Descriptions, Habitat and Threats

for the

Significant Species and Ecological Communities of Gatton and Laidley Shires South-East Queensland

Appendix B to the Biodiversity Recovery Plan for Gatton and Laidley Shires South-East Queensland 2003-2008

Version 2, 5 March 2004

Revised to be compatible with Version 4.0 of the Queensland Herbarium Vegetation Mapping



A project of the Lockyer Catchment Association (LCA) Inc. supported by funding from the Threatened Species Network (TSN) Community Grants Program, which is a joint program of the World Wide Fund For Nature Australia (WWF) and the Commonwealth Government Natural Heritage Trust (NHT)



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1. Using this document

1.1 Introduction

This document should be used in conjunction with *Regional Ecosystem Management Principles for Gatton and Laidley Shires, South-East Queensland* (Appendix A to the Biodiversity Recovery Plan for Gatton and Laidley Shires, South-East Queensland 2003-2008), which can be viewed or purchased at the Lockyer Catchment Centre.

This document provides descriptions, habitat and threat information for the significant species and ecological communities of Gatton and Laidley Shires, comprising:

- 1. All of the species in Gatton and Laidley Shires listed as extinct, endangered or vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation* (EPBC) Act 1999 (a total of 11 flora species and 15 fauna species).
- 2. All of the species in Gatton and Laidley Shires listed as endangered, vulnerable or rare under the Queensland *Nature Conservation Regulation 1994*.
- 3. All of the ecological communities in Gatton and Laidley Shires that have a status of endangered or of-concern under the Queensland *Vegetation Management Act 1999* and Queensland *Vegetation Management (Freehold Lands) Regulation*.
- 4. Species in Gatton and Laidley Shires identified as having regional significance (within the South-East Queensland bioregion). Included are species where biologists have expressed concern about decline or potential decline, species that have recently been removed (downgraded) from Commonwealth and/or Queensland threatened species lists and species with a restricted or disjunct occurrence in the South-East Queensland bioregion.

In addition to the threats listed in Sections 3 to 9, all of the significant species and ecological communities in this document have been identified as facing the common threat of "A lack of awareness by landholders, community members and decision-makers in regard to the significant species and ecological communities of Gatton and Laidley Shires and their conservation requirements".

This document has been prepared as Appendix A to the *Biodiversity Recovery Plan for Gatton and Laidley Shires South-East Queensland 2003-2008*. The full *Biodiversity Recovery Plan* can be viewed or purchased at the Lockyer Catchment Centre.

1.2 How to use this document

For information on how to use this document, refer to Section 1 of *Regional Ecosystem Management Principles for Gatton and Laidley Shires, South-East Queensland* (Appendix A to the Biodiversity Recovery Plan for Gatton and Laidley Shires, South-East Queensland 2003-2008).

2. Summary lists of significant species and ecological communities

The *Biodiversity Recovery Plan for Gatton and Laidley Shires, South-East Queensland 2003-2008* covers 48 flora species, 50 fauna species, and 13 ecological communities. The significant species and ecological communities and their conservation status at a Commonwealth, State (Queensland) and regional level are listed in Tables 1 to 7 below.

Table 1. Significant plant species - Gatton and Laidley Shires.

Scientific Name	Common Name	Status EPBC (Commonwealth)	Status QNCR (Queensland)	Status Regional (South-East Qld)
Acacia blakei subsp. diphylla	Blake's wattle			S
Acacia leichhardtii	No common name			S
Acacia montana	No common name			S
Allocasuarina inophloia	Thready (Woolly)-barked oak			S
Bertya sp. (Helidon Hills G. Leiper AQ457013) now includes B. sp. (Oakey Creek B. O'Keefe 822)	No common name			S
Bertya opponens	Broad-leaved Bertya			S
Boronia splendida also includes B. sp. (Kogan L.S. Smith 14102)	Splendid Boronia			S
Bothriochloa bunyensis	Bunya bluegrass	V	V	
Brasenia schreberi	Watershield		R	
Callistemon formosus	White cliff bottlebrush		R	
Callitris baileyi	Bailey's cypress pine		R	
Carex lophocarpa	A sedge			S
Caustis blakei subsp. macrantha (Restricted species in trade)	Foxtails, 'Koala fern'		PV	

Table 1 (continued).

Scientific Name	Common Name	Status EPBC (Commonwealth)	Status QNCR (Queensland)	Status Regional (South-East Qld)
Clematis fawcettii	No common name	V	V	
Cyperus gunnii subsp. novae- hollandiae	Flecked flatsedge			S
Cyperus squarrosus	Bearded flatsedge			S
Damasonium minus	Starfruit			S
Dichanthium setosum	Bristly bluegrass	V	R	
Eryngium vesiculosum	Prostrate blue devil			S
Eucalyptus bakeri	Baker's mallee			S
Eucalyptus helidonica	Helidon Hills white			S
	mahogany			
Eucalyptus melanoleuca	Yarraman ironbark			S
(recently downgraded from R)				
Eucalyptus sideroxylon	Mugga, red ironbark			S
Eucalyptus taurina	Helidon Hills ironbark		PV	
Floydia praealta	Ball nut, Opossum nut	V	V	
Gahnia clarkei	Tall sawsedge			S
Grevillea quadricauda	No common name	V	PV	
Grevillea singuliflora	Single-flower grevillea		R	
Hibbertia monticola	Mountain guinea flower		R	
Leionema obtusifolium	Helidon Hills phebalium	V	V	
Leptospermum lamellatum	No common name			S
Lysicarpus angustifolius	Budgeroo			S
Macrozamia lucida	Pineapple zamia			S
Melaleuca groveana	Grove's paperbark		R	
Melastoma affine	Blue tongue			S
Mentha grandiflora	Gorge pennyroyal			S
Paspalidium grandispiculatum	Helidon Hills panic	V	V	
Picris evae	Hawk weed	V	V	
Poranthera sp. (Mt Ballow G. Leiper AQ502886) includes P. sp. (Beerwah D. Hassall DH7431)	Mt Beerwah poranthera			S

Table 1 (continued).

Status legend: X = Extinct; PX = Presumed Extinct; E = Endangered; V = Vulnerable; R = Rare; P = Pending; S = Regionally Significant

Scientific Name	Common Name	Status EPBC (Commonwealth)	Status QNCR (Queensland)	Status Regional (South-East Qld)
Potamogeton pectinatus	Sago pondweed			S
Rubus probus	A native raspberry			S
Sarcochilus dilatatus (recently downgraded from R)	No common name			S
Sophora fraseri	Brush sophora	V	V	
Stemmacantha australis	Native thistle	V	V	
Thesium australe	Thesium	V	V	
Triodia sp.	Porcupine grass, Spinifex			S
Triplarina bancroftii	No common name		PR	
Wahlenbergia scopulicola	No common name		R	

Table 2. Significant fauna species, invertebrates - Gatton and Laidley Shires.

Scientific Name	Common Name	Status EPBC (Commonwealth)	Status QNCR (Queensland)	Status Regional (South-East Qld)
Nesolycaena albosericea	Satin (blue) opal butterfly		V	

Table 3. Significant fauna species, amphibians - Gatton and Laidley Shires.

Status legend: X = Extinct; PX = Presumed Extinct; E = Endangered; V = Vulnerable; R = Rare; P = Pending; S = Regionally Significant

Scientific Name	Common Name	Status EPBC (Commonwealth)	Status QNCR (Queensland)	Status Regional (South-East Qld)
Adelotus brevis	Tusked frog			S
Cyclorana alboguttata	Greenstripe frog			S
Cyclorana brevipes	Superb collared-frog			S
Cyclorana verrucosa	Warty water-holding frog,			S
	Rough frog			
Kyarranus kundagungan	Red-and-yellow mountain-		V	
	frog			
Lechriodus fletcheri	Black-soled frog		V	
Limnodynastes salmini	Salmon-striped frog			S
Litoria brevipalmata	Green-thighed frog		R	
Litoria pearsoniana	Cascade treefrog		Е	
Mixophyes fleayi	Fleay's barred-frog	Е	Е	

Table 4. Significant fauna species, reptiles - Gatton and Laidley Shires.

Scientific Name	Common Name	Status EPBC (Commonwealth)	Status QNCR (Queensland)	Status Regional (South-East Qld)
Coeranoscincus reticulatus	Three-toed snake-toothed skink	V	R	
Delma torquata	Collared delma	V	V	
Hoplocephalus stephensii	Stephen's banded snake		R	

Table 5. Significant fauna species, birds - Gatton and Laidley Shires.

Scientific Name	Common Name	Status EPBC (Commonwealth)	Status QNCR (Queensland)	Status Regional (South-East Qld)
Accipiter novaehollandiae	Grey goshawk		R	
Atrichornis rufescens	Rufous scrub-bird		V	
Calyptorhynchus lathami	Glossy black-cockatoo		V	
Climacteris erythrops	Red-browed treecreeper		R	
Cyclopsitta diopthalma coxeni	Coxen's fig-parrot	Е	Е	
Dasyornis brachypterus	Eastern bristlebird	Е	Е	
Ephippiorhynchus asiaticus	Black-necked stork		R	
Erythrotriorchis radiatus	Red goshawk	V	Е	
Falco hypoleucos	Grey falcon		R	
Geophaps scripta scripta	Squatter pigeon (southern subsp.)	V	V	
Grantiella picta	Painted honeyeater		R	
Lathamus discolor	Swift parrot	Е		
Lophoictinia isura	Square-tailed kite		R	
Melithreptus gularis	Black-chinned honeyeater		R	
Menura alberti	Albert's lyrebird		R	
Neophema pulchella	Turquoise parrot		R	
Nettapus coromandelianus	Cotton pygmy-goose		R	
Ninox strenua	Powerful owl		V	
Podargus ocellatus plumiferous	Plumed frogmouth		V	
Psephotus pulcherrimus	Paradise parrot	X	PX	
Rallus pectoralis	Lewin's rail		R	
Rostratula benghalensis	Painted snipe		R	
Stictonetta naevosa	Freckled duck		R	
Turnix melanogaster	Black-breasted button-quail	V	V	
Tyto novaehollandiae	Masked owl (southern subsp.)			S
Tyto tenebricosa	Sooty owl		R	
Xanthomyza phrygia	Regent honeyeater	E	Е	

Table 6. Significant fauna species, mammals - Gatton and Laidley Shires.

Status legend: X = Extinct; PX = Presumed Extinct; E = Endangered; V = Vulnerable; R = Rare; P = Pending; S = Regionally Significant

Scientific Name	Common Name	Status EPBC (Commonwealth)	Status QNCR (Queensland)	Status Regional (South-East Qld)
Chalinolobus dwyeri	Large-eared pied bat		R	
Chalinolobus picatus	Little pied bat		R	
Dasyurus maculatus maculatus	Spotted-tailed quoll (southern subsp.)	V	V	
Kerivoula papuensis	Golden-tipped bat		R	
Petrogale penicillata	Brush-tailed rock wallaby	V	V	
Phascolarctos cinereus	Koala			S
Potorous tridactylus tridactylus	Long-nosed potoroo	V	V	
Pseudomys novaehollandiae	New Holland mouse			S
Pseudomys oralis	Hasting's River mouse	Е	V	

Table 7. Significant ecological communities - Gatton and Laidley Shires.

