

# APPENDIX ONE: WORKSHOP EXPERTS

## FAUNA

<b>WORKSHOP ONE</b>		
<b>Expert</b>	<b>Nominated area of expertise</b>	<b>Nominated by</b>
Mark Burgman	Population Viability Assessment	EA
Rod Kavanagh	Arboreal Mammals/Nocturnal Birds	SFNSW
Andrew Smith	Arboreal Mammals	NPWS
Peter Catling	Ground Dwelling Mammals	NPWS
Chris Belcher	Ground Dwelling Mammals	SFNSW
Harry Parnaby	Bats	NCC
Greg Richards	Bats	NPWS
Brad Law	Bats	SFNSW
Stephen Debus	Nocturnal Birds	NPWS
David Milledge	Nocturnal Birds	NCC
Richard Shodde	Diurnal Birds	NPWS
Jim Shields	Diurnal Birds	SFNSW
Gary Daly	Reptiles / Amphibians	NPWS
Frank Lemkert	Reptiles / Amphibians	SFNSW
Michael Mahoney	Reptiles / Amphibians	NCC

<b>WORKSHOP TWO</b>		
<b>Expert</b>	<b>Area of expertise</b>	<b>Nominated by</b>
Rod Kavanagh	Arboreal Mammals/Nocturnal Birds	SFNSW
Andrew Smith	Arboreal Mammals	NPWS
Andrew Claridge	Ground Dwelling Mammals	EA
Mike Saxon	Ground Dwelling Mammals	NPWS
Chris Belcher	Ground Dwelling Mammals	SFNSW
Harry Parnaby	Bats	NCC
Brad Law	Bats	SFNSW
Andy Spate	Bats	NPWS
Rod Kavanagh	Nocturnal Birds	SFNSW
David Milledge	Nocturnal Birds	NPWS

Sandy Gilmour	Diurnal Birds	NPWS
Jim Shields	Diurnal Birds	SFNSW
Gary Daly	Reptiles / Amphibians	NPWS
Frank Lemkert	Reptiles / Amphibians	SFNSW
Michael Mahoney	Reptiles / Amphibians	NCC

## **FLORA**

<b>BOTH WORKSHOPS</b>		
Doug Binns	All species	SFNSW
David Keith	All species	NPWS
Michael Doherty	All species	Independent
Phil Gilmour	All species	Independent
Ross Peacock	All species	SFNSW

# APPENDIX TWO: RULES FOR ASSESSING INTRINSIC RISK FOR FAUNA

## **Prioritization according to rarity in the region**

### **Category 1**

- If the species has a small geographic range and low relative abundance  
**OR**
- if the species has a low relative abundance, medium geographic range and a narrow habitat specificity  
**OR**
- medium relative abundance, small geographic range and narrow habitat specificity

### **Category 2**

- If the species has a low relative abundance, a medium geographic range and a wide habitat specificity  
**OR**
- If the species has a small geographic range and a high relative abundance  
**OR**
- if the species has a medium relative abundance and a medium geographic range  
**OR**
- If the species has a medium abundance, small, geographic range and a wide habitat specificity.  
**OR**
- Large relative abundance, medium geographic range and narrow habitat specificity  
**OR**
- Medium relative abundance, large geographic range and narrow habitat specificity  
**OR**
- low relative abundance, large geographic range and narrow habitat specificity

### **Category 3**

- large geographic range and high relative abundance  
**OR**
- large geographic range, medium relative abundance and wide habitat specificity  
**OR**
- medium geographic range, high relative abundance and wide habitat specificity  
**OR**
- low relative abundance, large geographic range and wide habitat specificity

## **Prioritization according to population dynamics in the region**

Apply the first rule that is appropriate to the data and do not continue further.

### **Move up two categories if:**

- the species has declined since the arrival of Europeans and will continue to decrease without management intervention  
**OR**
- the species has declined by more than 25% in the last ten years

**Move up one category if:**

- the species has decreased since the arrival of Europeans

**OR**

- will decrease without management intervention

**OR**

- has decreased by up to 25% in the last ten years

**Move down one category if:**

- the species has increased or remained stable since the arrival of Europeans and will continue to do so without management intervention

**OR**

- has increased by up to 25% over the last 10 years

**Move down two categories if:**

- the species has increased by more than 25% in the last 10 years.

# APPENDIX THREE: FAUNA RISK OF EXTINCTION RESULTS

## KEY

**Since European settlement** = % change in abundance in the region from the time of European settlement to 10 years ago.

**Last ten years** = % change in abundance in the region in the last 10 years.

**Future without management** = expected change in abundance in the region if there is no management intervention.

**1<sup>st</sup> Category** = the category the species falls into based on its range, abundance and habitat specificity. **2<sup>nd</sup> Category** = the category it was moved to, based on its change in abundance.

Species	Geographic Range	Relative abundance	Habitat specificity	Since European settlement	Last ten years	Future without management	1st Category	2nd Category
Greater Glider	med.	med.	narrow	- < 25	- > 25	decrease	2	1
Greater Glider	med.	med.	narrow	- < 25	- > 25	decrease	2	1
Koala	small	low	narrow	- < 25	- > 75	decrease	1	1
Koala	small	low	narrow	- > 25	- > 75	decrease	1	1
Koala	large	low	narrow	- < 25	- > 75	decrease	1	1
Koala	med.	low	wide	stable	- > 75	stable	2	1
Yellow-bellied Glider	small	low	narrow	- < 25	- > 25	decrease	1	1
Yellow-bellied Glider	med.	low	narrow	stable	- > 25	decrease	1	1
Barking Owl	med.	low	narrow	- < 25	- > 25	decrease	1	1
Barking Owl	med.	low	narrow	stable	stable	decrease	1	1
Masked Owl	med.	low	wide	- < 25	- > 25	decrease	1	1
Masked Owl	med.	med.	narrow	stable	- < 25	decrease	2	1

Species	Geographic Range	Relative abundance	Habitat specificity	Since European settlement	Last ten years	Future without management	1st Category	2nd Category
Powerful Owl	med.	high	wide	stable	- >25	decrease	3	2
Powerful Owl	med.	med.	wide	stable	stable	decrease	2	1
Sooty Owl	med.	med.	narrow	stable	- < 25	decrease	2	1
Sooty Owl	med.	med.	narrow	< 25	- < 25	decrease	2	1
Long-footed Potoroo	small	low	narrow	stable	stable	decrease	1	1
Long-nosed Bandicoot	med.	med.	narrow	stable	- >25	stable	2	1
Long-nosed Bandicoot	med.	low	narrow	stable	stable	stable	1	2
Long-nosed Potoroo	med.	low	wide	stable	- >25	stable	2	1
Long-nosed Potoroo	small	med.	narrow	< 25	- >25	decrease	1	1
Smoky Mouse	small	low	narrow	stable	unknown	decrease	1	1
Smoky Mouse	med.	low	narrow	unknown	decreased	decrease	1	1
Southern Brown Bandicoot	small	low	narrow	- < 25	- >25	decrease	1	1
Southern Brown Bandicoot	med.	low	narrow	stable	- >75	decrease	1	1
Tiger Quoll	small	low	wide	unknown	- >25	decrease	1	1
Tiger Quoll	med.	low	wide	stable	- >75	decrease	2	1
White-footed Dunnart	med.	low	narrow	stable	stable	decrease	1	1
Australasian Bittern	med.	low	narrow	- >25	- >25	decrease	1	1
Bush Stone-curlew	med.	low	narrow	- >75	- >75	decrease	1	1

