



National Headquarters

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November 26, 2008

Dr. Rosemarie Gnam
Chief, Division of Scientific Authority
U.S. Fish and Wildlife Service
4401 North Fairfax Drive, Room 110
Arlington, VA 22203
Sent via email to: scientificauthority@fws.gov

Re: Notice; request for information. Fed. Reg., Vol. 73, No. 189, Sept. 29, 2008.

Dear Dr. Gnam,

Defenders of Wildlife (Defenders) is pleased to submit the attached information and summary proposals for 13 new amphibian listings in response to the “Request for Information and Recommendations on Species Proposals, Resolutions, Decisions, and Agenda Items for Consideration at the Fifteenth Regular Meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora”, published in the Federal Register on September 29, 2008. Defenders is a science-based conservation organization with more than 1,000,000 members and supporters nationwide. Defenders focuses on conserving and restoring native species and the habitat upon which they depend, and has been involved in such efforts since its establishment in 1947.

Approximately 43% of Earth’s amphibian species are in decline and 32% are threatened with extinction due to threats such as habitat destruction, disease, pollution, invasive species, and international trade. International trade in amphibians as pets, for food such as frog legs, or for other purposes is a particular threat for some species. Several scientists and commentators have highlighted the need for new CITES listings for amphibians. Accordingly, based on our review of the conservation and trade status of the amphibian species described below, we recommend that the United States either co-author proposals for the listing of these species in consultation with range states, or support proposals from other Parties for their listing, at the next Conference of the Parties in 2010.

These 13 species of amphibians, none of which are native to the United States, were chosen after obtaining a preliminary list of 91 threatened species potentially threatened by trade. We narrowed that list to these that are most affected by trade. Then, we asked more than two dozen experts worldwide to review and comment on drafts of the attached summary listing proposals. We have incorporated their comments received to date, but as more comments come in we may submit supplemental information on these proposals in the near future.

We divided the species into two categories. The first category consists of six species with known U.S. import trade connections. These fit within the class of species for which the Fish and Wildlife Service has indicated it could author or co-author CITES listing proposals, in

consultation with the range states, as indicated in the Federal Register notice under the heading “(2) Does the proposed action address a serious wildlife trade issue for species not native to the United States.”

The second category consists of seven species not known to be imported into the United States. For this category, the stated lack of a U.S. trade connection is not necessarily conclusive. Defenders is very mindful that much of the publicly available data on species imports is incomplete as far as full species identifications.¹ It may be that these species in this “import connection lacking” category in fact have been imported but were not fully identified in the publicly available records. We urge the Fish and Wildlife Service to review its in-house and other trade information on these species to see whether in fact they may have U.S. import trade connections. If there is indeed no significant trade connection for these species, then we urge the United States to support proposals for listing them if submitted by other CITES parties.

U.S. import connection

Agalychnis moreletii
Bolitoglossa dofleini
Caudiverbera caudiverbera
Limnonectes blythii
*Limnonectes macrodon*³
Limnonectes magnus

U.S. import connection lacking

Agalychnis annae
Atelopus cruciger
Leptodactylus laticeps
Neurergus kaiseri
Neurergus microspilotus
*Rana shqiperica*²
Scaphiophryne boribory

Please consider the following additional information received via expert review comments:

- For the genus *Limnonectes*, one expert is of the opinion that several other *Limnonectes* species, perhaps the entire genus, should be listed in Appendix II due to high trade levels and the difficulty of distinguishing these very similar-looking species when imported as frog legs.⁴
- Defenders’ list does not include *Paramesotriton laoensis*, a species that one expert recently stated to us is highly threatened by trade and should be listed.⁵ We encourage the Service to undertake additional research on this species.

In view of the acute global amphibian decline associated with the chytrid fungus outbreaks, and the connection of the spread of that fungus with international trade, Defenders cannot overemphasize how important it is for the United States to provide leadership in supporting these new CITES proposals to address the amphibian trade.

¹ See discussion of missing species identifications in, Defenders of Wildlife. 2007. *Broken Screens - The Regulation of Live Animal Imports in the United States*. Report by Defenders of Wildlife, Washington, DC. Online at: www.defenders.org/animalimports.

² *Rana shqiperica* is also known as *Pelophylax shqipericus*; see attached summary species proposal.

³ *Limnonectes macrodon* is identified in some USFWS LEMIS import records as *Rana macrodon*; see attached summary species proposal.

⁴ Peter Paul van Dijk, Conservation International, Washington, DC; *pers. comm.*, Nov. 23, 2008

⁵ David Wake, Dept. of Integrative Biology, UC Berkeley; *pers. comm.*, Nov. 23, 2008.

We have also attached a summary table and a photograph sheet. Please contact us if you have any questions. We look forward to the Service's response to these proposals.

Sincerely,

/s/

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/s/

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Attachments

Table - 13 amphibians proposed for CITES listing

<u>Scientific name</u>	<u>Common name</u>	<u>IUCN status*</u>	<u>Trade purpose</u>	<u>Range state(s)</u>	<u>Proposed CITES App.</u>	<u>Known to be harmed by Bd? **</u>
<u>SPECIES WITH U.S. IMPORT TRADE CONNECTION</u>						
<i>Agalychnis moreletii</i>	Morelet's tree frog	CR	Pet trade	Belize, El Salvador, Guatemala, Honduras, Mexico	App. II	yes
<i>Bolitoglossa dofleini</i>	Alta Verapaz salamander	NT	Pet trade	Belize, Guatemala, Honduras	App. II	?
<i>Caudiverbera caudiverbera</i>	rana grande Chilena	VU	Food trade	Chile	App. II	no
<i>Limnonectes blythii</i>	giant Asian river frog, Blyth's river frog	NT	Food trade	Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Viet Nam	App. II	no
<i>Limnonectes macrodon</i> ***	fanged river frog	VU	Food trade	Indonesia	App. II	no
<i>Limnonectes magnus</i>	giant Philippine frog	NT	Food trade	Indonesia, Philippines	App. II	no
<u>SPECIES LACKING U.S. IMPORT TRADE CONNECTION</u>						
<i>Agalychnis annae</i>	blue-sided tree frog	EN	Pet trade	Costa Rica	App. II	yes
<i>Atelopus cruciger</i>	Rancho Grande harlequin frog	CR	Scientific / pet trade	Venezuela	App. II	yes
<i>Leptodactylus laticeps</i>	rana carolina	NT	Pet trade	Argentina, Bolivia, Paraguay	App. II	no
<i>Neurergus kaiseri</i>	Kaiser's spotted newt	CR	Pet trade	Iran	App. I	no
<i>Neurergus microspilotus</i>	Kurdistan newt	EN	Pet trade	Iran	App. II	no
<i>Rana shqiperic</i> ****	Albanian water frog	EN	Food trade	Albania, Montenegro	App. II	no
<i>Scaphiophryne boribory</i>	N/A	EN	Pet trade	Madagascar	App. II	no

*** IUCN Red List acronyms for conservation status**

CR = Critically Endangered VU = Vulnerable

EN = Endangered NT = Near Threatened

** Indicates Threatened Amphibians of the World or other source identifies Bd as a current factor in species' status. Those listed as not known to be harmed by Bd may be susceptible to it, but may not have been challenged by or tested for the disease to date.