- 1. <u>Regional Ecosystem</u> (RE) descriptions follow Sattler, P.S. & Williams, R.D. (eds) 1999. *The Conservation Status of Queensland's Bioregional Ecosystems*. Queensland Environmental Protection Agency, Brisbane.
- 2. <u>Conservation status</u> is the status under the Queensland *Vegetation Management Act 1999* and Queensland *Vegetation Management (Freehold Lands) Regulation.*

Regional Ecosystem	Floristic description (constant characteristic species in bold type)	General structure	Conservation status
RE 12.3.3	Eucalyptus tereticornis + Eucalyptus	Grassy open	Endangered
	crebra <u>+</u> Corymbia citriodora <u>+</u>	forest to	
	Corymbia intermedia <u>+</u> Angophora	woodland	
	subvelutina/floribunda <u>+</u> Corymbia		
	clarksoniana <u>+</u> Corymbia tessellaris		
RE 12.3.11	Eucalyptus tereticornis, Melaleuca	Tall woodland	Of concern
	quinquenervia <u>+</u> Corymbia	to tall open	
	intermedia	forest	
RE 12.5.6	Eucalyptus pilularis <u>+</u> Eucalyptus	Shrubby to	Endangered
	microcorys <u>+</u> Eucalyptus helidonica <u>+</u>	grassy open	
	Corymbia trachyphloia <u>+</u> Corymbia	forest	
	intermedia <u>+</u> Eucalyptus biturbinata		
	\pm Angophora woodsiana		

Table 7 (continued).

- 1. <u>Regional Ecosystem</u> (RE) descriptions follow Sattler, P.S. & Williams, R.D. (eds) 1999. *The Conservation Status of Queensland's Bioregional Ecosystems*. Queensland Environmental Protection Agency, Brisbane.
- 2. <u>Conservation status</u> is the status under the Queensland *Vegetation Management Act 1999* and Queensland *Vegetation Management (Freehold Lands) Regulation.*

Regional Ecosystem	Floristic description (constant characteristic species in bold type)	General structure	Conservation status
RE 12.8.9	Lophostemon confertus ± (Eucalyptus tereticornis, Eucalyptus biturbinata, Eucalyptus eugenioides, Eucalyptus melliodora, emergents) ± Allocasuarina torulosa, with mixed rainforest/riparian species and fern species.	Tall open forest	Of concern
RE 12.8.19	Heterogeneous mix of trees (stunted), shrubs, forbs and grasses including Eucalyptus tereticornis, Eucalyptus melliodora, Angophora floribunda, Acacia spp., Bursaria spinosa var. macrophylla, Xanthorrhoea glauca, Hovea spp., Doryanthes palmeri, Cassinia spp., Pimelia linifolia, Plectranthus graveolens, Sorghum leiocladum, Poa spp., Themeda triandra, Asperula conferta etc.	Mid-high woodland/ open woodland or tall shrubland	Of concern
RE 12.8.21	Brachychiton rupestris, Flindersia australis, Flindersia collina, Vitex lignumvitae, Elattostachys xylocarpa, Ficus spp., Dendrocnide excelsa, Arytera foveolata ± Pouteria cotinifolia var. cotinifolia ± Erythroxylum australe. (Araucaria cunninghamii absent in Gatton & Laidley Shires)	Microphyll closed forest to semi- evergreen vine thicket sometimes on boulder scree	Endangered
RE 12.9/10.3	Eucalyptus moluccana ± Corymbia citriodora ± Eucalyptus crebra ± Eucalyptus tereticornis ± Eucalyptus carnea ± Eucalyptus fibrosa subsp. fibrosa ± Eucalyptus major.	Grassy sometimes shrubby open forest	Of concern
RE 12.9/10.6	Acacia harpophylla ± Casuarina cristata ± Brachychiton rupestris ± Acacia fasciculifera ± Alectryon diversifolius ± Santalum lanceolatum ± Carissa ovata.	Open forest	Endangered

Table 7 (continued).

- 1. <u>Regional Ecosystem</u> (RE) descriptions follow Sattler, P.S. & Williams, R.D. (eds) 1999. *The Conservation Status of Queensland's Bioregional Ecosystems*. Queensland Environmental Protection Agency, Brisbane.
- 2. <u>Conservation status</u> is the status under the Queensland *Vegetation Management Act* 1999 and Queensland *Vegetation Management (Freehold Lands) Regulation*.

Regional Ecosystem	Floristic description (constant characteristic species in bold type)	General structure	Conservation status
RE 12.9/10.7	Eucalyptus crebra ± Eucalyptus melanophloia ± Eucalyptus tereticornis ± Corymbia tessellaris ± Corymbia clarksoniana ± Allocasuarina luehmannii.	Grassy woodland (sometimes with vine thicket understorey)	Of concern
RE 12.9/10.11	Melaleuca tamariscina subsp. irbyana <u>+</u> Eucalyptus moluccana <u>+</u> Eucalyptus tereticornis.	Low open forest or thicket with emergent eucalypts	Endangered
RE 12.9/10.15	Flindersia australis, Flindersia collina, Brachychiton rupestris, Acacia fasciculifera, Ficus spp. ± Flindersia xanthoxyla ± Vitex lignumvitae ± Excoecaria dallachyana ± Pouteria cotinifolia var. cotinifolia ± Bursaria incana ± Croton insularis ± Drypetes deplanchei ± Owenia venosa ± Secamone elliptica.	Microphyll closed forest to semi- evergreen vine thicket	Endangered
RE 12.11.9	Eucalyptus tereticornis, Eucalyptus crebra ± Angophora subvelutina ± Eucalyptus melanophloia ± Corymbia intermedia ± Eucalyptus biturbinata ± Eucalyptus eugenioides ± Eucalyptus melliodora ± Allocasuarina torulosa.	Very tall open forest/ woodland	Of concern
RE 12.12.3	Corymbia citriodora subsp. variegata/Corymbia henryi, Eucalyptus crebra ± Corymbia intermedia ± Eucalyptus major ± Eucalyptus melanophloia	Tall woodland to tall open forest	Of concern

3. Significant plant species

3.1 Acacia blakei subsp. diphylla, Blake's wattle

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Acacia blakei* subsp. *diphylla* is a shrub or small tree that occurs in Regional Ecosystems 12.9/10.3 and 12.9/10.19 in the south of Gatton Shire. The populations of *Acacia blakei* subsp. *diphylla* in Gatton Shire are a disjunct South-East Queensland occurrence, with the species normally found in sandstone communities further inland.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Acacia blakei* subsp. *diphylla* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.

3.2 Acacia leichhardtii

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Acacia leichhardtii* is a shrub that occurs in Regional Ecosystems 12.5.1 and 12.9/10.5 in the Helidon Hills. The populations of *Acacia leichhardtii* in the Helidon Hills are a disjunct South-East Queensland occurrence, with the species normally found in sandstone communities further west and north.

Threats within Gatton and Laidley Shires: Threats to Acacia leichhardtii include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.3 Acacia montana

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Acacia montana* is a shrub that occurs in Regional Ecosystems 12.9/10.3 and 12.9/10.19 in the south of Gatton Shire. The populations of *Acacia montana* in Gatton Shire are a disjunct South-East Queensland occurrence, with the species normally found in sandstone communities further inland.

Threats within Gatton and Laidley Shires: Threats to Acacia montana include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.4 Allocasuarina inophloia, Thready/Woolly-barked oak

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Allocasuarina inophloia* is a tree that occurs in Regional Ecosystem 12.9/10.19 in the south of Gatton Shire and Regional Ecosystem 12.9/10.5 in the Helidon Hills. *Allocasuarina inophloia* has a restricted occurrence in South-East Queensland, being usually associated with sandstone and other acidic substrates further west.

Threats within Gatton and Laidley Shires: Threats to Allocasuarina inophloia include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.5 Bertya sp. (Helidon Hills G. Leiper AQ457013)

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Bertya* sp. (Helidon Hills G. Leiper AQ457013) is a shrub that occurs in Regional Ecosystem 12.9/10.5 on the rim of the Alice Creek Gorge in the Helidon Hills. *Bertya* sp. (Helidon Hills G. Leiper AQ457013) is a newly identified species that has been found to be the same as another newly identified species, *Bertya* sp. (Oakey Creek B. O'Keefe 822). Oakey Creek is located in inland Central Queensland, making the Alice Creek Gorge population of *Bertya* sp. (Helidon Hills G. Leiper AQ457013) a very disjunct South-East Oueensland occurrence.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Bertya* sp. (Helidon Hills G. Leiper AQ457013) include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.

3.6 Bertya opponens, Broad-leaved Bertya

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Bertya opponens* is a shrub that occurs in Regional Ecosystems 12.9/10.3 and 12.9/10.19 in the south of Gatton Shire. *Bertya opponens* has a restricted occurrence in South-East Queensland, and is typically restricted to the ecotones between Regional Ecosystem 12.9/10.3 or 12.9/10.19 and Regional Ecosystem 12.9/10.15.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Bertya opponens* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing, the construction of firebreaks in ecotones and the absence of high-intensity fire in ecotones is likely to have a detrimental impact on this shrubby understorey species.

3.7 Boronia splendida, Splendid Boronia

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Boronia splendida* is a shrub that occurs in Regional Ecosystem 12.9/10.19 in the south of Gatton Shire. *Boronia splendida* is a newly described species with a restricted occurrence in South-East Queensland.

Threats within Gatton and Laidley Shires: Threats to *Boronia splendida* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.

3.8 Bothriochloa bunyensis, Bunya bluegrass

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> *Bothriochloa bunyenensis* is a grass that occurs in Regional Ecosystems 12.8.14 and 12.8.19 in the Mt. Lowe and Mistake Range area.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Bothriochloa bunyenensis* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Infrequent burning is likely to have a detrimental impact on this grassy understorey species.
- Invasion of habitat by the weed species *Lantana camara*.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.9 Brasenia schreberi, Watershield

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> *Brasenia schreberi* occurs in Regional Ecosystem 12.3.8 and other wetland areas.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Brasenia schreberi* include:

- Cultivation.
- Siltation, pollution or exotic water-weed invasion of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

3.10 Callistemon formosus, White cliff bottlebrush

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> *Callistemon formosus* is a shrub that occurs in Regional Ecosystems 12.9/10.2, 12.9/10.3 and 12.9/10.19 in the south of Gatton Shire.

Threats within Gatton and Laidley Shires: Threats to Callistemon formosus include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Invasion of habitat by the weed species *Lantana camara*.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.11 Callitris baileyi, Bailey's cypress pine

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> *Callitris baileyi* is a tree that occurs in Regional Ecosystems 12.8.16, 12.8.17 and 12.9/10.7 in the south of Gatton and Laidley Shires.

Threats within Gatton and Laidley Shires: Threats to Callitris baileyi include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Invasion of habitat by the weed species *Lantana camara*.

• Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.12 Carex lophocarpa, A sedge

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Carex lophocarpa* is a wetland species regarded uncommon in the South-East Queensland region. It occurs in Regional Ecosystem 12.3.8 and other wetland areas.

Threats within Gatton and Laidley Shires: Threats to Carex lophocarpa include:

- Cultivation.
- Siltation, pollution or exotic water-weed invasion of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

3.13 Caustis blakei subsp. macrantha, Foxtails/Koala fern

<u>Conservation status:</u> Pending Vulnerable (Queensland).

<u>Description and habitat:</u> Caustis blakei subsp. macrantha is a shrub that occurs in Regional Ecosystems 12.5.1 and 12.9/10.5 in the Helidon Hills. Caustis blakei subsp. macrantha has a very restricted distribution, occurring only in the Helidon Hills and on Helidon sandstone near Perseverance Dam.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Caustis blakei* subsp. *macrantha* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Over-harvesting for flora trade.

