

Rana macrocnemis

Taxonomic Authority: Boulenger, 1885

Synonyms:

Rana holtzi Werner, 1898
Rana camerani Boulenger, 1886
Rana macrocnemis camerani (Boulenger, 1886)

Order: Anura

Notes on taxonomy: We follow Veith et al. (2003), in considering R. pseudodalmatina and R. tavasensis to be distinct at the species level, and regarding R. camerani and R. holtzi to be conspecific with R. macrocnemis.

Region: 10

Common Names:

Long-legged Wood Frog English
Maloaziatskaya Lyagushka Russian

Family: Ranidae

General Information

Biome Terrestrial Freshwater Marine

Geographic Range of species:

This species is found in the Caucasus Mountains, northwestern Iran and throughout much of Anatolia, Turkey. An isolated population exists on the Strizhament Mountain in the Stavropolskii Region of Russia. A second isolated population (formerly R. holtzi) is restricted to the area of Karagöl and Çiniligöl lakes in the Bolkar Dagı, Taurus Range, Turkey. Specimens previously recorded from the Kopet-Dagh Ridge in Turkmenistan might belong to an extinct population. This species possibly occurs in Iraq. It has an altitudinal range of 1,000 - 2,300m asl.

Conservation Measures:

This species is listed in the Red Data Book of Turkmenistan and has been recorded from protected areas in Russia, Georgia, Armenia and Azerbaijan. It is found in protected areas in Turkey. The population formerly referred to as Rana holtzi was listed on Appendix II of the Bern Convention and was protected by national legislation. The Council of Europe (Anon., 1991) recommended that the introduction of salmonid or other predator fish to the Karagöl and Çiniligöl lakes region was strictly forbidden; and that there was a need to carry out field surveys in the Taurus Mountains range. Local public awareness programmes have been initiated in the Karagöl and Çiniligöl lakes region (Olgun, 1998).

Habitat and Ecology Information:

It is found in broadleaved, mixed and coniferous forests, swamps, steppes, sub alpine and alpine meadows. In dry areas this species can generally be found close to permanent lakes, rivers, brooks and springs that are often surrounded by dense herbaceous and shrubby vegetation. It breeds in various stagnant and slow-flowing waterbodies. It is presumed to be tolerant of some habitat disturbance.

Threats:

In the Caucasus of the former USSR destruction and pollution of suitable habitat by cattle has caused some local population declines. It is locally threatened in Iran by development of coastal areas. It is generally not considered to be threatened in Turkey; the population of the Karagöl and Çiniligöl lakes region is found within a popular tourist area. A road has recently been completed at the site potentially increasing the number of visitors. It is reported to be declining through over collection for scientific and possibly other purposes (Olgun, 1998; Eken, pers comm.), and the introduction of predatory fishes (including carp) into the lakes, has led to a significant decline in the population. The impact of local fisheries (including dynamite fishing) and overgrazing of surrounding meadows by goats on the species requires further information, but is presumed to be having a negative impact. It is possible that deforestation (especially of Juniperus woods) may have contributed to the increasing aridity of the Kopet-Dagh Mountains in Turkmenia, leading to the extinction of the species. Prolonged drought may be a threat to populations in more arid areas.

Species population information:

While this species is mostly common over its range, it is considered to be uncommon and or localised in Iran. The population of the Karagöl and Çiniligöl lakes has significantly declined since the introduction of fish to the lakes in the 1990s.

Country Distribution

	Native - Presence Confirmed	Native - Presence Possible	Extinct	Reintroduced	Introduced	Vagrant
Armenia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Azerbaijan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Georgia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Islamic Republic of Iran	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russian Federation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turkey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turkmenistan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FAO Marine Habitats