*** *Limnonectes macrodon* is identified in some USFWS LEMIS import records as *Rana macrodon*.

**** *Rana shqiperic*a is also known as *Pelophylax shqiperic*us.

Defenders of Wildlife CITES Listing Proposals



Agalychnis annae
© 2005 Robert Puschendorf



Agalychnis moreletii
© 2006 Vladlen Henríquez



Atelopus cruciger
© 2008 Aldemar A. Acevedo



Bolitoglossa dofleini
© 2002 Stephen M. Deban



Caudiverbera caudiverbera
© José Grau de Puerto Montt



Leptodactylus laticeps
© 2003 University of Kansas
Natural History Museum and
Biodiversity Research Center



Limnonectes blythii
© www.ecologyasia.com /Nick Baker

No Photo Available
Limnonectes macrodon

No Photo Available
Limnonectes magnus



Neurergus kaiseri
© Wouter Beukema



Neurergus microspilotus
© 1999 Henk Wallays



Rana shqipericica
© Jan Van Der Voort

No Photo Available
Scaphiophryne boribory

***Agalychnis annae*, native to Costa Rica, has experienced a serious decline in its population size in the wild associated with disease, a marked decrease in the area of its occupied habitat and ongoing collection for the international pet trade.¹**

Distribution

The species is native to Costa Rica's northern Cordillera de Talamanca, Cordillera de Tilarán and Cordillera Central, generally at altitudes of 780 to 1,650 meters.² It survives mainly around the city of San José and has disappeared from most of its native range.³

Habitat

A. annae is a nocturnal species that inhabits wet, premontane forests and breeds in streams.⁴ It tolerates some disturbance in its habitat. It is abundant in polluted streams, especially in shade-grown coffee plantations and gardens.⁵

Population trends

It has disappeared from pristine areas, including protected areas where it used to be common in the 1980s.⁶ In 2004, the population decline was estimated to be over 50% since 1990.⁷

Threats

Disease: *A. annae* is subject to the fungal disease chytridiomycosis in its native range area, but it is not known whether it is harmed by chytridiomycosis in the polluted urban waters it now inhabits. It appears the fungus is more vulnerable to the water pollution than is the frog.⁸

Invasive species: The introduced fish *Xiphophorus helleri* preys on larvae of the species.⁹

Over-harvesting: The species is harvested for the pet trade, which remains an ongoing threat.¹⁰

Utilization and trade

The species is found in the regional and international pet trade. It has been advertised for sale in the United States, both as a pet and for breeding.¹¹ Also, a French website for tropical pet sales has advertised it.¹² The population is in a major population decline such that unrestricted international trade can be detrimental to the species in its limited remaining occupied habitat in polluted waters around San José.¹³

Legal instruments

The species is protected in Costa Rica by the Ley de Conservación de la Vida Silvestre No. 7317, and by the Ley Orgánica del Ambiente No. 7554 and Decree No. 26435-MINAE.¹⁴

Management measures

In Costa Rica the frog is listed as a species with reduced populations.¹⁵ Further research is needed to determine whether or not this species can survive only in polluted areas due to inability of the chytrid fungus to survive in such environments.¹⁶

Proposed CITES Category: **Appendix II**

Requested action to the U.S. government: **Support the proposal**

References

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- ¹ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) (2008). *Threatened Amphibians of the World*. P. 238, Lynx Edicions, Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International, Arlington, Virginia, USA.
- ² *Id*
- ³ *Id.*
- ⁴ IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed on 04 May 2006.
- ⁵ *Id.*
- ⁶ *Personal comment* from J. Alan Pounds (Monte Verde Cloud Forest Preserve, Costa Rica) to Alejandra Goyenechea (Defenders of Wildlife, USA). November 18, 2008.
- ⁷ IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: October 10, 2008.
- ⁸ *Supra* note 4.
- ⁹ *Id.*
- ¹⁰ *Supra* note 1.
- ¹¹ Amphibian Forum. Blog search: *Agalychnis annae*. Available at: www.amphibianforum.com/post2222.html#p2222. Accessed: October 11, 2008,
- ¹² La Ferme Tropicale. Sale of a captive born sub adult for EUR 125 but was not available. Online shop. Available at: www.lafermetropicale.com/boutique/indexboutik_new_uk.php?rub=ref&id=1142595457. Accessed: October 11, 2008.
- ¹³ *Supra* note 4.
- ¹⁴ Elizondo. L.H. 2000. Especies de Costa Rica: *Agalychnis annae*. INBio (Instituto Nacional de Biodiversidad). Available at: <http://darnis.inbio.ac.cr/ubis/FMPro?-DB=UBIPUB.fp3&-lay=WebAll&-error=norec.html&-Format=detail.html&-Op=eq&-Find>. Accessed: October 20, 2008.
- ¹⁵ MINAE (Ministerio del Ambiente y Energía). 2006. Lista de especies con poblaciones reducidas para Costa Rica. Decreto Ejecutivo 32633 – MINAE. Sistema Nacional de Aeras de Conservación – Secretaría Ejecutiva.
- ¹⁶ *Supra* note 7.

Agalychnis moreletii, native to Belize, El Salvador, Guatemala, Honduras, and Mexico has suffered a drastic decline in its population in the wild, which is ongoing and estimated to be more than 80% over the past ten years, likely primarily due to chytridiomycosis.¹ Continued collection for international trade at present levels is likely to be detrimental to the species and needs to be regulated by inclusion in Appendix II.

