

6. Buxton Landscape Zone



6. Buxton Landscape Zone

6.1 Buxton Landscape Zone description

Buxton Landscape Zone is bounded to the west by a ridge-line forming the western edge of the Acheron River catchment, to the north by the interface between Highlands - Northern Fall and Central Victorian Uplands bioregions, to the east variously by the ridge-lines of the Torbreck and Federation Ranges (much of the eastern border is also an interface between Victorian Alps and Highlands - Northern Fall bioregions), and to the south by the border of the Goulburn Broken CMA area. Marysville is the largest town within the zone; other townships include Taggerty, Buxton and Narbethong. Murrindindi Local Government Area overlays the entire zone, except for Yarra Ranges which takes in the southern-most tip of the zone (Map 14). The Taungurong (Daung Warrung) Aboriginal tribe/language group occurs in this zone (Clark 1996) with the current administrative boundaries including the Coranderrk Koori Co-operative Ltd. and Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc. (Map 15).

Buxton Landscape Zone is one of only two zones in the Upper Goulburn that contains the Victorian Alps bioregion (the other is Jamieson Landscape Zone). The foothill forests and river valleys of the Highlands - Northern Fall bioregion occupy about two-thirds of the area of the zone, occurring in association mainly with the stream systems of the Acheron, Little, Rubicon and Royston Rivers. These streams provide most of the drainage from the zone, predominantly in a northerly direction to the Goulburn River. Smaller waterways in the northeast of the zone drain into the Big River arm of Lake Eildon. Vegetation cover on the foothills and in the valleys is primarily Herb-rich Foothill Forest, Damp Forest, and Grassy Dry Forest, with Riparian Forest forming relatively narrow lines along waterways and drainage lines (Map 21).

The Victorian Alps bioregion takes in approximately the southeastern third of the zone. The EVCs here are predominantly Montane Wet Forest and Montane Damp Forest, with smaller areas of Sub-alpine Woodland and Treeless Sub-alpine Mosaic on the summit of Lake Mountain, and Cool Temperate Rainforest in the gullies.

Overall the zone retains a high level of biodiversity, due to the relatively large areas retaining indigenous vegetation cover, and the high diversity of vegetation and habitat types contained therein. Conservation reserves, occurring mainly in the eastern half of the zone, likewise cover a range of habitat types; the larger examples include Yarra Ranges National Park, Lake Eildon National Park, and the Cathedral Range State Park (Map 24). State Forest occupies large areas of the zone, in all but the Acheron River floodplain and the northern edge of the zone. Plantation occurs towards the western edge of the zone.

Environmental threats within the zone include ongoing weed invasion, further fragmentation of remnants on private land, and degradation of riparian vegetation.

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6.1 Buxton Landscape Zone description (cont'd)

Table 15. Total area of pre-1750 and extant EVCs in the Buxton Landscape zone, within the Highlands - Northern Fall bioregion

EVC Group	EVC #	EVC Bioregional Conservation Status	EVC Name	Pre-1750 Area (ha)	Current Area (ha)
6	23	LC	Herb-rich Foothill Forest	27491	20013
7	29	LC	Damp Forest	14255	12559
7	30	LC	Wet Forest	13491	13461
9	18	LC	Riparian Forest	4230	3382
6	22	LC	Grassy Dry Forest	3799	5535
8	126	V	Swampy Riparian Complex	2188	271
6	21	LC	Shrubby Dry Forest	2049	0
10	31	V	Cool Temperate Rainforest	1779	1779
7	39	LC	Montane Wet Forest	622	622
6	20	LC	Heathy Dry Forest	324	304
7	38	LC	Montane Damp Forest	314	314
21	27	R	Blackthorn Scrub	175	175
6	47	E	Valley Grassy Forest	129	31
15	56	E	Floodplain Riparian Woodland	57	0
6	45	D	Shrubby Foothill Forest	56	59
8	41	LC	Montane Riparian Thicket	41	41
8	17	V	Riparian Scrub Complex	39	15
14	55	E	Plains Grassy Woodland	30	1
12	43	LC	Sub-alpine Woodland	9	9
			TOTAL	71077	58571
99	997	NA	Private Land No Tree Cover	0	12241
99	998	NA	Water Body - Natural or man made	0	265

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6.1 Buxton Landscape Zone description (cont'd)

Table 16. Total area of pre-1750 and extant EVCs in the Buxton Landscape zone, within the Victorian Alps bioregion

EVC Group	EVC #	EVC Bioregional Conservation Status	EVC Name	Pre-1750 Area (ha)	Current Area (ha)
7	39	LC	Montane Wet Forest	14197	14197
7	38	LC	Montane Damp Forest	3348	3348
10	31	R	Cool Temperate Rainforest	2530	2530
12	43	LC	Sub-alpine Woodland	1645	1645
8	41	LC	Montane Riparian Thicket	1064	1064
7	30	LC	Wet Forest	427	427
7	29	LC	Damp Forest	245	245
12	44	V	Treeless Sub-alpine Mosaic	164	164
6	23	LC	Herb-rich Foothill Forest	99	99
9	18	LC	Riparian Forest	1	1
6	21	LC	Shrubby Dry Forest	1	0
6	22	LC	Grassy Dry Forest	0	1
			TOTAL	23721	23721

Table 17. Total area and number of current EVCs in each conservation status in the Buxton Landscape zone.

EVC Bioregional Conservation Status	Hectares (HNF)	Number of EVCs (HNF)	Hectares (VA)	Number of EVCs (VA)
Endangered	32	2	0	0
Vulnerable	2003	3	164	1
Depleted	59	1	0	0
Rare	175	1	2530	1
Least Concern	50099	10	20246	9

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6.1 Buxton Landscape Zone description (cont'd)

Table 18. List of current threatened flora the Buxton Landscape Zone (NRE 2002c* & SAC 2002# and EA 2003*).

