Rana kur	tmuelle	eri	Region:	Region: 10				
Taxonomic Au	uthority:	Gayda, 1940						
Synonyms:			Common N	lames:				
Rana balcanica		Schneider, Sinsch and Sofianidou,	Balkan Water Frog		English			
			rana dei Ba	Icani	Italian			
Order:	Anura		Family:	Ranidae				
Notes on taxonomy:		The name Rana balcanica is occasionally used, but this is a junior synonym of Rana kurtmuelleri (Dubois and Ohler 1995). PA. Crochet (pers. comm.) mentions that there is no genetic divergence between Rana kurtmuelleri and Rana ridibunda, and so the status of this species is doubtful (Crochet and Dubois in press).						

General Information

Biome

Freshwater

Marine

Geographic Range of species:

This species is distributed throughout much of Greece and Albania. In 1941 the species was also introduced to Imperia province, Liguria, northwestern Italy where it is currently expanding its range (Lanza, 1962; Lanza and Corti, 1993). It has an altitudinal distribution of sea level to a maximum of 1,000m asl.

Terrestrial

Conservation Measures:

This species is listed on Appendix III of the Berne Convention. It is not protected by national legislation in Yugoslavia. The species is present in the Lake Skadar protected area, on the border of Montenegro (Yugoslavia) and Albania, and presumably in several other protected areas.

Habitat and Ecology Information:

It is a largely aquatic species, generally found in areas close to suitable open water wetland habitats. It breeds in various stagnant and slowmoving waterbodies. Introduced populations of this species in Italy do not form hybridogenetic hybrids with native species (T. Uzzell, pers. comm.).

Threats:

This species is threatened in its native range by drainage of wetland habitats and aquatic pollution of many waterways caused by agrochemical and industrial (including mining) contaminants. In northern parts of its native range (e.g., Lake Skadar) it is significantly threatened by over collection for commercial purposes. The species is additionally threatened by accidental introductions of commercially transported non-native water frogs. However, it remains abundant in many places.

Species population information:

It was considered by Gasc et al. (1997) to be common throughout its range. More recent reports suggest that it is declining in Yugoslavia (Ljubisavljevic et al. 2003).

Country Distribution	Native - Presence Confirmed	Native - Presence Possible	Extinct	Reintroduced	Introduced	Vagrant
Albania	\checkmark					
Greece	\checkmark					
Italy					\checkmark	
FAO Marine Habitats	Native - Presence Confirmed	Native - Presence Possible	Extinct	Reintroduced	Introduced	

Major Lakes

Major Rivers

Up	per Level Habitat Preferences	Score	Lower Level Habitat Preferences	Score
3.8	Shrubland - Mediterranean-type Shrubby Vegetation	1	Marsh Wetland	2
5.1	Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	1	Mire, Bog, Fen	2
5.2	Wetlands (inland) - Seasonal/Intermittent/Irregular Rivers/Streams/Creeks	2		
5.4	Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatla	inds 2		
5.5	Wetlands (inland) - Permanent Freshwater Lakes (over 8h	a) 1		
5.6	Wetlands (inland) - Seasonal/Intermittent Freshwater Lake (over 8ha)	s 2		
5.7	Wetlands (inland) - Permanent Freshwater Marshes/Pools (under 8ha)	1		
5.8	Wetlands (inland) - Seasonal/Intermittent Freshwater Marshes/Pools (under 8ha)	2		
11.2	2 Artificial/Terrestrial - Pastureland	2		
12.1	Artificial/Aquatic - Water Storage Areas (over 8ha)	1		
12.2	2 Artificial/Aguatic - Ponds (below 8ha)	1		

