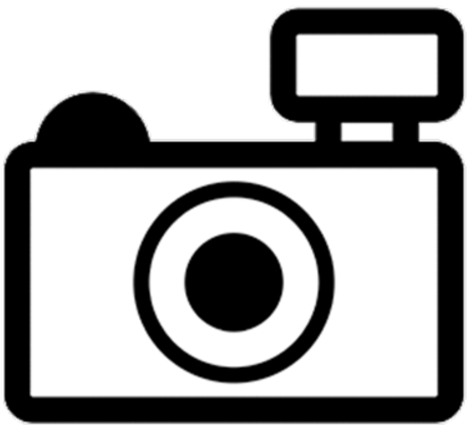
Ageneiosus militaris (a fish, no common name)
Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, February 2022
Revised, March 2022
Web Version, 5/23/2023

Organism Type: Fish
Overall Risk Assessment Category: Uncertain



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2022):

"South America: La Plata River basin."

From Fricke et al. (2022):

"[…] South America: Paraguay River basin (Argentina, Brazil, Paraguay and Uruguay)."

Status in the United States

Ageneiosus militaris has not been reported as introduced or established in the United States. No information regarding trade in the United States was found.

Means of Introductions in the United States
No records of *Ageneiosus militaris* in the wild in the United States were found.

Remarks
According to Fricke et al. (2022), *Ageneiosus marquesi* (Risso and Risso 1964), *Silurus trigintaoctoradiatus (*Larrañaga, 1923), *Ageneiosus uruguayensis* (Devincenzi, 1933), and *Ageneiosus valenciennesi* Bleeker, 1864 are all synonyms of *Ageneiosus militaris.* Information searches were conducted under all these names.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing
According to Fricke et al. (2022), *Ageneiosus militaris* Valenciennes, 1835 is the current valid name for this species.

From ITIS (2022):

Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Siluriformes
Family Auchenipteridae
Subfamily Auchenipterinae
Genus *Ageneiosus*
Species *Ageneiosus militaris* Valenciennes, 1835

Size, Weight, and Age Range
From Froese and Pauly (2022):

"Max length : 30.0 cm SL [standard length] male/unsexed; [Ferraris 2003]; max. published weight: 135.00 g [Marques et al. 2016];"

Environment
From Froese and Pauly (2022):

"Freshwater; pelagic"

Climate
From Froese and Pauly (2022):

"Subtropical"

Distribution Outside the United States
Native
From Froese and Pauly (2022):

"South America: La Plata River basin."

From Fricke et al. (2022):

"[…] South America: Paraguay River basin (Argentina, Brazil, Paraguay and Uruguay)."

Introduced
Ageneiosus militaris has not been reported as introduced or established outside of its native range.

Means of Introduction Outside the United States
Ageneiosus militaris has not been reported as introduced or established outside of its native range.

Short Description
From GBIF (2022):

"Body elongated; greatest body depth contained 6.2 to 6.6 times in SL; head length 3.2 to 4.1, anal-fin base length 3.1 to 3.3 in SL; snout length 1.8 to 2.0, horizontal orbital diameter 9.4 to 11.2, least interorbital width 4.2 to 4.7 in HL [head length]; and orbital diameter 3.7 to 4.9 in interorbital width. Mouth terminal with dentigerous tooth plates in both premaxilla and dentary. Dorsal fin with I,6, pectoral fin with I,14-15, pelvic fin with I,7 and anal fin with 32-39 rays. Ground color greyish; dorsum with black longitudinal band, sometimes interrupted by light-beige irregular blotches. Light fins; distal margin of caudal fin black (Graça, Pavanelli, 2007)."

From Ribeiro et al. (2017):

"A light stripe extending mid-dorsally between posterior end of dorsal-fin base and origin of adipose fin; light bands along almost entire extension of dorsolateral stripe that extend dorsally to light mid-dorsal stripe and ventrally to end of dorsolateral stripe […]."

Biology

From Ribeiro et al. (2017):

"Presently, *A. militaris* is known to exist only in rivers. Its diet is composed of crustaceans and fishes (Devincenzi & Teague, 1942; Hahn et al., 2004). Devincenzi & Teague (1942) reported that this species was most abundant in August and September and March and April; gravid females were identified in November and December."

Human Uses

Information on human uses was not found for *Ageneiosus militaris.*

Diseases

No records of OIE-reportable diseases (OIE 2022) were found for *Ageneiosus militaris*.
No information on diseases was found.

Threat to Humans

From Froese and Pauly (2022):

"Harmless"

3 Impacts of Introductions

No records of introductions were found for *Ageneiosus militaris*; therefore, there is no information on impacts of introduction.

4 History of Invasiveness

The history of invasiveness is classified as No Known Nonnative Population. *Ageneiosus militaris* has not been reported as introduced in the wild outside of its native range. No information on impacts of introduction was available.