<b>Species</b>	<b>Geographic Range</b>	<b>Relative abundance</b>	<b>Habitat specificity</b>	<b>Since European settlement</b>	<b>Last ten years</b>	<b>Future without management</b>	<b>1st Category</b>	<b>2nd Category</b>
Crested Shrike-tit	large	med.	wide	stable	< 25	stable	3	3
Crested Shrike-tit	large	med.	wide	stable	stable	stable	3	4
Emerald Dove	med.	low	narrow	< 25	stable	decrease	1	1
Glossy Black-Cockatoo	med.	med.	narrow	< 25	< 25	stable	2	1
Glossy Black-Cockatoo	large	low	wide	stable	< 25	increase	5	4
Olive Whistler	large	low	narrow	stable	> 25	stable	2	1
Olive Whistler	small	low	narrow	stable	stable	stable	1	2
Pink Robin	small	low	wide	< 25	< 25	stable	1	2
Pink Robin	med.	low	narrow	stable	stable	stable	1	2
Red-browed Treecreeper	large	med.	narrow	stable	< 25	stable	2	1
Red-browed Treecreeper	med.	med.	wide	stable	stable	stable	2	3
Regent Honeyeater	med.	low		> 75	> 75	decrease	1	1
Square-tailed Kite	med.	low	wide	< 25	< 25	decrease	2	1
Swift Parrot	med.	low	narrow	< 25	< 25	decrease	1	1
Turquoise Parrot	med.	low	narrow	< 25	stable	stable	1	1
Varied Sittella	med.	med.	wide	stable	stable	stable	2	3
Yellow-tailed Black-Cockatoo	med.	med.	wide	stable	stable	stable	2	3
Common Death Adder	small	low	wide	> 25	< 25	decrease	1	1



<b>Species</b>	<b>Geographic Range</b>	<b>Relative abundance</b>	<b>Habitat specificity</b>	<b>Since European settlement</b>	<b>Last ten years</b>	<b>Future without management</b>	<b>1st Category</b>	<b>2nd Category</b>
Common Scaly-foot	small	low	wide	- >25	- >25	decrease	1	1
Diamond Python	med.	low	wide	- < 25	stable	decrease	2	1
Diamond Python	med.	low	wide	- < 25	- < 25	decrease	2	1
Lace Monitor	med.	med.	wide	stable	stable	decrease	2	2
Booroolong Frog	med.	low	narrow	stable	stable	stable	1	2
Booroolong Frog	med.	low	narrow	- >25	- >25	decrease	1	1
Giant Burrowing Frog	med.	low	wide	stable	- < 25	decrease	2	1
Giant Burrowing Frog	small	low	narrow	stable	stable	decrease	1	1
Highlands Tree Frog	med.	low	wide	- >25	- < 25	decrease	2	1
Stuttering Barred Frog	small	low	narrow	- >75	- >75	decrease	1	1
Stuttering Barred Frog	med.	low	narrow	- < 25	- >25	decrease	1	1
Common Bentwing-bat	large	med.	narrow	decreased	decreased	decrease	2	1
Common Bentwing-bat	med.	unknown	narrow	decreased	Unknown	decrease	2	1
Eastern Horseshoe-bat	large	low	narrow	decreased	decreased	decrease	2	1
Eastern Little Mastiff-bat	med.	low	narrow	decreased	decreased	decrease	1	1

<b>Species</b>	<b>Geographic Range</b>	<b>Relative abundance</b>	<b>Habitat specificity</b>	<b>Since European settlement</b>	<b>Last ten years</b>	<b>Future without management</b>	<b>1st Category</b>	<b>2nd Category</b>
Golden-tipped Bat	small	low	narrow	decreased	decreased	decrease	1	1
Golden-tipped Bat	small	low	narrow	decreased	unknown	decrease	1	1
Great Pipistrelle	large	med.	narrow	decreased	stable	decrease	2	1
Great Pipistrelle	med.	low	narrow	unknown	unknown	decrease	2	1
Greater Broad-nosed Bat	large	low	narrow	decreased	decreased	decrease	1	1
Greater Broad-nosed Bat	small	low	narrow	unknown	unknown	decrease	1	1
Grey-headed Flying-fox	med.	med.	wide	unknown	- >25	decrease	2	1
Grey-headed Flying-fox	large	low	wide	decreased	decreased	decrease	3	1
Large-footed Myotis	large	low	narrow	decreased	decreased	decrease	2	1
Large-footed Myotis	med.	low	narrow	unknown	unknown	decrease	1	1
Large Forest Bat	large	med.	wide	decreased	decreased	decrease	3	1
Little-red Flying-fox	large	low	wide	decreased	stable	decrease	3	1
Yellow-bellied Sheath-tail-bat	large	low	narrow	decreased	decreased	decrease	2	1
Yellow-bellied Sheath-tail-bat	med.	low	wide	unknown	unknown	decrease	2	1

# APPENDIX FOUR: LIST OF DISTURBANCES THAT AFFECT THE PRIORITY FAUNA SPECIES

<b>Species</b>	<b>Disturbance</b>	<b>Tenure</b>
<b>Greater Glider</b>	Clearing / Habitat Fragmentation	Private, SF
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Koala</b>	Clearing / Habitat Fragmentation	Private, SF
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Yellow-bellied Glider</b>	Clearing / Habitat Fragmentation	Private, SF
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Barking Owl</b>	Clearing / Habitat Fragmentation	Private, SF
	Grazing	Private, SF
	Hazard Reduction burn	Private, SF
	Human Interference	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Masked Owl</b>	Clearing / Habitat Fragmentation	Private, SF

	Hazard Reduction burn	Private, SF, NPWS
	Human Interference	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Powerful Owl</b>	Clearing / Habitat Fragmentation	Private, SF
	Hazard Reduction burn	Private, SF, NPWS
	Human Interference	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Species</b>	<b>Disturbance</b>	<b>Tenure</b>
<b>Sooty Owl</b>	Clearing / Habitat Fragmentation	Private, SF
	Hazard Reduction burn	Private, SF, NPWS
	Human Interference	Private, SF, NPWS
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS
<b>Long-footed Potoroo</b>	Clearing/Habitat Fragmentation	Private, SF
	Hazard Reduction Burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Poisoned Baiting	Private, SF, NPWS
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Long-nosed Bandicoot</b>	Clearing/Habitat Fragmentation	Private, SF
	Hazard Reduction Burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Poisoned Baiting	Private, SF, NPWS
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Long-nosed Potoroo</b>	Clearing / Habitat Fragmentation	Private, SF
	Hazard Reduction Burn	Private, SF, NPWS
	Integrated Logging	Private, SF

	Poisoned Baiting	Private, SF, NPWS
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Smoky Mouse</b>	Fire Exclusion	Private, SF, NPWS
	Hazard Reduction Burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Southern Brown Bandicoot</b>	Fire Exclusion	Private, SF, NPWS
	Hazard Reduction Burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Poisoned Baiting	Private, SF, NPWS
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Tiger Quoll</b>	Clearing / Habitat Fragmentation	Private, SF
	Grazing	Private, SF
	Hazard Reduction Burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Poisoned Baiting	Private, SF, NPWS
	Predation - foxes, dogs, cats	Private, SF, NPWS
<b>White-footed Dunnart</b>	Clearing/Habitat Fragmentation	Private, SF
	Hazard Reduction Burns	Private, SF, NPWS
	Integrated Logging	SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Species</b>	<b>Disturbance</b>	<b>Tenure</b>
<b>Australasian Bittern</b>	Clearing / Habitat Fragmentation	Private, SF
	Grazing	Private, SF
	Habitat Alteration - Draining Wetlands	Private, SF
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF

	Wildfire	Private, SF, NPWS
<b>Bush Stone Curlew</b>	Clearing / Habitat Fragmentation	Private, SF
	Hazard Reduction burn	Private, SF, NPWS
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
	Habitat Alteration - Draining Wetlands	Private, SF
<b>Crested Shrike-tit</b>	Clearing / Habitat Fragmentation	Private, SF
	Dieback	Private
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS
<b>Emerald Dove</b>	Clearing / Habitat Fragmentation	Private, SF
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS
<b>Glossy Black-Cockatoo</b>	Clearing / Habitat Fragmentation	Private, SF
	Grazing	Private, SF
	Habitat Alteration - Firewood Collection	Private, SF, NPWS
	Habitat Alteration - Urban Development	Private
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS
<b>Olive Whistler</b>	Clearing / Habitat Fragmentation	Private, SF
	Habitat Alteration - Urban Development	Private
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Pink Robin</b>	Baiting for Predators	Private, SF, NPWS
	Clearing / Habitat Fragmentation	Private, SF
	Habitat Alteration - Firewood	Private, SF, NPWS

