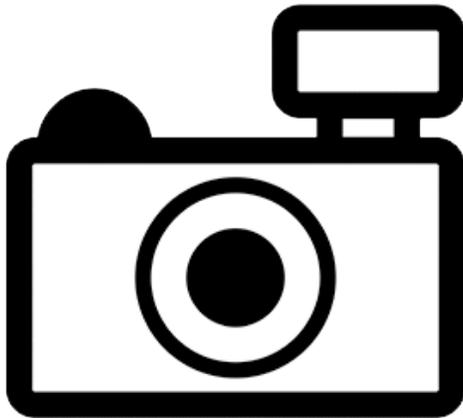


# *Typhlobelus guacamaya* (a catfish, no common name)

## Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, December 2016  
Revised, June 2018  
Web Version, 8/30/2019



No Photo Available

## 1 Native Range, and Status in the United States

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### Native Range

From Froese and Pauly (2018):

“South America: Rio Cuao drainage basin [part of the Orinoco River basin] in Venezuela.”

### Status in the United States

*Typhlobelus guacamaya* has not been reported as introduced or established in the United States. No information was found on trade of *T. guacamaya* in the United States.

### Means of Introductions in the United States

This species has not been reported in the wild in the United States.

### Remarks

No additional remarks.

## 2 Biology and Ecology

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### Taxonomic Hierarchy and Taxonomic Standing

From Eschmeyer (2018):

“**Current status:** Valid as *Typhlobelus guacamaya* Schaefer, Provenzano, de Pinna & Baskin 2005.”

From ITIS (2016)

“Kingdom Animalia  
Subkingdom Bilateria  
Infrakingdom Deuterostomia  
Phylum Chordata  
Subphylum Vertebrata  
Infraphylum Gnathostomata  
Superclass Osteichthyes  
Class Actinopterygii  
Subclass Neopterygii  
Infraclass Teleostei  
Superorder Ostariophysi  
Order Siluriformes  
Family Trichomycteridae  
Subfamily Glanapteryginae  
Genus *Typhlobelus* Myers, 1944”

### Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 2.8 cm SL male/unsexed [Schaefer et al. 2005]”

### Environment

From Froese and Pauly (2018):

“Freshwater; demersal.”

From Schaefer et al. (2005):

“[...] *T. guacamaya* occur in clear water [...]”

“A psammophilic habit [loose sand] for *Glanapteryx*, *Pygidianops*, and *Typhlobelus* has been presumed on the basis of anecdotal locality information and the extremely reduced morphologies of these species.”

“[...] species of *Pygidianops* and *Typhlobelus* are entirely disassociated from leaf litter, and occupy exclusively clear loose sand.”

## **Climate/Range**

From Froese and Pauly (2018):

“Tropical”

## **Distribution Outside the United States**

Native

From Froese and Pauly (2018):

“South America: Rio Cuao drainage basin [part of the Orinoco River basin] in Venezuela.”

Introduced

*Typhlobelus guacamaya* has not been reported as introduced or established outside of its native range.

## **Means of Introduction Outside the United States**

*Typhlobelus guacamaya* has not been reported as introduced or established outside of its native range.

## **Short description**

From Schaefer et al. (2005):

“Rostrum expanding immediately anterior to its base, then narrowing gradually to tip; margin of rostrum posteriorly overlapping base of maxillary barbel, not continuous with it; posterior naris absent; three branchiostegal rays; no pleural ribs”

“*Typhlobelus guacamaya* is distinguished from all congeners by the presence of three branchiostegal rays (vs. four in *T. ternetzi* and *T. lundbergi*, five in *T. macromycterus*), posterior naris absent (vs. present, nares bilaterally paired), and the lack of pleural ribs (vs. one pair of pleural ribs associated with the first free vertebra).”

