

Deletion of Percy Island Flying Fox *Pteropus brunneus* from Appendix II

Proponent: Australia

Summary: '*Pteropus brunneus*' (Percy Island Flying Fox) is the name attached to a single specimen of flying fox collected in the 19th century lodged in the Natural History Museum, London, UK. The collecting location was given as Percy Island, Australia, and the collection date as 1859. The Percy Islands are a group of islands in the Northumberland Group (to Australia) some 50-75 km off the Queensland coast. The specimen closely resembles the Little Red Flying Fox *Pteropus scapulatus*, which occurs on the Australian mainland opposite the Percy Islands group. Although there is not complete agreement on the matter, there is a general view that the Percy Island Flying Fox is in fact a misattributed specimen of *P. scapulatus*, likely also with a misattributed collection site. The only flying fox known to occur on the Percy Islands is the considerably larger Black Flying Fox *P. alecto*.

Pteropus brunneus was included in CITES Appendix II in 1990 as part of a general listing of *Pteropus* spp. Eight species in the genus had been included in Appendix II in 1987 owing largely to concerns regarding international trade for food in the South Pacific region; in 1990 seven of these species were transferred to Appendix I and the rest of the genus included in Appendix II, largely for look-alike reasons. Under the current standard taxonomic reference for the genus, 65 species are recognised. Six species other than *P. brunneus* occur in Australia; all assessed by IUCN as Least Concern except for *P. poliocephalus* which is regarded as Vulnerable. Of the other members of the genus, two species – *P. subniger* from Mauritius and Réunion (France) and *P. tokudae* from Guam (to US) – are classified as Extinct and several others are in a similar position to *P. brunneus*, i.e. are known from one or two specimens of ancient provenance whose taxonomic status is uncertain. All Australian native mammals, including *Pteropus* species, are covered by legislation that strictly prohibits export for commercial purposes.

As part of the periodic review of the Appendices, the Animals Committee recommended that the Percy Island Flying Fox be removed from Appendix II (AC 26 WG1 Doc. 2). The recommendation was made based on information provided by the Australian CITES Scientific Authority for consideration at the 26th meeting of the Animals Committee (Geneva, March 2012).

Analysis: It is very likely that *Pteropus brunneus* never existed as a valid species. If it was a valid species, and its distribution was the Percy Islands, Australia, then it is almost certainly long extinct. All Australian native mammals are covered by legislation that strictly prohibits export for commercial purposes. There is evidently therefore no risk entailed in deleting *P. brunneus* from the Appendices. However, the species is included as part of a higher taxon listing (in this case for all *Pteropus* spp. other than those included in Appendix I). Several other species of *Pteropus* currently listed in Appendix II are of doubtful validity as species, or extinct – that is, the same conditions apply to these as to *P. brunneus*. Deletion of *P. brunneus* from the Appendices will require a specific amendment to the current listing to that effect. It is not apparent what function this would serve, in terms of simplifying the Appendices and facilitating implementation of the Convention.

Supporting Statement (SS)	Additional information
<u>Taxonomy</u>	
<p><i>Pteropus brunneus</i> Dobson, 1878 was described from a single specimen of an adult male collected on 'Percy Island' in 1859. The specimen, consists of a skull and skin erroneously labelled <i>P. gouldi</i>. No other specimens of <i>P. brunneus</i> are known and it is presumed to be a mistakenly identified specimen of the widespread Little Red Flying Fox <i>P. scapulatus</i>.</p> <p>A study in 2008 regarded <i>P. brunneus</i> as being distinct from the six extant species of <i>Pteropus</i> occurring in Australia on the basis of overall size, forearm length and concealed glandular tufts on the shoulders. However, its size, including forearm length, and coloration fall within known parameters for Little Red Flying Fox <i>P. scapulatus</i>.</p>	<p>Hall (1987) noted that the species has been considered variously a windblown waif of <i>P. hypomelanus</i> from the Louisiade Archipelago (Papua New Guinea) or alternatively a distinct species from the Solomon Islands.</p>
<u>Range</u>	
Australia	
<u>IUCN Global Category</u>	
Extinct (2008)	Classified as Extinct in 1996.
Biological and trade criteria for retention in Appendix II (Res. Conf. 9.24 (Rev. CoP15) Annex 2 a)	
<u>B) Regulation of trade required to ensure that harvest from the wild is not reducing population to level where survival might be threatened by continued harvest or other influences</u>	
<p>Nothing is known of its population size.</p> <p><i>Pteropus brunneus</i> was described from a single specimen collected in 1859. After its collection, there were no further reports of <i>P. brunneus</i> except for a dubious second-hand eyewitness account lacking in critical details published in an 1897 paper.</p> <p>The only information available on the geographical distribution is 'Percy Island' (no further details), as marked on the label attached to the only known specimen. There is no Percy Island <i>per se</i>: the Percy Islands consist of a group of continental islands in the Northumberland Group, which lies between latitudes 21°S and 22°S. The three main islands, Middle, North East and South Percy, are about 75 km east of the central Queensland coast. On which of the three main islands in the group the specimen was collected was not specified by the collector.</p> <p>Middle Percy (1657 ha) is the largest island of the group and may have been suitable for a permanent flying fox camp (roost). Part of the island was cleared for a grazing lease after 1964.</p>	