	Collection	
	Habitat Alteration - Urban Development	Private
	Hazard Reduction burn	Private, SF, NPWS
	Hazard Reduction burn	SF
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS

<b>Species</b>	<b>Disturbance</b>	<b>Tenure</b>
<b>Red-browed Treecreeper</b>	Clearing / Habitat Fragmentation	Private, SF
	Habitat Alteration - Urban Development	Private
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Regent Honeyeater</b>	Clearing / Habitat Fragmentation	Private, SF
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS
<b>Square-tailed Kite</b>	Clearing / Habitat Fragmentation	Private, SF
	Habitat Alteration - Urban Development	Private
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS
<b>Swift Parrot</b>	Clearing / Habitat Fragmentation	Private, SF
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS
<b>Turquoise Parrot</b>	Clearing / Habitat Fragmentation	Private, SF
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS
	Clearfelling	Private, SF
	Clearing / Habitat Fragmentation	Private, SF
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS
<b>Varied Sittella</b>	Wildfire	Private, SF, NPWS
<b>Yellow-tailed Black-Cockatoo</b>	Clearfelling	Private, SF
	Clearing / Habitat Fragmentation	Private, SF
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS



<b>Common Death Adder</b>	Clearing / Habitat Fragmentation	Private, SF
	Grazing	Private, SF
	Habitat Alteration - Firewood Collection	Private, SF, NPWS
	Habitat Alteration - Urban Development	Private
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, NPWS, SF
	Wildfire	Private, SF, NPWS
<b>Common Scaly-foot</b>	Clearing / Habitat Fragmentation	Private, SF
	Grazing	Private, SF
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Species</b>	<b>Disturbance</b>	<b>Tenure</b>
<b>Diamond Python</b>	Baiting for Predators	Private, SF, NPWS
	Clearing / Habitat Fragmentation	Private, SF
	Habitat Alteration - Firewood Collection	Private, SF, NPWS
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Lace Monitor</b>	Baiting for Predators	Private, SF, NPWS
	Clearing / Habitat Fragmentation	Private, SF
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS
<b>Giant Burrowing Frog</b>	Clearing / Habitat Fragmentation	Private, SF
	Grazing	Private, SF
	Habitat Alteration - Urban Development	Private
	Hazard Reduction burn	Private, SF, NPWS

	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Green and Golden Bell Frog</b>	Baiting for Predators	Private, SF, NPWS
	Clearing / Habitat Fragmentation	Private, SF
	Grazing	Private, SF
	Habitat Alteration - Draining Wetlands	Private, SF
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Predation - Introduced Fish	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
<b>Highlands Tree Frog</b>	Clearing / Habitat Fragmentation	Private, SF
	Grazing	Private, SF
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Wildfire	Private, SF, NPWS
	Integrated Logging	Private, SF
	Wildfire	Private, SF, NPWS
<b>Stuttering Barred Frog</b>	Clearing / Habitat Fragmentation	Private, SF
	Grazing	Private, SF
	Hazard Reduction burn	Private, SF, NPWS
	Integrated Logging	Private, SF
	Predation - foxes, dogs, cats	Private, SF, NPWS
	Predation - Introduced Fish	Private, SF, NPWS
	Wildfire	Private, SF, NPWS

# APPENDIX FIVE: FAUNA RESEARCH AND MONITORING RECOMMENDATIONS

Species Common Name	Research and Monitoring Recommendations
Glossy Black Cockatoo	<ul style="list-style-type: none"> <li>• research/monitor use of logged habitat in the home range</li> <li>• research into management to maintain reproduction, flowering and regeneration of <i>Allocasuarina</i>.</li> </ul>
Greater Glider	<ul style="list-style-type: none"> <li>• monitoring of lower slope reservation and 40yr logging cycle</li> <li>• evaluate off park prescriptions including selective logging</li> <li>• monitoring (10 yrs) informal reserves if populations declining</li> </ul>
Grey-headed Flying Fox	<ul style="list-style-type: none"> <li>• investigate the impact of fire on flowering.</li> <li>• identify 'camp' sites.</li> </ul>
Koala	<ul style="list-style-type: none"> <li>• monitoring (10 yrs) informal reserves if populations declining</li> </ul>
Long-footed Potoroo	<ul style="list-style-type: none"> <li>• monitor objective of baiting</li> <li>• more research on baiting protocols and impact of this practice</li> <li>• survey Upper Brogo River area</li> </ul>
Long-nosed Bandicoot	<ul style="list-style-type: none"> <li>• monitor objective of baiting.</li> <li>• more research on baiting protocols and impact of this</li> </ul>

	<p>practice</p> <ul style="list-style-type: none"> <li>• survey Upper Brogo River area</li> </ul>
Long-nosed Potoroo	<ul style="list-style-type: none"> <li>• monitor objective of baiting</li> <li>• more research on baiting protocols and impact of this practice</li> </ul>
Olive Whistler	<ul style="list-style-type: none"> <li>• research into buffer effect in rainforest</li> </ul>
Pink Robin	<ul style="list-style-type: none"> <li>• research into buffer effect in rainforest</li> </ul>
Smoky Mouse	<ul style="list-style-type: none"> <li>• need stratified replicated site based research on intensity/frequency of fire and how they influence the species</li> <li>• monitor objective of baiting</li> <li>• more research on baiting protocols and impact of this practice</li> <li>• more survey work needed in suitable habitat</li> </ul>
Southern Brown Bandicoot	<ul style="list-style-type: none"> <li>• monitor objective of baiting</li> <li>• more research on baiting protocols and impact of this practice</li> <li>• survey Area A of distribution model</li> <li>• need to clarify regional status of this species</li> </ul>
White-footed Dunnart	<ul style="list-style-type: none"> <li>• more survey work is needed in Eden</li> </ul>
Square Tailed Kite	<ul style="list-style-type: none"> <li>• research on the impact of logging on nest sites and management to ameliorate any affects</li> <li>• investigate current records to identify nests and territories</li> </ul>
Swift Parrot	<ul style="list-style-type: none"> <li>• investigate the impact of logging and the best way to provide an adequate mosaic of food resources</li> </ul>
Tiger Quoll	<ul style="list-style-type: none"> <li>• more research on baiting protocols and impact of this practice</li> <li>• more research on impact of integrated logging</li> </ul>
Yellow-bellied Glider	<ul style="list-style-type: none"> <li>• monitoring of lower slope reservation and 40yr logging cycle</li> <li>• monitor objective of baiting</li> </ul>

	<ul style="list-style-type: none"> <li>• more research on baiting protocols and impact of this practice</li> </ul>
Giant Burrowing Frog	<ul style="list-style-type: none"> <li>• Survey work on all land tenures and for all life cycles with emphasis on heathland</li> </ul>
Booroolong Frog	<ul style="list-style-type: none"> <li>• desktop study to assess status and distribution in region.</li> </ul>
Stuttering Barred Frog	<ul style="list-style-type: none"> <li>• Survey work needed on all land tenures of all life cycles</li> </ul>
Hollow roosting bats	<p>Need research into:</p> <ul style="list-style-type: none"> <li>• roosting and foraging preferences</li> <li>• effectiveness of prescriptions using radio tracking</li> <li>• site fidelity of marked animals</li> <li>• regional movements</li> <li>• survey work on all Schedule 2 species</li> </ul>
Large-footed Myotis	<ul style="list-style-type: none"> <li>• research diet and taxonomy</li> <li>• need survey work especially under bridges</li> </ul>
Common Bentwing bBat	<ul style="list-style-type: none"> <li>• research on the foraging movements of subterranean roosting species</li> <li>• monitor key populations</li> </ul>

### **MONITORING AND SURVEY RECOMMENDATION FOR HERPETOFAUNA**

The workshop made the following recommendation on monitoring and surveys for the herpetofauna:

- Monitoring and surveys must be shown to be valid and reliable. This will be enhanced by the establishment of protocols for specific taxa.
- It was recommended that monitoring be undertaken for forest dependent species to determine the on going status of populations on both reserved and non reserved lands.