Latin Name	Common Name	Australian Status*	Victorian Status*	FFG Act#	Recovery Plan*	Action Statement No.*	BNA Unassessed (HNF)	BNA Unassessed (VA)	Species No.
<i>Euchiton fordianus</i>	Alpine Cudweed		r				Un	Un	1463
<i>Hampeella alaris</i>	Arc Moss		r				Un	Un	6755
<i>Wittsteinia vacciniacea</i>	Baw Baw Berry		r				Un	Un	3576
<i>Brachyscome obovata</i>	Baw Baw Daisy		r				Un	Un	468
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	Blue-leaf Tussock-grass		r				Un	Un	4866
<i>Cystopteris tasmanica</i>	Brittle Bladder-fern		r				Un	Un	944
<i>Diuris X palachila</i>	Broad-lip Diuris		r				Un	Un	1081
<i>Eucalyptus crenulata</i>	Buxton Gum	End	e	L		1	Un	Un	1265
<i>Distichophyllum crispulum</i>	Crisped Mitre-moss		r				Un	Un	6219
<i>Huperzia australiana</i>	Fir Clubmoss		r				Un	Un	1709
<i>Carex alsophila</i>	Forest Sedge		r				Un	Un	622
<i>Dicranoloma platycaulon</i>	Fork Moss		r				Un	Un	6754
<i>Dianella longifolia</i> var. <i>grandis</i>	Glaucous Flax-lily		v				Un	Un	4419
<i>Grevillea monslacana</i>	Lake Mountain Grevillea		r				Un	Un	5491
<i>Trochocarpa clarkei</i>	Lilac Berry		r				Un	Un	3463
<i>Derwentia nivea</i>	Milfoil Speedwell		r				Un	Un	3508
<i>Epacris microphylla</i> var. <i>rhombifolia</i>	Mountain Coral Heath		r				Un	Un	1163
<i>Grevillea victoriae</i> ssp. <i>victoriae</i>	Royal Grevillea		r				Un	Un	5486
<i>Lachnagrostis rudis</i>	Ruddy Blown-grass		r				Un	Un	159
<i>Goodia lotifolia</i> var. <i>pubescens</i>	Silky Golden-tip		r				Un	Un	4600
<i>Herpolirion novae-zelandiae</i>	Sky Lily		r				Un	Un	1658
<i>Desmodium varians</i>	Slender Tick-trefoil		k				Un	Un	4425
<i>Epacris petrophila</i>	Snow Heath		r				Un	Un	1170
<i>Gaultheria hispida</i>	Snow-berry		e	L			Un	Un	4434
<i>Oxalis magellanica</i>	Snowdrop Wood-sorrel		r				Un	Un	2385
<i>Eucalyptus perriniana</i>	Spinning Gum		r				Un	Un	1309
<i>Ranunculus collinus</i>	Strawberry Buttercup		r				Un	Un	2887
<i>Baeckea latifolia</i>	Subalpine Baeckea		r				Un	Un	4267
<i>Craspedia paludicola</i>	Swamp Billy-buttons		v				Un	Un	4649
<i>Leionema bilobum</i> ssp. 3 (West Gippsland)	Toothed Leionema		r				Un	Un	5480
<i>Trachyloma planifolium</i>	Trachyloma		r				Un	Un	6719
<i>Persoonia arborea</i>	Tree Geebung		v	X			Un	Un	2459
<i>Oreobolus oxycarpus</i> ssp. <i>oxycarpus</i>	Tuft-rush		r				Un	Un	2356
<i>Richea victoriana</i>	Victorian Richea		r				Un	Un	2937
<i>Fissidens strictus</i>	Water Pocket-moss		r				Un	Un	6282

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6.1 Buxton Landscape Zone description (cont'd)

Table 19. List of current threatened fauna in the Buxton Landscape Zone (EA 2003*, DSE 2003^, NRE 2002d* & SAC 2002#).

Latin Name	Common Name	Australian Status [♦]	Victorian Status ^{^*}	FFG Act [#]	Recovery Plan [♦]	Action Statement No. [*]	BNA Unassessed (HNF)	BNA Unassessed (VA)	Species No.
<i>Litoria verreauxii alpina</i>	Alpine Tree Frog	Vul	CR						3907
<i>Galaxias fuscus</i>	Barred Galaxias	End	CR	L	Y	65			4034
<i>Mastacomys fuscus</i>	Broad-toothed Rat		NT				Un		1438
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale		VU	L		79			1017
<i>Archaeophylax canarus</i>	Caddisfly (5008)		R/R	L			Un	Un	5008
<i>Plectrotarsus gravenhorstii</i>	Caddisfly (5016)		Ins				Un	Un	5016
<i>Miniopterus schreibersii</i>	Common Bent-wing Bat	CD	VU	L					1341
<i>Rhinolophus megaphyllus</i>	Eastern Horseshoe Bat		VU	L					1303
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	Vul	VU				Un	Un	1280
<i>Litoria raniformis</i>	Growling Grass Frog	Vul	EN				Un	Un	3207
<i>Canthocamptus dedeckeri</i>	Harpactacoid copepod (5032)		Ins				Un	Un	5032
<i>Canthocamptus</i>	Harpactacoid copepod (5034)		Ins				Un	Un	5034
<i>Gymnobelideus leadbeateri</i>	Leadbeater's Possum	End	EN	L	Y	62			1141
<i>Rallus pectoralis pectoralis</i>	Lewin's Rail		VU				Un	Un	45
<i>Macquaria australasica</i>	Macquarie Perch	End	EN	L					4096
<i>Tyto novaehollandiae</i>	Masked Owl		EN	L			Un	Un	250
<i>Galaxias olidus</i>	Mountain Galaxias		DD	L			Un		4036
<i>Euastacus armatus</i>	Murray Spiny Cray		Ins				Un	Un	5041
<i>Biziura lobata</i>	Musk Duck		VU				Un	Un	217
<i>Phalacrocorax varius</i>	Pied Cormorant		NT				Un	Un	99
<i>Ninox strenua</i>	Powerful Owl		VU	L		92			248
<i>Xanthomyza phrygia</i>	Regent Honeyeater	End	CR	L	Y	41	Un	Un	603
<i>Tyto tenebricosa</i>	Sooty Owl		VU	L			Un		253
<i>Chthonicola sagittata</i>	Speckled Warbler		VU				Un	Un	504
<i>Dasyurus maculatus</i>	Spot-tailed Quoll	Vul	EN	L		15			1008
<i>Lophoictinia isura</i>	Square-tailed Kite		VU						230
<i>Thaumatoperla robusta</i>	Stonefly (5026)		R/R				Un	Un	5026

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6.2 Buxton Landscape Zone priorities