3.14 Clematis fawcettii

<u>Conservation status:</u> Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> *Clematis fawcettii* is a woody climber that occurs in Regional Ecosystem 12.8.21 in the south of Gatton Shire.

Threats within Gatton and Laidley Shires: Threats to Clematis fawcettii include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Invasion of habitat, particularly of remnant margins, by the weed species *Lantana camara* (lantana) and the exotic pasture grass species *Panicum maximum* (green panic).
- Invasion of habitat by the weed species *Anredera cordifolia* (madeira vine), *Rivina humilis* (coral berry), *Macfadyena unguis-cati* (cat's claw creeper) and *Protasparagus* spp. (asparagus fern).
- Fire incursion as a result of weed or exotic pasture grass invasion.
- Habitat degradation through inappropriate grazing practices.

3.15 Cyperus gunnii subsp. novae-hollandiae, Flecked flatsedge

<u>Conservation status:</u> Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Cyperus gunnii* subsp. *novae-hollandiae* is a wetland species regarded as uncommon in the South-East Queensland region. It occurs in Regional Ecosystem 12.3.8 and other wetland areas.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Cyperus gunnii* subsp. *novae-hollandiae* include:

- Cultivation.
- Siltation, pollution or exotic water-weed invasion of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

3.16 Cyperus squarrosus, Bearded flatsedge

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Cyperus squarrosus* is a wetland species regarded as uncommon in the South-East Queensland region. It occurs in Regional Ecosystem 12.3.8 and other wetland areas.

Threats within Gatton and Laidley Shires: Threats to *Cyperus squarrosus* include:

- Cultivation.
- Siltation, pollution or exotic water-weed invasion of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

 Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

3.17 Damasonium minus, Starfruit

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Damasonium minus* is a wetland species regarded as uncommon in the South-East Queensland region. It occurs in Regional Ecosystem 12.3.8 and other wetland areas.

Threats within Gatton and Laidley Shires: Threats to *Damasonium minus* include:

- Cultivation.
- Siltation, pollution or exotic water-weed invasion of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

3.18 Dichanthium setosum, Bristly bluegrass

Conservation status: Vulnerable (Commonwealth), Rare (Queensland).

<u>Description and habitat:</u> *Dichanthium setosum* is a grass that occurs in Regional Ecosystems 12.8.14 and 12.8.19 in the Mt. Lowe - Mt. Mistake Range area and the Murphy's Creek area.

Threats within Gatton and Laidley Shires: Threats to *Dicanthium setosum* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Infrequent burning is likely to have a detrimental impact on this grassy understorey species.
- Invasion of habitat by the weed species *Lantana camara*.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.19 Eryngium vesiculosum, Prostrate blue devil

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Eryngium vesiculosum* is a wetland species regarded as uncommon in the South-East Queensland region. It occurs in Regional Ecosystem 12.3.8 and other wetland areas.

Threats within Gatton and Laidley Shires: Threats to Eryngium vesiculosum include:

- Cultivation.
- Siltation, pollution or exotic water-weed invasion of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

3.20 Eucalyptus bakeri, Baker's mallee

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Eucalyptus bakeri* is a small tree that occurs in Regional Ecosystem 12.9/10.19 in the south of Gatton Shire. The populations of *Eucalyptus bakeri* in Gatton Shire are a disjunct South-East Queensland occurrence, with the species normally found further inland.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Eucalyptus bakeri* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate road maintenance activities.
- Habitat degradation through inappropriate grazing practices.

3.21 Eucalyptus helidonica, Helidon Hills white mahogany

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Eucalyptus helidonica* is a tree that occurs in Regional Ecosystems 12.5.1, 12.9/10.5 and 12.9/10.14 in the Helidon Hills. *Eucalyptus helidonica* has a very restricted distribution, occurring only in the Helidon Hills and Crows Nest areas.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Eucalyptus helidonica* include:

• Loss or fragmentation of species populations or species habitat through vegetation clearing, inappropriate timber harvesting practices or inappropriate timber thinning practices.

3.22 Eucalyptus melanoleuca, Yarraman ironbark

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Eucalyptus melanoleuca* is a tree that occurs in Regional Ecosystems 12.9/10.15 and 12.9/10.19 in the south of Gatton Shire. *Eucalyptus melanoleuca* has a restricted occurrence in South-East Queensland, being normally found further north and west.

Threats within Gatton and Laidley Shires: Threats to *Eucalyptus melanoleuca* include:

• Loss or fragmentation of species populations or species habitat through vegetation clearing, inappropriate timber harvesting practices or inappropriate timber thinning practices.

3.23 Eucalyptus sideroxylon, Mugga/red ironbark

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Eucalyptus sideroxylon* is a tree that occurs in Regional Ecosystems 12.9/10.3 and 12.9/10.19 in the south of Gatton Shire. *Eucalyptus sideroxylon* has a restricted occurrence in South-East Queensland, being normally found further inland.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Eucalyptus sideroxylon* include:

 Loss or fragmentation of species populations or species habitat through vegetation clearing, inappropriate timber harvesting practices or inappropriate timber thinning practices.

3.24 Eucalyptus taurina, Helidon Hills ironbark

<u>Conservation status:</u> Pending Vulnerable (Queensland).

<u>Description and habitat:</u> *Eucalyptus taurina* is tree that occurs in Regional Ecosystems 12.5.1 and 12.9/10.5 throughout the Helidon Hills. *Eucalyptus taurina* has a very limited distribution, occurring only in the Helidon Hills and Crows Nest areas.

Threats within Gatton and Laidley Shires: Threats to Eucalyptus taurina include:

• Loss or fragmentation of species populations or species habitat through vegetation clearing, inappropriate timber harvesting practices or inappropriate timber thinning practices.

3.25 Floydia praealta, Ball nut/Opossum nut

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> *Floydia praealta* is a tree that occurs in riverine and lowland rainforest from Gympie southwards. The species has been recorded from rainforest in Cambooya Shire, just outside the Gatton and Laidley Shire area. *Floydia praealta* has not yet been recorded within the Gatton and Laidley Shire area, but Regional Ecosystems 12.8.21 and 12.9/10.15 are potential habitat for the species.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Floydia praealta* include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Invasion of habitat, particularly of remnant margins, by the weed species *Lantana camara* (lantana) and the exotic pasture grass species *Panicum maximum* (green panic).

- Invasion of habitat by the weed species *Anredera cordifolia* (madeira vine), *Rivina humilis* (coral berry), *Macfadyena unguis-cati* (cat's claw creeper) and *Protasparagus* spp. (asparagus fern).
- Fire incursion as a result of weed or exotic pasture grass invasion.
- Habitat degradation through inappropriate grazing practices.

3.26 Gahnia clarkei, Tall sawsedge

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Gahnia clarkei* is a sedge that occurs in Regional Ecosystems 12.9/10.5 and 12.9/10.14 in the Helidon Hills. The populations of *Gahnia clarkei* in the Helidon Hills are a disjunct occurrence, with the species usually found in coastal swamps or wallum.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Gahnia clarkei* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.27 Grevillea quadricauda

<u>Conservation status:</u> Vulnerable (Commonwealth), Pending Vulnerable (Queensland).

<u>Description and habitat:</u> *Grevillea quadricauda* is a shrub that occurs in Regional Ecosystems 12.5.1, 12.9/10.5, 12.9/10.7, and 12.9/10.19 in the Flagstone Creek area in the south of Gatton Shire and in the Helidon Hills. *Grevillea quadricauda* has a very restricted distribution, occurring only in the Flagstone Creek and Helidon Hills areas. The Flagstone Creek population occurs mostly on a roadside.

Threats within Gatton and Laidley Shires: Threats to *Grevillea quadricauda* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Inappropriate road maintenance activities.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.28 *Grevillea singuliflora*, Single-flower grevillea

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> *Grevillea singuliflora* is a shrub that occurs in Regional Ecosystems 12.5.1 and 12.9/10.5 in the Helidon Hills. *Grevillea singuliflora* has a very restricted distribution in the Helidon Hills, and the Helidon Hills population is also an easterly disjunct population with the species usually found considerably further west.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Grevillea singuliflora* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.29 Hibbertia monticola, Mountain guinea flower

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> *Hibbertia monticola* is a shrub that occurs in mountainous areas above 300m. In the Gatton and Laidley Shire area, the species has been recorded in the Helidon Hills, with an additional unconfirmed record in the Mt Mistake area. The habitat requirements of *Hibbertia monticola* in the Gatton and Laidley Shire area are poorly understood, but Regional Ecosystems 12.5.1, 12.5.6, 12.8.1, 12.8.9, 12.8.14, 12.8.16, 12.8.17, 12.8.19, 12.9/10.5, 12.9/10.14 and 12.9/10.19are potential habitat for the species.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Hibbertia monticola* include:

- Lack of knowledge in regard to habitat requirements.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.

3.30 Leionema obtusifolium, Helidon Hills phebalium

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> *Leionema obtusifolium* is a shrub that occurs in Regional Ecosystems 12.5.1 and 12.9/10.5 in the Helidon Hills. *Leionema obtusifolium* has a very restricted distribution, occurring only in the Helidon Hills and Crows Nest areas.

Threats within Gatton and Laidley Shires: Threats to Leionema obtusifolium include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.31 Leptospermum lamellatum

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Leptospermum lamellatum* is a shrub that occurs in Regional Ecosystem 12.9/10.5 in the Helidon Hills. The Helidon Hills population of *Leptospermum lamellatum* is an isolated disjunct population, with the species predominantly occurring in sandstone communities further west or north

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Leptospermum lamellatum* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.32 Lysicarpus angustifolius, Budgeroo

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Lysicarpus angustifolius* is a tree that occurs in Regional Ecosystems 12.5.1 and 12.9/10.5 in the Helidon Hills. The Helidon Hills population of *Lysicarpus angustifolius* is a disjunct population, with the species usually associated with sandstone tablelands and escarpments considerably further west and north.

Threats within Gatton and Laidley Shires: Threats to Lysicarpus angustifolius include:

• Loss or fragmentation of species populations or species habitat through vegetation clearing, inappropriate timber harvesting practices or inappropriate timber thinning practices.

3.33 Macrozamia lucida, Pineapple zamia

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Macrozamia lucida* is a small palm-like plant that occurs in Regional Ecosystems 12.3.2 and 12.9/10.14 in the Helidon Hills. The Helidon Hills population of *Macrozamia lucida* is a disjunct population, with the species usually occurring in coastal and near-coastal districts further north.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Macrozamia lucida* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.34 Melaleuca groveana, Grove's paperbark

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> *Melaleuca groveana* is a shrub or small tree that occurs in Regional Ecosystem 12.9/10.19 in the south of Gatton Shire. *Melaleuca groveana* has a restricted distribution, being found in only a few locations in South-East Queensland.

Threats within Gatton and Laidley Shires: Threats to Melaleuca groveana include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate grazing practices.

3.35 *Melastoma affine*, Blue tongue

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Melastoma affine* is a shrub that occurs in Regional Ecosystems 12.9/10.5 and 12.9/10.14 in the Helidon Hills. The Helidon Hills population of *Melastoma affine* is a disjunct occurrence, with the species usually found in coastal heaths, wallum woodlands and open forests.