From Froese and Pauly (2018):

“Dorsal spines (total): 0; Dorsal soft rays (total): 0; Anal spines: 0; Anal soft rays: 5; Vertebrae: 51 - 53. Diagnosed from all congeners by the presence of three branchiostegal rays, posterior naris absent and the lack of pleural ribs. Differs further from both *Typhlobelus ternetzi* and *T. macromycterus* by the absence of eyes, and further distinguished from *T. macromycterus* by the presence of the nine caudal fin rays and five anal-fin rays and differs further from *T. lundbergi* by the presence of three laterosensory canal pores [Schaefer et al. 2005].”

## Biology

No information was found regarding the biology of *Typhlobelus guacamaya*.

## Human uses

No information available.

## Diseases

No information on diseases was found for *Typhlobelus guacamaya*. **No OIE-reportable diseases (OIE 2019) have been documented for this species.**

## Threat to humans

From Froese and Pauly (2016):

“Harmless”

## 3 Impacts of Introductions

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This species has not been reported as introduced or established outside of its native range, so no impacts of introductions are known.

## 4 Global Distribution

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**Figure 1.** Known global distribution of *Typhlobelus guacamaya*. Map from VertNet (2018).

## 5 Distribution within the United States

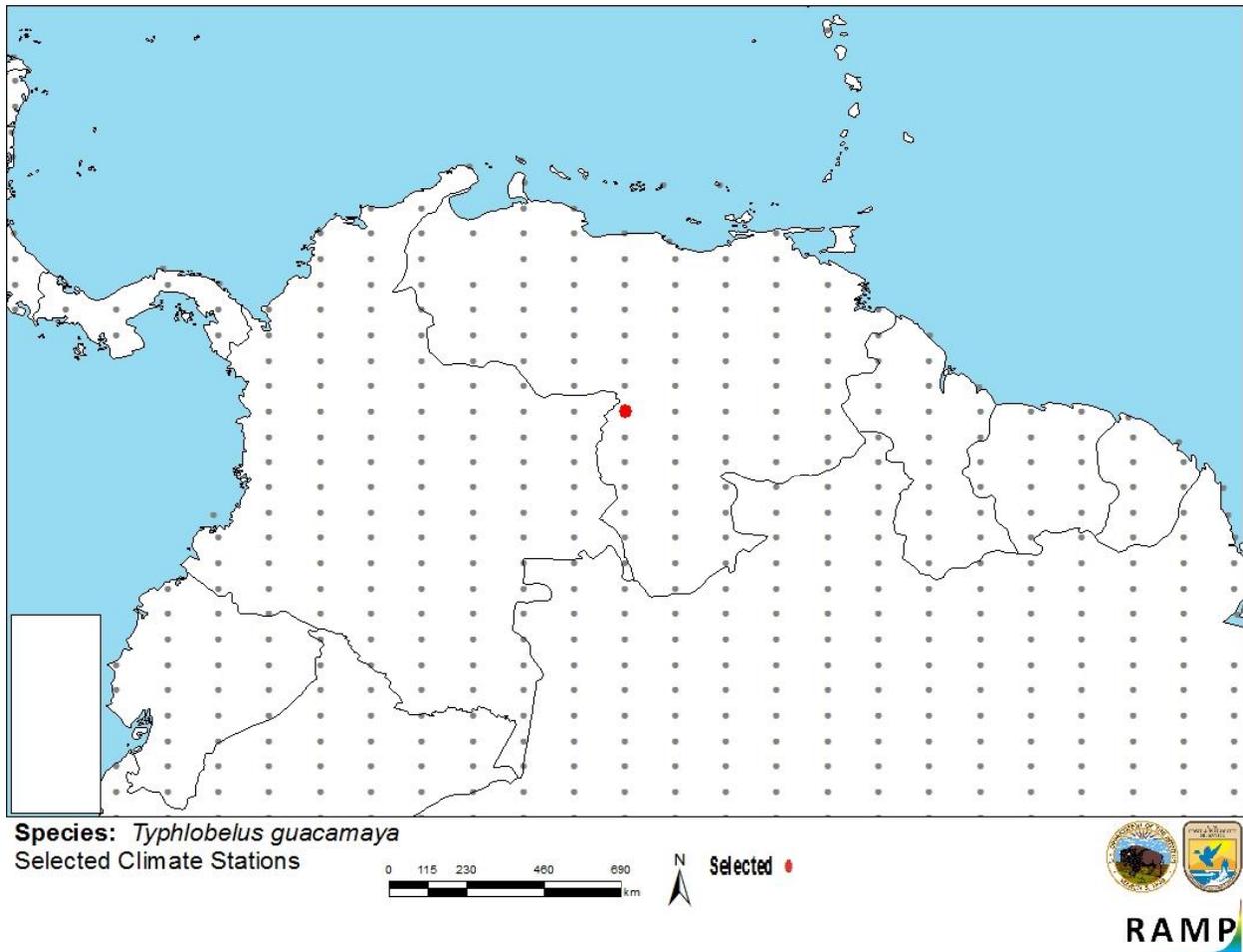
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This species has not been reported as introduced or established in the United States.