6.2.1 Summary of priority biodiversity actions for Buxton Landscape Zone:

- Future biodiversity gains across much of the zone will depend upon protection, management and restoration of freehold remnants, major creek lines and small but significant conservation reserves, mainly within the Acheron River valley, and the extent to which their connection with remnant roadside vegetation networks can be bolstered and secured. Key taxa include the Buxton Gum.
- Protect, restore and expand vegetation out from existing high-quality nodes such as the Cathedral Range State Park and Buxton Silver Gum Reserve. Key taxa include Powerful Owl, Buxton Gum.
- Exclude domestic grazing from all remnant native vegetation within public land reserves and water frontages, and (wherever possible) on creek lines on freehold land.
- Protect and manage existing trees, native understorey and tree regeneration along the Acheron River and tributaries, and restore native vegetation on streamside areas and public land water frontage to provide habitat nodes. Encourage like management on private lands abutting these streams, noting that while riparian corridors are essential to support particular species, they also provide the best natural means available by which to integrate retained and restored habitats across the landscape.
- Encourage, support and expand voluntary landholder participation in community habitat conservation projects.
- Encourage farmers to protect from disturbance, and facilitate regeneration in, forest remnants on farmland. Give priority to restoration strategies which incorporate existing remnants and which feature habitat linkages, road reserve networks or 'stepping stones' across the landscape.
- Continue implementing Lake Eildon National Park Management Plan (NRE 1997d) and monitoring visitor impacts on the flora and fauna.
- Encourage land managers to produce and implement management plans focused on protecting and enhancing flora and fauna values as well as mitigating threatening processes at the representative bushland and flora reserves throughout the zone.
- Improve community understanding of management of native biodiversity on private land.
- Continue to monitor Leadbeater's Possum populations at Lake Mountain and implement key recommendations (NRE 1994, Jenkin 1997).
- Conduct further research into the distribution and habitat usage by Powerful Owl and Leadbeater's Possum in Cathedral Range State Park.
- Conduct surveys for Spot-tailed Quoll and Smoky Mouse within Lake Eildon National Park and monitor sites formerly used regularly by Regent Honeyeater in Lake Eildon National Park.

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6.3 Private Land

Land Tenure Details:

This tenure type includes all private land in the zone, with associated creek lines, and occupies a very small portion of the total zone area. Within the zone private land occurs mostly at lower elevations, and is largely centred on the Acheron River valley. This tenure is largely cleared; the remnants mainly contain Herb-rich Foothill Forest, with Damp Forest and Grassy Dry Forest. There is some Riparian Forest, particularly the enclave within Cathedral Range State Park, and a few small areas of Swampy Riparian Complex. There are also a couple of areas of private land adjacent to Lake Mountain, comprising mainly Montane Wet Forest and Wet Forest, with some Montane Riparian Thicket and Cool Temperate Rainforest.

Land Manager:

Private landholders.

Stakeholders:

Key Lc, Murrindindi Shire, DSE, DPI, PV, GBCMA.

Other TFN, LFW, BG, GAV, CVA, GNP, FNC, VAA, VFF.

Threatened Biodiversity Assets (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

EVCs: Grassy Dry Forest (lc-HNF), Valley Grassy Forest (e-HNF), Herb-rich Foothill Forest (lc-HNF), Swampy Riparian Complex (v-HNF), Riparian Forest (lc-HNF), Damp Forest (lc-HNF), Wet Forest (lc-HNF), Shrubby Foothill Forest (d-HNF), Cool Temperate Rainforest (v-HNF, r-VA), Montane Wet Forest (lc-HNF, lc-VA), Montane Riparian Thicket (lc-VA).

Threatened flora: Buxton Gum (eE, unr-HNF), Common Starwort (consn. status¹, unr-HNF), Showy Willow-herb (no consn. status², unr-HNF), Slender Tick-trefoil (k, unr-HNF).



Epilobium pallidiflorum
(Photo: Ollie Thompson)

Threatened fauna: Leadbeater's Possum (eE, unr-HNF), Powerful Owl (el, 4A-HNF), Pied Cormorant (lr-nt, unr-HNF), Sooty Owl (vl, 4B-HNF), Square-tailed Kite (el, 2A-HNF), Caddisfly *Plectotarsus gravenhorstii* (dd, unr-HNF).



Pied Cormorant (Photo: Virridans
Biological Databases)

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¹ The oversight of this species appearing on the database as a threatened taxon is being addressed by staff at DSE.

² Currently there is no accepted conservation status for this species.

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6.3 Private Land (cont'd)

Recommended actions:

Protection of existing remnants:

- Determine priorities for protection of remnants on freehold and apply voluntary programs, incentives and/or planning controls, as appropriate, to secure from further fragmentation of clearing, especially those associated with vegetated roadsides and creek lines.
- Investigate the potential of freehold remnants to complement remnant native vegetation on Public Land Water Frontage along the Acheron River and its tributaries.
- Ensure that Shire staff know locations and importance of freehold remnants having biodiversity values.
- Encourage management of Buxton Gum communities on freehold land.

Management to enhance remnants for threatened taxa (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- Powerful Owl (2-HNF) No actions listed.
- Sooty Owl (1-HNF) No actions listed.
- Square-tailed Kite (3-HNF) No actions listed.
- Retain and protect living mature and senescing trees as well as dead trees and stags for Leadbeater's Possum habitat (NRE 1998).
- Refer to 'Other Policies' below.



Leadbeater's Possum (Photo: DSE)

Restoration of strategic vegetation blocks or linkages:

- Assist Landcare groups and Land For Wildlife programs to inform landholders of their potential role in conserving biodiversity, and to coordinate their involvement for the best possible outcome.
- Encourage and assist landholders to improve connectivity between remnants and expand patch size from habitat nodes along drainage lines.

EXISTING POLICIES, PLANS OR PROGRAMS supporting one or more of the recommended actions:

- FFG Action Statement – Buxton Gum (1).
- FFG Action Statement – Leadbeater's Possum (62).
- FFG Action Statement – Powerful Owl (92).
- FFG Action Statement – Predation by Cat (80).
- FFG Action Statement – Predation by Red Fox (44).

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6.3 Private Land (cont'd)

- Recovery Plan – Leadbeater's Possum (Macfarlane *et al.* 1997).
- The Action Plan for Australian Birds 2000 (Garnett and Crowley 2000).
- The Action Plan for Australian Marsupials and Monotremes (Maxwell *et al.* 1996).
- Revegetation Guide for the Goulburn Broken Catchment (NRE 2001a).
- Goulburn Broken Regional Catchment Strategy Draft (Goulburn Broken CMA 2002).
- Goulburn Broken CMA Draft Native Vegetation Plan, Volume 1 and 2 (Goulburn Broken CMA 2000).
- Victoria's Native Vegetation Management. A framework for Action (NRE 2002a).
- Local Government and Landcare Action Plan for Nature Conservation in the Goulburn-Broken Catchment (Raven 1997).

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6.4 Public Land Water Frontage

Land Tenure Details:

Several segments of Public Land Water Frontage occur in the zone, along the Acheron River and tributaries of this. There are also three 'blocks' of Public Land Water Frontage in the catchment of the Acheron River, within the vicinity of Narbethong. Native vegetation in the tenure is largely Riparian Forest, however the 'blocks' near Narbethong also contain Herb-rich Foothill Forest, Damp Forest and Wet Forest.

Land Manager:

Land Victoria.