5 Global Distribution

Figure 1. Known global distribution of *Ageneiosus militaris*. Observations are reported from Argentina, Brazil, Paraguay, and Suriname. Map from GBIF Secretariat (2022). The points recorded in Suriname and northern Brazil were not used to select source points for the climate match as they are outside the native range and no information was found to indicate established populations in those locations.

6 Distribution Within the United States

No records of *Ageneiosus militaris* in the wild in the United States were found.

7 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Ageneiosus militaris* was medium locally across most of the eastern and central contiguous United States, from New Mexico to Wisconsin and New York. There was an area of high match along the Gulf Coast and along the southern Atlantic Coast from Florida through North Carolina. Most of New England, the north-central region, and the West had low local climate matches. The overall Climate 6 score (Sanders et al. 2021; 16 climate variables; Euclidean distance) for the contiguous United States was 0.325, High (scores equal to or greater than 0.103 are classified as High). About half the States had High individual Climate 6 scores. Arizona, Iowa, New York, and Wisconsin all received Medium individual scores. California, Colorado, Connecticut, Idaho, Maine, Massachusetts, Minnesota, Montana, Nebraska, Nevada, New Hampshire, North Dakota, Oregon, Rhode Island, South Dakota, Utah, Vermont, Washington, and Wyoming all had Low individual scores.

Figure 2. RAMP (Sanders et al. 2021) source map showing weather stations in the Paraná–Paraguay Basin in South America selected as source locations (red; Argentina, Brazil, Paraguay) and non-source locations (gray) for *Ageneiosus militaris* climate matching. Source locations from GBIF Secretariat (2022). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.

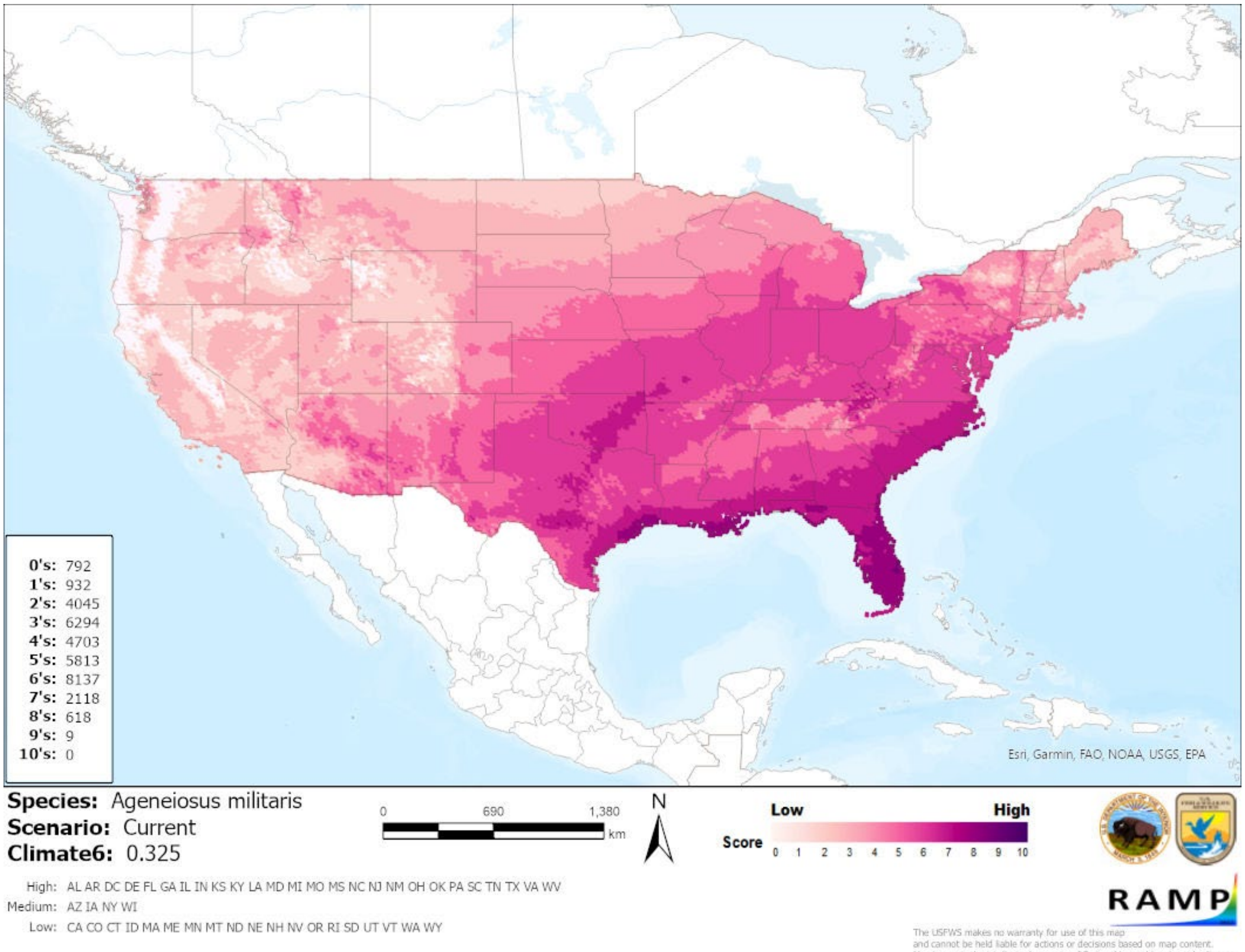


Figure 3. Map of RAMP (Sanders et al. 2021) climate matches for *Ageneiosus militaris* in the contiguous United States based on source locations reported by GBIF Secretariat (2022). Counts of climate match scores are tabulated on the left. 0/Pale Pink = Lowest match, 10/Dark Purple = Highest match.

