The IUCN Red List of Threatened Species™
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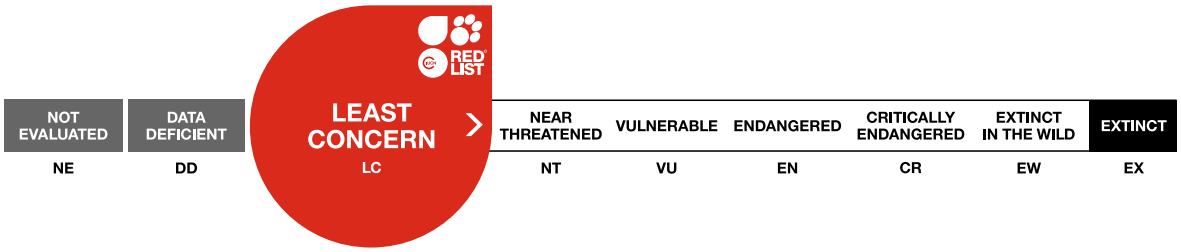
Scope(s): Global
Language: English

Cottus nasalis, Turkestan Sculpin

Assessment by: Karimov, B. & Mamilov, N.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Scorpaeniformes	Cottidae

Scientific Name: *Cottus nasalis* Berg, 1933

Common Name(s):

- English: Turkestan Sculpin

Taxonomic Source(s):

Fricke, R., Eschmeyer, W.N. and Van der Laan, R. (eds). 2019. Eschmeyer's Catalog of Fishes: genera, species, references. Updated 03 September 2019. Available at: http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp.

Taxonomic Notes:

Cottus nasalis might be a synonym of *C. spinulosus* and more taxonomic research is needed to potentially distinguish both species.

Assessment Information

Red List Category & Criteria: Least Concern ver 3.1

Year Published: 2020

Date Assessed: February 4, 2020

Justification:

This species has a relatively small range but there seem to be no strong threats in the area and populations are believed to be stable. It is therefore assessed as Least Concern.

Geographic Range

Range Description:

Cottus nasalis is found in the upper Syr Darya River drainage in Fergana Valley, where it is mostly found in springs, as well as in the Arys and Badam Rivers. It is widespread in more than 1000 km of streams within its range and occurs in many more than 10 populations.

Country Occurrence:

Native, Extant (resident): Kazakhstan; Kyrgyzstan; Uzbekistan

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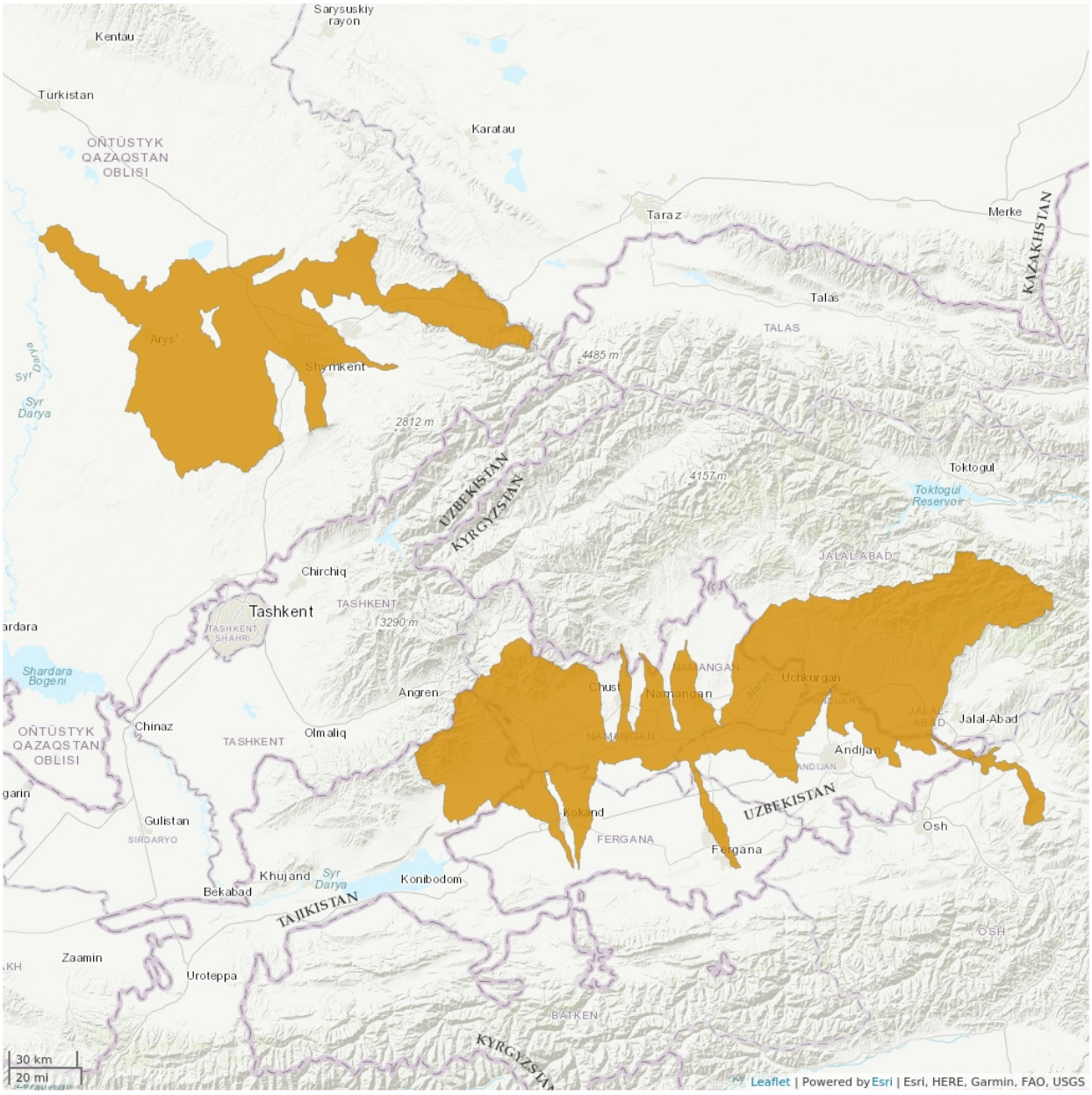
Distribution Map