# APPENDIX SIX: RECOMMENDED MANAGEMENT PRESCRIPTIONS

## BURNING PRESCRIPTIONS

Type of Prescription	Objective	Size or Timing	Species
Appropriate prescription burning	maintain fruit production of <i>Allocasuarina</i>	burning interval >6 yrs	Glossy Black-Cockatoo
	ensure occurrence of senescent <i>Acacia</i>		Yellow tailed Black-Cockatoo
	retention of feeding resources by minimising high scorch burns	burn height < 1 m	Crested Shrike-tit, Red-browed Treecreeper
	avoid high intensity burns		Tiger Quoll
	creation of suitable habitat	burning interval > 10 yrs	Smoky Mouse, Southern Brown Bandicoot
	create open understorey and tall cover	burning interval >15-20 yrs	Long-nosed Potoroo, White-footed Dunnart, Long-nosed Bandicoot
	Prevent wildfire in an 'environmentally sensitive' way	needs to be further defined for species or groups of species	Australasian Bittern, Barking Owl, Bush Stone- Curlew, Koala, Greater Glider, Yellow-bellied Glider, Common Death Adder, Common Scaly Foot, Diamond Python, Emerald Dove, Green and Golden Bell Frog, Square-tailed Kite, Lace Monitor, Regent Honey-eater, Swift Parrot, Turquoise parrot, Varied Sittella, hollow roosting bats

	Prevent wildfire	burning interval > 5 yrs	Giant Burrowing Frog, Highlands Tree Frog
Excluding prescription burning in nominated areas	maintain rainforest habitat		Olive Whistler, Pink Robin, Stuttering Barred Frog
	maintain gully habitat		Powerful Owl, Sooty Owl, Masked Owl

### SILVICULTURAL PRACTICES

Type of Prescription	Objective	Size or Timing	Species
Reduce harvesting intensity	maintain uneven aged structure with mature trees		Yellow-bellied Glider, Koala
Log alternate coupes		cycle is at least 40 years	Koala, Yellow-bellied Glider, Greater Glider
Tree retention	research maintaining Allocasuarina		Glossy Black Cockatoo
	retain feeding trees as 'Habitat trees'		Crested Shrike-tit, Red-browed treecreeper
	retain feeding trees as 'Habitat trees'	4 trees (>40 cm DBH) per ha.	Swift Parrot
	maintain all ironbarks		Regent Honeyeater, Swift Parrot
	maintain feed trees		Koala, Common Bentwing bat
	maintain hollow bearing timber (standing and fallen)	> 50 cm. DBH (for Tiger Quoll)	Lace Monitor, Diamond Python, Tiger Quoll
Habitat retention (other than trees)	retain ground cover/ litter		Diamond Python, Common Death Adder, Common Scaly Foot
	retain termite mounds		Lace Monitor, Diamond Python, Tiger Quoll
	retain woody debris		Bush-stone Curlew

## HABITAT RETENTION WITHOUT LOGGING

Type of Prescription	Objective	Size or Timing	Species
Logging Exclusion	retain habitat	300 ha., with deficit in stream buffers	Powerful Owl, Barking Owl <sup>1*</sup>
	retain habitat	300 ha., in unlogged saddles which should be connected to other reserved areas	Masked Owl
	retain habitat	300 ha., with deficit in gully head, dark gorge or rainforest type habitat	Sooty Owl
	retain habitat	300 ha., with deficit in gully head, dark gorge or rainforest type habitat	Sooty Owl
	retain habitat	300 ha., with deficit in gully head, dark gorge or rainforest type habitat	Sooty Owl
	retain habitat	retain a mosaic of habitat within home range	Square-tailed Kite, Hollow roosting bats
	lower slope reservation		Yellow-bellied Glider, Greater Glider
Retention of patches of suitable habitat	maintain a mosaic of resources throughout the landscape	for Grey-headed Flying-fox priority should be given to areas up to 50 km. away from campsites	Hollow roosting bats, Grey-headed Flying-fox <sup>2</sup>
No logging, clearing or burning	maintain high quality habitats	in habitat and upstream from it	Stuttering Barred Frog, Giant Burrowing Frog, Highlands Tree Frog, Common Death Adder, Common Scaly Foot

<sup>1</sup> A firm recommendation by the experts was to propose legislation to provide incentives for private land conservation and strategic land purchases, as being important to conserve the Barking Owl. Voluntary Conservation Agreements, Landcare and Rivercare programs were also considered important.

<sup>2</sup> As bats are poorly understood in the Eden Region, Environment Australia has concerns about the reliability of the management recommendations put forward for bats.



## BUFFERS

Type of Prescription	Objective	Size or Timing	Species
Roost Buffers	protect roosts	50 m.	Powerful Owl, Sooty Owl, Masked owl
	protect seacave roosts	100 m.	Common Bentwing- Bat #
	protect maternity, transient and winter roosts	1000 m. + increased habitat tree retention 1-3000 m.out from maternity sites+C6	Common Bentwing- Bat #
	protect roosts and surrounding food resources		Eastern Horseshoe-bat #
	protect camp sites	200-500 m.	Grey-headed Flying-fox #
Nest tree buffers	protect nests	100 m.	Glossy Black Cockatoo,
		200 m.	Powerful Owl, Sooty Owl, Masked Owl
		50 m.	Yellow tailed Black-Cockatoo
Riparian buffers	to maintain habitat	200 m. (100 m for 3rd and higher order streams with low intensity harvesting in outer 50 m.)	Yellow-bellied Gliders
	protect 300 ha. of high quality habitat by increasing buffer on 1st order streams, headwaters, rainforest and other drainage features		Powerful Owl, Sooty Owl
	protect grassy woodlands beside major river systems	1000 m.	Barking Owl
	maintain the long-term integrity of the riparian environment		Large-footed Myotis, Golden-tipped Bat #, Booroolong Frog
	connect catchments	1000 m. of unlogged or lightly logged areas with long rotations	Stuttering Barred Frog, Giant Burrowing Frog, Highlands Tree Frog
Buffer	protect known sedentary populations	200 m. to a maximum of 10 populations	Koala
	protect all rainforest types (API and KBS)		Sooty Owl

## OTHER

Type of Prescription	Objective	Size or Timing	Species
Restoration and replanting via Landcare	re-establish ironbark forest		Regent Honeyeater, Swift Parrot
	re-establish native woodland species		Turquoise Parrot
	connect old woodland systems along Bega valley		Koala, Barking Owl
Predator control	reduce predation	baits buried more than 15 cm. down, have an adequate free feed period, monitor baits daily and include public education on private land	ALL SPECIES EXCEPT-Australasian Bittern, Crested Shrike Tit, Emerald Dove, Glossy Black Cockatoo, Regent Honeyeater, Square-tailed Kite, Turquoise Parrot, Varied Sittella, Yellow-tailed Black Cockatoo and all bats
	predator baiting that reduces non-target impacts		Southern Brown Bandicoot, Long-nosed Potoroo, Long-nosed Bandicoot, Long-footed Potoroo, Tiger Quoll, Lace Monitor
Appropriate road design	avoid water flow alterations		Stuttering Barred frog, Green and golden Bell Frog, Giant Burrowing Frog, Highlands Tree Frog
Apply Legislation SEP 44 & 46	reduce or prevent land clearing		Greater Glider, Koala, Yellow-bellied Glider, Long-nosed Potoroo, Long-nosed Bandicoot, Glossy Black Cockatoo, Olive Whistler, Red-browed Treecreeper, Square-tailed Kite, Swift Parrot, Common Death Adder, Common Scaly Foot, Lace Monitor, Giant Burrowing Frog, Stuttering Barred Frog, Highlands Tree Frog Large footed Myotis
Refer to Recovery Plan			Long-footed Potoroo