Distribution

A. moreletii is distributed from north-eastern Puebla state and south central Veracruz state, Mexico, to north-western Honduras on the Atlantic coast. On the Pacific side of this region, it occurs from south central Guerrero state, Mexico, to central El Salvador. It is generally found at elevations of 300 to 1500 meters.²

Habitat

This frog inhabits lowland to montane wet forests and wetlands associated with both permanent and intermittent freshwater marshes and ponds. It occurs in both pristine and disturbed habitats.³

Population trends

A. moreletii is critically endangered and declining.⁴ In Mexico, it has disappeared from all the sites surveyed.⁵ In Belize and Honduras, it is uncommon, but occasionally found in breeding aggregations.⁶ In Guatemala and Honduras, the population is declining.⁷

Threats

Habitat loss: In Guatemala and Honduras it is suffering from habitat destruction due to subsistence agriculture and deforestation.⁸

Diseases: Likely primarily due to chytridiomycosis, *A. moreletii* is disappearing across its range.⁹

Over-harvesting: The species has been common in the local and international pet trade.¹⁰

Utilization and trade

From 2003 to 2007, 204 specimens from Guatemala were imported into the United States from the wild for commercial purposes.¹¹ The species is in such rapid decline that any further collection for the international trade likely could contribute to its extinction.¹²

Legal instruments

A. moreletii is not protected by Mexican law. Further research is needed on its legal status in other range states.

Management measures

None known.

Proposed CITES category: **Appendix II**

Requested action to the U.S. government: **Co-author the proposal**

References

¹ IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed on 04 May 2006.

² *Id.*

³ *Id.*

⁴ IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed on 10 October 2008.

⁵ *Id.*

⁶ Biodiversity & Environmental Resource Data System of Belize. Available at: http://www.biodiversity.bz/find/species/profile/profile.phtml?species_id=10. Accessed: September 13, 2008.

⁷ Bonham, C. A. 2006. *Biodiversity and Conservation of Sierra Chinajá: A Rapid Assessment of Biophysical, Socioeconomic, and Management Factors in Alta Verapaz, Guatemala*. The University of Montana.

⁸ Wilson, L.D., Townsend, J.H. 2006. The Herpetofauna of the Rainforests of Honduras. *Caribbean Journal of Science*, Vol. 42, No. 1, 88-113, College of Arts and Sciences, University of Puerto Rico, Mayagüez.

⁹ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) (2008). *Threatened Amphibians of the World*. P. 238, Lynx Edicions, Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International, Arlington, Virginia, USA.

¹⁰ *Id.*

¹¹ Defenders of Wildlife, 2008. Freedom of Information Act request to U.S. Fish and Wildlife Service. Information in LEMIS database.

¹² *Supra* note 4.

Atelopus cruciger, native to Venezuela, has suffered a catastrophic decline in its wild population likely due to chytridiomycosis and is now critically endangered.¹ The species has declined despite occurring in areas protected from habitat destruction.² Continued collection for international trade at present levels is likely to be detrimental to the species and needs to be regulated under the provisions of Article II.

Distribution

This species is restricted to several localities in the northern and southern portions of the Cordillera de la Costa of Venezuela (Estados Aragua, Carabobo, Miranda, Vargas, Yaracuy and the Distrito Federal) and recently from Cerro Azul (Estado Cojedes), which suggests that the species might be present throughout the entire mountainous area of the central coastal range.³ It has been recorded from 30 to 2,200 meters above sea level.⁴

Habitat

A. cruciger is a diurnal species typically found on rocks in and around small rivulets. This frog also climbs onto plants up to 1.5m above the ground. Its general habitat is humid lowland and montane forests. It breeds along swift-flowing streams.⁵

Population trends

Although this species once was abundant it has declined drastically. It was not seen in its native Venezuela after 1986 until a very small remnant population was observed in 2003.⁶ Its population is very fragile.⁷

Threats

Habitat loss: Some habitat destruction and degradation has occurred within the range of the species due to deforestation.⁸ However, large expanses of intact habitat remain.

Pollution: It suffers from acid rain generated by the large concentration of industries in the nearby area of Valencia-Maracay.⁹

Diseases: *A. cruciger* is known to carry chytridiomycosis.¹⁰ This fungal disease likely has been the primary factor in population declines throughout its range.¹¹

Over-harvesting: This species has been collected for use in national and international trade. The primary market has been Europe, mainly Germany.¹²

Utilization and trade

The species is used in the pet, scientific, and animal display sectors at the national and international levels.¹³ The status of this species is so depleted that any continuing unregulated harvest for the international trade could be a factor in its extinction.

Legal instruments

None known.

Management measures

None known.

Proposed CITES Category: **Appendix II**

Requested action to the U.S. government: **Support the proposal**

References

- ¹ IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: 10 October 2008.
- ² Ministerio del Ambiente y los Recursos Naturales. *Primer Informe de País para la Convención sobre Diversidad Biológica*. Mayo 2000.
- ³ Lötters, S., La Marca, E. and Vences, M. 2004. *Redescriptions of two toad species of the genus Atelopus from coastal Venezuela*. *Copeia*. 2004. pp 222-234.
- ⁴ IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed: October 10, 2008.
- ⁵ *Id.*
- ⁶ *Supra* note 1.
- ⁷ *Personal comment* from David Wake (University of California) to Alejandra Goyenechea (Defenders of Wildlife). November 23, 2008.
- ⁸ World Wildlife Fund (Content Partner); Mark McGinley (Topic Editor). 2007. "*Cordillera La Costa montane forests*." In: *Encyclopedia of Earth*. Eds. Cutler J. Cleveland (Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment). [Published in the *Encyclopedia of Earth* March 23, 2007; Retrieved October 17, 2008]. Available at: www.eoearth.org/article/Cordillera-La-Costa-montane-forests
- ⁹ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) (2008). *Threatened Amphibians of the World*. P. 238, Lynx Edicions, Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International, Arlington, Virginia, USA.
- ¹⁰ Bonaccorso, E., Guayasamin, J.M., Méndez, D. and Speare, R. 2003. Chytridomycosis as a possible cause of population declines in *Atelopus cruciger* (Anura: Bufonidae). *Herpetological Review*. 34 (4): 331-334. 2003.
- ¹¹ Department of the Environment and Heritage. 2006. *Infection of Amphibians with Chytrid Fungus Resulting in Chytridiomycosis*. Australia. Australian Government, available at: www.deh.gov.au/biodiversity/threatened/publications/tap/chytrid/
- ¹² La Marca, E., Lips, K.R., Lötters, S., Puschendorf, R., Ibáñez, R., Rueda-Almonacid, J.V., Schulte, R., Marty, C., Castro, F., Manzanilla-Puppo, J., García-Pérez, J.E., Bolaños, F., Chaves, G., Pounds, J.A., Toral, E., Young, B.E.. 2005. Catastrophic Population Declines and Extinctions in Neotropical Harlequin Frogs (*Bufonidae: Atelopus*). *Biotropica* Volume 37. Number 2. pp 190-201. May 2005.
- ¹³ The extinction Website Forum: The forum about extinct animals and plants. Available at <http://extinctanimals.proboards22.com/index.cgi>. Accessed: October 17, 2008.