The High, Medium, and Low Climate match Categories are based on the following table:

Climate 6: (Count of target points with climate scores 6-10)/ (Count of all target points)	Overall Climate Match Category
0.000≤X≤0.005	Low
0.005<X<0.103	Medium
≥0.103	High

8 Certainty of Assessment

There is limited information on the biology and life history of this species. *Ageneiosus militaris* has not been recorded as introduced outside of its native range. With no information on history of invasiveness, the certainty of assessment is Low.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Ageneiosus militaris is a catfish that is native to the Paraná–Paraguay River Basin in South America. *Ageneiosus militaris* has not been reported anywhere outside of its native distribution, resulting in a history of invasiveness of No Known Nonnative Population. The climate match for the contiguous United States is High. All of the western contiguous United States had a low match with areas of medium to high match found in the East, Southeast, and southern Midwest. Areas of high match were found along the Gulf and Southern Atlantic coasts. The certainty of assessment is Low due to a lack of information. The overall risk assessment category for *Ageneiosus militaris* is Uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 4): No Known Nonnative Population**
- **Overall Climate Match Category (Sec. 7): High**
- **Certainty of Assessment (Sec. 8): Low**
- **Remarks/Important additional information: No additional remarks**
- **Overall Risk Assessment Category: Uncertain**

10 Literature Cited

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 11.

Fricke R, Eschmeyer WN, van der Laan R, editors. 2022. Catalog of fishes: genera, species, references. California Academy of Science. Available: http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp (February 2022).

Froese R, Pauly D, editors. 2022. *Ageneiosus militaris* (Valenciennes, 1835). FishBase. Available: https://www.fishbase.se/summary/Ageneiosus-militaris (February 2022).

GBIF Secretariat. 2022. GBIF backbone taxonomy: *Ageneiosus militaris* (Valenciennes, 1835). Copenhagen: Global Biodiversity Information Facility. Available: https://www.gbif.org/species/2344552 (February 2022).

[ITIS] Integrated Taxonomic Information System. 2022. *Ageneiosus militaris* (Valenciennes, 1835). Reston, Virginia: Integrated Taxonomic Information System. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=679630#null (February 2022).

[OIE] World Organisation for Animal Health. 2022. OIE-listed diseases, infections and infestations in force in 2022. Available: https://www.oie.int/en/what-we-do/animal-health-and-welfare/animal-diseases/ (February 2022).

Ribeiro FRV, Rapp Py-Daniel LH, Walsh SJ. 2017. Taxonomic revision of the South American catfish genus *Ageneiosus* (Siluriformes: Auchenipteridae) with the description of four new species. Journal of Fish Biology 90(4):1388–1478.

Sanders S, Castiglione C, Hoff M. 2021. Risk Assessment Mapping Program: RAMP. Version 4.0. U.S. Fish and Wildlife Service.

11 Literature Cited in Quoted Material

Note: The following references are cited within quoted text within this ERSS, but were not accessed for its preparation. They are included here to provide the reader with more information.

Devincenzi GJ, Teague GW. 1942. Ictiofauna del Rio Uruguay medio. Anales del Museo De Historia Natural de Montevideo 5(2):1–103.

Ferraris CJ Jr. 2003. Auchenipteridae (driftwood catfishes). Pages 470–482 in Reis RE, Kullander SO, Ferraris CJ Jr, editors. Checklist of the freshwater fishes of South and Central America. Porto Alegre, Brazil: EDIPUCRS.

Ferraris CJ Jr. 2007. Checklist of catfishes, recent and fossil (Osteichthyes: Siluriformes), and catalogue of siluriform primary types. Zootaxa 1418:1–628.

Graça WJD, Pavanelli CS. 2007. Peixes da planíce de inundação do alto do rio Paraná e áreas adjacentes. EDUEM: Maringá.

Hahn NS, Fugi R, Andrian IF. 2004. Trophic ecology of the fish assemblages. Pages 247– 259 in Thomaz SM, Agostinho AA, Hahn NS, editors. The Upper Paraná River and its floodplain: physical aspects, ecology and conservation. Leiden, The Netherlands: Backhuys Publishers.

Marques H, Nobile AB, Dias JHP, Ramos IP. 2016. Length-weight and length-length relationships for 23 fish species of Porto Primavera reservoir, Upper Paraná River, Brazil. Journal of Applied Ichthyology 32:1342–1346.