Rana cretensis

Region: 10

Taxonomic Authority: Beerli, Hotz, Tunner, Heppich and Uzzell, 1994

Synonyms:

Common Names:

Cretan Frog English

Order: Anura

Family: Ranidae

Notes on taxonomy: The species status of Rana cretensis is "confirmed" by short mtDNA sequences and a large number of private allozyme alleles not found in any other water frog (P. Beerli pers. comm.).

General Information

Biome ☑ Terrestrial ☑ Freshwater ☐ Marine

Geographic Range of species:

This species is endemic to the island of Crete, Greece, where it is patchily distributed in the lowlands over a wide area. The species is generally believed to occur below 100m asl.

Habitat and Ecology Information:

It is associated with wetlands including slow moving rivers and streams, lakes and marshes. Breeding and larval development presumably take place in these waterbodies.

Conservation Measures:

The species is listed on Appendix III of the Berne Convention. It occurs in many protected areas, but these are not well conserved. Further research into the population abundance and distribution of this species is urgently needed.

Threats:

The loss of aquatic habitats is the principal threat to this species. Extraction of stream water in the uplands for agricultural irrigation [bananas] leaves many lowland reaches dry during the summer months. Additional habitat loss may be occurring through infrastructure and tourism development. It might be impacted by the introduction of Rana catesbeiana. Implementation of protection is not in place.

Species population information:

It does not appear to be particularly abundant, and is especially difficult to find in dry years.

Country Distribution

	Native - Presence Confirmed	Native - Presence Possible	Extinct	Reintroduced	Introduced	Vagrant
Greece	☑	☐	☐	☐	☐	☐

FAO Marine Habitats

	Native - Presence Confirmed	Native - Presence Possible	Extinct	Reintroduced	Introduced

Major Lakes

Major Rivers

Upper Level Habitat Preferences

		Score
3.8	Shrubland - Mediterranean-type Shrubby Vegetation	1
5.1	Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	1
5.2	Wetlands (inland) - Seasonal/Intermittent/Irregular Rivers/Streams/Creeks	1
5.4	Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands	1
5.5	Wetlands (inland) - Permanent Freshwater Lakes (over 8ha)	1
5.6	Wetlands (inland) - Seasonal/Intermittent Freshwater Lakes (over 8ha)	1
5.7	Wetlands (inland) - Permanent Freshwater Marshes/Pools (under 8ha)	1
5.8	Wetlands (inland) - Seasonal/Intermittent Freshwater Marshes/Pools (under 8ha)	1
11.3	Artificial/Terrestrial - Plantations	1

Lower Level Habitat Preferences

	Score
Marsh Wetland	1
Mire, Bog, Fen	1

Major threats

Code	Description of threat	Past	Present	Future
1	Habitat Loss/Degradation (human induced)	☑	☑	☑
1.1	Agriculture	☑	☑	☑
1.1.1	Crops	☑	☑	☑
1.1.1.3	Agro-industry farming	☑	☑	☑
1.3	Extraction	☑	☑	☑

Conservation Measures

Code	Conservation measures	In place	Needed
1	Policy-based actions	☑	☐
1.2	Legislation	☑	☐
1.2.1	Development	☑	☐
1.2.1.1	International level	☑	☐
1.2.2	Implementation	☑	☐

1.3.6	Groundwater extraction	☑	☑	☑	1.2.2.1	International level	☑	☐
1.3.7	Other	☑	☑	☑	3	Research actions	☐	☑
1.4	Infrastructure development	☑	☑	☑	3.2	Population numbers and range	☐	☑
1.4.2	Human settlement	☑	☑	☑	3.3	Biology and Ecology	☐	☑
1.4.3	Tourism/recreation	☑	☑	☑	3.4	Habitat status	☐	☑
2	Invasive alien species (directly affecting the species)	☑	☑	☑	3.5	Threats	☐	☑
					3.8	Conservation measures	☐	☑
2.2	Predators	☑	☑	☑	3.9	Trends/Monitoring	☐	☑
6	Pollution (affecting habitat and/or species)	☑	☑	☑	4	Habitat and site-based actions	☐	☑
6.3	Water pollution	☑	☑	☑	4.1	Maintenance/Conservation	☐	☑
6.3.1	Agriculture	☑	☑	☑	4.4	Protected areas	☐	☑
9	Intrinsic factors	☑	☑	☑	4.4.1	Identification of new protected areas	☐	☑
9.9	Restricted range	☑	☑	☑	4.4.2	Establishment	☐	☑

Utilisation of Species

Purpose/Type of Use	**Subsistence**	**National**	**International**	
Primary forms removed from the wild	**100%**	**>75%**	**51-75%**	**26-50%**	**<25%**	***Other forms removed from the wild:***
Source of specimens in commercial trade	**100%**	**>75%**	**51-75%**	**26-50%**	**<25%**	***Other source of specimens:***

Trend in wild offtake/harvest in relation to total wild population numbers over last five years:

Trend in offtake/harvest produced through domestication/cultivation over last five years:

CITES: Not listed

Red Listing

Red List Assessment: Endangered (EN) ☐ Possibly Extinct

Red List Criteria: B1ab(iii)+2ab(iii)

Rationale for the Red List Assessment: Listed as Endangered, because its extent of occurrence is less than 5,000 km2 and area of occupancy is less than 500 km2, its distribution is severely fragmented, and there is a continuing decline in the extent and quality of its habitat.

Current Population Trend: Decreasing **Date of Assessment:** 12/17/2004

Assessor(s): Peter Beerli, Thomas Uzzell, Petros Lymbakis

Notes on Red listing:

Bibliography

Arnold, E.N., 2003, , , Reptiles and amphibians of Europe, , , 288, Princeton University Press,

Beerli, P., 1994, , , Genetic isolation and calibration of an average protein clock in western Palearctic water frogs of the Aegean region, , , 90 pp, PhD thesis: University of Zurich, Switzerland,

, 1997, , , Atlas of Amphibians and Reptiles in Europe, Gasc, J.-P., , 494, Societas Europea Herpetologica & Museum National d'Histoire Naturelle, Paris

Beerli, P., Hotz, H. Tunner, H., Heppich, S. and Uzzell, T., 1994, Two new water frog species from the Aegean islands Crete and Karpathos (Amphibia, Salientia, Ranidae), Notulae Naturae, , , 470, 1-9, Academy of Natural Sciences of Philadelphia,

Beerli, P., Hotz, H. and Uzzell, T., 1996, Geologically dated sea barriers calibrate a protein clock for Aegean water frogs, Evolution, , , 50(4), 1676-1687, ,