***Bolitoglossa dofleini*, native to Belize, Guatemala and Honduras is near threatened according to the IUCN.¹ There is ongoing international demand, particularly in the European Union where it is the most common tropical salamander in the pet trade, and also in the United States.² Continued collection for international trade at present levels is likely to be detrimental to the species and needs to be regulated by inclusion in Appendix II.³**

Distribution

This species ranges from extreme northern Alta Verapaz, Guatemala, and Cayo District in southern Belize, to north-central Honduras. In Honduras it is known from Quebrada Grande in Copan Department, Sierra de Merendon west of San Pedro Sula, Cortes Department, and Portillo Grande in Yoro Department. It occurs from 50 to 1,450 meters above sea level. The full extent of its distribution has not been accurately recorded.⁴

Habitat

B. dofleini inhabits premontane wet forest, and is generally successful in disturbed habitats, such as cardamom plantations. Females tend to stay on the ground under logs, while males are arboreal.⁵

Population trends

Its overall population is decreasing.⁶ *B. dofleini* is fairly widespread but not known to have large populations anywhere.⁷ It takes 10 to 12 years for individuals of this species to mature, which can limit rates of population growth after over collection occurs.

Threats

Habitat loss: Habitat destruction, via deforestation and logging-related damage, is considered a possible reason for this salamanders' decline.⁸

Diseases: *B. dofleini* is susceptible to chytridiomycosis, which was reported in specimens imported into Belgium.⁹ However, the role this disease plays in impacting wild *B. dofleini* populations remains unresolved.

Over-harvesting: The species is threatened by collection of wild specimens for the international pet trade to the European Union and the United States.¹⁰ The trend in the level of wild collection in relation to total wild population numbers in recent years is inadequately understood.¹¹

Utilization and trade

The species is used for the pet and zoological display sectors.¹² The species is decreasing and is subject to other threats, including habitat loss. Thus, continued unrestricted collection for international trade could threaten the survival of this species. From 2003 to 2007 the United States imported 740 specimens of which 95.5% came from the wild and 98.6% were collected for commercial purposes.¹³

Legal instruments

None known. Further research is needed.

Management measures

None known.

Proposed CITES Category: **Appendix II**

Requested action to the U.S. government: **Co-author the proposal**

References

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- ¹ IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed: 04 May 2006.
- ² www.caudata.org. Accessed: October 17, 2008.
- ³ IUCN. 2004. *2004 IUCN Red List of Threatened Species*. www.iucnredlist.org. Accessed: October 2008.
- ⁴ *Id.*
- ⁵ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) (2008). *Threatened Amphibians of the World*. P. 238, Lynx Edicions, Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International, Arlington, Virginia, USA.
- ⁶ Amphibiaweb 2007. AmphibiaWeb: Information on amphibian biology and conservation. Berkeley, California, URL: www.amphibiaweb.org. Accessed October 2008.
- ⁷ *Personal comment* from David Wake (University of California) to Alejandra Goyenechea (Defenders of Wildlife). November 23, 2008.
- ⁸ *Supra* note 3.
- ⁹ Pasmans, F., Zwart, P., Hyatt, A. D., Chytridiomycosis in the Central American bolitoglossine salamander (*Bolitoglossa dofleini*). 2004. *The Veterinary Record*. January 31, 2004.
- ¹⁰ *Id.*
- ¹¹ *Supra* note 1.
- ¹² *Id.*
- ¹³ Defenders of Wildlife, 2008. Freedom of Information Act request to U.S. Fish and Wildlife Service. Information in LEMIS database.

Caudiverbera caudiverbera, native to Chile, is listed as vulnerable by the IUCN due to its population decline, estimated at more than 30% over the last ten years, inferred from direct observation and over-exploitation.¹ High volumes of trade increase the vulnerability of the species.² Growing commercial pressures³ and lack of oversight and regulatory measures could lead to unsustainable over-collection of this species for the international trade.⁴

Distribution

This neo-tropical species occurs from Coquimbo (at approx. 29°S) south to Puerto Montt (40°S), in Chile. It has an altitudinal range of 0-500 meters.⁵ Its possible occurrence in Argentina remains unresolved.⁶

Habitat

C. caudiverbera inhabits large, deep ponds, lagoons and small reservoirs. It tolerates minor disturbance of its habitat, but requires permanent large water bodies to persist.⁷

Population trends

Populations of this species are currently markedly declining in central Chile; it is practically absent in ponds and lagoons close to towns where it was abundant a few years ago. However, populations appear stable in the southern portion of its range.⁸

Threats

Habitat loss: *C. caudiverbera* suffers from drainage of ponds, primarily due to agricultural development.

Pollution: It is harmed by water pollution, mostly associated with agriculture.⁹

Invasive species: Introduced trout have preyed on this species.¹⁰

Over-harvesting: This species is used as food locally and internationally.¹¹ A recent study urgently recommended listing this species under CITES because of its harvesting for the frog leg trade.¹²

Utilization and trade

The species is broadly used for human consumption and an increase has occurred in the level of wild harvest in relation to total wild population numbers since approximately 2000.¹³ The United States has been a significant commercial importer of wild-caught specimens of this species.¹⁴ From 2003 to 2007, 10,861 wild specimens were exported to the United States and were all traded for commercial purposes.¹⁵ Continued unregulated collection of *C. caudiverbera* for the international trade at present levels is likely to be detrimental to the species.