# APPENDIX SEVEN: FUNCTIONAL GROUPS, POPULATION TARGETS & SIGNIFICANCE OF PRIORITY FLORA SPECIES

SPECIES	FUNCTIONAL GROUP				Significance
	High	Low	Direct Mechanical Damage	Target populations	
<i>Acacia blayana</i>	SI	SI	SI	5	locally endemic
<i>Acacia constablei</i>	SI	SI	SI	5	locally endemic
<i>Acacia costiniana</i>	SI	SI	SI	5	restricted outside region, southern limit, disjunct pop.
<i>Acacia georgensis</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	restricted outside region, southern limit
<i>Acacia lucasii</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	regionally uncommon, disjunct, possibly northern limit
<i>Acacia oxycedrus</i>	SI	SI	SI	5	regionally uncommon, local northern limit
<i>Acacia pyncantha</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	regionally uncommon, unusual habitat
<i>Acacia subporosa</i>	SI	SI	SI	5	restricted outside, northern limit

<i>Acacia subtilinervis</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	disjunct pop.
<i>Acronychia oblongifolia</i>	DT	ΔT	ΔT	5	regionally uncommon
<i>Actinotus gibbonsii</i>	SI	SI	SI	Survey	uncommon throughout distribution, southern limit, disjunct pop., unusual habitat
<i>Adriana glabrata</i>	CI	CI	CI	5	regionally uncommon
<i>Alectryon subcinereus</i>	DT	ΔT	ΔT	5	regionally uncommon
<i>Allocasuarina diminuta</i> <i>ssp. annectens</i>	VI	VI	VI	5	regionally uncommon, southern limit, disjunct pop.
<i>Allocasuarina distyla</i>	CI	CI	CI	5	regionally uncommon, southern limit
<i>Ammobium alatum</i>	DI/DT	DI/DT	DI/DT	Survey	regionally uncommon
<i>Asplenium australasicum</i>	DR	DR	DR	Target all known sites	southern limit, there are less than ten known sites
<i>Asterolasia astericophora</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	uncommon throughout distribution
<i>Astroloma pinifolium</i>	SI?	SI?	SI?	5	regionally uncommon
<i>Australopyron pectinatum</i>	CT	CT	Ct	Target all known sites	There are less than five known sites
<i>Baeckea denticulata</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	southern limit
<i>Banksia spinulosa</i> var. <i>cunninghamii</i>	CI	CI	CI	Target all known sites	local northern limit, there are less than five known sites
<i>Boronia deanei</i>	Σ I?	Σ I?	Σ I?	5	southern limit, disjunct pop.
<i>Boronia nana</i> var. <i>hyssopifolia</i>	SI	SI	SI	5	regionally uncommon
<i>Boronia rigens</i>	SI?	SI?	SI?	5	regionally uncommon, southern limit
<i>Botrychium australe</i>	UT	UT	UT	5	uncommon throughout distribution

<i>Bracteantha viscosa</i>	DI	DI	DI	5	regionally uncommon
<i>Burnettia cuneata</i>	UI	UI	UI	5	disjunct pop.
<i>Caladenia clarkiae</i>	UT	UT	UT	5 + 5	northern limit, regionally uncommon
<i>Caladenia sp. aff. reticulata</i>	UT	UT	UT	5 + 5	uncommon throughout distribution, northern limit
<i>Caladenia tessellata</i>	UT	UT	UT	5 + 5	nationally significant
<i>Callitris muelleri</i>	CI	CI	CI	5	regionally uncommon
<i>Calotis glandulosa</i>	CI	CI	CI	5	southern limit
<i>Cassinia aureonitens</i>	NI	CI	CI	5	regionally uncommon, southern limit, disjunct pop.
<i>Cassinia cunninghamii</i>	NI	CI	CI	Survey	regionally uncommon, southern limit, disjunct pop.
<i>Cassinia uncata</i>	NI	CI	CI	5	regionally uncommon
<i>Caustis recurvata</i>	SI	SI	SI	Survey	regionally uncommon, southern limit
<i>Chorizema parvifolium</i>	Σ I	Σ I	Σ I	Survey	regionally uncommon
<i>Clematis microphylla var. leptophylla</i>	DT	ΔT	ΔT	5	regionally uncommon
<i>Comesperma sphaerocarpa</i>	SI	SI	SI	5	regionally uncommon
<i>Correa baeuerlenii</i>	SI	SI	SI	Monitor	southern limit, disjunct pop.
<i>Cryptandra scortechinii</i>	SI/?	SI/?	SI/?	5	regionally uncommon, southern limit
<i>Cryptostylis hunteriana</i>	UT	UT	UT	5 + 5	nationally significant
<i>Cyathea leichhardtiana</i>	ΔT	ΔT	ΔT	5	regionally uncommon

<i>Cymbidium suave</i>	WR	WR	WR	10	southern limit
<i>Davallia pyxidata</i>	DR	DR	DR	10	regionally uncommon, local southern limit
<i>Daviesia acicularis</i>	Σ I?	Σ I?	Σ I?	5	regionally uncommon
<i>Daviesia suaveolens</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	southern limit
<i>Dendrobium aemulum</i>	DR	DR	DR	10	southern limit
<i>Desmodium brachypodium</i>	Σ I	Σ I	Σ I	10	regionally uncommon
<i>Deyeuxia accedens</i>	CT	CT	CT	5	northern limit
<i>Deyeuxia talariata</i>	CT	CT	CT	5	uncommon throughout distribution
<i>Dillwynia juniperina</i>	SI	SI	SI	5	regionally uncommon
<i>Dodonaea multijuga</i>	SI	SI	SI	5	regionally uncommon, southern limit, disjunct pop.
<i>Dodonaea rhombifolia</i>	SI?	SI?	SI?	5	nationally significant
<i>Dodonaea triangularis</i>	SI?	SI?	SI?	Survey	regionally uncommon, southern limit, disjunct pop.
<i>Ehretia acuminata</i>	DT	ΔT	ΔT	5	regionally uncommon, southern limit
<i>Epacris robusta</i>	SI	SI	SI	5	regionally uncommon, southern limit
<i>Epilobium pallidiflorum</i>	DI	DI	DI	5	uncommon throughout distribution, depleted in the wild
<i>Eriostemon myoporoides</i> spp. <i>myoporoides</i>	SI/VI	Σ I	Σ I	5	regionally uncommon
<i>Eriostemon virgatus</i>	SI	SI	SI	5	regionally uncommon, northern limit
<i>Eucalyptus badjensis</i>	VI	UI	VI	5	southern limit

<i>Eucalyptus baeuerlenii</i>	VI	UI	VI	5	regionally uncommon, southern limit
<i>Eucalyptus baueriana</i>	VI	UI	VI	10	depleted in the wild
<i>Eucalyptus conspicua</i>	VI	UI	VI	5	uncommon throughout distribution, northern limit
<i>Eucalyptus croajingolensis</i>	VI	UI	VI	5	northern limit
<i>Eucalyptus ignorabilis</i>	VI	UI	VI	5	uncommon throughout distribution, northern limit
<i>Eucalyptus imlayensis</i>	VI	UI	VI	5	locally endemic
<i>Eucalyptus latiuscula</i>	VI	UI	VI	5	uncommon throughout distribution, southern limit
<i>Eucalyptus melliodora</i>	VT	UI	VI	10	regionally uncommon, unusual habitat
<i>Eucalyptus olsenii</i>	VI	UI	VI	5	southern limit, regionally uncommon
<i>Eucalyptus paliformis</i>	CI	WI	CI	5	nationally significant, endemic
<i>Eucalyptus parvula</i>	VT	VI	VI	10	southern limit
<i>Eucalyptus pseudoglobulus</i>	VI	UI	VI	5	regionally uncommon, northern limit
<i>Eucalyptus sp. aff. globoidea</i>	VI	UI	VI	5	uncommon throughout distribution, northern limit
<i>Eucalyptus spectatrix</i>	VI	VI	VI	5	locally endemic
<i>Eucalyptus stellulata</i>	VT	VT	VI	5	regionally uncommon
<i>Eucalyptus stenostoma</i>	CI	WI	CI	5	regionally uncommon, southern limit
<i>Eucalyptus tereticornis</i>	VT	VT	VI	10	depleted in the wild
<i>Eucalyptus wilcoxii</i>	VI	VI	VI	5	southern limit

