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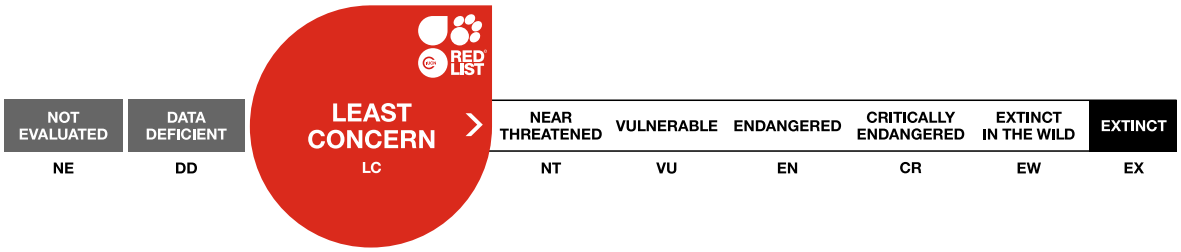
Aplochiton zebra

Assessment by: Cussac, V.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Osmeriformes	Galaxiidae

Scientific Name: *Aplochiton zebra* Jenyns, 1842

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.

Taxonomic Notes:

Aplochiton taeniatus and *A. zebra* can easily be confused on the basis of traditional morphological criteria. Unambiguous identification should resource to DNA analyses until more powerful morphological criteria are developed. Findings of Aló *et al.* (2013) suggested that previously species misidentification might have been widespread in previous studies (Cussac *et al.* 2004).

Assessment Information

Red List Category & Criteria: Least Concern ver 3.1

Year Published: 2022

Date Assessed: May 6, 2022

Justification:

This species is native to southern Chile and Argentina. It is assessed as Least Concern given its widespread distribution.

Geographic Range

Range Description:

This species is native to southern Chile and Argentina. *Aplochiton* species exhibit a latitudinal range southward to 42°20'S and distribution occurs adjacent to coastlines and in oceans. However, determining to what extent the present distribution is a remnant of the original, after human impacts such as fish introduction, dam construction, fishing and habitat destruction, is a major obstacle (Cussac *et al.* 2004, 2020).

Country Occurrence:

Native, Extant (resident): Argentina (Chubut, Neuquén, Rio Negro, Santa Cruz, Tierra del Fuego); Chile; Falkland Islands (Malvinas)

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Distribution Map

Legend

EXTANT (RESIDENT)

Compiled by:

IUCN (International Union for Conservation of Nature) 2020

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

Several aspects of spawning and development of landlocked *Aplochiton zebra* in Patagonia (Argentina) have been described, based on the presence of eggs, the gonadal development, the analysis of otolith daily growth increments validated by tetracycline marking experiments, and the analysis of standard length frequencies. Among Patagonian galaxiids, *A. zebra* showed intermediate size and age at first maturity and high fecundity, with vitellogenic oocytes covered with short chorionic filaments. Free embryos of *A. zebra* were larger than those of *Galaxias maculatus* and *Galaxias platei* (Lattuca *et al.* 2008).

Current Population Trend: Unknown

Habitat and Ecology **(see Appendix for additional information)**

Although adults and larger juveniles showed no inter-lake dependence in their morphology, smaller juveniles (SL < 40 mm) did show differences in eye diameter and dorsal fin length. *Aplochiton zebra* juveniles from Lake Puelo, where transparency showed the minimum value, have the largest eyes; those from Lake Futalaufquen with high transparency values have the smallest eyes. No clear relationship to predation risk was established. In Futalaufquen, Puelo and Rivadavia lakes the relationship between the principal components for morphology and for diet indicates, at least in part, that variation in body shape – and particularly traits related to swimming ability – could be related to diet (Lattuca *et al.* 2007).

Systems: Freshwater (=Inland waters)

Use and Trade **(see Appendix for additional information)**

There is no use or trade information for this species.

Threats **(see Appendix for additional information)**

In summer the littoral zone of Lake Rivadavia contained almost all the juveniles of the native fish species present in the lake together with juveniles of the introduced salmonid *Oncorhynchus mykiss*. In particular, a high degree of foraging interaction was found among juveniles of the native species *Aplochiton zebra* and *Percichthys trucha* and juveniles *O. mykiss*. Differences in the juvenile assemblage composition, both in the presence and in the relative proportion of the species were associated with areas with different densities of vegetation. The adults of nearly all species were generalized benthic invertebrate predators. Only adults of *A. zebra* were absent in the littoral zone (Lattuca *et al.* 2008).

Conservation Actions **(see Appendix for additional information)**

The capture of this species is forbidden in national parks of Argentina.

Credits

Assessor(s): Cussac, V.

Reviewer(s): Lyons, T.J.

Partner(s) and Institution(s): ABQ BioPark

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Disclaimer

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) -> 5.5. Wetlands (inland) - Permanent Freshwater Lakes (over 8ha)	Resident	Suitable	Yes

Threats

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

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.4. Marine & freshwater aquaculture -> 2.4.2. Industrial aquaculture	Ongoing	Minority (<50%)	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Oncorhynchus mykiss)	Ongoing	Whole (>90%)	Rapid declines	High impact: 8

Conservation Actions in Place

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

Conservation Action in Place
In-place land/water protection
Occurs in at least one protected area: Yes

Additional Data Fields

Distribution
Estimated extent of occurrence (EOO) (km²): 1210196
Lower elevation limit (m): 100
Upper elevation limit (m): 800
Habitats and Ecology
Movement patterns: Altitudinal Migrant
Congregatory: Congregatory (and dispersive)

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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: ABQ BioPark; Arizona State University; BirdLife International; Botanic Gardens Conservation International; Conservation International; Missouri Botanical Garden; NatureServe; Re:wild; Royal Botanic Gardens, Kew; Sapienza University of Rome; Texas A&M University; and Zoological Society of London.