*The IUCN Red List of Threatened Species™*
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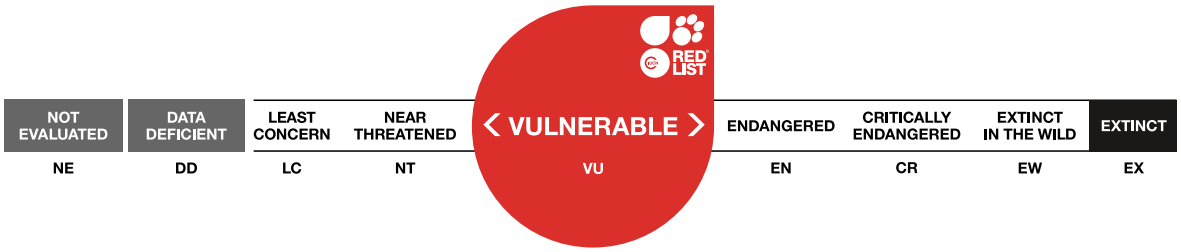
# *Microglanis nigrolineatus*

**Assessment by: Alonso, F.**




*View on www.iucnredlist.org*

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# Taxonomy

| Kingdom | Phylum | Class | Order | Family |
|---|---|---|---|---|
| Animalia | Chordata | Actinopterygii | Siluriformes | Pseudopimelodidae |

**Scientific Name:** *Microglanis nigrolineatus* Terán, Jarduli, Alonso, Mirande & Shibatta, 2016

**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.

**Identification Information:**

It is distinguished from all congeners by a combination of characters including a unique coloration pattern: a thin dark line that runs along middle body from vertical line through dorsal-fin origin to end of adipose fin, delimiting two dark-brown areas ending in a dark blotch crossing entire body depth just anterior to caudal-fin origin and dorsal region of head uniformly dark, lacking a paler area on nuchal region. Also, thorn serrae on anterior margin of pectoral-fin spine are short.

# Assessment Information

**Red List Category & Criteria:** Vulnerable B1ab(iii); D2 ver 3.1

**Year Published:** 2022

**Date Assessed:** December 16, 2020

**Justification:**

This species is considered Vulnerable according to the criteria B1ab(iii); D2. It has an extent of occurrence (EOO) of 6,666 $km^2$. This species inhabits in an area highly impacted by agriculture, deforestation and human activities. There are two locations and a continuing decline inferred in the area, extent and quality of habitat based on these threats. In particular, contamination for industries is considered severe enough to push the species to becoming Critically Endangered or Extinct in a very short time period.

# Geographic Range

**Range Description:**

This species is endemic of the upper Bermejo River basin in north-west Argentina, in Jujuy and Salta provinces (Terán *et al*. 2016).