Legend

EXTANT (RESIDENT)

Compiled by:

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The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.

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Population

There are no known major threats in the range of this species and its populations are believed to be stable.

Current Population Trend: Stable

Habitat and Ecology (see Appendix for additional information)

This species inhabits springs as well as headwater streams with fast to moderately fast flowing water, mostly in mountainous areas. It has a maximum recorded length of 6.9 cm TL in a male/unsexed specimen (Berg 1964).

Systems: Freshwater (=Inland waters)

Use and Trade (see Appendix for additional information)

This species is not used or traded.

Threats (see Appendix for additional information)

Small dams and small-scale hydropower stations in mountainous rivers are a threat to this species within its range, and there are plans to further develop these as well as irrigation and water abstraction, which pose serious future threats (Karimov *et al.* 2017, Karimov *et al.* 2019). However, there are no known current major threats within its range.

Conservation Actions (see Appendix for additional information)

The species is included into Red Data Books of Uzbekistan and other central Asian republics. It is also included in the Yazyavan and Chust protected areas in the Ferghana and Namangan regions of Uzbekistan. *Cottus nasalis* might be a synonym of *C. spinulosus* and more taxonomic research is needed to potentially distinguish both species. Research is also needed into its population, distribution and threats, alongside monitoring of population and habitat trends and habitat protection.

Credits

Assessor(s): Karimov, B. & Mamilov, N.

Reviewer(s): Freyhof, J.

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Bibliography

Berg, L.S. 1964. *Freshwater fishes of the U.S.S.R. and adjacent countries*. Israel Program for Scientific Translations Ltd, Jerusalem. (Russian version published 1949).

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Karimov, B.K., Razzokov, R., Boirov, R. and Karimov, E. 2017. Evaluation of the impact of irrigation water diversions on fish populations on plain parts of rivers in the republic of Uzbekistan. Republican scientific-practical conference on theme “Ecological, problems of rational use of water and land resources in irrigated agriculture: 216-219. Tashkent, Uzbekistan.

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External Resources

For Supplementary Material, and for Images and External Links to Additional Information, please see the Red List website.

Appendix

Habitats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Habitat	Season	Suitability	Major Importance?
5. Wetlands (inland) -> 5.1. Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	-	Suitable	-
5. Wetlands (inland) -> 5.9. Wetlands (inland) - Freshwater Springs and Oases	-	Suitable	-

Threats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Threat	Timing	Scope	Severity	Impact Score
7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.3. Abstraction of surface water (agricultural use)	Ongoing	Majority (50-90%)	Slow, significant declines	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.9. Small dams	Ongoing	Majority (50-90%)	Slow, significant declines	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.10. Large dams	Ongoing	Majority (50-90%)	Slow, significant declines	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		

Conservation Actions in Place

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Action in Place
In-place research and monitoring
Action Recovery Plan: No
Systematic monitoring scheme: No
In-place land/water protection
Conservation sites identified: No
Area based regional management plan: Unknown
Occurs in at least one protected area: Yes

Conservation Actions Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Action Needed
1. Land/water protection -> 1.1. Site/area protection
1. Land/water protection -> 1.2. Resource & habitat protection

Research Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Research Needed
1. Research -> 1.1. Taxonomy
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Continuing decline in area of occupancy (AOO): No
Extreme fluctuations in area of occupancy (AOO): No
Continuing decline in extent of occurrence (EOO): No
Extreme fluctuations in extent of occurrence (EOO): No
Continuing decline in number of locations: No
Extreme fluctuations in the number of locations: No
Lower elevation limit (m): 1,000
Upper elevation limit (m): 3,500
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: No
Movement patterns: Not a Migrant

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The IUCN Red List Partnership

The IUCN Red List of Threatened Species™ is produced and managed by the IUCN Global Species Programme, the IUCN Species Survival Commission (SSC) and The IUCN Red List Partnership.

The IUCN Red List Partners are: Arizona State University; BirdLife International; Botanic Gardens Conservation International; Conservation International; NatureServe; Royal Botanic Gardens, Kew; Sapienza University of Rome; Texas A&M University; and Zoological Society of London.