

Blue Panaque (*Baryancistrus beggini*)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, May 2013

Revised, March 2016, February 2017, March 2017

Web Version, June 2018



Photo: Michaël Negrini. Image used with permission from author. Available: www.estalens.fr.

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2013):

“South America: Venezuela and Colombia.”

From Lujan and Brinidelli (2011):

“[...] species ranging more broadly across the upper Orinoco but with a downstream limit between the Ventuari-Orinoco confluence and the Maipures rapids (e.g., *Baryancistrus beggini* [...])”

Status in the United States

Baryancistrus beggini has not been reported as introduced or established in the United States. This species is in trade in the United States.

From That Pet Place (2018):

“Blue Panaque Pleco – *Baryancistrus beggini* L239 [...] \$49.99”

Means of Introductions in the United States

Baryancistrus beggini has not been reported as introduced or established in the United States.

Remarks

Baryancistrus beggini was first described and named by Lujan et al. in 2009.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Froese and Pauly (2016):

“[Superclass] Actinopterygii (ray-finned fishes) > [Order] Siluriformes (Catfish) > [Family] Loricariidae (Armored catfishes) > [Subfamily] Ancistrinae”

According to Eschmeyer et al. (2017), *Baryancistrus beggini* Lujan, Arce & Armbruster 2009 is the valid name for this species, it is also the original name for this species.

Size, Weight, and Age Range

From Froese and Pauly (2013):

“Max length: 8.1 cm SL male/unsexed; [Lujan et al. 2009]”

Environment

From Froese and Pauly (2013):

“Freshwater; pelagic.”

Climate/Range

From Froese and Pauly (2013):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2013):

“South America: Venezuela and Colombia.”

From Lujan et al. (2009):

“Known from the Río Ventuari and the Río Orinoco at their confluence, and lower portions of the Río Guaviare in Colombia (Fig. 3[in source material]).”

Introduced

No introductions of *Baryancistrus beggini* were found.

Means of Introduction Outside the United States

No introductions of *Baryancistrus beggini* were found.

Short Description

From Froese and Pauly (2013):

“Dorsal spines (total): 2; Dorsal soft rays (total): 7; Anal spines: 1; Anal soft rays: 3 - 4. This species is distinguished from all its congeners by having the last dorsal-fin ray adnate with adipose fin via a posterior membrane that extends beyond the preadipose plate up to half the length of the adipose-fin spine (vs. membrane separated from preadipose plate by up to two plates or stopping at preadipose plate); further differs from *B. niveatus* and *B. longipinnis* by having a naked abdomen (vs. partially plated), and from *B. demantoides* by having fewer premaxillary teeth (8-36 vs. 34-54, respectively) [Lujan et al. 2009].”

“Pectoral fins: Spines: 1, Soft-rays: 6; Pelvic fins: Spines: 1, Soft-rays: 5.”

From Py-Daniel et al. (2011):

“The only exception seems to be *B. beggini* with a plain dark coloration.”

Biology

From Froese and Pauly (2013):

“This species is collected from the interstices of granitic bedrock and boulders that constitute exposed portions of the Guyana Shield. Apparently feeds on periphyton and associated microfauna that are abundant on surfaces and undersides of rocks in this habitat [Lujan et al. 2009].”

Human Uses

Baryancistrus beggini is in trade in the United States.

From That Pet Place (2018):

“Blue Panaque Pleco – *Baryancistrus beggini* L239 [...] \$49.99”

Diseases

Information on diseases of *Baryancistrus beggini* was not found.

Threat to Humans

From Froese and Pauly (2013):

“Harmless”

3 Impacts of Introductions

No records of introductions were found for *Baryancistrus beggini* were found.

4 Global Distribution



Figure 1. Known global distribution of *Baryancistrus beggini*. Locations are in Venezuela. Map from GBIF Secretariat (2016).

5 Distribution Within the United States

Baryancistrus beggini has not been reported as introduced or established in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Baryancistrus beggini* was low for the entire contiguous United States. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low, and no individual states had a high climate score.

