

Platinum Acara (*Andinoacara latifrons*)

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, August 2012

Revised, May 2018

Web Version, 6/29/2018



Photo: DATZ, through Fishbase. Licensed under CC-BY-NC. Available: <https://www.fishbase.de/photos/ThumbnailsSummary.php?Genus=Andinoacara&Species=latifrons>. (May 2018).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018a):

“South America: Magdalena, Atrato, Sinú, and San Juan River basins in Colombia.”

Status in the United States

This species has not been introduced or established in natural habitats in the United States. This species is present in trade in the United States. For example, Fishuation (2018), a hobbyist located in Hutto, Texas, advertises 20 *Andinoacara latifrons* for sale.

Means of Introductions in the United States

This species has not been introduced or established in natural habitats in the United States.

Remarks

From Froese and Pauly (2018a):

“Synonymous with *Acara latifrons* and *Aequidens latifrons*.”

These synonyms were used along with the accepted scientific name in searching for information on introductions and impacts of this species.

From Eschmeyer et al. (2018):

“*latifrons*, *Acara* [...] **Current status:** Valid as *Andinoacara latifrons* (Steindachner 1878).”

ITIS (2018) has this species valid as *Aequidens latifrons*.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Froese and Pauly (2018b):

“Biota > Animalia (Kingdom) > Chordata (Phylum) > Vertebrata (Subphylum) > Gnathostomata (Superclass) > Pisces (Superclass) > Actinopterygii (Class) > Perciformes (Order) > Labroidei (Suborder) > Cichlidae (Family) > Cichlinae (Subfamily) > *Andinoacara* (Genus) > *Andinoacara latifrons* (Species)”

“Status accepted”

Size, Weight, and Age Range

From Froese and Pauly (2018a):

“Max length: 17.0 cm TL male/unsexed; [Kullander 2003]”

Environment

From Froese and Pauly (2018a):

“Freshwater; benthopelagic; pH range: 6.5 - 7.5; dH range: 6 - ?. [...] 23°C - 34°C [Stawikowski and Werner 1998; no indication given whether these temperatures refer to natural waters or aquaria]”

Climate/Range

From Froese and Pauly (2018a):

“Tropical [...]”

Distribution Outside the United States

Native

From Froese and Pauly (2018a):

“South America: Magdalena, Atrato, Sinú, and San Juan River basins in Colombia.”

Introduced

According to Froese and Pauly (2018a), *Andinoacara latifrons* was introduced to and is established in Indonesia.

Means of Introduction Outside the United States

According to Froese and Pauly (2018a), the means of introduction to Indonesia is unknown.

Short Description

The following description applies to the genus *Andinoacara*, rather than the particular species *A. latifrons*.

From Musilová et al. (2009):

“Small to moderate sized (8–30 cm TL) South American cichlids with American type lips, six preopercular [*sic*] and four dentary lateralis foramina, minute or absent interarcual cartilage. Similar to the closely related *Bujurquina* and *Tahuantinsuyoa* in having enlarged lateralis foramina, uniserial predorsal scale pattern, notched dorsal margin of anterior ceratohyal with laminar ledges bordering arterial groove (forming a bony canal in *A. rivulatus*), only three anal fin spines, modally six ceratobranchial gill rakers on first arch, opalescent spots and vermiculations on head, body and fins, the posterior part of the midlateral stripe inclined dorsally towards the insertion of the posterior border of the dorsal fin.”

Biology

From Froese and Pauly (2018a):

“In swamps and lakes; can be very abundant; not esteemed as food fish [Stawikowski and Werner 1998]. Both parents defend eggs and larvae [Stawikowski and Werner 1998].”

Human Uses

From Froese and Pauly (2018a):

“Fisheries: of no interest; aquarium: highly commercial”

Diseases

No information available. No OIE reportable diseases.

Threat to Humans

From Froese and Pauly (2018a):

“Harmless”

3 Impacts of Introductions

No information available.

4 Global Distribution



Figure 1. Known global distribution of *A. latifrons*, reported from northwestern South America. Map from GBIF Secretariat (2017). The location in Venezuela was not included in the climate matching analysis because the description from which the location coordinates were derived is noted as “vague” in GBIF Secretariat (2017). Four points east of the Magdalena River basin in central Colombia were also excluded from the climate matching analysis because they fall outside the described established range of the species. An unpictured location in southeastern

Brazil was not included in the climate matching analysis because it appeared to be the location where a specimen is currently housed in the city of Sao Paulo.

5 Distribution Within the United States

This species has not been reported in natural habitats in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2018; 16 climate variables; Euclidean Distance) was low throughout the contiguous United States, reflected in a Climate 6 proportion of 0.001. The range for Climate 6 proportions indicating a low climate match is from 0.000 to 0.005, inclusive. Climate matches were medium in peninsular Florida, far southern Texas, and northern coastal Washington. Elsewhere in the contiguous U.S., climate match was low.