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<p>A report published in 1897 stated that a collector reported this species to be 'plentiful' on Percy Island, flying between there and the mainland "opposite". There is no record of how the collector differentiated between <i>P. scapulatus</i> and <i>P. brunneus</i>, and it is reasonable to assume that <i>P. scapulatus</i> was the species reported in error.</p> <p>No population estimates or trends have been published. It has not been seen in the wild since 1859.</p> <p>It is unlikely that the Percy Island Flying Fox was subject to trade. A single specimen was purchased by the British Museum of Natural History from Stevens' Sale Rooms, London in 1874. No subsequent trade is known or documented. The collection and subsequent sale of a single male specimen is unlikely to have contributed to the species's extinction.</p> <p>Export of live Australian native mammals is strictly prohibited for commercial purposes, but may be exported for specific non-commercial purposes (e.g. for research, education or exhibition). Should <i>P. brunneus</i> be rediscovered, it would be classed as an Australian native mammal and an Australian export permit would be required for its export even if it were delisted from CITES.</p> <p>The Percy Island Flying Fox was delisted from the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) in 2001 on the advice of the Threatened Species Scientific Committee (TSSC). The committee's reasons for delisting it included taxonomic uncertainty, the specimen's uncertain provenance and its similarity to Little Red Flying Fox.</p> <p>South Percy and North East Percy are national parks. Part of Middle Percy Island has recently been acquired by the Queensland Government as a conservation reserve. The Percy Group is accessible only by boat or seaplane and habitat destruction on a scale large enough to cause the extinction of a large, volant mammal such as a flying fox is unlikely.</p>	<p><i>The considerably larger Black Flying Fox Pteropus alecto is present on the Percy Islands; no flying foxes that resemble P. brunneus have been recorded on the islands since the 19th century (Hall, 1987).</i></p>

Retention in Appendix II to improve control of other listed species

A) Specimens in trade resemble those of species listed in Appendix II under Res. Conf. 9.24 (Rev. CoP15) Annex 2 a or listed in Appendix I

In appearance, the Percy Island Flying Fox specimen bears a strong resemblance to the Little Red Flying Fox *P. scapulatus*, an endemic Australian species. The specimen's coloration and morphometrics fall within the known variation for *P. scapulatus*, especially when shrinkage and discoloration with age are taken into consideration. *P. scapulatus* is widespread, highly nomadic and abundant in tropical and subtropical Australia. Its geographical distribution overlaps the hypothetical

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<p>distribution of the Percy Island Flying Fox. Misidentification of the Percy Island Flying Fox specimen is therefore likely. The 2008 study does not elaborate on the significance of the concealed glandular tufts or the furred tibiae of the specimen. <i>P. brunneus</i> may be an aberrant specimen of <i>P. scapulatus</i> or have been collected from a colony of that species with a significant percentage of such aberrations. It is not known whether the specimen has been compared with similar <i>Pteropus</i> species that occur outside Australia.</p>	<p><i>other than P. brunneus occur in Australia; all assessed by IUCN as Least Concern except for P. poliocephalus which is regarded as Vulnerable. Of the other members of the genus, two species – P. subniger from Mauritius and Réunion (France) and P. tokudae from Guam (to USA) – are classified as Extinct and several others in a similar position to P. brunneus, that is are known from one or two specimens of ancient provenance whose taxonomic status is uncertain (see iucnredlist.org for details).</i></p>
<p>Other information</p> <p style="text-align: center;"><u>Threats</u></p> <p>A grazing lease has been in operation on Middle Percy Island since 1964. This probably would have involved clearing of native hoop pine–vine thicket to create pasture which may have impacted on flying fox roosts if any were present.</p> <p style="text-align: center;"><u>Other comments</u></p> <p><i>Pteropus brunneus</i> is listed in Appendix II under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). <i>Pteropus brunneus</i> was one of many species nominated by Australia for inclusion in the Appendices when CITES first came into force on 1 July 1975. It was listed as a precautionary approach, as the species was not subject to trade.</p> <p style="text-align: right;">Contra <i>the Supporting Statement</i>, the species was included in the general listing for <i>Pteropus spp</i>, in 1990 (see above).</p>	

References:

Hall, L.S. (1987). Identification, taxonomy and distribution of Australian flying foxes (Chiroptera: Pteropodidae). *Australian Mammalogy* 10(2): 75-80.