Stakeholders:

Key GBCMA, DSE, DPI, Private.

Other Murrindindi Shire, Lc, Weed Action Groups, Rabbit Action Groups, LFW, GAV, CVA, GNP, VFF, VAA.

Threatened Biodiversity Assets (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

EVCs: Riparian Forest (lc-HNF): G1; Swampy Riparian Complex (v-HNF): G1; Wet Forest (lc-HNF): G1; Damp Forest (lc-HNF): G1; Herb-rich Foothill Forest (lc-HNF): G1.

Threatened flora: None recorded.

Threatened fauna: Mountain Galaxias north eastern Victoria (ddl, 1B-HNF).



Recommended actions:

Protection of existing remnants:

- Protect and enhance status of Public Land Water Frontage in the zone.
- Exclude licensed grazing from water frontage, in order to permit natural regeneration of remnants.
- Enhance awareness of landholders and key stakeholders of the potential biodiversity linkage value of these frontages once restored.

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6.4 Public Land Water Frontage (cont'd)

Management to enhance remnants for threatened taxa (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- Intended change to stocking levels to benefit Mountain Galaxias north eastern Victoria (3-HNF).
- Also refer to “Other Policies”, below.

Restoration of strategic vegetation blocks or linkages:

- Initiate weed control and revegetation of degraded creek line frontages, giving priority to sections where increased connectivity will be most strategic and potentially effective.
- Identify adjoining or strategic landholdings and easements having potential connectivity value, and encourage complementary revegetation using incentives and voluntary programs.

EXISTING POLICIES, PLANS OR PROGRAMS supporting one or more of the recommended actions:

- FFG Action Statement – Predation by Cat (80).
- FFG Action Statement – Predation by Red Fox (44).
- Revegetation Guide for the Goulburn Broken Catchment (NRE 2001a).
- Victorian Recreational Fishing Guide 2002-2003 (NRE 2002e).
- Goulburn Broken Regional Catchment Strategy Draft (Goulburn Broken CMA 2002).
- Goulburn Broken CMA Draft Native Vegetation Plan, Volume 1 and 2 (Goulburn Broken CMA 2000).
- Victoria’s Native Vegetation Management. A framework for Action (NRE 2002a).
- Local Government and Landcare Action Plan for Nature Conservation in the Goulburn-Broken Catchment (Raven 1997).

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6.5 Commonwealth Government

Land Tenure Details:

The tenure is represented in the zone by one small parcel of unnamed Commonwealth land just north of Narbethong and surrounded by State Forest.

Land Manager:

Commonwealth Government.

Stakeholders:

Key DSE, DPI, GBCMA.

Other VAA, BG, TSN, GNP, FNC, Murrindindi Shire, Private.

Threatened Biodiversity Assets (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

EVCs: Herb-rich Foothill Forest (lc-HNF).

Threatened flora: None recorded.

Threatened fauna: None recorded.

Recommended actions:

Protection of existing remnants:

- Encourage liaison between the Department of Sustainability and Environment and Defence personnel to ensure biodiversity assets and locations of threatened species are recorded and protected.

Management to enhance remnants for threatened taxa (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- Refer to 'Other Policies', below

Restoration of strategic vegetation blocks or linkages:

- Control weed and introduced animal populations to reduce risk of invasion into the surrounding State Forest.

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6.5 Commonwealth Government (cont'd)

EXISTING POLICIES, PLANS OR PROGRAMS supporting one or more of the recommended actions:

- Goulburn Broken Regional Catchment Strategy Draft (Goulburn Broken CMA 2002).
- Goulburn Broken CMA Draft Native Vegetation Plan, Volume 1 and 2 (Goulburn Broken CMA 2000).
- Victoria's Native Vegetation Management. A framework for Action (NRE 2002a).
- Revegetation Guide for the Goulburn Broken Catchment (NRE 2001a).

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6.6 Hancock Victorian Plantations Pty Ltd

Land Tenure Details:

The tenure comprises areas near the western edge of the zone that have largely been used for softwood plantation. Small remnants of Damp Forest and Herb-rich Foothill Forest still occur in some areas.

Land Manager:

HVP.

Stakeholders:

Key DSE Forests, GBCMA.

Other PV, Private, BG, LFW, FNC, CVA, GAV.

Threatened Biodiversity Assets (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

EVCs: Herb-rich Foothill Forest (lc-HNF); Swampy Riparian Complex (v-HNF); Riparian Forest (lc-HNF).

Threatened flora: Buxton Gum (eE, unr-HNF).

Threatened fauna: Mountain Galaxias north eastern Victoria (ddl, unr-HNF).



Recommended actions:

Protection of existing remnants:

- Ensure adequate fire protection and preventative management is in place.
- Encourage Hancock Victoria Plantation staff to record fauna sightings.
- Encourage liaison with the Department of Sustainability and Environment concerning identification and protection of biodiversity.
- Application of Code of Forestry Practices (Government of Victoria 1996).

Management to enhance remnants for threatened taxa (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- No Specific BNA management actions listed, refer to 'Other Policies' below.

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6.6 Hancock Victorian Plantations Pty Ltd (cont'd)

Restoration of strategic vegetation blocks or linkages:

- Ensure filter strips and buffer zones are in place and conserved to protect adjoining remnants from weed infestation, erosion and the spread of plant pathogens.

EXISTING POLICIES, PLANS OR PROGRAMS supporting one or more of the recommended actions:

- FFG Action Statement – Buxton Gum (1).
- FFG Action Statement – Predation by Cat (80).
- FFG Action Statement – Predation by Red Fox (44).
- Revegetation Guide for the Goulburn Broken Catchment (NRE 2001a).
- Government of Victoria (1996). Code of Forestry Practices for Timber Production, Revision No.2, 1996.



Eucalyptus crenulata (Photo: Viridans
Biological Databases)

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6.7 State Forest

Land Tenure Details:

This tenure dominates by area in all but the centre and north of the zone, and occurs within the Highlands - Northern Fall and Victorian Alps bioregions. The EVCs dominating State Forest by area in the zone are Montane Wet Forest and Wet Forest (mostly in the east and south), Montane Damp Forest (in the east and north), Herb-rich Foothill Forest (central and west), Damp Forest (central, north-east, and west). Cool Temperate Rainforest occurs within the gullies of Montane Wet Forest; there are small areas of Sub-alpine Woodland and Montane Riparian Thicket (east) and Riparian Forest (scattered throughout). Small areas of Heathy Dry Forest, Shrubby Foothill Forest, and Swampy Riparian Complex occur around the centre of the zone.

Land Manager:

DSE Forests.

Stakeholders:

Key PV, GBCMA.

