

AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

Other Proposals

A. PROPOSAL

Inclusion of *Bufo periglenes* in Appendix I.

B. PROPONENT

The Kingdom of the Netherlands.

C. SUPPORTING STATEMENT

1. Taxonomy

- 11. Class: Amphibia
- 12. Order: Anura
- 13. Family: Bufonidae
- 14. Species: *Bufo periglenes* Savage, 1964

Scientific synonyms: None relevant

- 15. Common Names: English: Golden toad
French:
Spanish: Sapo dorado de Monteverde

16. Code Numbers:

2. Biological Data

- 21. Distribution: Costa Rica.
- 22. Population: The golden toad is endemic to Costa Rica and almost entirely restricted to an area approx. 0.5 km by 8 km within the Monteverde Cloud Forest Reserve at elevations between 1500-1620 m. In April-May 1987 more than 1500 adults were observed. Within a radius of 5 meters at least 200 toads were visible. During the period April-June 1988-1990 only 11 toads were found during surveys of the breeding habitat. It is obvious that there is a dramatic decline in the numbers of this species.
- 23. Habitat: It is endemic to undisturbed, elfin cloud forest near the continental divide in the Cordillera de Tilarán, northern Costa Rica. Vegetation in the area is characteristic of lower montane rainforest, which develops in regions with a mean annual biotemperature between 12 and 18° C and an annual rainfall over 4000 mm.

3. Trade Data

31. National Utilization: Collecting for the pet-trade has occurred in the past.
32. Legal International Trade: For scientific purposes a total of 174 specimens were collected in 1964. Commercial trade not known.
33. Illegal Trade: Collecting for the pet-trade has occurred in the past. At the moment the reserve is heavily patrolled by guards during the breeding season of the toads, thus limiting illicit collecting for the pet-trade.
34. Potential Trade Threats: Due to its rareness and its beautiful colouring (especially the males, which are bright orange), interest from herpetologists (collecting and terraria) is an additional threat to the survival of the species.

4. Protection Status

41. National: Completely protected under national law (Endangered Species - Degree No. 15273-MAG). It occurs only in the State Nature Reserve Monte Verde.
42. International: Proposed for inclusion in Appendix A of the new E.C. Regulation (in preparation). The species was listed in Appendix I of CITES until 1987, when it was downlisted, with the promise of Costa Rica to have it placed in Appendix III. This never occurred. The present situation seems to warrant stricter international protection.
43. Additional Protection Needs: The species has declined dramatically. Any collecting/trade can mean the extinction of the species. Listing in Appendix I of CITES is a good tool to prevent international trade.

5. Information on Similar Species

None.

6. Comments from Countries of Origin

The country of origin was consulted in accordance with Resolution Conf. 8.21.

7. Additional Remarks

Since the early 1970's, golden toads have emerged from retreats every year through 1987, although systematic monitoring of their population was never undertaken. The fact that very few toads have emerged and no reproduction has occurred during the 1988-1990 period (Crump *et al.*, 1992) and neither has been reported for the past three years (pers. comm. M.S. Hoogmoed), has generated concern. Why have golden toads not appeared? Two possibilities exist: (1) the toads are simply not emerging in usual numbers because breeding conditions are inappropriate, and (2) the near absence by environmental degradation, climatic changes or other factors. As dramatic declines have been noticed for many species worldwide, (2) seems to be the most likely cause. A non-species specific pathogen has been suggested as a possible cause.

Because the habitat is protected and pristine, potential causes of anuran declines such as habitat destruction, introduced predators, and collecting seem unlikely (Crump *et al.*, 1992).

8. References

Crump, M.L., Hensley, F.R., Clark, K.L., 1992, Apparent decline fo the Golden Toad: Underground or Extinct?, *Copeia* 1992(2) 413-420.

Frost, D.R., Ed., 1985, *Amphibian Species of the World. A taxonomic and geographical reference*, Allen Press & ASC, Lawrence.

Savage, J.M., 1966, An extraordinary new Toad (*Bufo*) from Costa Rica, *Rev. Biol. Trop.* 14(2): 153-167.

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