Native -
Presence
Confirmed

Native -
Presence
Possible

Extinct

Reintroduced

Introduced

Major Lakes

Major Rivers

Upper Level Habitat Preferences

Score Lower Level Habitat Preferences

Score

1.1	Forest - Boreal	1	Broadleaf Forest	1
1.4	Forest - Temperate	1	Conifer Forest	2
3.4	Shrubland - Temperate	2	Cool Crops and Towns	2
3.5	Shrubland - Subtropical/Tropical Dry	2	Crops and Towns	2
4.4	Grassland - Temperate	1	Crops, Grass, Shrubs	1
5.1	Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	1	Deciduous Broadleaf Wood	1
5.2	Wetlands (inland) - Seasonal/Intermittent/Irregular Rivers/Streams/Creeks	2	Deciduous Tree Crops	2
5.4	Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands	1	Evergreen Tree Crops	2
5.5	Wetlands (inland) - Permanent Freshwater Lakes (over 8ha)	1	Fields and Woody Savanna	1
5.6	Wetlands (inland) - Seasonal/Intermittent Freshwater Lakes (over 8ha)	2	Forest and Field	1
5.7	Wetlands (inland) - Permanent Freshwater Marshes/Pools (under 8ha)	1	Grass Crops	1
5.8	Wetlands (inland) - Seasonal/Intermittent Freshwater Marshes/Pools (under 8ha)	2	Low Sparse Grassland	1
5.9	Wetlands (inland) - Freshwater Springs and Oases	2	Marsh Wetland	9
6	Rocky areas (eg. inland cliffs, mountain peaks)	2	Mediterranean Scrub	2
11.1	Artificial/Terrestrial - Arable Land	2	Mire, Bog, Fen	1
11.2	Artificial/Terrestrial - Pastureland	1	Mixed Forest	1
11.3	Artificial/Terrestrial - Plantations	2	Small Leaf Mixed Woods	1
11.4	Artificial/Terrestrial - Rural Gardens	2	Urban	3
11.5	Artificial/Terrestrial - Urban Areas	2	Woody Savanna	2
12.1	Artificial/Aquatic - Water Storage Areas (over 8ha)	2		
12.2	Artificial/Aquatic - Ponds (below 8ha)	2		
13	Introduced vegetation	2		

Major threats

Code	Description of threat	Past	Present	Future
1	Habitat Loss/Degradation (human induced)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.1	Agriculture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.1.1	Crops	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.1.1.3	Agro-industry farming	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.1.4	Livestock	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.1.4.3	Agro-industry	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.3	Extraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.3.3	Wood	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.3.3.3	Clear-cutting	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.4	Infrastructure development	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.4.1	Industry	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.4.2	Human settlement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6	Pollution (affecting habitat and/or species)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6.3	Water pollution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6.3.1	Agriculture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6.3.3	Commercial/Industrial	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7	Natural disasters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7.1	Drought	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Conservation Measures

Code	Conservation measures	In place	Needed
1	Policy-based actions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2	Legislation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.1	Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.1.2	National level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.1.3	Sub-national level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.2	Implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.2.3	Sub-national level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Communication and Education	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.2	Awareness	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Research actions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.1	Taxonomy	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.2	Population numbers and range	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3	Biology and Ecology	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5	Threats	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.6	Uses and harvest levels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.8	Conservation measures	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.9	Trends/Monitoring	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Habitat and site-based actions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4.1	Maintenance/Conservation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4.4	Protected areas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4.4.1	Identification of new protected areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.4.2	Establishment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.4.3	Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Utilisation of Species

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

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: Least Concern (LC)

Possibly Extinct

Red List Criteria:

Rationale for the Red List Assessment: Listed as Least Concern in view of its wide distribution, tolerance of a broad range of habitats, presumed large population, and because it is unlikely to be declining fast enough to qualify for listing in a more threatened category.

Current Population Trend: Stable

Date of Assessment: 4/5/2004

Assessor(s): Sergius Kuzmin, David Tarkhnishvili, Vladimir Ishchenko, Natalia Ananjeva, Nikolai Orlov, Boris Tuniyev, Max Sparreboom, Ismai

Notes on Red listing: The population of Karagöl and Çiniligöl lakes region, formerly considered to be the separate species *Rana holtzi*, was previously listed as Critically Endangered (A2ace; B1ab(iii,v)+2ab(iii,v)) because of a drastic population decline, estimated to be more than 80% over the last ten years, based on observed declines resulting from the introduction of fish into its breeding lakes; and because its Extent of Occurrence is less than 100 km², and its Area of Occupancy is less than 10 km², all individuals are in a single location, and there is continuing decline in the quality of its habitat and in the number of mature individuals in and around Karagöl and Çiniligöl lakes in Turkey.

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