Threats within Gatton and Laidley Shires: Threats to Melastoma affine include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.36 Mentha grandiflora, Gorge pennyroyal

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Mentha grandiflora* is a small herb that occurs in Regional Ecosystems 12.9/10.2 and 12.9/10.19 in the south of Gatton Shire. The Gatton Shire population of *Mentha grandiflora* is a very disjunct occurrence, with the species normally found considerably further north and west.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Mentha grandiflora* include:

 Loss or fragmentation of species populations or species habitat through vegetation clearing.

- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate grazing practices.

3.37 Paspalidium grandispiculatum, Helidon Hills panic

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> Paspalidium grandispiculatum is a large grass that occurs in Regional Ecosystems 12.5.1 and 12.9/10.5 in the Helidon Hills. Paspalidium grandispiculatum is found only in the Helidon Hills and Crows Nest areas.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Paspalidium grandispiculatum* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.38 Picris evae, Hawk weed

<u>Conservation status:</u> Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> *Picris evae* is an annual that grows up to 1.7m tall. The species has been recorded in Cambooya Shire, just outside the Gatton and Laidley Shire area. *Picris evae* has not yet been recorded within the Gatton and Laidley Shire area, but Regional Ecosystems 12.3.3, 12.3.11, 12.8.14, 12.8.17 and 12.8.19 are potential habitat for the species.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Picris evae* include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Infrequent burning is likely to have a detrimental impact on this grassy understorey species.
- Habitat degradation through inappropriate grazing practices.

3.39 Poranthera sp. (Mt Ballow G. Leiper AQ502886)

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Poranthera* sp. (Mt Ballow G. Leiper AQ502886) is a woody herb that occurs in Regional Ecosystems 12.5.1 and 12.9/10.5 in the Helidon Hills. *Poranthera* sp. (Mt Ballow G. Leiper AQ502886) is a newly identified species currently known only from the Mt. Barney area and the Helidon Hills.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Poranthera* sp. (Mt Ballow G. Leiper AQ502886) include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.40 Potamogeton pectinatus, Sago pondweed

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Potamogeton pectinatus* is a wetland species regarded uncommon in the South-East Queensland region. It occurs in Regional Ecosystem 12.3.8 and other wetland areas.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Potamogeton pectinatus* include:

- Cultivation.
- Siltation, pollution or exotic water-weed invasion of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

3.41 Rubus probus, A native raspberry

<u>Conservation status:</u> Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Rubus probus* is a large scrambling shrub that occurs in Regional Ecosystem 12.9/10.14 in the Helidon Hills. The Helidon Hills population of *Rubus probus* is a disjunct southern occurrence, with the species usually found further north extending to New Guinea.

Threats within Gatton and Laidley Shires: Threats to Rubus probus include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.42 Sarcochilus dilatatus

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Sarcochilus dilatatus* is a small epiphyte that occurs in Regional Ecosystems 12.8.21 and 12.9/10.15 in the south of Gatton and Laidley Shires. *Sarcochilus dilatatus* has a restricted distribution in South-East Queensland.

Threats within Gatton and Laidley Shires: Threats to Sarcochilus dilatatus include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Invasion of habitat, particularly of remnant margins, by the weed species *Lantana camara* (lantana) and the exotic pasture grass species *Panicum maximum* (green panic).
- Invasion of habitat by the weed species *Anredera cordifolia* (madeira vine), *Rivina humilis* (coral berry), *Macfadyena unguis-cati* (cat's claw creeper) and *Protasparagus* spp. (asparagus fern).
- Fire incursion as a result of weed or exotic pasture grass invasion.
- Illegal collection.
- Habitat degradation through inappropriate grazing practices.

3.43 Sophora fraseri, Brush sophora

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> *Sophora fraseri* is a shrub that occurs in Regional Ecosystem 12.9/10.19 in the south of Gatton Shire. *Sophora fraseri* is widespread but uncommon in South-East Oueensland.

Threats within Gatton and Laidley Shires: Threats to *Sophora fraseri* include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.

3.44 Stemmacantha australis, Native thistle

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> Stemmacantha australis is an annual that has been recorded in Regional Ecosystems 12.3.3 and 12.8.17 in the Gatton and Laidley Shire area. Stemmacantha australis was last recorded in Regional Ecosystem 12.3.3 in 1971. Most of the alluvial plains and lowlands where Regional Ecosystem 12.3.3 originally occurred are now subject to intensive agriculture. Remaining areas of Regional Ecosystem 12.3.3 heavily invaded by weeds and exotic pasture species, in particular the grass Panicum maximum

(green panic). For these reasons *Stemmacantha australis* may now be locally extinct within Regional Ecosystem 12.3.3. *Stemmacantha australis* was only recently recorded in Regional Ecosystem 12.8.17, and may also occur in Regional Ecosystems 12.8.14, 12.8.19, and 12.9/10.7.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Stemmacantha australis* include:

- A lack of knowledge in regard to the presence/absence of the species in Regional Ecosystems 12.3.3, 12.8.14, 12.8.19 and 12.9/10.7.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Infrequent burning is likely to have a detrimental impact on this grassy understorey species.
- Invasion of habitat by the exotic pasture grass *Panicum maximum* (green panic) and the weed species *Lantana camara* (lantana) and *Bryophyllum tubiflorum* (mother of millions).
- Habitat degradation through inappropriate grazing practices.

3.45 Thesium australe, Thesium

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland).

Description and habitat: *Thesium australe* is a herb that has been recorded in Regional Ecosystem 12.3.3 in the Gatton and Laidley Shire area. *Thesium australe* was last recorded in the area in 1985. The alluvial plains and lowlands where the species was recorded are subject to intensive agriculture with remaining areas of Regional Ecosystem 12.3.3 heavily invaded by weeds and exotic pasture species, in particular the grass *Panicum maximum* (green panic). For these reasons *Thesium australe* may now be locally extinct. Regional Ecosystem 12.3.11 is also potential habitat for the species.

Threats within Gatton and Laidley Shires: Threats to *Thesium australe* include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Infrequent burning is likely to have a detrimental impact on this grassy understorey species.
- Invasion of habitat by the exotic pasture grass *Panicum maximum* (green panic) and the weed species *Lantana camara* (lantana) and *Bryophyllum tubiflorum* (mother of millions).
- Habitat degradation through inappropriate grazing practices.

3.46 *Triodia* sp., Porcupine grass/Spinifex

<u>Conservation status:</u> Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> *Triodia* sp. is a grass-like plant that occurs in Regional Ecosystem 12.9/10.19 in Cambooya Shire, just outside the Gatton and Laidley Shire area. The

Cambooya Shire population of *Triodia* sp. is a disjunct occurrence, with *Triodia* sp. normally found further inland. It is not yet known which species of *Triodia* is present in Cambooya Shire. *Triodia* sp. has not yet been recorded within the Gatton and Laidley Shire area, but Regional Ecosystem 12.9/10.19 in the south of Gatton Shire is potential habitat for the species.

Threats within Gatton and Laidley Shires: Threats to *Triodia* sp. include:

- A lack of knowledge in regard to which species of *Triodia* is present in Cambooya Shire.
- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.

3.47 Triplarina bancroftii

Conservation status: Pending Rare (Queensland).

<u>Description and habitat:</u> *Triplarina bancroftii* is a shrub that occurs in Regional Ecosystem 12.9/10.2 in the Helidon Hills. The Helidon Hills population of *Triplarina bancroftii* is a disjunct southern occurrence, with other known populations located considerably further north in the Burnett district.

Threats within Gatton and Laidley Shires: Threats to Triplarina bancroftii include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on this shrubby understorey species.
- Invasion of habitat by the weed species *Lantana camara* (lantana).
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate grazing practices.
- Inappropriate road maintenance activities.

3.48 Wahlenbergia scopulicola

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> *Wahlenbergia scopulicola* is a herb that has been recorded in Cambooya Shire, just outside the Gatton and Laidley Shire area. *Wahlenbergia scopulicola* has not yet been recorded within the Gatton and Laidley Shire area, but Regional Ecosystems 12.3.3, 12.3.11, 12.8.14, 12.8.17 and 12.8.19 are potential habitat for the species.

<u>Threats within Gatton and Laidley Shires:</u> Threats to *Wahlenbergia scopulicola* include:

• A lack of knowledge in regard to the presence/absence of the species in the area.

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Infrequent burning is likely to have a detrimental impact on this grassy understorey species.
- Invasion of habitat by the weed species *Lantana camara*.
- Habitat degradation through inappropriate grazing practices.

4. Significant invertebrate species

4.1 Nesolycaena albosericea, Satin blue butterfly

Conservation status: Vulnerable (Queensland).

<u>Description and habitat:</u> The satin blue butterfly is hosted by *Boronia* plant species. The satin blue butterfly has not yet been recorded in Gatton or Laidley Shires but may be present, particularly in areas where *Boronia splendida* and *Boronia bipinnata* occur. *Boronia splendida* and *Boronia bipinnata* occur in Regional Ecosystem 12.9/10.19 in the south of Gatton Shire, which is potential habitat for the satin blue butterfly.

Threats within Gatton and Laidley Shires: Threats to the satin blue butterfly include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of *Boronia* species populations or species habitat through vegetation clearing.
- Inappropriate fire regimes. Frequent low-intensity burning to reduce fuel loads or promote grass growth for cattle grazing is likely to have a detrimental impact on shrubby understorey *Boronia* species.

5. Significant amphibian species

5.1 Adelotus brevis, Tusked frog

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> The tusked frog is a medium-sized pond or stream dwelling frog. Although common in some parts of South-East Queensland, possible decline in areas of its range is raising concern amongst biologists. In the Gatton and Laidley Shire area, the tusked frog has been recorded in several locations and its habitat is Regional Ecosystems 12.3.2, 12.3.3, 12.3.7 and 12.3.11.

Threats within Gatton and Laidley Shires: Threats to the tusked frog include:

- Siltation, pollution or exotic water-weed invasion of streams and ponds.
- Alteration of stream flows.
- Clearance or fragmentation of riparian vegetation.
- Modification of riparian vegetation through inappropriate fire regimes, inappropriate grazing practices or weed invasion.

5.2 Cyclorana alboguttata, Greenstripe frog

<u>Conservation status:</u> Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> The greenstripe frog breeds in ephemeral ponds and wetlands, burrowing into the moist earth during dry periods. Possible decline of the greenstripe frog in areas east of the Great Dividing Range is raising concern amongst biologists. In the Gatton and Laidley Shire area, the greenstripe frog has been recorded in several locations and its habitat is ephemeral wetlands and Regional Ecosystems 12.3.3, 12.3.7, 12.3.8, 12.3.11 and 12.9/10.7

Threats within Gatton and Laidley Shires: Threats to the greenstripe frog include:

- Cultivation.
- Siltation, pollution or exotic water-weed invasion of wetlands and ponds.
- Alteration of stream flows and alteration of the wet/dry cycles of ephemeral wetlands and ponds.
- Modification of the vegetation fringing ephemeral wetlands and ponds through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands and ponds during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

5.3 Cyclorana brevipes, Superb collared-frog

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> The superb collared-frog breeds in ephemeral ponds and wetlands, burrowing into the moist earth during dry periods. Possible decline of the superb collared-frog in areas east of the Great Dividing Range is raising concern amongst biologists. In the Gatton and Laidley Shire area, the superb collared-frog has been recorded in several locations and its habitat is ephemeral wetlands and Regional Ecosystems 12.3.3, 12.3.7, 12.3.8, 12.3.11 and 12.9/10.7.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the superb collared-frog include:

- Cultivation.
- Siltation, pollution or exotic water-weed invasion of wetlands and ponds.
- Alteration of stream flows and alteration of the wet/dry cycles of ephemeral wetlands and ponds.
- Modification of the vegetation fringing ephemeral wetlands and ponds through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands and ponds during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

5.4 Cyclorana verrucosa, Warty water-holding frog/Rough frog

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> The warty water-holding frog breeds in ephemeral ponds and wetlands, burrowing into the moist earth during dry periods. Possible decline of the warty water-holding frog in areas east of the Great Dividing Range is raising concern amongst biologists. In the Gatton and Laidley Shire area, the warty water-holding frog was last recorded in the 1960's and its habitat is ephemeral wetlands and Regional Ecosystems 12.3.3, 12.3.7, 12.3.8, 12.3.11 and 12.9/10.7.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the warty water-holding frog the include:

- Cultivation.
- Siltation, pollution or exotic water-weed invasion of wetlands and ponds.
- Alteration of stream flows and alteration of the wet/dry cycles of ephemeral wetlands and ponds.
- Modification of the vegetation fringing ephemeral wetlands and ponds through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands and ponds during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

5.5 Kyarranus kundagungan, Red-and-yellow mountain-frog

Conservation status: Vulnerable (Queensland).