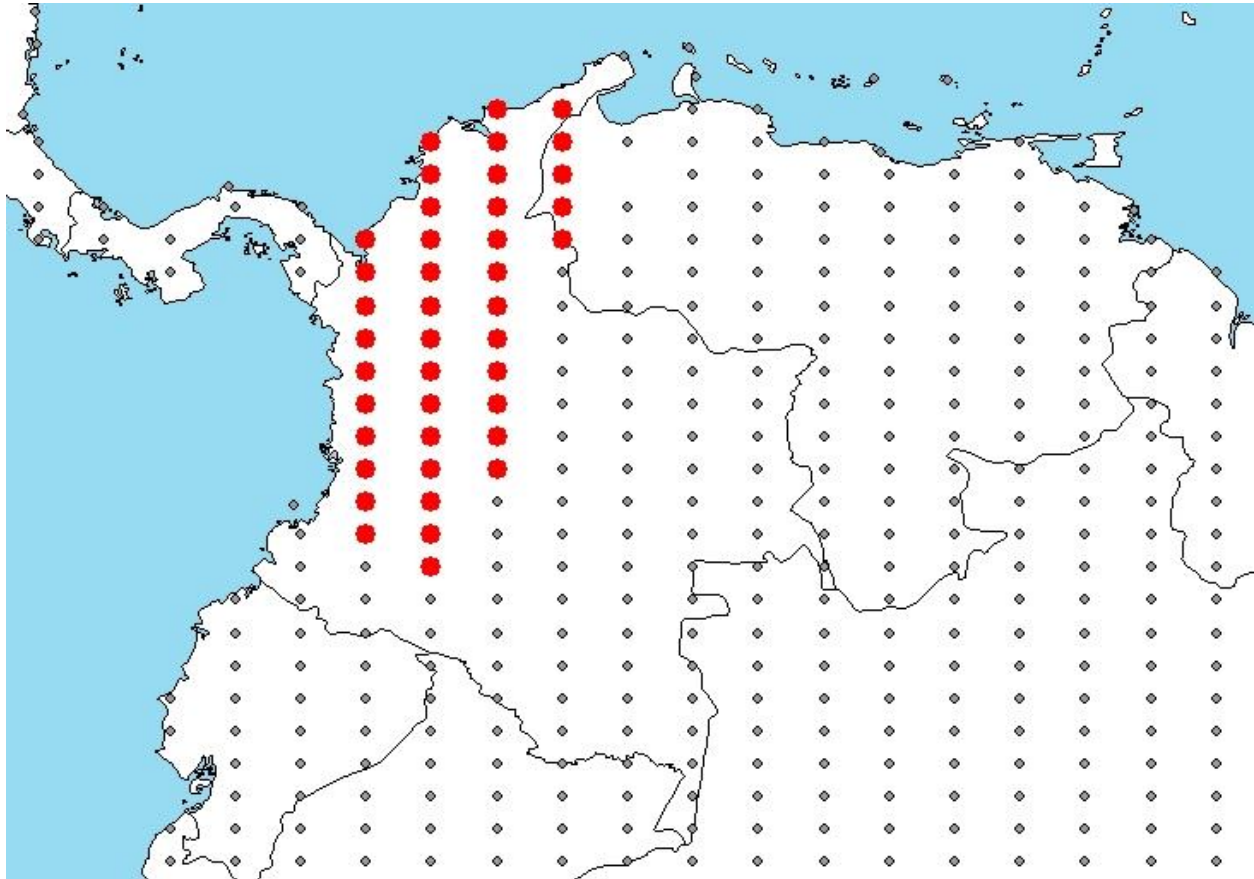


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations selected as source locations (red; Colombia, Venezuelan border with Colombia) and non-source locations (gray) for *A. latifrons* climate matching. Source locations from GBIF Secretariat (2017).