Legal instruments

C. caudiverbera is listed as critically endangered in Chile.¹⁶

Management measures

The national government of Chile prepared a project in 2005 for the preservation of this frog through environmental education, collection and incubation of eggs, tadpole rearing, stocking, research, and training.¹⁷ Captive breeding has not been successful to conserve the species.¹⁸

Proposed CITES Category: Appendix II

Requested action to the U.S. government: Co-author the proposal

References

- ¹ IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: October 20, 2008.
- ² Días-Páez, H., Ortiz, J.C. 2003. *Evaluación del Estado de Conservación de los Anfibios en Chile*. Revista Chilena de Historia Natural. Number 76. pp 509-525. 2003.
- ³ Taibo S, Francisco Javier, *Marketing of the Meat of the Big Chilean Frog (Caudiverbera caudiverbera)*. Universidad de las Américas. Santiago, Chile. 2000.
- ⁴ *Supra* note 2.
- ⁵ IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed: October 20, 2008.
- ⁶ *Id.*
- ⁷ *Supra* note 1.
- ⁸ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) (2008). *Threatened Amphibians of the World*. P. 238. Lynx Edicions. Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International. Arlington, Virginia, USA.
- ⁹ *Id.*
- ¹⁰ *Id.*
- ¹¹ *Supra* note 5.
- ¹² Documentation Center for Species Protection. Species Protection News. *Amphibians in Human Nutrition*. Available at: www.dccsp.org/aktuell-e.html#amphibien. Accessed: October 20, 2008.
- ¹³ *Id.*
- ¹⁴ Defenders of Wildlife, 2008. Freedom of Information Act request to U.S. Fish and Wildlife Service. Information in LEMIS database.
- ¹⁵ *Id.*
- ¹⁶ *Supra* note 12.
- ¹⁷ *Id.*
- ¹⁸ *Id.*

Leptodactylus laticeps is over-collected for the pet trade.¹ No exports are allowed from Paraguay, but in Argentina trade remains a threat. In Paraguay and Argentina one specimen can sell for more than \$300.² Exported specimens can cost up to 600 Euros in European pet shops.³ Continued collection for the international trade at present levels is likely to be detrimental to the species and needs to be regulated by inclusion in Appendix II.

Distribution

This species occurs in the Gran Chaco of Paraguay, Bolivia and Argentina, from 0 to 300 meters in elevation.⁴

Habitat

L. laticeps is a terrestrial species of flat open lands that breeds in temporary ponds. It likely does not adapt well to anthropogenic disturbance.⁵

Population trends

It is common in parts of Paraguay and Bolivia, but is now rare in Argentina due to over-collection.⁶

Threats

Habitat loss: It is affected by habitat alteration in northern Argentina.⁷

Over-harvesting: Collection of wild *L. laticeps* for the international pet trade is a major threat.⁸ It is reported to be collected mostly in Argentina and Paraguay and sold in pet shops for high prices.⁹ Nothing is known about the species in Bolivia, i.e., no information is available on its collection or trade from this country.¹⁰

L. laticeps is classified as vulnerable by the Argentinean Herpetological Society.

Utilization and trade

The species is used as a pet and for zoological display. Continued collection for the international trade likely is likely to be detrimental to the species.

Legal instruments

Paraguay currently prohibits the export of all fauna as a result of a voluntary suspension.¹¹

Management measures

Conservation measures exist in several protected habitat areas there.

Proposed CITES Category: Appendix II

Requested action to the U.S. government: Support the proposal

References

- ¹ IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: October 20, 2008.
- ² IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed: October 20, 2008.
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- ⁴ *Id.*
- ⁵ *Supra* note 1.
- ⁶ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) 2008. *Threatened Amphibians of the World*. Lynx Edicions, Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International, Arlington, Virginia, USA.
- ⁷ Lavilla, E.O. 2001. Amenazas, declinaciones poblacionales y extinciones en anfibios argentinos. *Cuadernos de Herpetología* 15 (1): 59-82.
- ⁸ *Supra* note 2.
- ⁹ *Id.*
- ¹⁰ Gonzales, L. 2007. Comments to IUCN-WCMC from Lucindo Gonzales. Natural History Museum Noel Kempff Mercado, Bolivia, November 2007.
- ¹¹ Aquino, L. 2007. Comments to IUCN-WCMC from Lucy Aquino. WWF Paraguay, October 2007.

Limnonectes blythii - Giant Asian River Frog

IUCN Red List Status: Near Threatened

Limnonectes blythii is classified by IUCN as “near threatened” because of its use in the frog leg trade.¹ It is being over-harvested for the local, national and international trades and its habitat is shrinking.² Harvesting from the wild for international trade needs be regulated to ensure the long term survival of this species.³

Distribution

L. blythii ranges widely in south-east Asia, from Viet Nam and the Lao People’s Democratic Republic, to Thailand and Peninsular Malaysia, Singapore and Sumatra, the Anambas Islands and the Natuna Islands (Indonesia). It is also present on the islands of Phuket, Langkawi, Penang and Tioman. It occurs up to 1,200 meters in elevation.⁴

Habitat

This frog inhabits streams with gravel and boulders in primary and secondary evergreen forest. Males build a nesting hollow in a sandy streambed area and the larvae develop in streams.⁵

Population trends

It is locally variable: uncommon in western Thailand, but very common in areas where harvesting does not occur in Peninsular Malaysia. Depleted populations due to harvesting are most typical in readily accessible areas near human habitations.⁶

Threats

Habitat loss: Forest clearance has eliminated some populations.⁷

Over-harvesting: Intensive collection for consumption for subsistence levels and for local, national and international trade threatens this species.⁸

Utilization and trade

L. blythii is heavily utilized in the frog leg trade. It is estimated that restrictions on harvesting could lead to population recovery in 5 to 10 years.⁹ The United States has been a commercial importer of wild-caught specimens of this species.¹⁰

Legal instruments

Thailand: This species inhabits many protected areas throughout its range in Thailand, and is protected by the Wild Animals Reservation and Protection Act.¹¹

Other range countries: The species’ legal status needs further investigation.

Management measures

None known.

Proposed CITES Category: **Appendix II.**

Requested action to the U.S. government: **Co-author the proposal**

References

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- ¹ IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: October 21, 2008. The annotated budak.
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- ³ *Id.*
- ⁴ IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed on October 20, 2008.
- ⁵ *Supra* note 1.
- ⁶ *Supra* note 4.
- ⁷ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) 2008. *Threatened Amphibians of the World*. Lynx Edicions, Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International, Arlington, Virginia, USA.
- ⁸ *Id.*
- ⁹ *Id.*
- ¹⁰ Defenders of Wildlife, 2008. Freedom of Information Act request to U.S. Fish and Wildlife Service. Information in LEMIS database.
- ¹¹ *Supra* note 4.