<u>Description and habitat:</u> The red-and-yellow mountain-frog occurs in rainforest and thick forest adjacent to streams. In the Gatton and Laidley Shire area, the red-and-yellow mountain-frog has been recorded in the Mistake Range area and its habitat is streams and adjacent vegetation in Regional Ecosystems 12.8.4 and 12.8.9.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the red-and-yellow mountain-frog include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Degradation of water quality and riparian vegetation arising from inappropriate timber harvesting practices, inappropriate timber thinning practices, inappropriate grazing practices, weed invasion, pollution and feral animal disturbance.

5.6 Lechriodus fletcheri, Black-soled frog

Conservation status: Vulnerable (Queensland).

<u>Description and habitat:</u> The black-soled frog occurs in rainforest and wet sclerophyll forest and breeds in small ephemeral waterbodies. In the Gatton and Laidley Shire area, the black-soled frog has been recorded in the Mistake Range area and its habitat is Regional Ecosystems 12.8.4 and 12.8.9.

Threats within Gatton and Laidley Shires: Threats to the black-soled frog include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices, inappropriate grazing practices, weed invasion and pollution.
- Possible predation by feral animals.
- Disease.

5.7 Limnodynastes salmini, Salmon-striped frog

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> The salmon-striped frog breeds in ephemeral ponds and wetlands, burrowing into the moist earth during dry periods. Possible decline of the salmon-striped frog in areas east of the Great Dividing Range is raising concern amongst biologists. In the Gatton and Laidley Shire area, the salmon-striped frog was last recorded in the 1960's and its habitat is ephemeral wetlands and Regional Ecosystems 12.3.3, 12.3.7, 12.3.8, 12.3.11 and 12.9/10.7.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the salmon-striped frog include:

- Cultivation.
- Siltation, pollution or exotic water-weed invasion of wetlands and ponds.

- Alteration of stream flows and alteration of the wet/dry cycles of ephemeral wetlands and ponds.
- Modification of the vegetation fringing ephemeral wetlands and ponds through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands and ponds during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

5.8 Litoria brevipalmata, Green-thighed frog

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The green-thighed frog occurs in lowland areas east of the Great Dividing Range and coastal ranges, from near Gosford in New South Wales to South-East Queensland. It breeds in ephemeral pools and flooded areas in, or adjacent to, dry forest. The green-thighed frog has been recorded in Ravensbourne National Park, which is just outside Gatton and Laidley Shire area. The green-thighed frog may also occur in the Gatton and Laidley Shire area, where Regional Ecosystems 12.8.1, 12.8.4 and 12.8.9 are potential habitat for the species.

Threats within Gatton and Laidley Shires: Threats to the green-thighed frog include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Degradation of water quality and riparian vegetation arising from inappropriate timber harvesting practices, inappropriate timber thinning practices, inappropriate grazing practices, weed invasion and pollution.
- Possible predation by feral animals, including the possible predation of eggs and tadpoles by exotic fish species.
- Disease.

5.9 Litoria pearsoniana, Cascade treefrog

Conservation status: Endangered (Queensland).

Description and habitat: The cascade treefrog is endemic to southeast Queensland and northeast NSW. It occurs in rainforest and thickly forested gullies, in association with flowing rocky streams. In winter it is known to aggregate under rocks, or in cracks in rocks or wooden bridge girders. However, it is relatively conspicuous in spring and summer, when males call from overhanging riparian vegetation or from rocks in or near streams. The cascade treefrog suffered a major population decline in the late 1970s to early 1980s, the reasons for which are poorly understood. The cascade treefrog has been recorded from the Dalrymple Creek area, just outside the Gatton and Laidley Shire area. The cascade treefrog may also occur within the Gatton and Laidley Shire area, where Regional Ecosystems 12.8.1, 12.8.4 and 12.8.9 are potential habitat for the species.

<u>Threats within Gatton and Laidley Shires:</u> The reasons for the decline of the cascade treefrog are poorly understood. However, threats to the cascade treefrog may include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Disease.
- Localised habitat loss or fragmentation through vegetation clearing.
- Degradation of water quality and riparian vegetation arising from inappropriate timber harvesting practices, inappropriate timber thinning practices, inappropriate grazing practices, weed invasion and pollution.
- Possible predation by feral animals.

5.10 Mixophyes fleayi, Fleay's barred-frog

Conservation status: Endangered (Commonwealth), Endangered (Queensland).

<u>Description and habitat:</u> Fleay's barred-frog is a large ground-dwelling frog that is restricted to wet forests in far northeast NSW and southeast Queensland. In southeast Queensland it is known from the Conondale, McPherson and Main ranges, usually in association with permanent rocky streams. Fleay's barred-frog appears to have declined for as yet unknown reasons, and remaining populations may be affected by habitat alteration or loss (such as from cattle grazing) and the impacts of feral plants and animals. In the Gatton and Laidley Shire area, Fleay's barred-frog has been recorded from the Mistake Range and its habitat is permanent rocky streams and associated riparian vegetation in Regional Ecosystems 12.8.1, 12.8.4 and 12.8.9.

<u>Threats within Gatton and Laidley Shires:</u> The reasons for the decline of Fleay's barred-frog are poorly understood. However, threats to Fleay's barred-frog may include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Degradation of water quality and riparian vegetation arising from inappropriate timber harvesting practices, inappropriate timber thinning practices, inappropriate grazing practices, weed invasion and pollution.
- Predation by feral animals.
- Disease.

6. Significant reptile species

6.1 Coeranoscincus reticulatus, Three-toed snake-toothed skink

Conservation status: Vulnerable (Commonwealth), Rare (Queensland).

<u>Description and habitat:</u> The three-toed snake-toothed skink inhabits rainforests and wet sclerophyll forests, where it typically dwells in leaf litter or rotten logs. In the Gatton and Laidley Shire area, the three-toed snake-toothed skink has been recorded in the Mistake Range area and its habitat is Regional Ecosystems 12.8.1, 12.8.4 and 12.8.9.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the three-toed snake-toothed skink include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Loss or degradation of leaf litter through inappropriate grazing practices, inappropriate fire regimes or weed invasion.
- Predation by feral animals.

6.2 Delma torquata, Collared delma

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland)

<u>Description and habitat:</u> The collared delma is a small legless lizard that inhabits open woodland and woodland fringing semi evergreen vine thicket, where it shelters in mats of leaf litter, surface rocks and logs, and below the ground surface. When the collared delma shelters below the ground surface, it is not known whether the species is using natural earth cracks or true burrows. In the Gatton and Laidley Shire area, the collared delma has been recorded in the Helidon Hills and its habitat is Regional Ecosystems 12.5.1 and 12.9/10.5.

Threats within Gatton and Laidley Shires: Threats to the collared delma include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Loss, degradation or modification of leaf litter, surface rocks and logs or subsurface features through inappropriate grazing practices, inappropriate fire regimes or weed invasion.
- Predation by feral animals.

6.3 Hoplocephalus stephensii, Stephen's banded snake

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> Stephen's banded snake occurs in a wide range of habitats including dry rainforest, sub-tropical rainforest, wet and dry sclerophyll forests and rocky outcrops. The species is typically found in old-growth forests. Stephen's banded snake is an arboreal

species that uses gaps between decorticating bark (bark that is separating and peeling) and tree trunks for daytime shelter. It is predominantly nocturnal, feeding on small vertebrates such as small mammals, lizards, frogs and possibly birds. Stephen's banded snake has been recorded from the Cunningham's Gap area, which is close to the Gatton and Laidley Shire area. Although not yet recorded in Gatton or Laidley Shires, Stephen's banded snake may also occur further north along the Main Range and in the Mistake Range area where Regional Ecosystems 12.8.1, 12.8.4, 12.8.9, 12.8.14, 12.8.16, 12.8.17, and 12.8.21 are potential habitat for the species.

<u>Threats within Gatton and Laidley Shires:</u> Potential threats to Stephen's banded snake include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Loss of trees with decorticating bark through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate fire regimes.
- Predation by feral animals.

7. Significant bird species

7.1 Accipiter novaehollandiae, Grey goshawk

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The grey goshawk is a bird of prey that typically occurs in forests. In the Gatton and Laidley Shire area, the grey goshawk occurs in Regional Ecosystems 12.3.8, 12.5.6, 12.8.4, 12.9/10.14 and wetlands and has been recorded in the several locations.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the grey goshawk include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate fire regimes.
- Deliberate shooting.
- Possible reduction in breeding success caused by pesticide residues in the food chain.
- Siltation, pollution or exotic water-weed invasion of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

7.2 Atrichornis rufescens, Rufous scrub-bird

Conservation status: Vulnerable (Queensland).

<u>Description and habitat:</u> Rufous scrub-birds are small, ground-dwelling birds that feed in thick leaf litter in upland temperate rainforests. Within its rainforest habitat, the rufous scrubbird is restricted to areas of dense ground cover where it occurs in low densities, with birds occupying large territories. The species has been recorded from the head of Dalrymple Creek and at Mt. Cordeaux, which are just outside the Gatton and Laidley Shire area. The rufous scrub-bird has not yet been recorded within Gatton or Laidley Shires, but Regional Ecosystem 12.8.4 in the Mistake Range area is potential habitat.

Threats within Gatton and Laidley Shires: Threats to the rufous scrub-bird include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.

- Loss, degradation or modification of leaf litter through inappropriate grazing practices, inappropriate fire regimes or weed invasion.
- Predation by feral animals.

7.3 Calyptorhynchus lathami, Glossy black-cockatoo

Conservation status: Vulnerable (Queensland).

<u>Description and habitat</u>: The glossy black-cockatoo is a wide-ranging specialist seed-eater that feeds on fruiting *Allocasuarina* plant species. The glossy black-cockatoo nests in tree hollows, which are often in the form of hollow limbs or cavities within dead trees. In the Gatton and Laidley Shire area, the glossy black-cockatoo occurs in Regional Ecosystems 12.5.6, 12.8.9, 12.8.14, 12.9/10.5, 12.9/10.14, and 12.9/10.19 which feature populations of *Allocasuarina* plant species, and has been recorded in the Helidon Hills and parts of the south of Gatton Shire.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the glossy black-cockatoo include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Loss of, or damage to, *Allocasuarina* food plant species or trees with suitable nesting sites through vegetation clearing, inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate fire regimes.
- Illegal collection of eggs.

