

Inclusion of Burrowing Frogs *Scaphiophryne marmorata*, *S. boribory* and *S. spinosa* in Appendix II

Proponent: Madagascar

Summary: *Scaphiophryne boribory*, *S. marmorata* and *S. spinosa*, known as burrowing frogs, are members of a genus endemic to Madagascar in which nine species in total are currently recognised. One species, *S. gottlebei*, was listed in Appendix II in 2003. All three now proposed are green-brown in colour with attractive patterning. All species of the genus are assumed to be explosive breeders that only reproduce once per rainy season after the first heavy rains¹. They spend much of their time underground.

Because of their attractive colouration there is some demand in the international pet trade for these species. However, their burrowing habits likely limit the extent of this demand, their appeal being confined mainly to specialist hobbyists². There is no known local use for any of the species.

Scaphiophryne boribory was described in 2003 from the Fierenana region of eastern Madagascar. Its distribution is more extensive than had previously been thought, the species currently also being known from Bemanevika forest and Marotondrano Special Reserve³. It has been reported to be locally common but is presumed to be in decline because of loss and degradation of habitat through conversion of land to agriculture and, locally, mining activities. The species was classified in the IUCN Red List as Endangered (2008), in part due to its limited known distribution at the time⁴.

There is very limited known trade in the species, which is reported to be collected for export around Fierenana and Marotondrano. No imports into the USA are recorded in USA trade data for 2004 to 2013. Madagascan export data for the period 2014 to 2015 record export of 40 to Japan in 2015.

Scaphiophryne marmorata occurs in east central Madagascar from Zahamena south to the region of Andasibe. It has an extent of occurrence of around 15,000km². Population size is unknown. The species has been reported to be locally abundant, but the overall population is presumed to be declining as a result of loss and degradation of habitat. The species was classified in the IUCN Red List as Vulnerable (2016).

Reported trade is limited, though higher than that for the other two species in the proposal. The USA reported importing 2387 live *S. marmorata* from Madagascar between 2004 and 2013 all of which were wild. Annual imports at the beginning of this time period were higher (ca.740 between 2004 and 2005, compared with ca. 115 between 2006 and 2013). Madagascan export data indicate export of 245 in 2015 to five different countries.

Scaphiophryne spinosa has a wide distribution in eastern Madagascar from Masoala south to the Chaines Anosyennes in the far south⁵. There are no population estimates. The species can reportedly tolerate some habitat modification and it is not regarded as under threat at present. It was classified in the IUCN Red List as Least Concern (2016).

Very limited trade has been reported in this species. USA trade data for 2004 to 2013 indicate that the USA imported 41 live individuals from Madagascar in 2008. Madagascan export data for 2012 to 2015 records export of 180 to five countries in 2015.

Scaphiophryne spinosa was split from *S. marmorata* in 2002; the ranges of the two species overlap and they are reportedly still sometimes confused in trade⁶. All three species may also be included in exports of *Scaphiophryne* that are not reported to species level.

All three species are nationally protected (2006-400 Category I and Class II) meaning trade is legal if there is evidence that the specimens were harvested outside of protected areas, or a permit has been obtained for harvest within protected areas for scientific purposes⁷.

Other *Scaphiophryne* species (e.g. *S. madagascariensis*, and *S. pustulosa*) have been reported in trade. It may be difficult for a non-expert to identify all the different species in the genus *Scaphiophryne*^{8,7}, although one expert noted it may be possible with guidance⁶. However, the three species subject to this proposal are relatively distinct from the other species in the genus, and therefore with guidance should be able to be identified from non-proposed *Scaphiophryne*, and *S. gottlebei*⁹.

Analysis: *Scaphiophryne boribory*, *S. marmorata* and *S. spinosa* all have relatively wide distributions in eastern Madagascar. There is no information on overall population status of any, although all three have been described as at least locally common. *S. boribory* and *S. marmorata* are likely to be declining overall owing to habitat loss and degradation. All three have appeared in international trade, but only *S. marmorata* in any quantity; even for this species overall trade levels are relatively low. Demand for these species on the international market is likely to be limited. It seems unlikely that any of them meets the criteria for inclusion in Appendix II in Annex 2 a of *Res. Conf. 9.24 (Rev. CoP16)*. However, given the difficulties in distinguishing between these species, were one of them to be listed in Appendix II, then the others would meet the criteria in Annex 2b A (lookalike criteria).

The Appendix-II listed *Scaphiophryne gottlebei* was included in the Review of Significant Trade process in 2008. The CITES Animals Committee subsequently decided that Madagascar was implementing the requirements of Article IV of the Convention for this species. It appears that none of the species proposed here meet the criteria for inclusion in Annex 2 b of *Res. Conf. 9.24 (Rev. CoP16)*.

Reviewers: M. D. Kusriani and C. Ratsimbazafy.

References:

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

¹ IUCN SSC Amphibian Specialist Group. (2016) *Scaphiophryne marmorata*. The IUCN Red List of Threatened Species 2016.

² Vences, M. & Glaw, F. (2008) *Scaphiophryne marmorata*. The IUCN Red List of Threatened Species 2008. Accessed 18 May 2016.

³ Rabearivony, J., Raselimanana, A.P., Andriamazava, M.A., Thorstrom, R. & Rene de Roland, L. (2010) A new locality for the endangered microhylid frog *Scaphiophryne boribory* from northern Madagascar and a rapid survey of other amphibians of the Bemanevika region. *Herpetology Notes* 3:105-109.

⁴ Vences, M., Raxworthy, C.J. & Glaw, F. (2008) *Scaphiophryne boribory*. The IUCN Red List of Threatened Species 2008.

⁵ IUCN SSC Amphibian Specialist Group (2016) *Scaphiophryne spinosa*. The IUCN Red List of Threatened Species 2016.

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

⁷ Ratsimbazafy, C. (2016) *In litt.* to the IUCN/TRAFFIC Analyses Team, Cambridge, UK.

⁸ Andreone, F. (2016) *In litt.* to the IUCN/TRAFFIC Analyses Team, Cambridge, UK.

⁹ Jenkins, M. (2016) *In litt.* to the IUCN/TRAFFIC Analyses Team, Cambridge, UK.