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Corydoras micracanthus

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Taxonomy

Kingdom	Phylum	Class	Order	Family	
Animalia	Chordata	Actinopterygii	Siluriformes	Callichthyidae	

Scientific Name: Corydoras micracanthus Regan, 1912

Taxonomic Source(s):

Fricke, R., Eschmeyer, W.N. and Van der Laan, R. (eds). 2020. Eschmeyer's Catalog of Fishes: genera, species, references. Updated 04 May 2020. Available at: http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp.

Assessment Information

Red List Category & Criteria: Vulnerable B1ab(i,ii,iii) ver 3.1

Year Published: 2022

Date Assessed: November 11, 2020

Justification:

Corydoras micracanthus is assessed as Vulnerable according to the criteria B1ab(i,ii,iii). It is known to exist at no more than 10 locations (three), the extent of occurrence (EOO) is estimated to be less than 20,000 km² (16,682 km²), and there is a continuing decline observed in its EOO, area of occupancy (AOO) and extent and quality of habitat, due to deforestation and habitat loss, agriculture and industry chemicals, human sewage discharge and water use.

Geographic Range

Range Description:

This species is endemic to the upper Bermejo River basin. It is abundant in small creeks with slow current and abundant aquatic vegetation (Alonso *et al.* 2018).

Country Occurrence:

Native, Extant (resident): Argentina (Jujuy, Salta)

Population

No data are available on the population trend of this species but based on habitat loss a decline is suspected.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

This species is abundant in environments with relatively shallow transparent water, with low current velocity and abundant marginal vegetation such as watercress and *Ludwigia* sp. These environments are generally shared with *Jenynsia alternimaculata*, being these two species dominate in these habitats. Additionally, *Heptapterus mustelinus* and *Trichomycterus* spp. are found in these environments. In deeper water bodies *C. micracanthus* can share its habitat with *Oligosarcus bolivianus*, *Psalidodon endy*, *Psalidodon chico* and other species from the area, but it seems to be much less abundant in those conditions. Individuals of *C. micracanthus* were observed in open spaces (space in the centre of the creek without vegetation) feeding over the surface of the stones, generally in groups of 3–8 specimens. When not feeding, individuals generally are in the marginal vegetation or sometimes in crevices between stones (Alonso *et al.* 2018).

Systems: Freshwater (=Inland waters)

Use and Trade

This species is used as an ornamental fish and is subject to collection and trade for this purpose.

Threats (see Appendix for additional information)

This species inhabits an area that is subject to agricultural expansion, deforestation and human population growth, resulting in water use and pollution from towns, industries, and agricultural areas in the region. It is also subject to ornamental collection, which may threaten the species.

Conservation Actions (see Appendix for additional information)

There are no actions taken on the conservation of this species in particular, although it is likely to be present in some protected areas (Baritu National Park, Calilegua National Park, Laguna Pintascayo Provincial reserve). However, various conservation and research actions are recommended.

Credits

Assessor(s): Alonso, F.

Reviewer(s): Lyons, T.J.

Bibliography

Alonso, F., Terán, G.E., Calviño, P.A., Aguilera, G., and Mirande, J.M. 2018. Geographical distribution of *Corydoras micracanthus* Regan 1912 (Siluriformes: Callichthyidae), with comments on its behavior and type locality. *Rev. Mus. Argentino Cienc. Nat., n.s.* 20(1): 45-50.

IUCN. 2022. The IUCN Red List of Threatened Species. Version 2022-2. Available at: www.iucnredlist.org. (Accessed: 08 December 2022).

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External Resources

For <u>Supplementary Material</u>, and for <u>Images and External Links to Additional Information</u>, 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	-

Use and Trade

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

End Use	Local	National	International
13. Pets/display animals, horticulture	Yes	Yes	Yes

Threats

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

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	-	-	Low impact: 3
1. Residential & commercial development -> 1.2. Commercial & industrial areas	Ongoing	-	-	Low impact: 3
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.2. Small-holder farming	Ongoing	-	-	Low impact: 3
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.3. Agro-industry farming	Ongoing	-	-	Low impact: 3
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.1. Small-holder plantations	Ongoing	-	-	Low impact: 3
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.2. Agro-industry plantations	Ongoing	-	-	Low impact: 3
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.3. Agro-industry grazing, ranching or farming	Ongoing	-	-	Low impact: 3
3. Energy production & mining -> 3.1. Oil & gas drilling	Ongoing	-	-	Low impact: 3
3. Energy production & mining -> 3.2. Mining & quarrying	Ongoing	-	-	Low impact: 3

5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.1. Intentional use: (subsistence/small scale) [harvest]	Ongoing	-	-	Low impact: 3
9. Pollution -> 9.1. Domestic & urban waste water -> 9.1.1. Sewage	Ongoing	-	-	Low impact: 3
9. Pollution -> 9.2. Industrial & military effluents -> 9.2.1. Oil spills	Ongoing	-	-	Low impact: 3
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.1. Nutrient loads	Ongoing	-	-	Low impact: 3
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.2. Soil erosion, sedimentation	Ongoing	-	-	Low impact: 3
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.3. Herbicides and pesticides	Ongoing	-	-	Low impact: 3
9. Pollution -> 9.4. Garbage & solid waste	Ongoing	-	-	Low impact: 3

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: Yes, over part of range
Percentage of population protected by PAs: 11-20
Occurs in at least one protected area: Yes
Invasive species control or prevention: Not Applicable
In-place species management
Harvest management plan: No
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No
In-place education
Subject to recent education and awareness programmes: No
Included in international legislation: No
Subject to any international management / trade controls: No

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
- 2. Land/water management -> 2.1. Site/area management
- 3. Species management -> 3.1. Species management -> 3.1.2. Trade management
- 3. Species management -> 3.4. Ex-situ conservation -> 3.4.1. Captive breeding/artificial propagation
- 4. Education & awareness -> 4.1. Formal education
- 4. Education & awareness -> 4.2. Training
- 4. Education & awareness -> 4.3. Awareness & communications
- 5. Law & policy -> 5.1. Legislation -> 5.1.2. National level
- 5. Law & policy -> 5.1. Legislation -> 5.1.3. Sub-national level

Research Needed

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

Research Needed

- 1. Research -> 1.2. Population size, distribution & trends
- 1. Research -> 1.3. Life history & ecology
- 1. Research -> 1.4. Harvest, use & livelihoods
- 1. Research -> 1.5. Threats
- 1. Research -> 1.6. Actions
- 2. Conservation Planning -> 2.2. Area-based Management Plan
- 2. Conservation Planning -> 2.3. Harvest & Trade Management Plan
- 3. Monitoring -> 3.1. Population trends
- 3. Monitoring -> 3.2. Harvest level trends
- 3. Monitoring -> 3.3. Trade trends
- 3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution

Estimated area of occupancy (AOO) (km²): 2184

Distribution

Continuing decline in area of occupancy (AOO): Yes

Extreme fluctuations in area of occupancy (AOO): No

Estimated extent of occurrence (EOO) (km²): 16682

Continuing decline in extent of occurrence (EOO): Yes

Extreme fluctuations in extent of occurrence (EOO): No

Number of Locations: 3

Continuing decline in number of locations: No

Extreme fluctuations in the number of locations: No

Lower elevation limit (m): 314

Upper elevation limit (m): 1,441

Habitats and Ecology

Continuing decline in area, extent and/or quality of habitat: Yes

Movement patterns: Not a Migrant

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<u>Programme</u>, the <u>IUCN Species Survival Commission</u> (SSC) and <u>The IUCN Red List Partnership</u>.

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