Limnonectes macrodon - Fanged River Frog

IUCN Red List Status: Vulnerable

Limnonectes macrodon, native to Indonesia, is highly utilized as a food source and the species is found in international trade.¹ The volume of exported frozen frog legs of this species likely has increased over recent years.² Collection for international trade needs to be regulated to ensure the long-term survival of wild populations.

Distribution

L. macrodon is found throughout the island of Java and in Lampung Province in the south of the island of Sumatra, Indonesia. It occurs at elevations up to approximately 700 meters.³

Habitat

L. macrodon inhabits forested areas near streams. It can survive in secondary forest where suitable canopy cover remains. Breeding takes place in streams.⁴

Population trends

Although formerly common, this species is now generally considered to be uncommon.⁵

Threats

Habitat loss: Habitat destruction has resulted from agriculture and subsistence wood collection.⁶

Pollution: Water pollution is a threat in some areas.⁷

Over-harvesting: *L. macrodon* is utilized as food for both local markets and international trade.⁸ As Indonesian frogs have been harvested in relatively large numbers for many years, harvesting likely has affected their overall distribution and status.⁹

Utilization and trade

The major importer of Indonesian frog legs has been Europe; the United States also has imported significant numbers.¹⁰ Most frogs are captured in natural habitats, although some also come from aquaculture.¹¹ Exports for international trade need to be regulated to ensure the long-term survival of wild populations of this frog.

From 2003 to 2007, U.S. Fish and Wildlife Service records show imports of 2243 specimens, plus 99,997.6 kg, and 1899 pounds. 18.4% of the specimens and 21.1% of the frog leg meat came from the wild.¹² 99.99% of the imports were acquired for commercial purposes.¹³

Note: The LEMIS database identified shipments of *Limnonectes macrodon* as *Rana macrodon*.

Legal instruments

None known.

Management measures

None known.

Proposed CITES Category: **Appendix II**

Requested action to the U.S. government: **Co-author the proposal**

References

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- ¹ Kusrini, M. D., Alford R.A. Indonesia's Exports of Frogs Legs. 2006. *TRAFFIC Bulletin* Vol. 21 No. 1. pp 13-20.
- ² Kusrini, M. D. 2005. *Edible frog harvesting in Indonesia: Evaluating its impact and ecological context*. Thesis submitted for the degree of Doctor of Philosophy in Zoology and Tropical Ecology. School of Tropical Biology. James Cook University. Australia. Available at: <http://eprints.jcu.edu.au/1118/01/01front.pdf>.
- ³ IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed on October 20, 2008.
- ⁴ IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: October, 21 2008.
- ⁵ *Id.*
- ⁶ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) 2008. *Threatened Amphibians of the World*. Lynx Edicions, Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International, Arlington, Virginia, USA.
- ⁷ *Supra* note 1.
- ⁸ *Supra* note 4.
- ⁹ *Supra* note 2.
- ¹⁰ *Supra* note 1.
- ¹¹ *Supra* note 3.
- ¹² Defenders of Wildlife, 2008. Freedom of Information Act request to U.S. Fish and Wildlife Service. Information in LEMIS database.
- ¹³ *Id.*

Limnonectes magnus is in decline because of widespread habitat loss and over-collecting for the food trade.¹ The species is described as “rapid-declining” due to the level of utilization.² Most of the market for frog legs is in Europe and the United States, and the demand has increased. Collection for international trade needs to be regulated to ensure the long-term survival of wild populations of this species.

Distribution

L. magnus is found on Mindanao, Basilan, Bohol, Camiguin, Samar and Leyte Islands in the Philippines, from 1,200 to 1,800 meters in elevation, as well as on Sulawesi, Indonesia.³

Habitat

This species inhabits both pristine and disturbed streams and rivers in lower montane and lowland forests. It breeds and deposits egg clutches in calm side pools of forested streams and rivers.⁴

Population trends

L. magnus is common where its habitat remains intact, although some populations are in decline because of utilization.⁵

Threats

Habitat loss: Widespread habitat destruction has occurred due to agriculture and logging.⁶

Pollution: Pollution of streams and rivers has occurred by agricultural pesticides, herbicides and mine-tailings.⁷

Over-harvesting: *L. magnus* is heavily harvested for local consumption and international trade.⁸

Utilization and trade

Utilization of *L. magnus* for the international frog leg trade, including into the United States, needs to be regulated to ensure the long-term viability of wild populations.

Legal instruments

None known.

Management measures

The range of this species includes a few nationally protected areas in the Philippines.

Proposed CITES Appendix: **Appendix II**

Requested action to the U.S. government: **Support the proposal**

References

¹ IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed on October 21, 2008.

² Stuart, S.N., Chanson, J.S., Cox, N.A., Young, B.E., Rodrigues, A.S.L., Fischman, D.L., Waller, R.W. 2004. Status and Trends of Amphibian Declines and Extinctions Worldwide. 2004. *Science Express*. Vol. 306. no. 5702, pp. 1783 – 1786. 14 October 2004. Available at: www.sciencemag.org/cgi/content/abstract/306/5702/1783. Accessed September 18, 2008.

³ *Supra* note 1.

⁴ *Id.*

⁵ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) (2008). *Threatened Amphibians of the World*. P. 238. Lynx Edicions. Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International. Arlington, Virginia, USA.

⁶ *Id.*

⁷ *Id.*

⁸ IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: October, 20, 2008.

