

Forest Facts

South-East
Queensland

No. 3.4

This information is mainly derived from Comprehensive Regional Assessments carried out for the SEQ Regional Forest Agreement.

prepared by

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for

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Forests of South-East Queensland

The Fauna

South-East Queensland has an outstandingly rich forest fauna. The diversity of forest fauna in SEQ is exceeded only by that of the Wet Tropics of Queensland. Although representing only three-quarters of one per cent of the area of Australia, SEQ provides habitat for 26 per cent of Australia's vertebrate species (Table 1).

A comparison with other States or regions shows that SEQ is outstanding with respect to all vertebrate groups (Table 2).

Table 1. Vertebrate fauna recorded from SEQ forests

Group	No. of Species in SEQ Forests	Percentage of Australian Total
Freshwater fish	55	28
Frogs	49	24
Reptiles	148	19
Birds	242	31
Mammals	87	32
Total	581	26

SEQ represents three-quarters of 1 per cent of the area of Australia.

About 40 species are endemic to the region, ie they are found only in SEQ or in the immediate surrounding areas such as North-East New South Wales. They include several extraordinary animals such as —

- the Queensland Lungfish, which breathes with modified lung-like structures as well as gills,

- the Australian Marsupial Frog which raises its tadpoles in 'hip-pockets',
- the Southern Platypusfrog which raises its tadpoles in its stomach, and
- Albert's Lyrebird, one of just two species in the whole family and perhaps the most ancient lineage of songbirds in the world.

About 80 species of fauna are rare or threatened with extinction. They include 11 endangered species — the Australian Fritillary Butterfly, Illidge's Ant-blue Butterfly, Fleay's Barred-Frog, Giant Barred-Frog, Southern Platypusfrog, Southern Dayfrog, Cascade Treefrog, Red Goshawk, Coxen's Fig-Parrot, Eastern Bristlebird and Regent Honeyeater.

In addition to the endangered species, there are 29 species classified as vulnerable to extinction, including 3 insects, 2 freshwater fish, 4 frogs, 5 reptiles, 8 birds and 8 mammals.

The systematic fauna survey carried out as part of the Comprehensive Regional Assessments (CRA) in 1997–98 for the RFA failed to find many of the species historically recorded from the region. The low or nil level of survey records is evidence of the scarcity of many species, including the Spotted-tailed Quoll (the largest living carnivorous marsupial on the Australian mainland), Long-nosed Potoroo, Coxen's Fig-Parrot, Red Goshawk, Square-tailed Kite, Superb Fruit-Dove, Black-throated Finch, many reptiles and several frogs.

Table 2. Fauna species recorded from forests by State or Region

Faunal Group	State or Region					
	NE NSW	NT	Tas	Vic	WA	SEQ
Mammals	93	87	27	94	29	87
Birds	181	198	77	253	150	242
Reptiles	85	134	14	102	45	148
Frogs	46	30	7	36	15	49
Vertebrates	405	449	125	485	239	526

Source: Australia's State of the Forests Report 1998, National Forest Inventory, Commonwealth of Australia; SEQ CRA Project EH1.1.1.

Fauna and State Forests

Only about 13 per cent of SEQ's native forests are protected in conservation reserves. The overwhelming majority of the protected forests are on the sand masses of Fraser Island, Cooloola and Moreton Island. It is only very small areas of the forested core of the region that are protected.

Nearly half of the native forest in SEQ is on private land with little or no protection and is consequently subject to clearing.

State Forests, Timber Reserves and leasehold land over which the State has timber rights account for 36 per cent of the native forest.

Figure 1 shows four maps that indicate the fauna conservation values of State Forests and National Parks in SEQ as assessed by the CRA project EH1.1.2. 'Priority species' refers to the 109 species identified by the CRA projects as being at greater risk of extinction and in need of conservation priority. The group includes the majority of the rare and threatened fauna as well as species such as arboreal marsupials (possums and gliders).

State Forests and National Parks with very high fauna diversity values with respect to priority species are listed in Table 3. The thirty-seven areas listed

Table 3. State Forests & National Parks with Very High Fauna Diversity

Lamington National Park
SF1355 D'Aguilar Range
SF792 Conondale Range
Conondale National Park
Main Range National Park
SF54 Bania
SF546 Kandanga Creek
Area adjoining Bulburin (SF391)
SF316 Kroombit Tops
SF343 Squirrel Creek
SF391 Bulburin
Great Sandy National Park
Mount Barney National Park
SF135 Kenilworth
SF893 Mt Mee
SF750 Main Range
Tamborine National Park
SF274 Conondale Range
SF639 Wrattens State Forest
SF788 Conondale Range
SF207 Jimna State Forest
SF832 Bellthorpe State Forest
SF289 Yarraman
Springbrook National Park
SF809 D'Aguilar Range
SF82 Brooyar State Forest
SF561 Beerwah State Forest
Blackdown National Park
SF632 Marodian
SF309 D'Aguilar Range
TR353 Dawes Range
DAguilar National Park
Noosa National Park
SF1239 Mapleton State Forest
SF424 Warro
SF57 St Mary's State Forest
SF257 Googa Googa State Forest

Areas are listed in order (descending) of the Fauna Richness Index for Priority Species. All areas in the table have a value that is at least Mean+2 Standard Deviations.

represent 15 per cent of the State Forests and National Parks assessed by the CRA project EH1.1.2. It is important to note that the list must not be interpreted to mean that other areas not included are not of high conservation value. Fauna diversity is only one of many values that need to be considered.

Fauna Habitat

One of the CRA fauna projects modelled and mapped the distribution of high-quality habitat for many of the priority fauna species. The results illustrate that for most species only a minor part of the high-quality habitat is protected in conservation reserves. Table 4, which includes all of the endangered and vulnerable species for which habitat maps were produced, shows that reservation of high-quality habitat for threatened species is generally poor.

The *Nationally Agreed Criteria for the Establishment of a Comprehensive, Adequate and Representative Reserve System for Forests in Australia* (JANIS Criteria) state "the reserve system should seek to maximise the area of high quality habitat with particular reference to the special needs of rare, vulnerable or endangered species".

Table 4. Current Reservation of High-Quality Habitat for Threatened Fauna in SEQ

Species	Conservation Status	High-Quality Habitat in Existing Conservation Reserves (%)
Glossy Black-Cockatoo	Vulnerable	14
Red Goshawk	Endangered	23
Plumed Frogmouth	Vulnerable	11
Cascade Treefrog (northern population) ¹	Endangered	14
Fleay's Barred-Frog	Endangered	36
Fleay's Barred-Frog (northern population) ¹	Endangered	8
Southern Platypusfrog	Endangered	10
Southern Dayfrog	Endangered	8
Coxen's Fig-Parrot	Endangered	47
Black-breasted Button-quail	Vulnerable	11

¹ The genetic studies on the Cascade Treefrog (CRA Project 1.1.6) showed that the population to the north of Brisbane was genetically different from that in the border ranges area. Hence, the two populations require separate consideration. It has been assumed that Fleay's Barred-frog should be treated similarly in the absence of further information.

Note: The situation has changed as a result of the SEQ Foraeasts Agreement, September 1999. For the outcomes of the Agreement, visit the ARCS Web site, www.rainforest.org.au.