Other VEAC, VNPA, VAA, TSN, BG, GNP, FNC, Private, Murrindindi Shire.

Threatened Biodiversity Assets (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

EVCs: Damp Forest (lc-HNF, lc-VA); Herb-rich Foothill Forest (lc-HNF, lc-VA); Riparian Forest (lc-HNF); Grassy Dry Forest (lc-HNF); Heathy Dry Forest (lc-HNF); Wet Forest (lc-HNF, lc-VA); Cool Temperate Rainforest (v-HNF, r-VA); Montane Wet Forest (lc-VA).

Threatened flora: Baw Baw Berry (r, unr-VA), Buxton Gum (eE, unr-HNF), Forest Sedge (r, unr-VA), Ruddy Blown-grass (r, unr-VA), Slender Tick-trefoil (k, unr-HNF), Snowdrop Wood-sorrel (r, unr-VA), Tree Geebung (v, unr-HNF).



Wittsteinia vacciniacea
(Photo: John Eichler)

Threatened fauna: Broad-toothed Rat (lr-nt, 2C-HNF, 2C-VA), Common Bent-wing Bat (vl, 3B-HNF), Grey-headed Flying Fox (v, unr-HNF), Leadbeater's Possum (eI, 2A-HNF, 3A-VA), Powerful Owl (eI, 1A-HNF), Sooty Owl (v, 2B-HNF), Speckled Warbler (v, unr-HNF), Warty Bell Frog (v, unr-HNF), Barred Galaxias (ceI, unr-VA), Mountain Galaxias north eastern Victoria (ddl, 1B-HNF), Harpactocoid Copepod *Canthocamptus mammillifurc* (dd, unr-VA), Caddisfly *Archaeophylax canarus* (r, unr-HNF), Murray Spiny Cray (dd, unr-HNF).



Grey-headed Flying Fox
(Photo: DSE/Menkhurst)

6. Buxton Landscape Zone

6.7 State Forest (cont'd)

Recommended actions:

Protection of existing remnants:

- Minimise the adverse effects of fire and fire suppression methods, and maintain fire regimes appropriate to the conservation of native flora and fauna.
- Protect Cool Temperate Rainforest from fire.
- Control pest plants and animals.
- Monitor for Cinnamon Fungus and if positive results are obtained, develop prescriptions to ensure no detrimental environmental effects.
- Monitor waterways for trout populations.
- Protect biodiversity values from effects of excessive firewood harvesting throughout tenure.
- Control off-road vehicle activity, especially trail bike riding.
- As far as possible, determine measures appropriate to protect known and likely habitat of threatened flora taxa recorded from the tenure, and incorporate this information into the management planning process.
- Application of Code of Forestry Practices (Government of Victoria 1996).

Management to enhance remnants for threatened taxa (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- Control Fox and Cat populations to benefit Broad-toothed Rat (1-VA).
- Protect mature hollow-bearing trees, conserve understorey, retain fallen timber and litter, to supplement habitat for Mountain Galaxias north eastern Victoria (3-HNF), Powerful Owl (4-HNF), Sooty Owl (4-HNF).
- No actions listed for Leadbeater's Possum (3-HNF, 3-VA) and Common Bent-wing Bat (1-HNF).
- Include Leadbeater's Possum Zone 1A habitat, including living mature and senescing trees, in the Special Protection Zone, as specified by the Central Highlands Forest Management Plan (NRE 1998).
- See 'Other Policies' below.



Broad-toothed Rat (Photo: DSE/Seebeck)

Restoration of strategic vegetation blocks or linkages:

- Implement reforestation in accordance with the Central Highlands Forest Management Plan (NRE 1998).
- Support the continuation of pine forest conversion to native forest following the reforestation programs.
- Investigate new sites (e.g. disused quarry sites) for rehabilitation.

6. Buxton Landscape Zone

6.7 State Forest (cont'd)

EXISTING POLICIES, PLANS OR PROGRAMS supporting one or more of the recommended actions:

- FFG Action Statement – Buxton Gum (1).
- FFG Action Statement – Barred Galaxias (65).
- FFG Action Statement – Leadbeater's Possum (62).
- FFG Action Statement – Powerful Owl (92).
- FFG Action Statement – Predation by Cat (80).
- FFG Action Statement – Predation by Red Fox (44).
- Central Forest Management Area Forest Management Plan.
- The Action Plan for Australian Bats (Duncan *et al.* 1999).
- The Action Plan for Australian Birds 2000 (Garnett and Crowley 2000).
- The Action Plan for Australian Freshwater Fishes (Wager and Jackson 1993).
- The Action Plan for Australian Marsupials and Monotremes (Maxwell *et al* 1996).
- Recovery Plan – Leadbeater's Possum (Macfarlane *et al.* 1997).
- Recovery Plan – Barred Galaxias (Raadik 1995).
- Revegetation Guide for the Goulburn Broken Catchment (NRE 2001a).
- Central Highlands Forest Management Plan (NRE 1998).



Common Bent-wing Bat
(Photo: DSE/Lumsden)

6. Buxton Landscape Zone

6.8 Other Public Land

Land Tenure Details:

Several blocks of Other Public Land occurs in Buxton Landscape Zone including the Rubicon Valley Historic Area in the north of the zone, surrounded by State Forest. Service and utilities areas for the Department of Sustainability and Environment and Powernet are also represented in the north. A recreation reserve in Marysville as well as three Other Public Land blocks (one to the west of the Acheron River opposite the Cathedral Ranges State Park and two further south within the State Forest) makes up this tenure. Four blocks of plantation Other Public Land managed by the Department of Sustainability and Environment (Forests) exist along the western border of the zone, often adjacent to larger Hancock Victorian Plantations blocks to the west of the Acheron River.

Land Manager:

Powernet, DSE Forests, Murrindindi Shire Council.

Stakeholders:

Key DPI, Murrindindi Shire.

Other GBCMA, VEAC, TSN, BG, GNP, FNC, Private.

Threatened Biodiversity Assets (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

EVCs: Herb-rich Foothill Forest (lc-HNF); Grassy Dry Forest (lc-HNF); Riparian Forest (lc-HNF); Damp Forest (lc-HNF); Wet Forest (lc-HNF); Cool Temperate Rainforest (v-HNF); Montane Riparian Thicket (lc-HNF); Montane Damp Forest (lc-HNF).

Threatened flora: None recorded.

Threatened fauna: Leadbeater's Possum (eIE, unr-HNF), Barred Galaxias (ceIE, unr-HNF), Brush-tailed Phascogale (vl, 4B-HNF).