Neureergus kaiseri, a highly attractive newt endemic to Islamic Republic of Iran, is in critical decline. Its two remnant populations are severely fragmented and a decline continues in the extent and quality of its habitat, as well as a decline in the number of mature individuals in the wild resulting from over-collecting for the illegal pet trade.¹ To avoid extinction, no further collection for the international trade should occur.²

Distribution

N. kaiseri is endemic to only three stream drainages within a restricted area of the southern Zagros Mountains, Lorestan (most of the population) and Khuzestan Provinces, Islamic Republic of Iran. Its habitat ranges from 500 to 1,430 meters in elevation.³

Habitat

The stream drainages this newt inhabits generally are in arid shrublands. *N. kaiseri* requires relatively complex mosaic landscapes consisting of unpolluted stream habitats rich in invertebrate prey and terrestrial areas suitable for foraging, protection and hibernation. The species also needs intact migration habitat to move between the streamsides and the upland terrestrial areas they utilize.⁴

Population trends

N. kaiseri is locally abundant to rare within its narrowly restricted range. One of the populations has recently been extirpated; the species is now only known from two spring-fed streams. The total population is estimated at fewer than 1,000 mature individuals.⁵

Threats

Habitat loss: Habitat degradation has resulted from wood extraction for small-scale subsistence use, severe droughts, and damming of the inhabited streams.⁶ The species is vulnerable to global warming, as it inhabits arid, already marginal conditions.⁷

Over-harvesting: Due to attractive coloration, *N. kaiseri* is collected for the pet and display sectors and is seriously threatened by international trade.⁸

Utilization and trade

The species is used for pet and display purposes in both local and international trade.⁹ An increase has been observed in the level of collection in relation to the species' total wild population numbers since 2000.¹⁰ In December 2004, 50 specimens were announced for sale via internet websites, which was equal to approximately 5% of the total remnant population.¹¹ In addition, a dealer from Ukraine allegedly traded approximately 200 specimens early in 2005 and claimed 250 more were to be available in January 2006.¹² Despite attempt's by Iran to regulate this trade, assistance from other countries is needed to protect against illegal trade.¹³

Legal instruments

N. kaiseri is protected by Iranian Game and Fish Law. In the past 10 years no permits have been issued to export it.

Management measures

None known.

Proposed CITES category: **Appendix I**

Requested action to the U.S. government: **Support the proposal**

References

- ¹ IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed: October 21, 2008.
- ² *Personal comment* from Mozafar Sharifi (Member, IUCN SSC Chiroptera Specialist Group) and Theodore Papenfuss (University of California). Global Reptile and Amphibian Assessment workshop in Antalya, Turkey. International Union for Conservation of Nature (IUCN). 22-26 September 2008.
- ³ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) (2008). *Threatened Amphibians of the World*. P. 238, Lynx Edicions, Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International, Arlington, Virginia, USA.
- ⁴ Evolutionary Distinct & Globally Endangered. 2006. Luristan Newt (*Neurergus kaiser*). Available at: www.edgeofexistence.org/amphibians/species_info.php?id=625. Accessed: September 11, 2008.
- ⁵ *Supra* note 3.
- ⁶ *Id.*
- ⁷ *Supra* note 4.
- ⁸ *Personal comment* from Simon Stuart (IUCN Species Survival Commission) to Alejandra Goyenechea (Defenders of Wildlife). November 18, 2008.
- ⁹ IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: October 20, 2008.
- ¹⁰ *Id.*
- ¹¹ TRAFFIC North America. 2006. The Kaiser's spotted newt – traded to the brink of extinction. *The TRAFFIC Report*. Vol 5 No. 1.
- ¹² *Id.*
- ¹³ *Personal comment* from Peter Paul Van Dijk (Conservation International) to Alejandra Goyenechea (Defenders of Wildlife). November 24, 2008.

Neurergus microspilotus is an endangered newt, native to Iran, that is reportedly still sold in local markets bound for the international pet trade. There is a continuing decline in the extent and quality of its very limited occupied habitat due to degradation of streamsides and water contamination.¹ The number of subpopulations has been reduced.² The species is in such rapid decline that continued collection for international trade is likely to impact its survival.³

Distribution

N. microspilotus is restricted to the Avroman Mountains on the Iraq-Iran-Turkey border where it was known from five streams, but is now restricted to just four.⁴ Within Iran, it is found in Kermenshah and Kurdistan provinces; it has not been confirmed recently from either Turkey or Iraq. It is found at elevations ranging from 1,300 to 1,400 meters.⁵

Habitat

This newt is known only from small stream habitats. The typical area surrounding the streams it inhabits is a dry canyon with open oak forest and grassland. The species breeds, and larval development takes place, in the streams. It is susceptible to habitat disturbance.⁶

Population trends

N. microspilotus is a fairly common species in its limited habitat. However, a number of subpopulations have been extirpated, presumably due to recent severe droughts or illegal harvesting for the pet trade.⁷

Threats

Habitat loss: The breeding habitat of this species in the Zagros Mountains has recently been impacted by severe droughts that led to the extirpation of some populations.⁸

Pollution: Water contamination close to villages and small town, largely by agrochemicals, is leading to a decline in nearby populations.⁹

Over-harvesting: *N. microspilotus* has been observed in the illegal pet trade, an increasing threat to the species.¹⁰

Utilization and trade

The species is used as a pet nationally and internationally.¹¹ Continued collection and export of this species is likely to be detrimental to the species and needs to be regulated by inclusion in Appendix II.¹²

Legal instruments

It is protected under Iranian national law.¹³

Management measures

N. microspilotus occurs within the Zagrosian Oak Forest, which is generally protected. Local people have been engaged in projects looking for solutions to alleviate the water pollution threat.¹⁴

Proposed CITES category: **Appendix II**

Requested action to the U.S. government: **Support the proposal**

References

- ¹ Rastegar-Pouyani, N. 2003. Ecology and conservation of the genus *Neurergus* in the Zagros mountains, Western Iran, *Newsletter of the Declining Amphibian Populations Task Force* (DAPTF) NO. 56, April 2003.
- ² IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: October, 21, 2008.
- ³ *Personal comment* from David Wake (University of California) to Alejandra Goyenechea (Defenders of Wildlife). November 23, 2008.
- ⁴ Leviton, A.E., Anderson, S.C., Adler, K. and Minton, S.A. 1992. Handbook to Middle East Amphibians and Reptiles. Society for the Study of Amphibians and Reptiles.
- ⁵ IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed: October 20, 2008.
- ⁶ *Supra* note 2.
- ⁷ *Supra* note 5.
- ⁸ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) 2008. *Threatened Amphibians of the World*. Lynx Edicions, Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International, Arlington, Virginia, USA.
- ⁹ *Id.*
- ¹⁰ *Id.*
- ¹¹ *Supra* note 2.
- ¹² *Supra* note 3.
- ¹³ *Supra* note 2.
- ¹⁴ *Supra* note 5.

