

Austrolebias robustus

Assessment by: Alonso, F.



View on www.iucnredlist.org

Citation: Alonso, F. 2022. *Austrolebias robustus*. *The IUCN Red List of Threatened Species 2022*: e.T177559215A177559254. <https://dx.doi.org/10.2305/IUCN.UK.2022-2.RLTS.T177559215A177559254.en>

Copyright: © 2022 International Union for Conservation of Nature and Natural Resources

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale, reposting or other commercial purposes is prohibited without prior written permission from the copyright holder. For further details see [Terms of Use](#).

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](#).

If you see any errors or have any questions or suggestions on what is shown in this document, please provide us with [feedback](#) so that we can correct or extend the information provided.

Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Cyprinodontiformes	Rivulidae

Scientific Name: *Austrolebias robustus* (Günther, 1883)

Synonym(s):

- *Cynolebias robustus* Günther, 1883

Taxonomic Source(s):

Fricke, R., Eschmeyer, W.N. and Van der Laan, R. (eds). 2020. Eschmeyer's Catalog of Fishes: genera, species, references. Updated 02 June 2020. Available at: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>.

Taxonomic Notes:

Assessment Information

Red List Category & Criteria: Vulnerable B2ab(iii,iv); D2 [ver 3.1](#)

Year Published: 2022

Date Assessed: December 17, 2020

Justification:

Austrolebias robustus is considered as Vulnerable. It has an area of occupancy (AOO) estimated to be less than 2,000 km² (1,944 km²). The population is severely fragmented and known to exist at no more than 10 locations (four). There is continuing decline in the area, extent and quality of habitat and number of subpopulations. Seasonal killifish are very vulnerable to agricultural expansion, as pools dry out or are filled in. This threat is thought able to push the species to becoming Critically Endangered or Extinct in a very short time period.

Geographic Range

Range Description:

Austrolebias robustus is an endemic species of the Pampean region in the province of Buenos Aires, Argentina (Calviño 2003).

Country Occurrence:

Native, Extant (resident): Argentina (Buenos Aires)

Population

No population data for this species are available, although many subpopulations have disappeared due to intense agriculture activity. This species' habitat is severely fragmented due to deforestation followed by intense agriculture and habitat modification, compromising the connectivity between populations and their long term survival.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

This species is a seasonal killifish that inhabits in temporary ponds in the Pampasic region of Buenos Aires province, Argentina. Those ephemeral aquatic habitats typically fill with rains in Autumn and dry up in summer, although in some years they can dry up in winter generating two reproductive periods in one year (Alonso *et al.* 2016).

Systems: Freshwater (=Inland waters)

Use and Trade

This species is occasionally an object of extractions from nature for the aquarium trade.

Threats (see Appendix for additional information)

The main threats for this species are habitat loss due to agriculture expansion and the elimination of seasonal aquatic environments in that process. Also, herbicides and pesticides and other chemicals from near crops end up in those ponds that are in the lower portions of the terrain resulting in severe negative impacts of these activities in this particular group of fish.

Conservation Actions (see Appendix for additional information)

No actions are taken towards the conservation of this species.

Credits

Assessor(s): Alonso, F.

Reviewer(s): Serra, W.S.

Bibliography

Alonso, F., Calviño, P.A., Terán, G.E. and García, I. 2016. Geographical distribution of *Austrolebias monstrosus* (Huber, 1995), *A. elongatus* (Steindachner, 1881) and *A. vanderbergi* (Huber, 1995)(Teleostei: Cyprinodontiformes), with comments on the biogeography and ecology of Rivulidae in Pampasic and Chaco floodplains. *Check List* 12(4): 1945.

Calviño, P. 2003. Redescubriendo *Austrolebias robustus* (Günther, 1883). *Boletín del Killi Club Argentino-Edición Especial* 1: 1-15.

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

Citation

Alonso, F. 2022. *Austrolebias robustus*. *The IUCN Red List of Threatened Species* 2022: e.T177559215A177559254. <https://dx.doi.org/10.2305/IUCN.UK.2022-2.RLTS.T177559215A177559254.en>

Disclaimer

To make use of this information, please check the [Terms of Use](#).

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) -> 5.8. Wetlands (inland) - Seasonal/Intermittent Freshwater Marshes/Pools (under 8ha)	-	Suitable	-

Use and Trade

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

End Use	Local	National	International
13. Pets/display animals, horticulture	No	Yes	Yes

Threats

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

Threat	Timing	Scope	Severity	Impact Score
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 -> 2.2.3. Scale Unknown/Unrecorded	Ongoing	-	-	Low impact: 3
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.2. Small-holder grazing, ranching or farming	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
4. Transportation & service corridors -> 4.1. Roads & railroads	Ongoing	-	-	Low impact: 3
4. Transportation & service corridors -> 4.2. Utility & service lines	Ongoing	-	-	Low impact: 3

7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.1. Increase in fire frequency/intensity	Ongoing	-	-	Low impact: 3
9. Pollution -> 9.1. Domestic & urban waste water -> 9.1.1. Sewage	Ongoing	-	-	Low impact: 3
9. Pollution -> 9.1. Domestic & urban waste water -> 9.1.2. Run-off	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
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Ongoing	-	-	Low impact: 3
11. Climate change & severe weather -> 11.2. Droughts	Ongoing	-	-	Low impact: 3
11. Climate change & severe weather -> 11.3. Temperature extremes	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: No
Percentage of population protected by PAs: 0
Area based regional management plan: No
Occurs in at least one protected area: No
Invasive species control or prevention: No
In-place species management
Harvest management plan: No
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No

Conservation Action in Place
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
2. Land/water management -> 2.3. Habitat & natural process restoration
3. Species management -> 3.1. Species management -> 3.1.1. Harvest management
3. Species management -> 3.1. Species management -> 3.1.2. Trade management
3. Species management -> 3.3. Species re-introduction -> 3.3.1. Reintroduction
3. Species management -> 3.3. Species re-introduction -> 3.3.2. Benign introduction
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 -> 1.1. Taxonomy
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

Research Needed
2. Conservation Planning -> 2.1. Species Action/Recovery Plan
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) (km ²): 1944
Estimated extent of occurrence (EOO) (km ²): 74801
Number of Locations: 5
Lower elevation limit (m): 3
Upper elevation limit (m): 70
Population
Population severely fragmented: Yes
Continuing decline in subpopulations: Yes
All individuals in one subpopulation: No
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Movement patterns: Not a Migrant

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](#).