<i>Eucryphia moorei</i>	VT	VT	VT	5	uncommon throughout distribution
<i>Festuca asperula</i>	UT	UT	UT	5	uncommon throughout distribution
<i>Festuca eriopoda</i>	UT	UT	UT	5	regionally uncommon
<i>Festuca hookeriana</i>	UT	UT	UT	5	regionally uncommon
<i>Gaultheria appressa</i>	DT	DT	DT	5	southern limit
<i>Genoplesium rhyoliticum</i>	UI	UI	UI	5	local endemic
<i>Grevillea acanthifolia</i> ssp. <i>paludosa</i>	SI	SI	SI	5	locally endemic
<i>Grevillea miqueliana</i>	SI	SI	SI	5	regionally uncommon, disjunct pop.
<i>Grevillea mucronulata</i>	SI	SI	SI	Target all known populations	regionally uncommon, southern limit, there are less than five known sites
<i>Hakea maccreana</i>	CI	CI	CI	10	southern limit
<i>Haloragodendron baeuerlenii</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	nationally significant
<i>Haloragodendron monospermum</i>	SI	SI	SI	5	uncommon throughout distribution (southern tablelands endemic), southern limit
<i>Helichrysum collinum</i>	NI	CI	CI	5	regionally uncommon, southern limit, disjunct pop.
<i>Hibbertia hermanniifolia</i>	SI/Σ I	Σ I	Σ I	5	locally endemic?
<i>Hibbertia saligna</i>	SI	SI	SI	5	regionally uncommon, southern limit, disjunct pop.
<i>Hibbertia</i> sp. nov. aff. <i>hermanniifolia</i>	SI/Σ I	Σ I	Σ I	5	locally endemic?
<i>Hovea longifolia</i>	SI	SI	SI	5	regionally uncommon, southern limit, disjunct pop.
<i>Jacksonia scoparia</i>	Σ I	Σ I	Σ I	5	disjunct pop., regionally uncommon, southern limit



<i>Korthalsella rubra</i>	DR	DR	DR	10	regionally uncommon
<i>Kunzea sp. C</i> ( <i>aff. capitata</i> )	SI/Σ I	SI/Σ I	SI/Σ I	5	regionally uncommon, southern limit
<i>Lasiopetalum parvifolium</i>	Σ I	Σ I	Σ I	5	uncommon throughout distribution, southern limit
<i>Lepidium hyssopifolium</i>	ST	ST	ST	5	nationally significant
<i>Lepidium pseudotasmanicum</i>	ST	ST	ST	5	uncommon throughout distribution
<i>Leptorhynchus nitidulus</i>	SI?	SI?	SI?	5	regionally uncommon
<i>Leptospermum scoparium</i>	CI	CI	CI	5	northern limit
<i>Leucopogon attenuatus</i>	SI?	SI?	SI?	5	regionally uncommon
<i>Leucopogon setiger</i>	SI	SI	SI	5	regionally uncommon, southern limit, disjunct pop.
<i>Leucopogon suaveolens</i>	SI	SI	SI	5	regionally uncommon
<i>Livistona australis</i>	UT	UT	UT	5	regionally uncommon
<i>Logania pusilla</i>	SI	Σ I	Σ I	5	regionally uncommon
<i>Lotus australis</i>	Σ I	Σ I	Σ I	Survey	regionally uncommon
<i>Lycopodium myrtifolium</i>	ΔR	ΔR	ΔR	5	regionally uncommon
<i>Macrozamia communis</i>	UT	UT	UT	5	southern limit, global limit for cycads
<i>Mazus pumilio</i>	Σ I/T I	Σ I/T I	Σ I/T I	5	regionally uncommon
<i>Mirbelia pungens</i>	Σ I	Σ I	Σ I	5	regionally uncommon
<i>Monotoca albens</i>	DI?	DI?	DI?	5	regionally uncommon, southern limit

<i>Monotoca rotundifolia</i>	SI / Σ I			5	regionally uncommon
<i>Myoporum bateae</i>	SI	SI	SI	5	uncommon throughout distribution, southern limit
<i>Notothixos subaurens</i>	DR	DR	DR	10	regionally uncommon
<i>Opercularia diphylla</i>	SI	SI	SI	Survey	regionally uncommon, southern limit
<i>Oxylobium scandens</i> var. <i>scandens</i>	Σ I	Σ I	Σ I	5	uncommon throughout distribution, depleted in the wild, southern limit
<i>Ozothamnus conditus</i>	DI	CI	CI	5	regionally uncommon
<i>Pentapogon quadrifidus</i>	DT	DT	DT	5	regionally uncommon
<i>Persoonia asperula</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	regionally uncommon
<i>Persoonia brevifolia</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	restricted outside region, northern limit
<i>Phebalium carruthersii</i>	SI?	SI?	SI?	5	southern limit
<i>Phebalium ellipticum</i>	SI?	SI?	SI?	5	regionally uncommon, southern limit
<i>Phebalium ralstonii</i>	SI	SI	SI	10	locally endemic
<i>Phebalium rhytidophyllum</i>	SI?	SI?	SI?	5	locally endemic
<i>Pimelea curviflora</i> spp. <i>gracilis</i> var. <i>sericea</i>	Σ I	Σ I	Σ I	10	regionally uncommon
<i>Pittosporum bicolor</i>	DR	DR	DR	10	regionally uncommon
<i>Platyцерium bifurcatum</i> ssp. <i>bifurcatum</i>	DR	DR	DR	10	regionally uncommon, southern limit
<i>Poa cheelii</i>	UT	UT	UT	5	southern limit
<i>Poa costiniana</i>	UT	UT	UT	5	regionally uncommon

<i>Podocarpus spinulosus</i>	UI/VI	UI/VI	UI/VI	5	regionally uncommon, southern limit
<i>Pomaderris angustifolia</i>	SI	SI	SI	5	regionally uncommon
<i>Pomaderris betulina</i>	SI	SI	SI	5	regionally uncommon
<i>Pomaderris bodalla</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	regionally uncommon, locally abundant, southern limit
<i>Pomaderris brogoensis</i>	Σ I	Σ I	Σ I	5	restricted outside region
<i>Pomaderris costata</i>	SI	SI	SI	5	nationally significant
<i>Pomaderris cotoneaster</i>	SI	SI	SI	5	nationally significant
<i>Pomaderris elachophylla</i>	SI	SI	SI	5	regionally uncommon, northern limit
<i>Pomaderris eriocephala</i>	SI	SI	SI	5	regionally uncommon
<i>Pomaderris parrisiae</i>	SI	SI	SI	5	restricted outside region, southern limit
<i>Pomaderris pauciflora</i>	SI/Σ I	SI/Σ I	SI/Σ I	5	nationally significant
<i>Pomaderris virgata</i>	SI	SI	SI	5	restricted outside region, southern limit
<i>Prostanthera walteri</i>	SI	SI	SI	5	northern limit
<i>Pschotria loniceroides</i>	DT	DT	DT	5	southern limit
<i>Pseudanthus divaricatissimus</i>	SI	SI	SI	5	nationally significant
<i>Psoralea adscendens</i>	SI	SI	SI	5	regionally uncommon
<i>Pterostylis plumosa</i>	UT	UT	UT	5	regionally uncommon, disjunct pop., unusual habitat
<i>Pultenaea blakelyi</i>	SI	SI	SI	5	regionally uncommon, southern limit

