

Approved Conservation Advice
(s266B of the *Environment Protection and Biodiversity Conservation Act 1999*)

Approved Conservation Advice for
***Petaurus australis* unnamed subsp. (Fluffy Glider)**

This Conservation Advice has been developed based on the best available information at the time this conservation advice was approved.

Description

Petaurus australis unnamed subsp., Family Petauridae, also known as the Fluffy Glider or Yellow-bellied Glider (Wet Tropics), is a gliding possum with grey-brown fur and a distinctive off-white to yellow belly. It has a fluffy tail growing to 48 cm long and large, bare ears. Its head and body grows to 30 cm long and can weigh up to 700 g (Cronin, 1991; Strahan, 2008). The Fluffy Glider is generally smaller than the southern subspecies (Brown et al., 2006).

Conservation Status

The Fluffy Glider is listed as **vulnerable**. This subspecies is eligible for listing as vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) as, prior to the commencement of the EPBC Act, it was listed as vulnerable under Schedule 1 of the *Endangered Species Protection Act 1992* (Cwlth). This subspecies is also listed as vulnerable under the *Nature Conservation Act 1992* (Queensland) (listed as *Petaurus australis reginae*; see Brown et al. (2006) for a discussion on taxonomy for this species).

Distribution and Habitat

The Fluffy Glider occurs in wet eucalypt forest in the Atherton region of Queensland, north from the Herbert River Gorge to the Mount Windsor Tableland, at altitudes over 700 m above sea level (Maxwell et al., 1996; Strahan, 2008). Populations of the Fluffy Glider are isolated from the southern subspecies by the Burdekin Gap (Brown et al., 2006).

There are about 13 distinct populations occurring as three geographically separate meta-populations: one on the Mount Windsor Tableland; one on the Mount Carbine Tableland; and the third extending from Atherton to Kirrama on the Atherton Tableland and ranges to the south. The Windsor and Carbine populations occupy large blocks of habitat, while the Atherton–Kirrama population occurs in a narrow, almost linear, stretch of habitat extending approximately 130 km north-south and in many places is less than one km wide. The distribution of the Atherton–Kirrama population is fragmented and contains many gaps due to both natural discontinuities and habitat clearing (Maxwell et al., 1996).

Together, the three meta-populations are estimated to contain approximately 6000 individuals, at a density of 0.05–0.14 individuals per ha; or 38 social groups to a 1400 ha area (Maxwell et al., 1996; Strahan, 2008). Fluffy Gliders have large home range requirements and thus, are likely to be sensitive to reductions in habitat area (Maxwell et al., 1996). This species occurs within the Wet Tropics (Queensland) Natural Resource Management Region.

This distribution of this species overlaps with the “Mabi Forest (Complex Notophyll Vine Forest 5b)” EPBC Act-listed ecological community.

Threats

The main identified threats to the Fluffy Glider include loss of habitat; inbreeding depression and stochastic events leading to the extinction of small isolated populations (Maxwell et al.,

1996). Habitat loss is occurring through a number of avenues, including climate change, land clearing for development, loss and fragmentation caused by encroachment of rainforest, and the loss of hollow-bearing and feed trees (Winter, 2004). The westward shift in the rainforest boundary is attributed to a reduction in the intensity of fires along the western margins of rainforests (Maxwell et al., 1996).

Research Priorities

Research priorities that would inform future regional and local priority actions include:

- Design and implement a monitoring program.
- Monitor the impact on the Fluffy Glider populations of a reduction in area of wet sclerophyll forest due to encroachment by rainforest and changing climate.
- Undertake population assessments of different metapopulations.
- Investigate sap tree preferences.

Regional Priority Action

The following regional priority recovery and threat abatement actions can be done to support the recovery of the Fluffy Glider.

Habitat Loss, Disturbance and Modification

- Identify sites of high conservation priority, such as the Atherton–Ravenshoe population.
- Protect areas of wet sclerophyll forest that contain populations of the Fluffy Glider.
- Protect and enhance habitat and connection corridors.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on the Fluffy Glider.
- Ensure road widening and maintenance activities (or other infrastructure or development activities as appropriate) in areas where the Fluffy Glider occurs do not adversely impact on known populations.
- Investigate formal conservation arrangements such as the use of covenants, conservation agreements or inclusion in reserve tenure.

Fire

- Develop and implement a suitable fire management strategy to maintain the habitat of the Fluffy Glider.
- Provide maps of known occurrences to local and state rural fire services and seek inclusion of mitigative measures in bush fire risk management plans, risk register and/or operation maps.

Conservation Information

- Raise awareness of the Fluffy Glider within the local community, including the need for habitat connectivity for the long-term survival of the subspecies.

Enable Recovery of Additional Sites and/or Populations

- Investigate options for linking, enhancing or establishing additional populations.

Local Priority Actions

The following local priority recovery and threat abatement actions can be done to support the recovery of the Fluffy Glider.

Habitat Loss, Disturbance and Modification

- Monitor the isolated subpopulations of the fragmented Atherton–Ravenshoe population, as these are most susceptible to stochastic events.
- Monitor known populations to identify key threats.

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- Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary.
- Manage threats to areas of vegetation that contain populations/occurrences of the Fluffy Glider.

This list does not necessarily encompass all actions that may be of benefit to the Fluffy Glider, but highlights those that are considered to be of highest priority at the time of preparing the conservation advice.

Existing Plans/Management Prescriptions that are Relevant to the Species

- Action Plan for Australian Marsupials and Monotremes (Maxwell et al., 1996),
- *Wet Tropics Management Plan 1998* (Queensland) (WTMA, 1998), and
- Wet Tropics Conservation Strategy (WTMA, 2004).

These prescriptions were current at the time of publishing; please refer to the relevant agency's website for any updated versions.

Information Sources:

Brown, M, Cooksley, H, Carthew, SM & Cooper, SJB 2006, 'Conservation units and phylogeographic structure of an arboreal marsupial, the yellow-bellied Glider (*Petaurus australis*)', *Australian Journal of Zoology*, vol. 54, pp. 305-317.

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