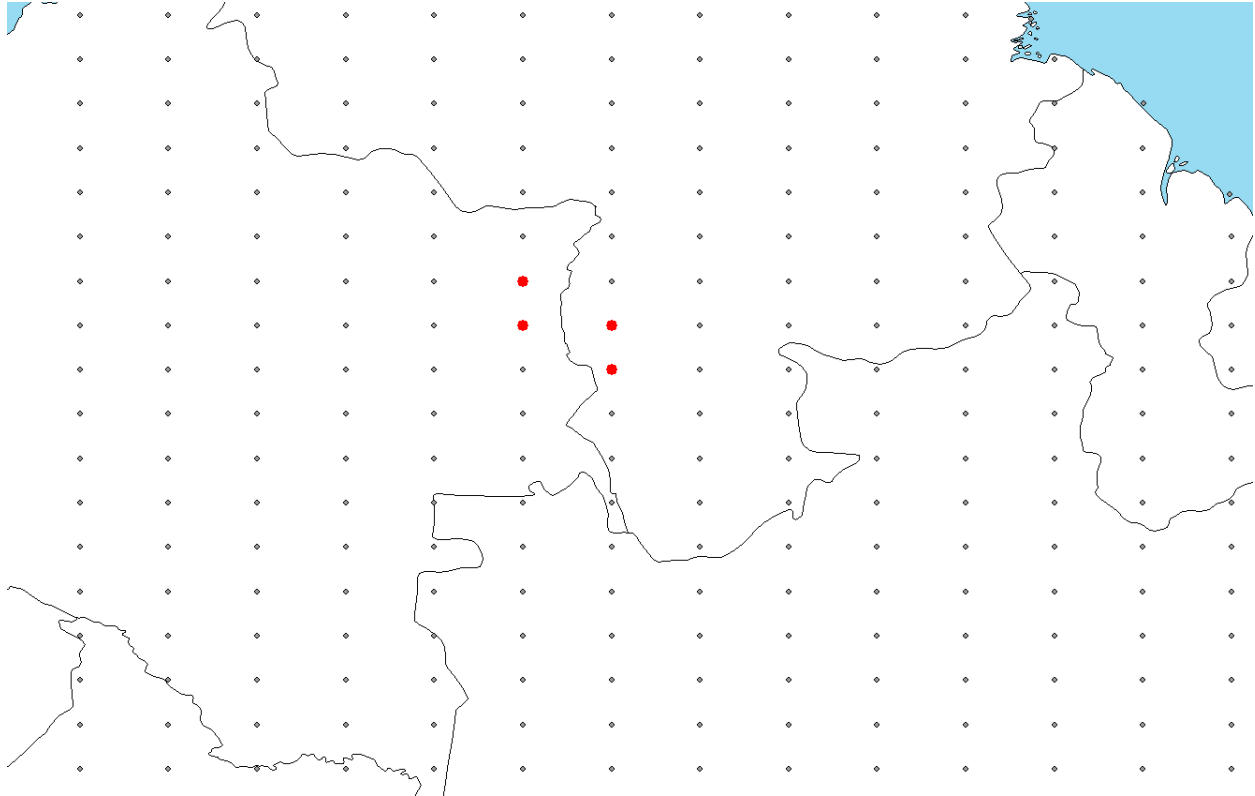


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations selected as source locations (red; Colombia, Venezuela) and non-source locations (gray) for *Baryancistrus beggini* climate matching. Source locations from GBIF Secretariat (2016).

