir)		
		Megadromus guerinii	a ground beetle	BP endemic
		(Chaudoir)		
		Notagonum	submetallic	
		submetallicum	ground beetle	
		(White)		
		Scopodes	a ground beetle	
		elaphroides White	3	
	Cerambycidae	'		
	, , , , , , , , , , , , , , , , , , , ,			
		Ptinosoma ptinoides	a longhorn beetle	
		(Bates)	3	
		Somatidia antarctica	a longhorn beetle	
		(White)		
		Spilotrogia nr	a longhorn beetle	
		pulchella (Bates)		
		Stenellipsis sp.	a longhorn beetle	
		Zorion guttigerum	a flower longhorn	
		(Westwood)		
	Chrysomelidae	Pilacolaspis sp.	a leaf beetle	
	Cleridae	Phymatophaea	a checkered	
		Iongula Sharp	beetle	
		,		
	Coccinellidae			
		Rhyzobius forestieri	a ladybird	
		(Mulsant)		
		Veronicobius sp.	a ladybird	
		dark round		
		Veronicobius	a ladybird	
		acceptus (Broun)		
		Veronicobius sp.	a ladybird	
		small pale		
	Corylophidae	Sericoderus sp.	a hooded beetle	
	, I	71		
	Cryptophagidae	Paratomaria sp.	a silken fungus	
	71, 121, 131, 31, 31, 31		beetle	
	Curculionidae	Baeosomus sp.		
	- di diliciliado	Cryptorhynchinae sp.		
	ı	1 Stypistiyiloimide op.	L	1

T	1 4	1	
	1		
	Cryptorhynchinae sp. 2		
	Entiminae sp. 1, elongate		
	Entiminae sp. 2,		
	chunky		
	Peristoreus australis (Broun)	a flower weevil	
	Peristoreus durus (Broun)	a flower weevil	
	Praolepra infusca Broun	a flower weevil	
	Praolepra squamosa Broun	a flower weevil	
	Psepholax coronatus White	a pit weevil	
	Psepholax sulcatus White	a pit weevil	
Elateridae	Conoderus exsul	pasture wireworm	
Liatendae	(Sharp)	pasture wireworm	
Histeridae	Parepierus sp.	a pill beetle	
Hydraenidae	Orchymontia	a cascade beetle	Nationally
Trydracillado	banksiana Ordish	d cascade seeme	endangered; range restricted
L atridiida a			
Latridiidae			
	Cortinicara hirtalis	minute scavenger	
	(Broun)	beetle	
	Lithostygnus sp.	a mould beetle	
Lucanidae	Mitophyllus irroratus Parry	a stag beetle	
	Mitophyllus parrianus Westwood	a stag beetle	
Melyridae	Dasytes' blue	a flower beetle	
	Dasytes' green	a flower beetle	
Mycetophagidae	Triphyllus' sp. 1, plain	a hairy fungus beetle	
	Triphyllus' sp. 2, pale tips	a hairy fungus beetle	
	Triphyllus' sp. 3, figured	a hairy fungus beetle	
Nitidulidae	Epuraea sp.	a sap beetle	
	Hisparonia hystrix (Sharp)	a sap beetle	
	Soronia nr asperella (Broun)	a sap beetle	
Nemonychidae	Rhinorhynchus rufulus (Broun)	a straight-horned weevil	
Oedemeridae	Thelyphassa lineata (Fabricius)	a lax beetle	
	Thelyphassa nemoralis (Broun)	a lax beetle	
	Hemorans (Broun)	1	

	Salpingidae	Salpingus bilunatus Pascoe	a bark mould beetle	
	Scarabaeidae	Ataenius brouni Sharp	Broun's scarab	
		Costelytra zealandica (White)	NZ grass grub	
		Odontria varicolorata Given	a cockchaffer	
		Pyronota festiva (Fabricius)	manuka beetle	
		Pyronota edwardsi Sharp	manuka beetle	
	Scirtidae	Cyphon sp. large dark	a marsh beetle	
		Cyphon sp. dark tips	a marsh beetle	
		Cyphon sp. zig-zag	a marsh beetle	
		Cyphon sp. v large, black	a marsh beetle	
	Scraptiidae	Nothotelus sp.	a soft leaping beetles	
	Oten by P. 1.7	Alarah '		
	Staphylinidae	Aleocharinae sp. 1, small, pale	a rove beetle	
		Aleocharinae sp. 2, robust, v short elytra	a rove beetle	
		Aleocharinae sp. 3, smaller, rounded elytra	a rove beetle	
		Brachynopus scutellaris (Redtenbacher)	a rove beetle	
		Maorothius sp.	a rove beetle	
		Stenomalium' sp.	a rove beetle	
	Tenebrionidae	Artystona rugiceps Bates	a darkling beetle	
	Zopheridae	Colydiinae sp.	a rough mould beetle	
		Pristoderus bakewelli (Pascoe)	a rough mould beetle	
		Pycnomerus sp.	a rough mould beetle	
Exotic specie	S	1		
Dermaptera	Forficulidae	Forficula auricularia Linnaeus	European earwig	Dermaptera
Coleoptera	Anthribidae	Euciodes suturalis Pascoe	cocksfoot stem borer	Coleoptera
	Curculionidae	Sitona discoideus Gyllenhal	sitona weevil	
	Staphylinidae	Gyrohypnus fracticornis (Müller)	a rove beetle	