7.4 *Climacteris erythrops*, Red-browed treecreeper

Conservation status: Rare (Queensland).

<u>Description and habitat</u>: The red-browed treecreeper is an ecological specialist, gleaning insects from the bark of eucalypt trees, particularly smooth-barked species with long ribbons of decorticating bark (bark that is separating and peeling from the trunk and branches). In South-East Queensland the species occurs in upland wet sclerophyll forests and rainforests with emergent eucalypts. In the Gatton and Laidley Shire area, the red-browed treecreeper has been recorded in the Glen Rock, Black Duck Creek, Blackfellow Creek and Mistake Range areas and its habitat is Regional Ecosystems 12.8.1, 12.8.9 and 12.8.14.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the red-browed treecreeper include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Loss of trees with decorticating bark through inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate fire regimes.

7.5 Cyclopsitta diopthalma coxeni, Coxen's fig-parrot

Conservation status: Endangered (Commonwealth), Endangered (Queensland).

<u>Description and habitat:</u> Coxen's fig-parrot is one of Australia's most endangered birds. Once numerous in the subtropical rainforests of South-East Queensland and northern New

South Wales, the species has declined dramatically due to the extensive clearance of its habitat. Coxen's fig-parrot occurs in or near remnant stands of subtropical rainforest, in strips of rainforest along rivers and creeks, and in any other forest type where there is an abundance of fruiting figs. Typical food trees are the Moreton Bay fig *Ficus macrophylla*, various sandpaper figs such as *Ficus coronata* and *Ficus watkinsiana*. Other types of fig trees are also known to be important food sources. There are no recent records of Coxen's fig-parrot within the Gatton or Laidley Shire area, but Regional Ecosystems 12.8.4, 12.8.9, 12.8.21, and 12.9/10.15 are potential habitat for the species.

<u>Threats within Gatton and Laidley Shires:</u> Threats to Coxen's fig-parrot include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Loss of, or damage to, fig tree food species through vegetation clearing, inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate fire regimes.
- Illegal collection of eggs.

7.6 Dasyornis brachypterus, Eastern bristlebird

Conservation status: Endangered (Commonwealth), Endangered (Queensland).

<u>Description and habitat:</u> The eastern bristlebird is seriously endangered, with only 21 birds known to remain in Queensland in 1997. In South-East Queensland, the preferred habitat for the mostly ground-dwelling species appears to be open eucalypt forest with a grassy understorey, although eastern bristlebirds have also been located in high altitude heath. The eastern bristlebird has been recorded at Cunningham's Gap, which is close to the Gatton and Laidley Shire area. The eastern bristlebird has not been recorded within the Gatton and Laidley Shire area, but Regional Ecosystem 12.8.14 in the Mistake Range area is potential habitat.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the eastern bristlebird include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate grazing practices and disturbance by feral pigs.
- Predation by feral animals.

7.7 Ephippiorhynchus asiaticus, Black-necked stork

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The black-necked stork is a large nomadic waterbird that frequents Regional Ecosystem 12.3.8 and other wetland areas. The species nests in a large stick nest in the crown of a tall tree, particularly a tree where the top has broken off. In the Gatton and Laidley Shire area, the black-necked stork has been recorded at several locations.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the black-necked stork include:

- Siltation, pollution or exotic water-weed invasion of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Loss of trees suitable for nesting.

7.8 Erythrotriorchis radiatus, Red goshawk

Conservation status: Vulnerable (Commonwealth), Endangered (Queensland).

Description and habitat: The red goshawk is Australia's rarest bird of prey. The species' preferred habitat comprises forest and woodland with a mosaic of vegetation types, permanent water, and large populations of birds, which are its main prey. Prey is typically captured by ambush-hunting from concealed perch sites, and as a result the red goshawk prefers forests of intermediate density, or the ecotones between habitats of differing densities. Such habitats are open enough to allow aerial pursuits to occur, but also provide enough cover for ambush hunting. The red goshawk often prefers to nest in riparian forests. The nest is normally high in the crown of a living tree taller than 20 m, within 1 km of, but often directly beside, a permanent waterway of wetland. In the Gatton and Laidley Shire area, the red goshawk has been recorded in several locations, with its habitat comprising remnant eucalypt forest/woodland throughout the area, the ecotones between eucalypt forest/woodland and adjacent vegetation communities such as rainforest, and wetlands and permanent waterways.

Threats within Gatton and Laidley Shires: Threats to the red goshawk include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate grazing practices, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Reductions in the availability of prey species caused by the loss or modification of wetlands.
- Deliberate shooting.
- Illegal collection of eggs.
- Loss of trees suitable for nesting.
- Reduction in breeding success caused by pesticide residues in the food chain.
- Abandonment of nest sites caused by humans coming too close to nest sites.

7.9 Falco hypoleucos, Grey falcon

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The grey falcon occurs on tree-scattered plains or along desert watercourses, mainly in the Australian interior. The grey falcon has been recorded as a nomadic vagrant at wetlands in the Gatton and Laidley Shire area, with the area outside the normal habitat range of the species.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the grey falcon include:

- Siltation, pollution or exotic water-weed invasion of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

7.10 Geophaps scripta scripta, Squatter pigeon (southern subsp.)

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> The squatter pigeon is a ground-feeding bird that occurs in open woodland and nests in grass-lined scrape on the ground. In the Gatton and Laidley Shire area, the squatter pigeon occurs in Regional Ecosystem 12.9/10.7 and has been recorded in several locations.

Threats within Gatton and Laidley Shires: Threats to the squatter pigeon include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate grazing practices, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Predation by feral animals.

7.11 Grantiella picta, Painted honeyeater

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The painted honeyeater is a nomad or irregular migrant in mistletoes in woodland and open forest in eastern Australia. The painted honeyeater has been recorded as a nomadic vagrant in the Gatton and Laidley Shire area, with the area outside the normal habitat range of the species.

<u>Threats within Gatton and Laidley Shires:</u> Within the Gatton and Laidley Shire area there are no known threats to the painted honeyeater.

7.12 Lathamus discolor, Swift parrot

Conservation status: Endangered (Commonwealth).

<u>Description and habitat:</u> The swift parrot breeds in Tasmania. From March to November the species is a nomadic visitor to sclerophyll forests and woodlands on the Australian mainland,

including those in South-East Queensland. It feeds on blossoming trees, and also on psyllids (a leaf-dwelling insect) and lerps (the casing of psyllids). In the Gatton and Laidley Shire area, the swift parrot occurs in Regional Ecosystems 12.9/10.2 and 12.9/10.7 and has been recorded in several locations.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the swift parrot include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate grazing practices, inappropriate timber harvesting practices or inappropriate timber thinning practices.

7.13 Lophoictinia isura, Square-tailed kite

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The square-tailed kite is a bird of prey that occurs in open woodland, with each pair of the species occupying a very large territory (in excess of 100 km²). The species nests in a large stick cup on a horizontal branch. In the Gatton and Laidley Shire area, the square-tailed kite occurs in Regional Ecosystems 12.9/10.2, 12.9/10.5, 12.9/10.7 and 12.9/10.19 and has been recorded in several locations.

Threats within Gatton and Laidley Shires: Threats to the square-tailed kite include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Deliberate shooting.
- Loss of trees suitable for nesting.

7.14 *Melithreptus gularis*, Black-chinned honeyeater

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The black-chinned honeyeater occurs in dry forest and woodland, particularly along watercourses. The species nests in a deep cup of bark, grass, down and fur suspended in outer foliage. In the Gatton and Laidley Shire area, the black-chinned honeyeater occurs in Regional Ecosystems 12.3.8, 12.9/10.2, 12.9/10.3 and wetlands and has been recorded in several locations.

Threats within Gatton and Laidley Shires: Threats to the black-chinned honeyeater include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate grazing practices, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Siltation, pollution or exotic water-weed invasion of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.

- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

7.15 Menura alberti, Albert's lyrebird

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> Albert's lyrebird occurs in rainforest and nests in a large stick dome lined with feathers. In the Gatton and Laidley Shire area, Albert's lyrebird occurs in Regional Ecosystems 12.8.4 and 12.8.9 and has been recorded in the Mistake Range area.

Threats within Gatton and Laidley Shires: Threats to Albert's lyrebird include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate grazing practices, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Predation by feral animals.

7.16 Neophema pulchella, Turquoise parrot

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The turquoise parrot occurs in open woodland or grassland and nests in hollows in eucalypt trees. In the Gatton and Laidley Shire area, the turquoise parrot occurs in Regional Ecosystem 12.9/10.7 and has been recorded in several locations.

Threats within Gatton and Laidley Shires: Threats to the turquoise parrot include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Loss of trees suitable for nesting.

7.17 *Nettapus coromandelianus*, Cotton pygmy-goose

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The cotton pygmy-goose is a small duck that occurs on lily-covered lagoons, dams and ponds, including areas of Regional Ecosystem 12.3.8. The species nests in an unlined tree hollow. In the Gatton and Laidley Shire area, the cotton pygmy-goose has been recorded in several locations.

Threats within Gatton and Laidley Shires: Threats to the cotton pygmy-goose include:

• Siltation, pollution or exotic water-weed invasion of wetlands.

- Alteration of the wet/dry cycles of ephemeral wetlands.
- Drainage of wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Loss of trees suitable for nesting.

7.18 *Ninox strenua*, Powerful owl

Conservation status: Vulnerable (Queensland).

<u>Description and habitat:</u> The powerful owl is a very large owl that occurs in sclerophyll forest and nests in tree hollows. In the Gatton and Laidley Shire area, the powerful owl has been recorded in several locations, and potential habitat for the species includes all large areas of remnant vegetation throughout the area, particularly in the uplands and where there are gullies with good canopy cover.

Threats within Gatton and Laidley Shires: Threats to the powerful owl include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Loss of trees suitable for nesting.

7.19 Podargus ocellatus plumiferous, Plumed frogmouth

Conservation status: Vulnerable (Queensland).

<u>Description and habitat:</u> The plumed frogmouth occurs in rainforest and nests on a scant platform of twigs in a tree. The species has been recorded in Ravensbourne National Park and the Dalrymple Creek area, which are just outside the Gatton and Laidley Shire area. The plumed frogmouth has not yet been recorded within Gatton or Laidley Shires, but Regional Ecosystems 12.8.4 and 12.8.9 in the Mistake Range area are potential habitat for the species.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the plumed frogmouth include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate timber harvesting practices or inappropriate timber thinning practices.

7.20 Psephotus pulcherrimus, Paradise parrot

Conservation status: Extinct (Commonwealth), Presumed Extinct (Queensland).

<u>Description and habitat:</u> The paradise parrot occurs in woodlands and nests in tunnels in termite mounds or earth banks. Named after Paradise Creek in the Helidon Hills, the paradise parrot has been driven to probable extinction through habitat clearance and grazing.

The species may still exist in isolated areas of southern Queensland where the species' habitat has not been altered by grazing. In the Gatton and Laidley Shire area, there have been unconfirmed sightings of the paradise parrot in the Murphy's Creek area, and Regional Ecosystem 12.9/10.2 in the Murphy's Creek area is potential habitat for the species.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the paradise parrot include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate grazing practices.

7.21 Rallus pectoralis, Lewin's rail

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> Lewin's rail occurs in wetlands and riparian areas, including areas of Regional Ecosystem 12.3.8. The species nests in a well-hidden cup made from grass and reeds with the surrounding vegetation pulled overhead in a canopy, and often with a 'walkway' of flattened grass or reeds. In the Gatton and Laidley Shire area, Lewin's rail has been recorded in several locations.