***Rana shqiperica* (*Pelophylax shqipericus*¹) – Albanian Water Frog IUCN Red List Status: Endangered**

***Rana shqiperica*, recently renamed as *Pelophylax shqipericus* is endangered. Its distribution is highly fragmented and there has been a continuing decline in the extent and quality of its habitat.² It is jeopardized by the increased export trade of frog legs for the European market.³ Significant parts of *R. shqiperica*'s range can no longer sustain unregulated collection for international trade.⁴**

Distribution

This lowland species is restricted to western Albania and southern Montenegro at elevations below 500 meters.⁵

Habitat

R. shqiperica inhabits heavily-vegetated wetland areas including ditches, swamps, marshes, the edges of slow-flowing rivers and particularly the shoreline of Lake Skadar. Breeding and larval development take place in these wetland habitats.⁶

Population trends

The population status of this species is not well-documented.⁷

Threats

Habitat loss: Drainage of wetlands threatens this species.⁸

Pollution: Aquatic pollution exists in many waterways caused by agrochemical and industrial (including mining) contaminants.⁹

Invasive species: Introductions of non-native frogs pose a risk to *R. shqiperica*.¹⁰

Over-harvesting: *R. shqiperica* is threatened by over-collection for commercial purposes in the northern parts of its range.¹¹

Utilization and trade

The species is used as food at the national and international levels.¹² The species is threatened by several factors such that continued unrestricted collection for the international frog legs trade will harm the survival of the species in significant parts of its range.

Legal instruments

R. shqiperica is listed on Appendix III of the Berne Convention.¹³ Article 7 of this Convention requires parties to take appropriate and necessary measures to ensure the protection of species listed in Appendix III. Also, their utilization "shall be regulated in order to keep the populations out of danger".¹⁴ Albania is a party to the Berne Convention; Montenegro is not.¹⁵

Management measures

None known, however part of this species range lies within the Lake Skadar protected area.¹⁶

Proposed CITES category: **Appendix II**

Requested action to the U.S. government: **Support the proposal**

References

- ¹ The name of this species was recently changed to *Pelophylax shqipericus* in the IUCN Red list. IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: November, 24, 2008.
- ² IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: October, 21, 2008.
- ³ Ljubisavljevic, K., Dzukic, G. & Kalezic, M. 2003. Green frogs are greatly endangered in Serbia and Montenegro, *FrogLog* 58.
- ⁴ *Id.*
- ⁵ IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed on October 20, 2008.
- ⁶ *Id.*
- ⁷ *Id.*
- ⁸ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) 2008. *Threatened Amphibians of the World*. Lynx Edicions, Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International, Arlington, Virginia, USA.
- ⁹ *Id.*
- ¹⁰ *Supra* note 5.
- ¹¹ *Id.*
- ¹² *Id.*
- ¹³ Convention on the Conservation of European Wildlife and Natural Habitats. Available at: <http://conventions.coe.int/Treaty/en/Reports/Html/104.htm>. Accessed: November 11, 2008.
- ¹⁴ *Id.* Article 7.
- ¹⁵ Convention on the Conservation of European Wildlife and Natural Habitats. Chart of signatures and ratifications. Available at: <http://conventions.coe.int/Treaty/Commun/ChercheSig.asp?NT=104&CM=7&DF=11/11/2008&CL=ENG>. Accessed on November 11, 2008.
- ¹⁶ *Supra* note 8.

***Scaphiophryne boribory*, native to Madagascar, is in continuing decline in the number of mature individuals and facing a high risk of extinction in the wild.¹ Continued unrestricted collection for the international trade could contribute to its extinction.**

Distribution

This species is known only from Fierenanan in eastern Madagascar, at about 950 meters above sea level, although it possibly may occur more widely.²

Habitat

The habitat of *S. boribory* likely is limited to large, flooded forest areas on sandy ground; it is presumed to breed in swamps. Its adaptability to altered habitats is unknown.³

Population trends

Inadequate information exists on the overall population status of this species. However, it is presumed to be locally common, based on indications from commercial collectors.⁴

Threats

Habitat loss: The habitat of *S. boribory* is degraded by subsistence agriculture, timber extraction, charcoal manufacturing, the spread of invasive eucalyptus trees, livestock grazing and expanding human settlements.⁵

Over-harvesting: This species is affected by collecting for the international pet trade.⁶

Utilization and trade

The species is used as a pet. Continued unrestricted collection for the international trade likely is unsustainable.⁷ A detailed scientific review of the conservation status of *S. boribory*, including the role of trade, recommended it should be listed in CITES Appendix II.⁸

Legal instruments

None known.

Management measures

None known.

Proposed CITES category: **Appendix II**

Requested action to the U.S. government: **Support the proposal**

References

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- ¹ Madagascar Toadlets: Scaphiophrynidae – Conservation Status. Available at: <http://animals.jrank.org/pages/241/Madagascar-Toadlets-Scaphiophrynidae-CONSERVATION-STATUS.html>">Madagascar Toadlets: Scaphiophrynidae - Conservation Status. Accessed: October 30, 2008.
- ² IUCN, Conservation International, and Nature Serve. 2006. Global Amphibian Assessment. www.globalamphibians.org. Accessed: October 20, 2008.
- ³ *Id.*
- ⁴ IUCN 2008. 2008 IUCN Red List of Threatened Species. <www.iucnredlist.org>. Accessed: October 29, 2008.
- ⁵ Stuart, S.N., Hoffman, M., Chanson, J.S., Cox, N.A., Berridge, R.J., Ramani, P., Young, B.E. (eds) 2008. *Threatened Amphibians of the World*. Lynx Edicions, Barcelona, Spain; IUCN, Gland, Switzerland; and Conservation International, Arlington, Virginia, USA.
- ⁶ Andreone, F., Cadle, J.E., Cox, N., Glaw, F., Nussbaum, R.A., Raxworthy, C.J., Stuart, S.N., Vallan, D., Vences, M. *Species Review of Amphibian Extinction Risks in Madagascar: Conclusions from the Global Amphibian Assessment*. 2005. *Conservation Biology* Volume 19, No. 6. Pages. 1790–1802.
- ⁷ *Supra* note 5.
- ⁸ Andreone, F., Cadle, J.E., Cox, N., Glaw, F., Nussbaum, R.A., Raxworthy, C.J., Stuart, S. N., Vallan, D., Vence, M. 2005. Species Review of Amphibian Extinction Risks in Madagascar: Conclusions from the Global Amphibian Assessment. *Conservation Biology*. December 2005. Volume 19, Issue 6, Pages 1790-1802.