<i>Pultenaea hispidula</i>	SI	SI	SI	5	regionally uncommon
<i>Pultenaea parrisiae</i> ssp. <i>parrisiae</i>	SI	SI	SI	5	regionally uncommon, restricted outside region
<i>Pultenaea villifera</i>	SI	Σ I	Σ I	5	southern limit, disjunct pop.
<i>Rhagodia candolleana</i>	DT	DT	DT	5	unusual habitat (non coastal)
<i>Rulingia hermannifolia</i>	SI	SI	SI	10	southern limit, disjunct pop.
<i>Santalum obtusifolium</i>	DT	DT	DT	5	regionally uncommon
<i>Sarcomelicope simplicifolia</i>	DT	ΔT	ΔT	5	regionally uncommon, southern limit
<i>Sarochilus australis</i>	DR	DR	DR	10	depleted in the wild, (threatened by collectors)
<i>Sarochilus olivaceus</i>	DR	DR	DR	10	southern limit, depleted in the wild (threatened by collectors)
<i>Schizomeria ovata</i>	VT	VT	VT	5	regionally uncommon, southern limit
<i>Senecio glomeratus</i>				5	taxonomic problems
<i>Sicyos australis</i>	DI	DI	DI	10	regionally uncommon
<i>Spyridium cinereum</i>	SI	SI	SI	5	nationally significant
<i>Styphelia adscendens</i>	SI	SI	SI	5	regionally uncommon
<i>Styphelia psiloclada</i>	SI	SI	SI	5	regionally uncommon
<i>Symplocos thwaitesii</i>	DT/DR	DT/DR	DT/DR	5	regionally uncommon, local southern limit
<i>Tetrateca subaphylla</i>	Σ I	Σ I	Σ I	5	uncommon throughout distribution
<i>Thysanotus patersonii</i>	UI	UI	UI	5	regionally uncommon, unusual habitat

<i>Tmesipteris ovata</i>	ΔR	ΔR	ΔR	5	regionally uncommon
<i>Tmesipteris truncata</i>	ΔR	ΔR	ΔR	5	uncommon throughout distribution, southern limit
<i>Trachymene humilis</i> ssp. <i>humilis</i>	SI?	SI?	SI?	5	regionally uncommon
<i>Trisetum spicatum</i>	DT	DT	DT	5	regionally uncommon
<i>Trochocarpa laurina</i>	NR	WR	WR	5	regionally uncommon, southern limit, disjunct pop.
<i>Viola caleyana</i>	Σ I	Σ I	Σ I	5	regionally uncommon
<i>Viola cleistogamoides</i>	Σ I	Σ I	Σ I	Survey	regionally uncommon, northern limit
<i>Wahlenbergia gloriosa</i>	VT	VT	VT	5	regionally uncommon
<i>Wahlenbergia luteola</i>	VT	VT	VT	5	regionally uncommon
<i>Wahlenbergia multicaulis</i>	VT	VT	VT	Survey	regionally uncommon
<i>Westringia davidii</i>	SI	SI	SI	10	locally endemic
<i>Westringia kydrensis</i>	SI	SI	SI	10	endemic
<i>Xanthorrhoea concava</i>	UI	UI	UI	5	southern limit
<i>Zieria buxijugum</i>	SI	SI	SI	5	locally endemic
<i>Zieria citriodora</i>	SI	SI	SI	5	northern limit ,disjunct pop
<i>Zieria formosa</i>	SI	SI	SI	5	locally endemic
<i>Zieria fraseri</i> ssp. <i>compacta</i>	SI	SI	SI	5	regionally uncommon, southern limit
<i>Zieria parrisiae</i>	SI	SI	SI	5	locally endemic

<i>Zornia dyctyocarpa</i> var. <i>dyctyocarpa</i>	Σ I	Σ I	Σ I	10	regionally uncommon, depleted in the wild, southern limit
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# APPENDIX EIGHT: FLORA SPECIES MANAGEMENT, SURVEY & MONITORING RECOMMENDATIONS



The following recommendations for individual species was compiled from the workshops (Dwight 1997). For species not listed in this Appendix, no specific recommendations were made, apart from the target population numbers indicated in Appendix Seven.

#### **SPECIES FROM THE 'C' FUNCTIONAL GROUP**

*Hakea macreana* Logging is not a serious threat, species is adequately reserved as there are five populations already in reserve, can not consider logging as contributing to 90% decline. The major consideration must be fire.

*Leptospermum scoparium* Ten populations already reserved. Logging is not an issue, avoid repeated fires.

#### **SPECIES FROM THE 'R' & 'DR' FUNCTIONAL GROUPS**

*Asplenium australasicum* - There are a handful of rainforest sites in the north of the region. All populations need some sort of reservation. Eight sites are recorded.

*Atherosperma moschatum* - This species is recorded at Mt Dromedary. This is a questionable record, that is outside the Eden CRA region. This record should be checked for the Southern CRA.

*Cymbidium suave* - Reservation and management by prescription may be a better option than just reservation. Target ten populations and implement a prescription that logging operations are to avoid damaging mature plants.

*Dendrobium aemulum* - A prescription for pre logging survey of mature ironbarks in coastal forests north of Bega, is needed in harvesting plans.

*Korthalsella rubra* - usually grows on *Acmena smithi*. There are sites in Nullica SF and Nadgee SF (probably Maxwells Ck). There is

only one population in Nullica SF on the database. More sites are needed for protection. Target all known sites.

*Nothothixos subaureus* - probably only three populations known.

*Pittosporum bicolor* - Although this species is represented in reserves, it was included for assessment on the basis of there only being small populations in the region. Target ten populations.

*Platyserium bifurcatum ssp. bifurcatum* Bunga Head is the only known locality in the regions. This population and *Asplenium australasicum* and *Dendrobium aemulum* should be monitored for pilfering at Bunga Head.

*Sarochilus australis* - There are under ten known populations. This species is depleted in the wild and threatened by collectors.

*Sarochilus olivaceus* - There are under ten known populations. This species is depleted in the wild and threatened by collectors.

*Symplocos thwaitesii* There are two known populations. Numbulla SF and Tanja SF (in wet gullies).

#### **SPECIES FROM THE 'ΔR' FUNCTIONAL GROUP**

These are slightly more resistant, so the target does not need to be pushed above five populations.

*Lycopodium myrtifolium* - grows in rock crevices or is epiphytic in rainforest. There are less than five known populations.

*Tmesipteris ovata* - There are less than five known populations. Probably occurs at Maxwells Ck Flora Reserve.

*Tmesipteris truncata* - There are less than five known populations.

#### **SPECIES FROM THE 'N' FUNCTIONAL GROUP**

*Cassinia cunninghamii* - One known record for the Bermagui Eden area.. This record has no accurate locality details. Survey for this species is required. If more than five localities are found for this species, it should be in the 'D' functional group rather than the 'N' group.

*Cassinia uncata* - Only two records are known. for this species.

#### **SPECIES WITH A SMALL AREA OF OCCUPANCY (LOCAL POPULATIONS) AND SUSCEPTIBLE TO SOIL DISTURBANCE**

*Austalopyrum pectinatum* - This is a perennial grass which has only been found at one site in the Eden region. It is found on black soil, rock screes. Target all known localities.

*Pentapogon quadrifidus* - One or two records known. Occurs at Wog Wog Station.

#### **SPECIES OF THE 'T' FUNCTIONAL GROUP**

Reservation is not necessarily appropriate. This group needs management prescriptions, as the aim for preservation is not to exclude certain disturbances.

*Actinotus gibbonsii* - Insufficient information is known. Survey recommended. The heaths around Bombala might be worth surveying, preferably less than 12 months after fire.

*Ammobium alatum* - Only one record known, which was considered to probably have been brought in on a gravel truck. Not picked up in surveys where it would be expected to occur. This species was given a low priority for survey.

*Ammobium alatum* - This species was not considered due to there being taxonomic problems relating to this species.

*Asterolasia astericophora* - Less than five known populations.

*Astroloma pinifolium* - Less than five known populations. Nelson Beach occurrence is probably on a coastal dune. There are also sporadic occurrences on sandy granite country. Target five populations and possibly implement general surveys and pre logging surveys.

*Boronia nana var. hyssopicfolia* - Less than five known populations. Five populations is considered adequate. This species is not considered threatened as it occurs in high altitude swamps.

*Boronia rigens* - Target five populations.

*Botrychium australe* - Occurs in open situations in swampy areas. Fairly random where it occurs. Target five (two on private land). This species is covered by the functional group management prescription to avoid clearing for all 'UT's'.

*Bracteantha viscosa* - Less than five known populations.