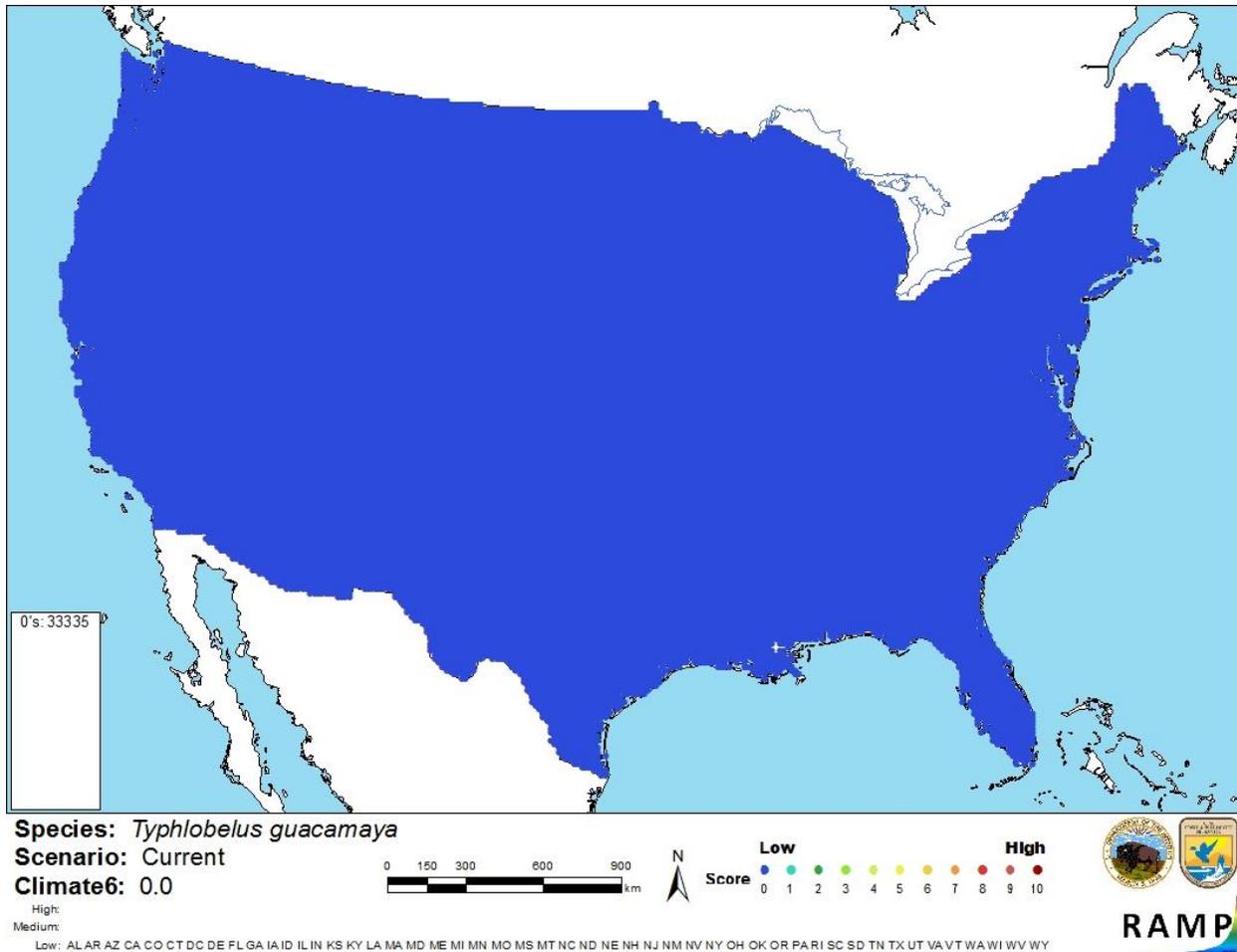
## 6 Climate Matching

### Summary of Climate Matching Analysis

The climate match for *Typhlobelus guacamaya* (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was low throughout the entire contiguous United States. The Climate 6 score for the contiguous United States was 0.000, low (scores between 0.000 and 0.005, inclusive, are classified as low). All States had low individual Climate 6 scores.



**Figure 2.** RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; Venezuela) and non-source locations (gray) for *Typhlobelus guacamaya* climate matching. Source locations from VertNet (2018). 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. 2014) climate matches for *Typhlobelus guacamaya* in the contiguous United States based on source locations reported in VertNet (2018). 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
$\geq 0.103$	High

## 7 Certainty of Assessment

There is very little information available for the biology and ecology of *Typhlobelus guacamaya*. Most information available comes from the paper that first described the species in 2005. There are no records showing introductions of this species outside of its native range. Due to lack of information, the certainty of this assessment is low.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Typhlobelus guacamaya* is native to South America and was found in the Rio Cuao drainage basin in Venezuela. Fish belonging to the genus *Typhlobelus* are general psammophilic (loose sand) in preference for habitat. Due to its recent discovery in 2005, there is no information or documentation on introductions outside of its native range; therefore, the history of invasiveness is uncertain for this species. *T. guacamaya* has a low climate match within the United States. Due to lack of information, the certainty of assessment is low. The overall risk assessment category for this species 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:** No additional remarks.