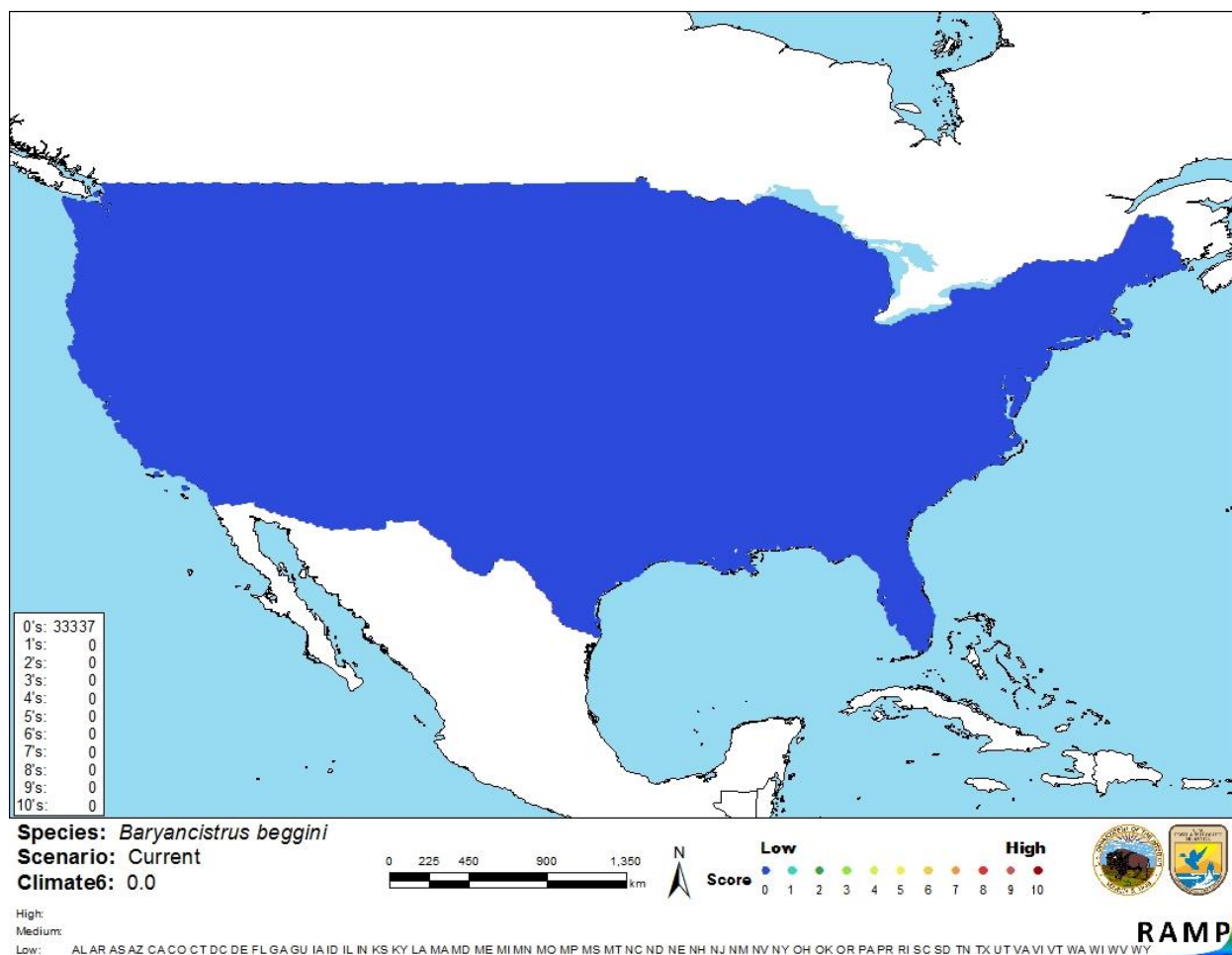


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Baryancistrus beggini* in the contiguous United States based on source locations reported by GBIF Secretariat (2016). 0 = Lowest match, 10 = Highest match. Counts of climate match scores are tabulated on the left side of the map.

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

The certainty of assessment is low. There is very limited information available for this species; it is all sourced from Lejun et al. (2009), the paper that first described *Baryancistrus beggini*. No records of introduction were found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

A history of invasiveness is uncertain for *Baryancistrus beggini*. There were no records of introduction found. *B. beggini* is in trade in the United States. The climate match is categorically low. There are no locations in the United States that have a climate which would support a population of *B. beggini*. The overall risk assessment category is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **Remarks/Important additional information:** Species was first described in 2009.
- **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. 2017. Catalogue of fishes: genera, species, references. Available: <http://www.calacademy.org/scientists/projects/catalog-of-fishes>. (February 2017).
- Froese, R., and D. Pauly, editors. 2013. *Baryancistrus beggini* Lujan, Arce & Armbruster, 2009. FishBase. Available: <http://www.fishbase.de/summary/Baryancistrus-beggini.html>. (June 2013).
- Froese, R., and D. Pauly, editors. 2016. *Baryancistrus beggini* Lujan, Arce & Armbruster, 2009. FishBase. Available: <http://www.fishbase.de/summary/Baryancistrus-beggini.html>. (March 2016).
- GBIF Secretariat. 2016. GBIF backbone taxonomy: *Baryancistrus beggini* Lujan, Arce & Armbruster, 2009. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2339923>. (March 2016).
- Lujan, N. K., M. Arce, and J. W. Armbruster. 2009. A new black *Baryancistrus* with blue sheen from the Upper Orinoco (Siluriformes: Loricariidae). *Copeia* 2009(1):50–56.
- Lujan, N. K., and J. L. O. Brinidelli. 2011. A new distinctively banded species of *Pseudolithoxus* (Siluriformes: Loricariidae) from the upper Orinoco River. *Zootaxa* 2941:38–46.
- Py-Daniel, L. R., J. Zuanon, and R. R. de Oliveira. 2011. Two new ornamental loricariid catfishes of *Baryancistrus* from rio Xingu drainage (Siluriformes: Hypostominae). *Neotropical Ichthyology* 9(2):241–252.

Sanders, S., C. Castiglione, and M. Hoff. 2018. Risk assessment mapping program: RAMP, version 3.1. U.S. Fish and Wildlife Service.

That Pet Place. 2018. Blue Panaque Pleco – *Baryancistrus beggini* L239. Fish Net, Inc.
Available: <https://www.thatpetplace.com/baryancistrus-beggini-l239-blue-panaque-pleco-213584>. (June 2018).

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.

No references in this section.