Barred Galaxias (Photo: DSE)

Recommended actions:

Protection of existing remnants:

- Create and/or maintain a 80 m buffer zone upslope of the aqueduct and 20 m downslope within the Rubicon Valley Historic Area, as outlined in the Central Highlands Forest Management Plan (NRE 1998).
- Ensure land managers are aware of biodiversity assets and the appropriate management techniques for protection of threatened species.

6. Buxton Landscape Zone

6.8 Other Public Land (cont'd)

Management to enhance remnants for threatened taxa (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- Control predators and change stocking levels and exclude grazing to benefit the Brush-tailed Phascogale (1-HNF).
- Retain and protect living mature and senescing trees as well as dead trees and stags for Leadbeater's Possum habitat (NRE 1998).
- See also 'Other Policies' below.



Leadbeater's Possum (Photo: DSE)

Restoration of strategic vegetation blocks or linkages:

- Ensure canopy cover in the narrow Department of Sustainability and Environment utilities area leading to State Forest in the north of the zone remains protected and continuous.
- Actively manage weeds and introduced species in this area to avoid invasion into the State Forest and encourage local landholders to work with the Department of Sustainability and Environment to revegetate and connect any nearby remnants on private land.
- The majority of the other blocks in this tenure are surrounded by State Forest, so isolation and fragmentation is largely not an issue.

EXISTING POLICIES, PLANS OR PROGRAMS supporting one or more of the recommended actions:

- FFG Action Statement – Barred Galaxias (65).
- FFG Action Statement – Leadbeater's Possum (62).
- FFG Action Statement – Predation by Cat (80).
- FFG Action Statement – Predation by Red Fox (44).
- The Action Plan for Australian Freshwater Fishes (Wager and Jackson 1993).
- The Action Plan for Australian Marsupials and Monotremes (Maxwell *et al* 1996).
- Recovery Plan – Leadbeater's Possum (Macfarlane *et al.* 1997).
- Recovery Plan – Barred Galaxias (Raadik 1995)
- Goulburn Broken Regional Catchment Strategy Draft (Goulburn Broken CMA 2002).
- Goulburn Broken CMA Draft Native Vegetation Plan, Volume 1 and 2 (Goulburn Broken CMA 2000).
- Victoria's Native Vegetation Management. A framework for Action (NRE 2002a).
- Central Highlands Forest Management Plan (NRE 1998).

6. Buxton Landscape Zone

6.8 Other Public Land (cont'd)

- Revegetation Guide for the Goulburn Broken Catchment (NRE 2001a).
- Local Government and Landcare Action Plan for Nature Conservation in the Goulburn-Broken Catchment (Raven 1997)

6. Buxton Landscape Zone

6.9 Local Government

Land Tenure Details:

The tenure includes municipal roadsides and township land throughout the zone of mainly the Murrindindi Shire but also a small portion of the Yarra Ranges Shires in the south.

Land Manager:

Murrindindi and Yarra Ranges Shires.

Stakeholders:

Key DSE, DPI, GBCMA, PV.

Other Private, BG, LFW, FNC, CVA, GAV.

Threatened Biodiversity Assets (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

EVCs: Swampy Riparian Complex (v-HNF), Herb-rich Foothill Forest (lc-HNF), Damp Forest (lc-HNF), Grassy Dry Forest (lc-HNF).

Threatened flora: None recorded.

Threatened fauna: None recorded.

Recommended actions:

Protection of existing remnants:

- Generally exclude grazing on or near roadsides having native vegetation elements of conservation significance, even if the community is fragmented and degraded.
- Protect existing roadside remnants, giving priority to those having mature and hollow-bearing trees, and tall shrubby understorey with sparse grassy ground layer.
- Assist Shires to develop roadside conservation plans and encourage integration with voluntary efforts on adjacent freehold. Promote voluntary programs (e.g. Land For Wildlife) and planning overlays, as tools to assist Shires in protecting and managing roadsides.

Management to enhance remnants for threatened taxa (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- No actions listed. Refer to “Other Policies”, below.

6. Buxton Landscape Zone

6.9 Local Government (cont'd)

Restoration of strategic vegetation blocks or linkages:

- In determining priorities for roadside habitat restoration in the zone, give special consideration to those areas where roadside biodiversity values have the greatest potential to complement existing remnants on adjacent tenures.
- Encourage Shires, in conjunction with community groups, to apply for Land For Wildlife status where suitable (e.g. cemeteries and some roadsides).

EXISTING POLICIES, PLANS OR PROGRAMS supporting one or more of the recommended actions:

- FFG Action Statement – Predation by Cat (80).
- FFG Action Statement – Predation by Red Fox (44).
- Revegetation Guide for the Goulburn Broken Catchment (NRE 2001a).
- Roadside Assessment Handbook (Roadsides Conservation Advisory Committee 2000a).
- Roadside marking of Special Environmental Areas (Roadsides Conservation Advisory Committee 2000b).
- Roadside Handbook (VicRoads 1992).
- Goulburn Broken Regional Catchment Strategy Draft (Goulburn Broken CMA 2002).
- Goulburn Broken CMA Draft Native Vegetation Plan, Volume 1 and 2 (Goulburn Broken CMA 2000).
- Victoria's Native Vegetation Management. A framework for Action (NRE 2002a).
- Local Government and Landcare Action Plan for Nature Conservation in the Goulburn-Broken Catchment (Raven 1997).



Red Fox (Photo:
DSE/Menkhorst)

6. Buxton Landscape Zone

6.10 Alpine Resorts

Land Tenure Details:

This tenure comprises Lake Mountain resort. The dominant EVCs within this tenure are Sub-alpine Woodland, Montane Wet Forest, Montane Riparian Thicket, with small areas of Montane Damp Forest, Treeless Sub-alpine Mosaic, and Cool Temperate Rainforest.

Land Manager:

Lake Mountain Resort Management.

Stakeholders:

Key PV, DSE, DPI, GBCMA.

Other TFN, LFW, BG, GAV, CVA, GNP, FNC, VAA.

Threatened Biodiversity Assets (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

EVCs: Montane Wet Forest (lc-VA); Cool Temperate Rainforest (r-VA); Montane Riparian Thicket (lc-VA); Sub-alpine Woodland (lc-VA); Montane Damp Forest (lc-VA).

Threatened flora: Baw Baw Berry (r, unr-VA), Milfoil Speedwell (r, unr-VA).

Threatened fauna: Broad-toothed Rat (lr-nt, 4C-VA), Leadbeater's Possum (elE, 4A-VA), Powerful Owl (el, unr-VA), Alpine Tree Frog (ceV, 1A-VA), Barred Galaxias (ceE, unr-VA), Macquarie Perch (elE, unr-VA).