Threats within Gatton and Laidley Shires: Threats to Lewin's rail include:

- Siltation, pollution or exotic water-weed invasion of wetlands.
- Drainage of wetlands.
- Modification of riparian vegetation and the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Predation by feral animals.

7.22 Rostratula benghalensis, Painted snipe

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The painted snipe is a nomadic waterbird that frequents wetlands and areas of Regional Ecosystem 12.3.8. The species nests in a lined scrape on the ground, under a tussock or inside a bush. In the Gatton and Laidley Shire area, the painted snipe has been recorded in several locations.

Threats within Gatton and Laidley Shires: Threats to the painted snipe include:

- Siltation, pollution or exotic water-weed invasion of wetlands.
- Drainage of wetlands.
- Modification of riparian vegetation and the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Predation by feral animals.

7.23 Stictonetta naevosa, Freckled duck

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The freckled duck occurs in wetlands and areas of Regional Ecosystem 12.3.8. In the Gatton and Laidley Shire area, the freckled duck has been recorded in several locations.

Threats within Gatton and Laidley Shires: Threats to the freckled duck include:

- Siltation, pollution or exotic water-weed invasion of wetlands.
- Drainage of wetlands.
- Alteration of the wet/dry cycles of ephemeral wetlands.
- Modification of the vegetation fringing wetlands through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.
- Modification of the vegetation covering the floor of ephemeral wetlands during the dry stage of the wet/dry cycle through clearance, inappropriate fire regimes, weed invasion or exotic pasture grass invasion.

7.24 Turnix melanogaster, Black-breasted button-quail

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> The black-breasted button-quail is a ground-dwelling bird that occurs in dry rainforest. In the Gatton and Laidley Shire area, the black-breasted button-quail occurs in Regional Ecosystem 12.9/10.15 and has been recorded in several locations.

Threats within Gatton and Laidley Shires: Threats to the black-breasted button-quail include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Loss or degradation of leaf litter.
- Invasion of habitat, particularly of remnant margins, by the weed species *Lantana camara* (lantana) and the exotic pasture grass species *Panicum maximum* (green panic).
- Invasion of habitat by the weed species *Anredera cordifolia* (madeira vine), *Rivina humilis* (coral berry), *Macfadyena unguis-cati* (cat's claw creeper) and *Protasparagus* spp. (asparagus fern).
- Fire incursion as a result of weed or exotic pasture grass invasion.
- Habitat degradation through inappropriate grazing practices.
- Predation by feral animals.

7.25 Tyto novaehollandiae, Masked owl (southern subsp.)

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> The masked owl (southern subsp.) occurs in forest or woodland and nests in tree hollows or caves. In the Gatton and Laidley Shire area, the masked owl

(southern subsp.) occurs in Regional Ecosystems 12.5.6, 12.8.16, 12.8.17, 12.9/10.5, 12.9/10.14 and 12.9/10.19 and has been recorded at several locations.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the masked owl include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Loss of trees suitable for nesting.
- Possible reduction in prey availability.
- Traffic

7.26 Tyto tenebricosa, Sooty owl

<u>Conservation status:</u> Rare (Queensland).

<u>Description and habitat:</u> The sooty owl occurs in rainforest and wet sclerophyll forest and nests in hollows in tall eucalypts. The species has been recorded in the Ravensbourne National Park, Goomburra State Forest and Redwood Park areas, which are just outside the Gatton and Laidley Shire area. The sooty owl has not yet been recorded within Gatton or Laidley Shires, but Regional Ecosystems 12.8.1, 12.8.4, 12.8.9 and 12.8.21 in the Mistake Range area are potential habitat for the species.

Threats within Gatton and Laidley Shires: Threats to the sooty owl include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Loss of trees suitable for nesting.

7.27 Xanthomyza phrygia, Regent honeyeater

<u>Conservation status:</u> Endangered (Commonwealth), Endangered (Queensland).

<u>Description and habitat:</u> The regent honeyeater occurs mainly in box-ironbark open forests. A large proportion of their time is spent feeding on 'key" eucalypt species, including *Eucalyptus sideroxylon* (Mugga ironbark/red ironbark) and *Eucalyptus melliodora* (yellow box). Populations of the species have fallen to a critically low level - perhaps fewer than 1000 birds remain. The regent honeyeater occurs in Regional Ecosystems 12.8.14 and 12.8.16 and was recently recorded in the Glen Rock area.

Threats within Gatton and Laidley Shires: Threats to the regent honeyeater include:

• Loss or fragmentation of species populations or species habitat through vegetation clearing.

- Habitat degradation through inappropriate grazing practices, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Possible competition for nectar from some larger species of honeyeater which have benefited from habitat fragmentation.

8. Significant mammal species

8.1 Chalinolobus dwyeri, Large-eared pied bat

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The large-eared pied bat primarily occurs in dry forest, and in particular dry forest adjacent to rainforest or wet sclerophyll forest with a rainforest subcanopy. Little is known about the roosting requirements of the species, though it has been recorded utilising disused mine tunnels, caves, rock overhangs and abandoned fairy martin (*Hirundo ariel*) nests. In the Gatton and Laidley Shire area, the large-eared pied bat has been recorded in the Shingle Hut Creek area of the Mistake Range and its habitat is Regional Ecosystems 12.8.1, 12.8.14, 12.8.16, and 12.8.17.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the large-eared pied bat include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate timber harvesting practices or inappropriate timber thinning practices.

8.2 Chalinolobus picatus, Little pied bat

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The little pied bat occurs in a wide range of drier vegetation communities including eucalypt woodland and open forest. The species is known to roost in caves, mines, rock shelters and tree hollows. In the Gatton and Laidley Shire area, the little pied bat has been recorded in the Helidon Hills and its habitat is Regional Ecosystems 12.8.16, 12.8.17, 12.9/10.2, 12.9/10.5 and 12.9/10.19.

Threats within Gatton and Laidley Shires: Threats to the little pied bat include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Loss of trees suitable for roosting.

8.3 Dasyurus maculatus maculatus, Spotted-tailed quoll (southern subsp.)

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> The spotted-tailed quoll (southern subsp.) occurs in rainforests and dense forests where it nests in hollow logs, trees, caves and rock crevices. The species has declined over the last 20 years and is no longer found in the greater Brisbane area. The species has been recorded at Dalrymple Creek, which is just outside the Gatton and Laidley

Shire area. The spotted-tailed quoll (southern subsp.) has not yet been formally recorded within Gatton or Laidley Shires, but large vegetation remnants in remote parts of the area are potential habitat.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the spotted-tailed quoll (southern subsp.) include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes, inappropriate grazing practices, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Loss of trees and hollow logs suitable for nesting.
- Predation by, and competition from, feral animals.
- Being caught in traps set for animals such as rabbits and foxes.
- Possible poisoning from the ingestion of cane toads (*Bufo marinus*).
- Possible poisoning from the ingestion of baits set for wild dogs and dingoes.

8.4 Kerivoula papuensis, Golden-tipped bat

Conservation status: Rare (Queensland).

<u>Description and habitat:</u> The golden-tipped bat occurs in a variety of rainforest types. The species is known to roost in the disused suspended nests of the yellow-throated scrubwren (*Sericornis citreogularis*) and to a lesser extent the brown gerygone (*Gerygone mouki*), and also in the hollows of rainforest trees. In the Gatton and Laidley Shire area, the goldentipped bat has been recorded in the Shingle Hut Creek area of the Mistake Range and its habitat is Regional Ecosystems 12.8.1, 12.8.4 and 12.8.9.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the golden-tipped bat include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Loss of trees suitable for roosting.

8.5 *Petrogale penicillata*, Brush-tailed rock wallaby

<u>Conservation status:</u> Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> The brush-tailed rock wallaby inhabits rocky outcrops with deep fissures and caves, adjacent to a range of vegetation types including forest, woodland and rainforest. The species feeds mainly on grasses and forbs, with some opportunistic feeding on seeds, fruits and flowers. In the Gatton and Laidley Shire area, the brush-tailed rock wallaby has been recorded in the Helidon Hills, Heifer Creek and Mistake Range areas and its habitat is Regional Ecosystems 12.8.19, 12.8.21, 12.9/10.5 and 12.9/10.19.

Threats within Gatton and Laidley Shires: Threats to the brush-tailed rock wallaby include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through weed invasion, inappropriate fire regimes, inappropriate grazing practices, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Predation by, and competition from, feral animals.

8.6 Phascolarctos cinereus, Koala

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> The koala occurs in eucalypt forest and woodlands. In the Gatton and Laidley Shire area, the koala has been recorded in several locations and its habitat is Regional Ecosystems 12.3.2, 12.3.3, 12.3.7, 12.3.11, 12.5.1, 12.5.6, 12.8.14, 12.8.16 and 12.8.17.

Threats within Gatton and Laidley Shires: Threats to the koala include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through weed invasion, inappropriate fire regimes, inappropriate grazing practices, inappropriate timber harvesting practices or inappropriate timber thinning practices.
- Predation by domestic dogs and feral animals.
- Traffic.

8.7 Potorous tridactylus tridactylus, Long-nosed potoroo

Conservation status: Vulnerable (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> The long-nosed potoroo occurs in wet and dry sclerophyll forests with an annual rainfall exceeding 760 mm, and requires a dense understorey of grass and shrubs for shelter. This nocturnal species prefers forests on lighter soils, where it digs for the fungi, roots, tubers and invertebrates that make up its diet. In the Gatton and Laidley Shire area, the long-nosed potoroo has been recorded in the Helidon Hills and its habitat is Regional Ecosystems 12.5.1, 12.5.6, 12.8.1, 12.8.9, 12.8.14, 12.8.16, 12.8.17, 12.11.6 and 12.11.9.

<u>Threats within Gatton and Laidley Shires:</u> Threats to the long-nosed potoroo include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through weed invasion, inappropriate fire regimes or inappropriate grazing practices.
- Competition from introduced herbivores.

8.8 Pseudomys novaehollandiae, New Holland mouse

Conservation status: Regionally Significant (South-East Queensland).

<u>Description and habitat:</u> The New Holland mouse was thought to be extinct until rediscovered in 1967 in Ku-ring-gai Chase National Park in New South Wales. Records since then indicate that the species is distributed from Tasmania along the east coast of mainland Australia to South-East Queensland. The habitat preference in South-East Queensland appears to be limited to tall dry open forest communities with an understorey of heath dominated by *Xanthorrhoea* species. In the Gatton and Laidley Shire area, the New Holland mouse has been recorded in the Blackfellow Creek and Helidon Hills areas and its habitat is Regional Ecosystems 12.5.1, 12.5.6, 12.8.14, 12.8.17, 12.8.19, 12.9/10.5 and 12.9/10.19.

Threats within Gatton and Laidley Shires: Threats to the New Holland mouse include:

- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Habitat degradation through inappropriate fire regimes.
- Competition from introduced house mice.
- Predation by feral animals.

8.9 Pseudomys oralis, Hasting's River mouse

<u>Conservation status:</u> Endangered (Commonwealth), Vulnerable (Queensland).