***Burnettia cuneata*** - Coastal saprophytic heath plant, that is not susceptible to soil disturbance. It is probably under-recorded, as it is hard to find. Recommend surveys after intense wildfires. Probably adequately conserved, as there is good representation of coastal heath in reserves. Target five populations. Recommend prescription of excluding vehicles from swampy heath vegetation.

***Caladenia clarkiae*** - No data.

***Caladenia sp. aff. reticulata*** - One known locality.

***Caladenia tessellata*** - More information is needed.

***Caustis recurvata*** - There is a single infertile specimen in State Forests herbarium at Eden, collected from Nadgee State Forest. There is doubt about the identity of this specimen. Because of the uncertain identification and lack of precise locality data, Doug Binns suggests that this record be ignored for the RFA process.

***Chorizema parvifolium*** - Hard to find if not flowering, unsure of habitat, recommend survey.

***Comesperma sphaerocarpa*** - Less than five known populations.

***Cryptostylis hunteriana*** - Target five populations in dedicated reserves and five in management reserves.

***Desmodium brachypodium*** - Lot of records, virtually all in the Bega valley. This species has similar threats as for *Sicyos australis*. There are few records in reserves and it occurs mainly on private land. Target remnant *Ficus spp.* patches in the Bega Valley and Brogo area. Target ten populations.

***Epilobium pallidiflorum*** - Less than five known populations. Occurs in swampy areas.

***Festuca asperula, F eriopoda, F hookeriana, Poa cheelii P costiniana.*** All these species are common elsewhere, but are at the edge of their range in the Eden region. They are resilient and are

likely to be under recorded. These species should be targeted by anyone who is already doing surveys, with particular emphasis on *Festuca* species.

***Gaultheria appressa*** - Not likely to be disturbed as it occurs in rocky areas. Target five populations.

***Lasiopetalum parvifolium*** - Less than five populations are known.

***Leptorhynchos nitidulus*** - one known population. The single specimen was collected on a roadside within 12 months of a severe wildfire. This record could be ignored for the CRA, or at least given a low priority for further survey.

***Logania pusilla*** - Probably under recorded. Leave target at five.

***Lotus australis*** - Survey required.

***Mazus pumillo*** - This species is probably under-recorded. Target of five is adequate.

***Monotoca albens*** - Less than five known populations.

***Opercularia diphylla*** - No reliable data available.

***Oxylobium scandens var. scandens*** - Depleted in the wild. Survey required.

***Ozothamnus conditus*** - Less than five known populations.

***Pimelea curviflora spp. gracilis var. sericea*** - Occurs as remnant patches in woodland that is grazed. Target ten populations.

***Psoralea adscendens*** - Fairly common in parts of pine plantation near Coolangubra and is considered quite resilient (eg. occurs by roadsides). At least 7 or 8 localities are recorded. Species is at eastern limit. Five populations is an adequate target. Recommend implementing a prescription to avoid clearing and control grazing and weeds.

***Rhagodia candolleana*** - This species normally occurs on coastal dunes. There are less than five populations known in non coastal localities. There are populations on private land in dry rainforest. Target all of these non coastal populations.

***Santalum obtusifolium*** - Individuals tend to be isolated, dispersal is widespread and the species is not long lived. The panel considered that management prescription would be a suitable conservation action. Five populations should be targetted for reserves and extensive wildfire should be excluded from reserves. There should also be localised exclusion of earthworks and hazard reduction burning (including logging at the coupe scale).

***Sicyos australis*** - This species occurs mainly on private land and there are few recorded in reserves. The dry rainforest habitat is not common and was considered to be threatened. Target remnant *Ficus* spp. patches in Bega Valley and Brogo area. Target ten populations.

***Thysanotus patersonii*** - The coastal heath habitat is unusual for this species, as it is more typically found in inland habitats. Target five populations.

***Trachymene humilis* ssp. *humilis*** - Two known populations. Target five populations.

***Trisetum spicatum*** - Less than five known populations.

***Viola caleyana*** - Less than five known populations. Occurs in swampy areas.

***Viola cleistogamoides*** - The only record of this species is at Wonbyon and there is no accurate locality data for this location. Survey recommended.

***Whalenbergia luteola*** - Less than five known populations.

***Whalenbergia multicaulis*** - No reliable records were available.

***Zornia dyctyocarpa* var. *dyctyocarpa*** - There are one or two known localities that have probably been cleared. Target ten populations.

#### **SPECIES WITH HABITAT RESTRICTED TO FRAGMENTED AREAS, AND SUSCEPTIBLE TO HABITAT LOSS AND; SPECIES WITH DISTRIBUTION RESTRICTED TO LESS THAN 10KM<sup>2</sup>**

***Allocasuarina diminuta* ssp. *annectens*** - Recommend survey to assess further distribution.

***Correa baeuerlenii*** - Some sort of reservation is needed on the largest population, but not necessarily the elimination of disturbance. Monitoring is needed to determine which management regime is most appropriate.

***Dodonaea triangularis*** - No accurate data. Recommend survey.

***Eucalyptus bauerlenii*** - Depleted in the wild. There are five locations in reserves. Target five good examples of this community into the reserve system. Target five additional populations for representation of the species and consider private land in meeting these targets.

***Eucalyptus melliodora*** - Similar recommendations as for *E.bauerlenii*.

***Eucalyptus parvula*** - Threatened by clearing for power lines, seed collectors etc. Target 10 populations.

***Eucalyptus tereticornis*** - Similar requirements as for *E.bauerlenii*. Target the small area of basalt near Yellow Pinch dam as one of the 10 populations.

***Grevilea mucronulata*** - Only one population is known. This site is probably still crown land. This is the dominant shrub in a small area. Recommend preserve.

***Leucopogon setiger*** - Five known localities, low risk habitat (rhyolite outcrops). Target of five is adequate.



*Pultenaea hispidula* - Only two known locations. This species is disjunct and has a small range within the region. Detailed survey of patch of crown land at Tuross is needed (AMG 761500 5919800).

*Pultenaea villifera* - Target five populations. There is a recent record of a 100 plant population in Murrah State Forest (Ross Peacock). One of the Murrah populations should be included in the target of five.

*Westringia davidii* - Restricted distribution on rhyolite outcrops. Target 10 populations.

*Westringia kydrensis* Local endemic. Target of 10 populations probably will never be met.

**Assuming adequate management actions have been recommended for each functional group, the target for the rest of the species should be five populations.**

## **RECOMMENDATIONS FOR SURVEY**

The expert panel recommended that surveys be conducted for the following species.

*Actinotus gibbonsii* Possibly survey the heaths around Bombala. Survey less than 12 months after fire.

*Allocasuarina diminuta ssp. annectens*

*Ammobium alatum* low priority for survey.

*Astroloma pinifolium* Possible survey and pre logging surveys.

*Atherosperma moschatum* Check Mt Dromedary record for Southern CRA.

*Cassinia cunninghamii* Only one known population.

*Caustis recurvata*

*Chorizema parvifolium* Hard to find if not flowering, experts were unsure of habitat.

*Dendrobium aemulum*

*Dodonea triangularis* No accurate data, recommend survey.

*Festuca asperula, Festuca eriopoda, Festuca hookeriana, Poa cheelii, Poa costiniana* These species should be targeted in any survey, with particular emphasis on *Festuca* species.

*Korthaisella rubra*

*Lasiopetalum parvifolium*

*Lotus australis*

*Opercularia diphylla*

*Oxylobium scandens var. scandens*

*Pultenaea hispidula* Detailed survey of patch of crown land at Tuross needed (AMG 761500 5919800).

*Trochocarpa laurina* Only one record, with no accurate location data.

*Viola cleistogamoides*

*Whalenbergia multicaulis* No reliable records available.

## **MONITORING OF THE FOLLOWING SPECIES WAS RECOMMENDED**

*Correa baeuerlenii* Monitoring is needed to determine which management regime is most appropriate, for this species.

*Platycerium bifurcatum ssp. bifurcatum* Bunga Head is the only known locality in the Eden region. This population should be

monitored for pilfering. *Asplenium australasicum* and *Dendroium aemulum* should be also be monitored for pilfering at Bunga head.