

Inclusion of False Tomato Frog *Dyscophus guineti* and Antsouhy Tomato Frog *D. insularis* in Appendix II

Proponent: Madagascar

Summary: The False Tomato Frog *Dyscophus guineti* and the Antsouhy Tomato Frog *D. insularis* comprise two of three species in the genus *Dyscophus*, all of which are endemic to Madagascar. The third species, *D. antongilii* was included in Appendix I in 1987. It is subject to a separate proposal to be transferred from Appendix I to Appendix II (Proposal 37). All three are attractive red-orange coloured frogs.

Dyscophus are known to breed explosively with the availability of water during the rainy season (typically January-March) and during that time they can be found in abundance at breeding sites. Hundreds of eggs are laid in water following mating.

Dyscophus guineti

The known distribution of *D. guineti* includes a number of patches in the remnant central eastern rainforest of Madagascar. The species is secretive and believed likely to be more widespread than records indicate¹. Overall population is unknown; locally the species can vary from extremely common to very rare¹. Sexual maturity is attained between two and four years, comparatively earlier in males than in females².

The habitat of the species is affected by conversion of forest to agriculture, timber extraction, charcoal production and potentially small-scale mining activities. The species reportedly does not tolerate severe degradation¹. There is not known to be local use of the species.

As a consequence of the Appendix-I listing in 1987 of the similar *Dyscophus antongilii*, collectors interested in "red *Dyscophus*" have shifted their attention to *D. guineti* which is now collected for export³. USA trade data indicate that the USA imported some 5300 live wild *D. guineti* from Madagascar in the period 2004 to 2013 with average annual imports higher at the start of this period than at the end (ca. 780 annually for 2004 to 2007; ca. 360 annually for 2008 to 2013)⁵. Madagascan export data indicate an increase in numbers exported and number of importing countries in recent years, from ca. 150 exported to three countries in 2013 to 2400 exported to 11 countries in 2015. In recent years the USA has reported the export of significant numbers of captive-bred individuals⁵.

There is a lack of evidence regarding the impact of harvest for trade on *D. guineti*. The species is reported mainly to be harvested in one area (around Fierenana). Populations there have been said to have been affected by harvest³, although the view has also been expressed that levels of harvest, at least in 2008, were too low to have a serious impact on populations¹.

The species is classified in the IUCN Red List as Least Concern (2016).

Dyscophus insularis

This species has a wide distribution throughout western Madagascar, from Ambanja to south of Toliara. It has been suggested that this species could in fact be multiple species based on the wide range of habitats it occupies and the obvious geographic variation in morphology and colour⁴. No quantitative information on the population size in the wild could be found, but it is reported to be a common species⁴ and is said to be quite locally abundant³.

The species is likely to be affected by loss of habitat, although quantitative data are lacking.

According to data from Madagascar, exports of *D. insularis* have increased in recent years, as is the number of importing countries. In 2012, Madagascar did not record any exports, whereas in 2015 this had increased to 720 frogs exported to six countries. The USA reported importing 4,503 wild *D. insularis* from Madagascar between 2004 and 2013; exports were generally higher at the beginning of this period but have risen again somewhat in recent years⁵. As with *D. guineti*, the USA has been reporting the export of significant numbers of captive-bred individuals in recent years.

International trade levels are not thought to constitute a major factor affecting the species⁴. The species is classified in the IUCN Red List as Least Concern (2016).

Both species are protected under national legislation (Decree 2006-400) which allows harvest outside of protected areas with authorisation.

Both species, particularly *Dyscophus guineti*, resemble *D. antongilii*^{3, 6}.

Analysis:

Dyscophus guineti

Dyscophus guineti has a wide distribution, and although the population size and trend are not known, it is reported to be at least locally abundant. Recorded levels of trade for the international pet market are relatively low, although have been reported as increasing recently. Individuals captive-bred outside the range State appear to meet at least some of the demand for the species. A possible decline has been reported from the main collection site but this is likely to represent only a small part of the range of the species. It seems unlikely that the species meets the criteria for inclusion in Appendix II in Annex 2 a of Res. Conf. 9.24 (Rev. CoP16).

Dyscophus insularis

Dyscophus insularis has a wide distribution and although the population size is not known, it is said to be common. As with *D. guineti* recorded levels of trade for the international pet market are relatively low, although have been reported as increasing recently. Individuals captive-bred outside the range State appear to meet at least some of the demand for the species. It seems unlikely that the species meets the criteria for inclusion in Appendix II in Annex 2 a of Res. Conf. 9.24 (Rev. CoP16) (lookalike criteria).

Both species, particularly *D. guineti*, resemble *D. antongilii* which is already listed in the Appendices, and therefore both species meet the criteria for inclusion in Appendix II under Annex 2 b of Res. Conf. 9.24 (Rev. CoP16). If this proposal and Proposal 37 (to transfer *D. antongilii* to Appendix II) were accepted it will have the effect of placing the entire genus in Appendix II.

Reviewers: M. D. Kusrini, C. Ratsimbazafy.

References:

Information not referenced in the Summary section is from the Supporting Statement.

¹ IUCN SSC Amphibian Specialist Group (2016) *Dyscophus guineti*. The IUCN Red List of Threatened Species 2016. View on 6th July 2016.

² Tessa, G., Guarino, F.M., Randrianirina, J.E. & Andreone, F. (2011) Age structure in the false tomato frog *Dyscophus guineti* from eastern Madagascar compared to the closely related *D. antongilii* (Anura, Microhylidae), African Journal of Herpetology, 60:84-88.

³ Andreone, F. (2016) *In litt.* to the IUCN/TRAFFIC Analyses Team, Cambridge, UK.

⁴ IUCN SSC Amphibian Specialist Group (2016) *Dyscophus insularis*. The IUCN Red List of Threatened Species 2016. Viewed on 6th July 2016.

⁵ Analysis of US Fish & Wildlife Service Law Enforcement Management Information System (LEMIS) data, May 2016.

⁶ Ratsimbazafy, C. (2016) *In litt.* to the IUCN/TRAFFIC Analyses Team, Cambridge, UK.