**Country Occurrence:**

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


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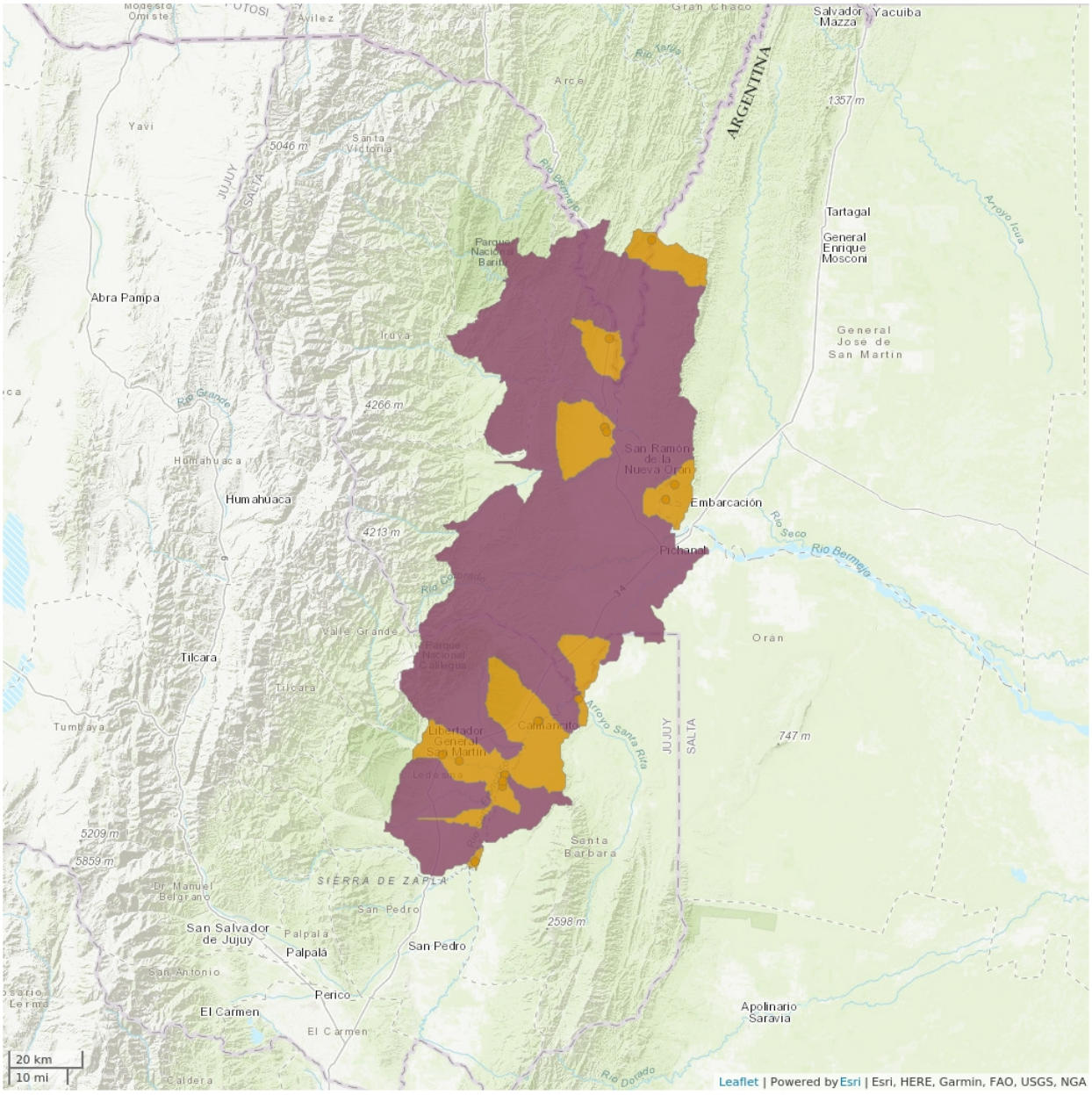
# Distribution Map




Legend

- EXTANT (RESIDENT)
- POSSIBLY 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

No data on the trend and status of the population of this species are available.

**Current Population Trend:** Unknown

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

Habitats where specimens of *M. nigrolineatus* were collected are between 345-486 m asl in the piedmont of the Yungas jungle region. Although many samplings were done above that altitude, no specimens of *Microglanis* were collected there, suggesting a preference for those habitats. While higher mountain environments present higher water flow and generally gravel substrate, the habitats of *M. nigrolineatus* have slow water flow and sandy or muddy substrate. The region has marked seasonality, with precipitations in the area concentrated in summer (80 % from November to March), and a dry winter (June to October). Average temperatures range from 14 °C in July to 26 °C in December and January. In May, when most of the specimens were collected, the streams had clear waters, with slow water flow, water was slightly alkaline (pH 7.4) and relatively high conductivity (770 $\mu S.cm^{-1}$). Maximum depth was approximately 40 cm at the type locality. The river shores had abundant marginal macrophytes as *Ludwigia* sp., *Equisetum* sp. and watercress (Brassicaceae). Individuals of *M. nigrolineatus* were associated with driftwood and leaves and never in open water. Other fish species collected syntopically at the type locality include: *Aphyocharax anisitsi*, *Psalidodon chico*, *A. lacustris*, *A. lineatus*, *Bryconamericus exodon*, *Characidium* cf. *zebra*, *Cichlasoma dimerus*, *Loricariichthys* sp., *Loricaria holmbergi*, *Moenkhausia bonita*, *Otocinclus vittatus*, *Rhamdia quelen*, *Serrapinnus microdon*, and *Synbranchus* cf. *marmoratus* (Terán *et al*. 2016).