12.7 Artificial/Aquatic - Irrigated Land (includes irrigation channels) 1

12.9 Artificial/Aquatic - Canals and Drainage Channels, Ditches

<u>Major</u>	threats				Cons	ervatio	n Meas	ures		
Code	Description of threat	Past F	PresentF	uture	Code	Conserva	ation mea	asures	In place	Needed
1	Habitat Loss/Degradation (human induced)	\checkmark	\checkmark	\checkmark	1	Policy-ba	sed actio	ns	\checkmark	
1.1	Agriculture	\checkmark	\checkmark	✓	1.2	Legislatio	n		\checkmark	
1.1.1	Crops	\checkmark	\checkmark	\checkmark	1.2.1	Developn	nent		\checkmark	
1.1.1.3	Agro-industry farming	\checkmark	\checkmark	✓	1.2.1.1	Internatio	nal level		\checkmark	
1.1.4	Livestock	\checkmark	\checkmark	\checkmark	1.2.2	Implemer	ntation		\checkmark	
1.1.4.3	Agro-industry	\checkmark	\checkmark	\checkmark	1.2.2.1	Internatio	nal level		\checkmark	
1.3	Extraction		\checkmark	✓	3	Research	actions			\checkmark
1.3.1	Mining		\checkmark	✓	3.1	Taxonom	у			\checkmark
1.4	Infrastructure development	\checkmark	\checkmark	✓	3.2	Populatio	n numbei	rs and range		\checkmark
1.4.1	Industry	\checkmark	\checkmark	✓	3.3	Biology a	nd Ecolog	ĴŊ		\checkmark
1.4.2	Human settlement	\checkmark	\checkmark	✓	3.4	Habitat st	atus			\checkmark
2	Invasive alien species (directly affecting the		\checkmark	✓	3.5	Threats				\checkmark
21	Competitors				3.6	Uses and	harvest I	evels		
2.3	Hybridizers	1			3.8	Conserva	tion mea	sures		
3	Harvesting (hunting/gathering)	_			3.9	I rends/M	onitoring			
31	Food	▼ ✓			4	Habitat a	nd site-ba	ised actions		
312	Sub-national/national trade	- -			4.1	Maintena	nce/Cons	ervation		
313	Regional/international trade	- -			4.4	Protected	areas			
6	Pollution (affecting habitat and/or species)	• •			4.4.2	Establish	ment			
63	Water pollution	· ·			4.4.3	Managen				
6.3.1	Agriculture	· ·			5	Species-	based act	ions		
632	Domestic	· ·			5.3	Sustainat	ble use			
633	Commercial/Industrial	• •			5.3.1	Harvest n	nanagem	ent		
0.0.0		•			5.3.2	Trade ma	nagemer	it		\checkmark
Utilisation of Species										
Purpose/Type of Use Subsistence National International Other purpose:										
1. Food - human					\checkmark	~	•			
Primary forms removed from the wild 10		00%	>75%	51	-75%	26-50%	<25%	6 Other forms removed from the wi		d:
1. Whole animal/plant		•		[
Source of specimens in commercial trade 1		00%	>75%	51	-75%	26-50%	<25%	Other source of specim	iens:	
Wild				[
Trend i	rend in wild offtake/harvest in relation to total wild population numbers over last five years: Unknown									

1

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

<u> </u>		
Red List Assessment: Least Concern	(LC) Ossibly Extinct	
Red List Criteria:		
Rationale for the Red List Assessment:	Listed as Least Concern in view of its wide distribution presumed large population, and because it is unlikely in a more threatened category.	n, tolerance of a broad range of habitats, to be declining fast enough to qualify for listing
Current Population Trend: Stable	Date of Assessment:	12/17/2004
Assessor(s): Thomas Uzzell, Franco A	ndreone, Petros Lymbakis, Milan Vogrin, Idriz Haxhiu	
Notes on Red listing:		

Bibliography

Schneider, H., Sinsch, U. and Sofianidou, T.S, 1993, The Water Frogs of Greece - Bioacoustic Evidence for a new species, Z Zool Syst Evol., , , 31(1), 47-63, ,

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

Andreone, F., 1999, Rana "ridibunda", Rana ridibonda, , Erpetologia del Piemonte e della Valle d'Aosta - Atlante degli Anfibi e dei Rettili, Andreone, F. and Sindaco, R., , 190-191, Museo Regionale di Scienze Naturali (Torino), Monografie XXVI (1998), Torino, Italy Lanza, B. and Corti, C., 1993, Erpetofauna Italiana 'Aquisizioni' ed estinzioni nel corso del Novecento, Suppl. Ric. Biol. Selvaggina, , , 21, 5-49, ,

Kalezic, M. and Dzukic, G., 2001, Amphibian status in Serbia and Montenegro (FR Yugoslavia), FrogLog, , , 45, , ,

Gavrilovic, V., Cvetkovic, D.D., Djukic, G. and Petkovski, S., 1999, Comparative morphological study of Rana balcanica and Rana ridibunda, Contributions to the Zoogeography and Ecology of the Eastern Mediterranean region, , , 1, 205-210, ,

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

Dubois, A. and Ohler, A., 1995, Frogs of the subgenus Pelophylax (Amphibia, Anura, Genus Rana): a catalogue of available and valid scientific names, with comments on name-bearing types, complete synonymies, proposed common names, and maps showing all type localities, Zoologica Poloniae, , , 39(3/4), 139-204, ,

Lanza, B. and Corti, C., 1996, Evolution of knowledge on the Italian herpetofauna during the 20th century, Boll. Mus. Civ. st. nat. Verona, , , 20(1993), 373-436, ,

Dubois, A. and Ohler, A., 1995, Frogs of the subgenus Pelophylax (Amphibia, Anura, genus Rana): a few addition and correction, Zoologica Poloniae, , , 39 "1994" (3-4), 205-208, ,

Sinsch, U. and Eblenkamp, B., 1994, Allozyme variation among Rana balcanica, R. levantina, and R. ridibunda (Amphibia: Anura) - Genetic differentiation corroborates the bioacoustically detected species status, Zeitschrift Fur Zoologische Systematik und Evolutionsforschung, , , 32(1), 35-43, ,

Lanza, B., 1962, On the introduction of Rana ridibunda Pallas and Rana catesbeiana Shaw in Italy, Copeia, , , 1962(3), 642-643, ,

Sidorovska, V., Petkovski, S. and Dzukic, G., 2001, The Green Frog Rana balcanica Schneider, Sinsch & Sofianidou, 1993 (= Rana kurtmuelleri) (Amphibia: Anura) in Macedonia, , 75 Years Macedonian Museum of Natural History 1926-2001, , , 187-194, Macedonian Museum of Natural History, Macedonia,

Ljubisavljevic, K., Dzukic, G. and Kalezic, M., 2003, Green frogs are greatly endangered in Serbia and Montenegro, FrogLog, , , 58, , ,