- **Overall Risk Assessment Category: Uncertain**

## 9 References

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**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=68889>. (June 2018).

Froese, R., and D. Pauly, editors. 2016. *Typhlobelus guacamaya* Schaefer, Provenzano, de Pinna & Baskin, 2005. FishBase. Available: <http://www.fishbase.org/summary/62631>. (June 2018).

ITIS (Integrated Taxonomic Information System). 2016. *Typhlobelus* (Myers, 1944). Integrated Taxonomic Information System, Reston, Virginia. Available: [https://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=639086#null](https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=639086#null). (December 2016).

OIE (World Organisation for Animal Health). 2019. OIE-listed diseases, infections and infestations in force in 2019. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2019/>. (August 2019).

Sanders, S., C. Castiglione, and M. Hoff. 2014. Risk Assessment Mapping Program: RAMP, version 2.81. U.S. Fish and Wildlife Service.

Schaefer, S. A., F. Provenzano, M. de Pinna, J. N. Baskin. 2005. New and noteworthy Venezuelan Glanapterygine catfishes (Siluriformes, Trichomycteridae), with discussion of their biogeography and psammophily. *American Museum Novitates* 2496:1–27.

VertNet. 2018. VertNet. Available: <http://portal.vertnet.org/search?q=Typhlobelus+guacamaya>. (June 2018).

## 10 References Quoted But Not Accessed

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**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.**

Myers, G. S. 1944. Two extraordinary new blind nematognath fishes from the Rio Negro, representing a new subfamily of Pygidiidae, with a rearrangement of the genera of the family and illustrations of some previously described genera and species from Venezuela and Brazil. *Proceedings of the California Academy of Sciences* 23: 591–602. Available: <http://www.biodiversitylibrary.org/part/144563>.