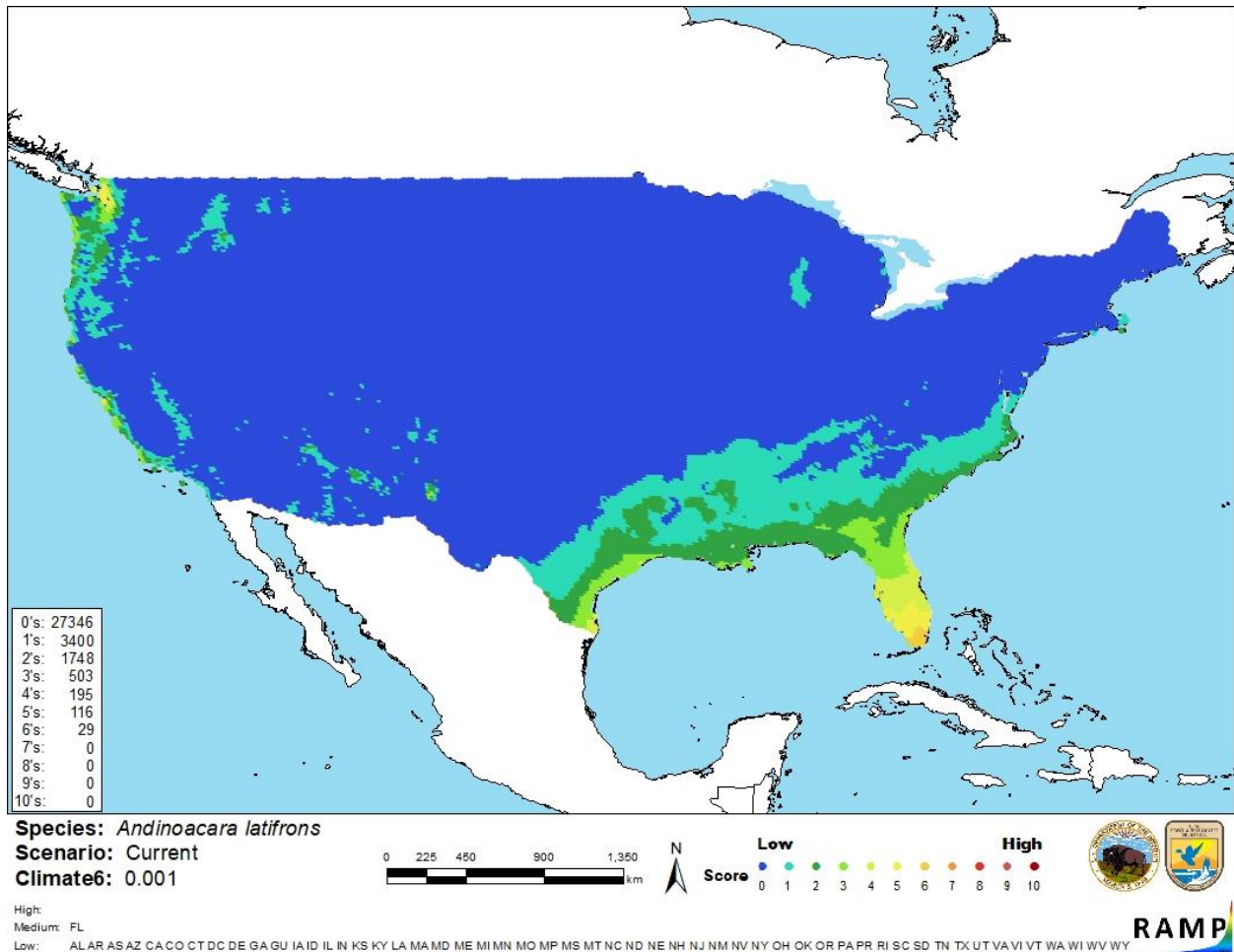


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *A. latifrons* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

The “High”, “Medium”, and “Low” climate match categories are based on the following table:

Climate 6: Proportion of (Sum of Climate Scores 6-10) / (Sum of total Climate Scores)	Climate Match Category
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

There is little knowledge on the biology and ecology of *Andinoacara latifrons*. There is one documented introduction into Indonesia but no information is known about impacts of this introduction. Due to lack of information, the certainty of assessment is low. More information is needed to increase assessment certainty.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Platinum Acara (*Andinoacara latifrons*) is a South American cichlid fish, popular in the aquarium trade and native in a few river basins in Colombia. The only report of introduction of this species outside of its native range is in Indonesia. No adverse impacts of this introduction have been reported. This species has a low climate match in the contiguous United States. Southern Florida had the highest climate match. Due to the lack of information about potential introductions and a low climate match with the United States, the overall risk of this species is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): None Documented**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **Overall Risk Assessment Category: Uncertain**

9 References

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 10.

Eschmeyer, W. N., R. Fricke, and R. van der Laan, editors. 2018. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatget.asp?spid=3907> 9. (May 2018).

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GBIF Secretariat. 2017. GBIF backbone taxonomy: *Anodinoacara latifrons* (Steindachner, 1878). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5208285>. (May 2018)

ITIS (Integrated Taxonomic Information System). 2018. *Aequidens latifrons* (Steindachner, 1878). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=169843#null. May, 2018.

Musilová, Z., O. Říčan, and J. Novák. 2009. Phylogeny of the Neotropical cichlid fish tribe Cichlasomatini (Teleostei: Cichlidae) based on morphological and molecular data, with the description of a new genus. *Journal of Zoological Systematics and Evolutionary Research* 47(3):234-247.

Sanders, S., C. Castiglione, and M. H. Hoff. 2018. Risk Assessment Mapping Program: RAMP, version 3.1. U.S. Fish and Wildlife Service.

10 References Quoted But Not Accessed

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.

Kullander, S. O. 2003. Cichlidae (Cichlids). Pages 605-654 *in* R .E. Reis, S. O. Kullander, and C. J. Ferraris, Jr., editors. Checklist of the freshwater fishes of South and Central America. EDIPUCRS, Porto Alegre, Brazil.

Stawikowski, R., and U. Werner. 1998. The cichlids of America, volume 1. Publisher Eugen Ulmer, Stuttgart, Germany.