**Systems:** Freshwater (=Inland waters)

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

No trade or use of this species is known. It could be object of aquarium trade eventually as with other species of this genus.

## Threats (see Appendix for additional information)

This species inhabits in an area highly impacted by agriculture, deforestation and human activities. All known records are on deforested areas used for agriculture where pesticides, sediments and other effects of those activities may be affecting the species.

## Conservation Actions (see Appendix for additional information)

No conservation actions are directed to this species.

## Credits

**Assessor(s):** Alonso, F.

**Reviewer(s):** Terán, G.


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## Bibliography

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

Terán, G.E., Jarduli, L.R., Alonso, F., Mirande, J.M. and Shibatta, O.A. 2016. *Microglanis nigrolineatus*, a new species from northwestern Argentina (Ostariophysi: Pseudopimelodidae). *Ichthyological Exploration of Freshwaters* 27(3): 193-202.

## Citation

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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) -> 5.1. Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls) | - | Suitable | - |

## 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 -> 2.3.2. 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 |
| 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 |
| 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 |


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| | | | | |
|---|---|---|---|---|
| 7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.1. Increase in fire frequency/intensity | Ongoing | - | - | Low impact: 3 |
| 7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.1. Abstraction of surface water (domestic use) | Ongoing | - | - | Low impact: 3 |
| 7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.2. Abstraction of surface water (commercial use) | Ongoing | - | - | Low impact: 3 |
| 7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.3. Abstraction of surface water (agricultural use) | Ongoing | - | - | Low impact: 3 |
| 7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.5. Abstraction of ground water (domestic use) | Ongoing | - | - | Low impact: 3 |
| 7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.6. Abstraction of ground water (commercial use) | Ongoing | - | - | Low impact: 3 |
| 7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.7. Abstraction of ground water (agricultural use) | Ongoing | - | - | Low impact: 3 |
| 7. Natural system modifications -> 7.3. Other ecosystem modifications | 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 -> 9.2. Industrial & military effluents -> 9.2.1. Oil spills | Ongoing | - | - | Low impact: 3 |
| 9. Pollution -> 9.2. Industrial & military effluents -> 9.2.2. Seepage from mining | 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 |
| 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 |
| 11. Climate change & severe weather -> 11.4. Storms & flooding | 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: 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 |
| 2. Land/water management -> 2.3. Habitat & natural process restoration |


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| Conservation Action Needed |
|---|
| 4. Education & awareness -> 4.1. Formal education |
| 4. Education & awareness -> 4.2. Training |
| 4. Education & awareness -> 4.3. Awareness & communications |

## 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 -> 1.6. Actions |
| 2. Conservation Planning -> 2.1. Species Action/Recovery Plan |
| 2. Conservation Planning -> 2.2. Area-based Management Plan |
| 3. Monitoring -> 3.1. Population trends |
| 3. Monitoring -> 3.4. Habitat trends |

## Additional Data Fields

| Distribution |
|---|
| Estimated area of occupancy (AOO) (km²): 2452 |
| Estimated extent of occurrence (EOO) (km²): 6666 |
| Number of Locations: 2 |
| Lower elevation limit (m): 345 |
| Upper elevation limit (m): 486 |
| **Population** |
| Population severely fragmented: Unknown |
| Continuing decline in subpopulations: Unknown |
| Extreme fluctuations in subpopulations: Unknown |
| 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 |


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# The IUCN Red List Partnership


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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.