Alpine Tree Frog (Photo: Peter Robertson)

Recommended actions:

Protection of existing remnants:

- Ensure Alpine Resort managers adhere to Native Vegetation Retention Controls when considering future developments.
- Phase out or exclude grazing from Alpine remnants, particularly in Alpine Bogs and ponds or existing stock dams to protect the Broad-toothed Rat and Alpine Tree Frog.
- Phase out the planting of exotic species in ski villages and use of introduced grasses for slope grooming purposes.
- Update or produce an environment management plan for the Lake Mountain resort, incorporating weed management.

6. Buxton Landscape Zone

6.10 Alpine Resorts (cont'd)

- Through liaison with relevant stakeholders and land managers, investigate the exclusion or restriction of domestic Dogs and Cats.
- Maintain undisturbed buffers of at least 100 m around known Leadbeater's Possum sites as identified in (NRE 1994).
- Follow recommendations outlined in Jenkin (1997) to mitigate impacts to Leadbeater's Possum if further ski trails are proposed.

Management to enhance remnants for threatened taxa (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- Control Fox and Cat to benefit Broad-toothed Rat (1-VA).
- No actions listed for Leadbeater's Possum (3-VA), and Alpine Tree Frog (4-VA).
- Retain and protect living mature and senescing trees as well as dead trees and stags for Leadbeater's Possum habitat (NRE 1998).
- See 'Other Policies' below.



Feral Cat (Photo: DSE/Menkhurst)

Restoration of strategic vegetation blocks or linkages:

- Revegetate ski slopes in danger, or having signs of, erosion.
- Maintain Sub-alpine Woodland linkages between high-use resort areas and ski-runs.
- Maintain canopy connections across ski trails (NRE 1994).

EXISTING POLICIES, PLANS OR PROGRAMS supporting one or more of the recommended actions:

- FFG Action Statement – Barred Galaxia (65).
- FFG Action Statement – Leadbeater's Possum (62).
- FFG Action Statement – Powerful Owl (92).
- FFG Action Statement – Predation by Cat (80).
- FFG Action Statement – Predation by Red Fox (44).
- The Action Plan for Australian Birds 2000 (Garnett and Crowley 2000).
- The Action Plan for Australian Freshwater Fishes (Wager and Jackson 1993).
- The Action Plan for Australian Frogs (Tyler 1997).
- The Action Plan for Australian Marsupials and Monotremes (Maxwell *et al* 1996).
- Leadbeater's Possum Recovery Plan (Macfarlane *et al.* 1997).

6. Buxton Landscape Zone

6.10 Alpine Resorts (cont'd)

- Recovery Plan – Barred Galaxias (Raadik 1995)
- Revegetation Guide for the Goulburn Broken Catchment (NRE 2001a).
- Goulburn Broken Regional Catchment Strategy Draft (Goulburn Broken CMA 2002).
- Goulburn Broken CMA Draft Native Vegetation Plan, Volume 1 and 2 (Goulburn Broken CMA 2000).
- Victoria's Native Vegetation Management. A framework for Action (NRE 2002a).

6. Buxton Landscape Zone

6.11 Parks and Reserves

Land Tenure Details:

The zone contains a number of conservation reserves, the largest being portions of Yarra Ranges National Park, Lake Eildon National Park (A15) and Cathedral Range State Park (3616 ha, A13). The Peregrine Falcon has been recorded breeding at both Lake Eildon National Park and Cathedral Ranges State Park (S. Smith pers. comm.) and Lake Eildon National Park in this zone represents the fringes of the Regent Honeyeater's distribution in this region. Within the zone, the Yarra Ranges National Park boundary encompasses the full range of sub-alpine vegetation communities, and represents the western limit of sub-alpine vegetation on the Australian mainland (Lake Mountain). Wet Forest and Cool Temperate Rainforest communities are also represented within the Park boundary in the zone. Lake Eildon National Park protects vegetation of State botanical significance. Cathedral Range State Park contains significant geological, natural history and recreational values. Other reserves within the zone are: Mount Torbreck Natural and Scenic Features Reserve (480 ha, G38); Stevenson's Falls Natural and Scenic Features Reserve (180 ha); Mount Bullfight Nature Conservation Reserve (600 ha, C25); and the Buxton Silver Gum Nature Conservation Reserve (16.9 ha). The following are often located within State Forest blocks within the zone.

Land Manager:

PV.

Stakeholders:

Key DSE, DPI, GBCMA.

Other VEAC, VNPA, VAA, TSN, BG, GNP, FNC, Private, Murrindindi Shire.

Threatened Biodiversity Assets (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

EVCs: Grassy Dry Forest (lc-HNF): Lake Eildon National Park, Cathedral State Park; Herb-rich Foothill Forest (lc-HNF): unnamed Bushland Reserve, Cathedral State Park, Lake Eildon National Park; Heathy Dry Forest (lc-HNF): Lake Eildon National Park; Riparian Forest (lc-HNF): Cathedral State Park, Lake Eildon National Park; Damp Forest (lc-HNF): Cathedral State Park, Lake Eildon National Park, unnamed Bushland Reserve; Montane Riparian Thicket (lc-VA): Mount Bullfight, Yarra Ranges National Park; Treeless Sub-alpine Mosaic (v-VA): Mount Bullfight, Yarra Ranges National Park; Sub-alpine Woodland (lc-VA): Mount Bullfight, Mount Torbreck Natural Features and Scenic Reserve, Yarra Ranges National Park; Montane Damp Forest (lc-VA): Mount Bullfight, Mount Torbreck Natural Features and Scenic Reserve, Yarra Ranges National Park; Montane Wet Forest (lc-VA): Mount Torbreck Natural Features and Scenic Reserve, unnamed Reference Area, Yarra Ranges National Park; Wet Forest (lc-HNF, lc-VA): Mount Torbreck Natural Features and Scenic Reserve, Yarra Ranges National Park, Cathedral State Park; Cool Temperate Rainforest (v-HNF, r-VA): unnamed Reference Area, Cathedral State Park, Yarra Ranges National Park; Swampy Riparian Complex (v-HNF): Buxton Silver Gum Reserve.

6. Buxton Landscape Zone

6.11 Parks and Reserves (cont'd)

Threatened flora: Brittle Bladder-fern (rR, unr-HNF), Broad-lip Diuris (r, unr-HNF), Buxton Gum (eE, unr-HNF), Glaucous Flax-lily (v, unr-HNF), Slender Tick-trefoil (k, unr-HNF), Alpine Wattle (r, unr-VA), Baw Baw Berry (r, unr-VA), Baw Baw Daisy (r, unr-VA), Blue-leaf Tussock-grass (r, unr-VA), Fir Clubmoss (r, unr-VA),



Diuris X palachila
(Photo: John Eichler)

Grey Billy-buttons (e, unr-VA), Lilac Berry (r, unr-VA), Snow Heath (r, unr-VA), Sky Lily (r, unr-VA), Milfoil Speedwell (r, unr-VA), Strawberry Buttercup (r, unr-VA), Subalpine Baeckea (r, unr-VA), Swamp Billy-buttons (v, unr-VA), Tuft-rush (r, unr-VA).



