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Aplochiton taeniatus

Assessment by: Cussac, V.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Osmeriformes	Galaxiidae

Scientific Name: Aplochiton taeniatus 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.Updated04May2020.Availableat: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. However, it should be noted that the species has suffered declines in its distribution area, and the population is inferred to be in decline as a result.

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 (Tierra del Fuego); Chile

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.

Population

Aplochiton taeniatus was originally reported in Argentina from Lácar Lake to Tierra del Fuego (Ringuelet *et al.* 1967). However, the museum specimen collected by Pozzi and recovered by Piacentino (1999) is actually *A. zebra* (M.E. Lattuca pers. comm.), and capture data of Ortubay *et al.* (1994) for lakes of Pacific drainage, Foyel, Cholila and Epuyen, in Argentina also correspond to *A. zebra* (S. Ortubay pers. comm.). In consequence, the sole capture site for *A. taeniatus* in Argentina was Tierra del Fuego. There, we must point out the capture of one adult *A. taeniatus* at the mouth of Pipo River in the Beagle Channel (M.E. Lattuca pers. comm.) (Cussac *et al.* 2004). The range of *Aplochiton taeniatus* has declined by 8–17%, and they have disappeared from areas of high population densities, urban growth and economic activity at latitudes from 36°S to 41°S (Cussac *et al.* 2020).

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

A diet overlap between *A. zebra* and *A. taeniatus*, but with differences in diet between lakes, was reported in Chilean Patagonia. The presence of invasive trout significantly affected *A. zebra* and *A. taeniatus*, and caused a reduction in the consumption of adult Diptera, through changes in the feeding behaviour. Furthermore, these dietary changes in the presence of invasive trout caused a reduction in the trophic position of both *Aplochiton* species (Cussac *et al.* 2020). Based on the analyses of Sr: Ca ratios in otoliths, a diadromous life history was suggested for populations of *A. taeniatus* (Aló *et al.* 2019).

Systems: Freshwater (=Inland waters), Marine

Use and Trade (see Appendix for additional information)

There is no use or trade information for this species.

Threats (see Appendix for additional information)

Aplochiton taeniatus has experienced reductions in total drainage area occupied, and has disappeared from, or is now extremely difficult to find, in latitudes from 36° to 41° S, coincident with areas of urban growth, intense economic activities, and invasive alien species (Habit *et al.* 2010).

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

Bibliography

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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)	Resident	Suitable	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
2. Agriculture & aquaculture -> 2.4. Marine & freshwater aquaculture -> 2.4.2. Industrial aquaculture	Ongoing	Whole (>90%)	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
		2. Species Stresses -> 2.1. Species mortality		tality
		2. Species Stresses -> 2.2. Species disturbance		
		2. Species Stresses -> 2.3. Indirect species effects -> 2.3.2. Competition -> 2.3.7. Reduced reproductive success		
7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.10. Large dams	Ongoing	Minority (<50%)	Very rapid declines	Medium impact: 7
	Stresses:	1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		cosystem effects
		2. Species Stresses -> 2.2. Species disturbance		urbance
		2. Species Stresses -> 2.3. Indirect species effects -> 2.3.7. Reduced reproductive success		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Salmo salar)	Ongoing	-	-	Low impact: 3
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Oncorhynchus mykiss)	Ongoing	-	-	Low impact: 3
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Unspecified SALMONIDAE)	Ongoing	-	-	Low impact: 3

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): 564081

Lower elevation limit (m): 100

Upper elevation limit (m): 800

Habitats and Ecology

Movement patterns: Full Migrant

Congregatory: Congregatory (and dispersive)

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