<u>Description and habitat:</u> Hasting's River mouse feeds on leaves, seeds and insects and inhabits open forests with a well developed layer of shrubs, herbs, sedges and ferns as well as sites with a more open understorey. The species has been recorded in the Hirstglen, Main Range, and Crow's Nest Falls areas, which are located close to the Gatton and Laidley Shire area. Hasting's River mouse has not yet been recorded in the Gatton and Laidley Shire area, but Regional Ecosystems 12.8.1, 12.8.9, 12.8.14, 12.8.16, 12.8.17 and 12.8.19 are potential habitat for the species.

<u>Threats within Gatton and Laidley Shires:</u> Threats to Hasting's River mouse include:

- A lack of knowledge in regard to the presence/absence of the species in the area.
- Loss or fragmentation of species populations or species habitat through vegetation clearing.
- Competition from introduced house mice.
- Predation by feral animals.

9. Significant ecological communities

9.1 Regional Ecosystem 12.3.3

Conservation status: Endangered (Queensland Vegetation Management Act 1999).

<u>Description:</u> Grassy open forest to woodland of *Eucalyptus tereticornis* <u>+</u> *Eucalyptus crebra* <u>+</u> *Eucalyptus moluccana* <u>+</u> *Corymbia intermedia* <u>+</u> *Angophora subvelutina/floribunda* <u>+</u> *Corymbia clarksoniana* <u>+</u> *Corymbia tessellaris*.

<u>Threats within Gatton and Laidley Shires:</u> Threats to Regional Ecosystem 12.3.3 include:

- Loss or fragmentation through vegetation clearing.
- Lack of recruitment of new trees caused by inappropriate grazing practices, inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate fire regimes.
- Invasion by the exotic pasture grass *Panicum maximum* (green panic) and the weed species *Lantana camara* (lantana) and *Bryophyllum tubiflorum* (mother of millions).

9.2 Regional Ecosystem 12.3.11

Conservation status: Of concern (Queensland Vegetation Management Act 1999).

<u>Description:</u> Tall woodland to tall open forest of *Eucalyptus tereticornis*, *Melaleuca quinquenervia* + *Corymbia intermedia*.

<u>Threats within Gatton and Laidley Shires:</u> Threats to Regional Ecosystem 12.3.11 include:

- Loss or fragmentation through vegetation clearing.
- Lack of recruitment of new trees caused by inappropriate grazing practices, inappropriate timber harvesting practices, inappropriate timber thinning practices or inappropriate fire regimes.

9.3 Regional Ecosystem 12.5.6

Conservation status: Endangered (Queensland Vegetation Management Act 1999).

<u>Description:</u> Shrubby to grassy open forest of *Eucalyptus pilularis* \pm *Eucalyptus microcorys* \pm *Eucalyptus helidonica* \pm *Corymbia trachyphloia* \pm *Corymbia intermedia* \pm *Eucalyptus biturbinata* \pm *Angophora woodsiana*.

Threats within Gatton and Laidley Shires: Threats to Regional Ecosystem 12.5.6 include:

- Loss or fragmentation through vegetation clearing.
- Degradation caused by inappropriate timber harvesting practices, inappropriate timber thinning practices, inappropriate grazing practices or inappropriate fire regimes.

9.4 Regional Ecosystem 12.8.9

Conservation status: Of-concern (Queensland Vegetation Management Act 1999).

<u>Description:</u> Tall open forest of *Lophostemon confertus* \pm (*Eucalyptus tereticornis*, *Eucalyptus biturbinata*, *Eucalyptus eugenioides*, *Eucalyptus melliodora*, emergents) \pm *Allocasuarina torulosa*, with mixed rainforest/riparian species and fern species.

Threats within Gatton and Laidley Shires: Threats to Regional Ecosystem 12.8.9 include:

- Loss or fragmentation through vegetation clearing.
- Degradation caused by inappropriate timber harvesting practices, inappropriate timber thinning practices, inappropriate grazing practices or inappropriate fire regimes.

9.5 Regional Ecosystem 12.8.19

Conservation status: Of-concern (Queensland Vegetation Management Act 1999).

<u>Description:</u> Mid-high woodland/ open woodland or tall shrubland with heterogeneous mix of trees (stunted), shrubs, forbs and grasses including *Eucalyptus tereticornis*, *Eucalyptus melliodora*, *Angophora floribunda*, *Acacia* spp., *Bursaria spinosa* var. *macrophylla*, *Xanthorrhoea glauca*, *Hovea* spp., *Doryanthes palmeri*, *Cassinia* spp., *Pimelia linifolia*, *Plectranthus graveolens*, *Sorghum leiocladum*, *Poa* spp., *Themeda triandra*, *Asperula conferta* etc.

Threats within Gatton and Laidley Shires: Threats to Regional Ecosystem 12.8.19 include:

- Loss or fragmentation through vegetation clearing.
- Degradation caused by inappropriate fire regimes.

9.6 Regional Ecosystem 12.8.21

Conservation status: Endangered (Queensland Vegetation Management Act 1999).

<u>Description:</u> Microphyll closed forest to semi-evergreen vine thicket, sometimes on boulder scree, of *Brachychiton rupestris*, *Flindersia australis*, *Flindersia collina*, *Vitex lignumvitae*, *Elattostachys xylocarpa*, *Ficus* spp., *Dendrocnide excelsa*, *Arytera foveolata* ± *Pouteria cotinifolia* var. *cotinifolia* ± *Erythroxylum australe*. (*Araucaria cunninghamii* absent in Gatton & Laidley Shires)

Threats within Gatton and Laidley Shires: Threats to Regional Ecosystem 12.8.21 include:

- Loss or fragmentation through vegetation clearing.
- Invasion, particularly of remnant margins, by the weed species *Lantana camara* (lantana) and the exotic pasture grass *Panicum maximum* (green panic).
- Invasion by the weed species *Anredera cordifolia* (madeira vine), *Rivina humilis* (coral berry), *Macfadyena unguis-cati* (cat's claw creeper) and *Protasparagus* spp. (asparagus fern).
- Fire incursion as a result of weed or exotic pasture grass invasion.
- Degradation through inappropriate grazing practices.

9.7 Regional Ecosystem 12.9/10.3

Conservation status: Of-concern (Queensland Vegetation Management Act 1999).

<u>Description:</u> Grassy sometimes shrubby open forest of $Eucalyptus\ moluccana \pm Corymbia\ citriodora \pm Eucalyptus\ crebra \pm Eucalyptus\ tereticornis \pm Eucalyptus\ carnea \pm Eucalyptus\ fibrosa\ subsp.\ fibrosa\ \pm Eucalyptus\ major.$

Threats within Gatton and Laidley Shires: Threats to Regional Ecosystem 12.9/10.3 include:

- Loss or fragmentation through vegetation clearing.
- Invasion by the weed species *Lantana camara* (lantana).
- Degradation caused by inappropriate timber harvesting practices or inappropriate timber thinning practices.

9.8 Regional Ecosystem 12.9/10.6

Conservation status: Endangered (Queensland Vegetation Management Act 1999).

<u>Description:</u> Open forest of Acacia harpophylla \pm Casuarina cristata \pm Brachychiton rupestris \pm Acacia fasciculifera \pm Alectryon diversifolius \pm Santalum lanceolatum \pm Carissa ovata.

<u>Threats within Gatton and Laidley Shires:</u> Threats to Regional Ecosystem 12.9/10.6 include:

- Loss or fragmentation through vegetation clearing.
- Invasion by the exotic pasture grass *Panicum maximum* (green panic) and the weed species *Lantana camara* (lantana), *Opuntia tomentosa* (tree pear), *Anredera cordifolia* (madeira vine), *Macfadyena unguis-cati* (cat's claw creeper) and *Protasparagus* spp. (asparagus fern).
- Fire incursion as a result of weed or exotic pasture grass invasion.
- Degradation through inappropriate grazing practices.

9.9 Regional Ecosystem 12.9/10.7

Conservation status: Of-concern (Queensland Vegetation Management Act 1999).

<u>Description:</u> Grassy woodland (sometimes with vine thicket understorey) of *Eucalyptus crebra* ± *Eucalyptus melanophloia* ± *Eucalyptus tereticornis* ± *Corymbia tessellaris* ± *Corymbia clarksoniana* + *Allocasuarina luehmannii*.

<u>Threats within Gatton and Laidley Shires:</u> Threats to Regional Ecosystem 12.9/10.7 include:

- Loss or fragmentation through vegetation clearing.
- Invasion by the weed species *Lantana camara* (lantana) and the exotic pasture grass species *Panicum maximum* (green panic).

9.10 Regional Ecosystem 12.9/10.11

Conservation status: Endangered (Queensland Vegetation Management Act 1999).

<u>Description:</u> Low open forest or thicket with emergent eucalypts of *Melaleuca tamariscina* subsp. *irbyana* <u>+</u> *Eucalyptus moluccana* <u>+</u> *Eucalyptus tereticornis*.

Threats within Gatton and Laidley Shires: Threats to Regional Ecosystem 12.9/10.11 include:

• Loss or fragmentation through vegetation clearing.

9.11 Regional Ecosystem 12.9/10.15

Conservation status: Endangered (Queensland Vegetation Management Act 1999).

<u>Description:</u> Microphyll closed forest to semi-evergreen vine thicket of *Flindersia australis*, *Flindersia collina*, *Brachychiton rupestris*, *Acacia fasciculifera*, *Ficus* spp. \pm *Flindersia xanthoxyla* \pm *Vitex lignumvitae* \pm *Excoecaria dallachyana* \pm *Pouteria cotinifolia* var. *cotinifolia* \pm *Bursaria incana* \pm *Croton insularis* \pm *Drypetes deplanchei* \pm *Owenia venosa* \pm *Secamone elliptica*.

Threats within Gatton and Laidley Shires: Threats to Regional Ecosystem 12.9/10.15 include:

- Loss or fragmentation through vegetation clearing.
- Invasion, particularly of remnant margins, by the weed species *Lantana camara* (lantana) and the exotic pasture grass species *Panicum maximum* (green panic).
- Invasion by the weed species *Anredera cordifolia* (madeira vine), *Rivina humilis* (coral berry), *Macfadyena unguis-cati* (cat's claw creeper) and *Protasparagus* spp. (asparagus fern).
- Fire incursion as a result of weed or exotic pasture grass invasion.
- Degradation through inappropriate grazing practices.

9.12 Regional Ecosystem 12.11.9

Conservation status: Of-concern (Queensland Vegetation Management Act 1999).

<u>Description:</u> Very tall open forest/woodland of *Eucalyptus tereticornis*, *Eucalyptus crebra* ± *Angophora subvelutina* ± *Eucalyptus melanophloia* ± *Corymbia intermedia* ± *Eucalyptus biturbinata* + *Eucalyptus eugenioides* + *Eucalyptus melliodora* + *Allocasuarina torulosa*.

Threats within Gatton and Laidley Shires: Threats to Regional Ecosystem 12.11.9 include:

- Loss or fragmentation through vegetation clearing.
- Invasion by the weed species *Lantana camara* (lantana).

9.13 Regional Ecosystem 12.12.3

Conservation status: Of-concern (Queensland Vegetation Management Act 1999).

<u>Description:</u> Tall woodland to tall open forest of *Corymbia citriodora* subsp. variegata/Corymbia henryi, Eucalyptus crebra <u>+</u> Corymbia intermedia <u>+</u> Eucalyptus major <u>+</u> Eucalyptus melanophloia.

<u>Threats within Gatton and Laidley Shires:</u> Threats to Regional Ecosystem 12.11.9 include:

- Loss or fragmentation through vegetation clearing.
- Degradation caused by inappropriate timber harvesting practices.
- Invasion by the weed species *Lantana camara* (lantana).

Notes