Trochocarpa clarkii
(Photo: John Eichler)

Threatened fauna: Broad-toothed Rat (lr-nt, 3C-HNF, 3C-VA), Brush-tailed Phascogale (vl, 4B-HNF), Common Bent-wing Bat (vl, 4B-HNF), Eastern Horseshoe Bat (vl, 3B-HNF), Leadbeater's Possum (eIE, 4A-HNF, 3A-VA), Lewin's Rail (en, unr-HNF, unr-VA), Masked Owl (el, unr-HNF), Powerful Owl (el, 1A-HNF, unr-VA), Regent Honeyeater (ceIE, unr-HNF), Sooty Owl (vl, 4B-HNF), Alpine Bog Skink (vl, 1A-VA), Alpine Tree Frog (ceV, 1A-VA), Barred Galaxias (ceIE, unr-VA), Mountain Galaxias north eastern Victoria (ddl, 2B-HNF, 1B-VA), Stonefly *Thaumatoperla robusta* (r, unr-HNF).



Masked Owl (Photo: Bob Winters)

Recommended actions:

Protection of existing remnants:

- Protect Common Bent-wing Bat roosting sites in mine shafts in Lake Eildon National Park.
- Prohibit firewood collection around Jerusalem Creek day visitor/camping areas.
- Continue monitoring of Buxton Gum, and take measures to protect from visitation pressure, Cinnamon Fungus, and parasitism from Dodder Laurel.
- Implement reviewed Action Statement for Buxton Gum (currently unpublished).
- Protect Barred Galaxias from potential road/access management impacts and the impacts of trout.
- Protect from fire any mature 'key' eucalypt species for Regent Honeyeater such as the Red Ironbark, White Box and Yellow Box.
- As far as possible, determine measures appropriate to protect known and likely habitat of threatened flora taxa recorded from the tenure, and incorporate this information into the reserve management planning process.
- Implementation of Leadbeater's Possum permanent reserve system as recommended and outlined in McFarlane *et al.* (1997) and in the Central Highlands Forest Management Plan (NRE 1998).

- Produce or update environment management plans, particularly for Yarra Ranges National Park and Cathedral Ranges State Park.

6. Buxton Landscape Zone

6.11 Parks and Reserves (cont'd)

Management to enhance remnants for threatened taxa (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- Exclude grazing from Alpine Bog Skink (4-VA) and Alpine Tree Frog (4-VA) habitats.
- Supplement Alpine Bog Skink habitat (4-VA).
- Control Fox and Aat populations to benefit Broad-toothed Rat (1-HNF; VA) and Brush-tailed Phascogale (1-HNF).
- Control/exclude fire from Common Bent-wing Bat habitat (1-HNF).
- Control and/or exclude human disturbance and manage visitor access to benefit the Eastern Horse-shoe Bat (1-HNF).
- Leadbeater's Possum (2-HNF, 2-VA) No actions listed.
- Retain and protect living mature and senescing trees as well as dead trees and stags for Leadbeater's Possum habitat (NRE 1998).
- Powerful Owl (4-HNF) No actions listed.
- Sooty Owl (1-HNF).
- Mountain Galaxias (2-HNF, 3-VA) No actions listed.



Alpine Bog Skink (Photo: Peter Robertson)



Sooty Owl (Photo: Ed McNabb)

Restoration of strategic vegetation blocks or linkages:

- Maintain roads throughout parks and reserves, especially at river crossings, to reduce sediment input to rivers and streams. Consider permanent closure of tracks that cannot be maintained or where sedimentation impacts cannot be rectified.
- Investigate with adjoining landholders or other managers any possible options to bolster connectivity adjacent to existing remnants, or expand patch size. For reserves that are more isolated or have exposed edges to surrounding farmland, such as the Buxton Silver Gum Nature Conservation Reserve, investigate options for buffer establishment on adjacent land.
- Implement management actions in linked Stream-side reserves to improve connectivity of the riparian habitat to nearby reserves, including stream bank protection work, erosion control, replanting for water-table control, weed control under CaLP Act 1994 and restriction of stock in riparian zones.
- Encourage collaborative management between the Department of Sustainability and Environment (Forests) and Parks Victoria when making management decisions concerning revegetation and management of threatened species occurring within reserves located in State Forest blocks.

6. Buxton Landscape Zone

6.11 Parks and Reserves (cont'd)

EXISTING POLICIES, PLANS OR PROGRAMS supporting one or more of the recommended actions:

- FFG Action Statement – Barred Galaxias (65).
- FFG Action Statement – Brush-tailed Phascogale (79).
- FFG Action Statement – Buxton Gum (1).
- FFG Action Statement – Leadbeater's Possum (62).
- FFG Action Statement – Powerful Owl (92).
- FFG Action Statement – Predation by Cat (80).
- FFG Action Statement – Predation by Red Fox (44).
- FFG Action Statement – Regent Honeyeater (41).
- The Action Plan for Australian Bats (Duncan *et al.* 1999).
- The Action Plan for Australian Birds 2000 (Garnett and Crowley 2000).
- The Action Plan for Australian Freshwater Fishes (Wager and Jackson 1993).
- The Action Plan for Australian Frogs (Tyler 1997).
- The Action Plan for Australian Marsupials and Monotremes (Maxwell *et al.* 1996).
- Recovery Plan – Leadbeater's Possum (Macfarlane *et al.* 1997).
- Recovery Plan – Regent Honeyeater (Menkhorst *et al.* 1999).
- Cathedral Range State Park Draft Management Plan (Parks Victoria 1998).
- Lake Eildon National Park Management Plan (Parks Victoria 1997d).
- Revegetation Guide for the Goulburn Broken Catchment (NRE 2001a).
- Victorian Recreational Fishing Guide 2002-2003 (NRE 2002e).
- Central Highlands Forest Management Plan (NRE 1998).
- Goulburn Broken Regional Catchment Strategy Draft (Goulburn Broken CMA 2002).
- Goulburn Broken CMA Draft Native Vegetation Plan, Volume 1 and 2 (Goulburn Broken CMA 2000).
- Victoria's Native Vegetation Management. A framework for Action (NRE 2002a).
- Local Government and Landcare Action Plan for Nature Conservation in the Goulburn-Broken Catchment (Raven 1997).