

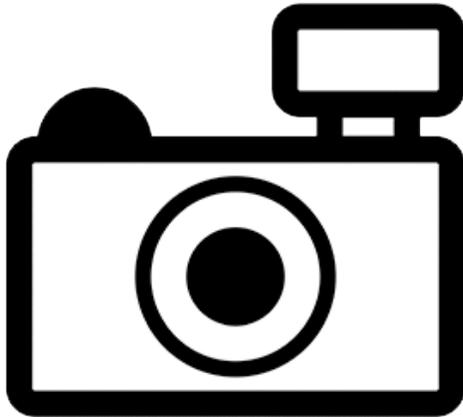
***Hypostomus kopeyaka* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, January 2013

Revised, August 2018

Web Version, 9/13/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Carvalho et al. (2010):

“*Hypostomus kopeyaka* is known only from the rio Tiquié basin, a tributary of the rio Uaupés, upper rio Negro drainage, Brazil [...]. According to Tuyuka fishermen, the species also occurs at the upper rio Tiquié into Departamento Vaupés in Colombia, but no specimens are available from the latter area.”

Status in the United States

No records of *Hypostomus kopeyaka* in trade or in the wild in the United States were found.

Means of Introductions in the United States

No records of *Hypostomus kopeyaka* in the wild in the United States were found.

Remarks

This fish was first described to science in 2010 (Carvalho et al. 2010).

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2018), *Hypostomus kopeyaka* Carvalho, Lima, and Zawadzki 2010 is the original and current valid name.

From Bailly (2017):

“Biota Animalia (Kingdom) > Chordata (Phylum) > Vertebrata (Subphylum) > Gnathostomata (Superclass) > Pisces (Superclass) > Actinopterygii (Class) > Siluriformes (Order) > Loricariidae (Family) > Hypostominae (Subfamily) > *Hypostomus* (Genus) > *Hypostomus kopeyaka* (Species)”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 22.6 cm SL male/unsexed; [Carvalho et al. 2010]”

Environment

From Froese and Pauly (2018):

“Freshwater; demersal.”

Climate/Range

From Froese and Pauly (2018):

“Tropical; 1°N - 0°N, 69°W - 70°W”

Distribution Outside the United States

Native

From Carvalho et al. (2010):

“*Hypostomus kopeyaka* is known only from the rio Tiquié basin, a tributary of the rio Uaupés, upper rio Negro drainage, Brazil [...]. According to Tuyuka fishermen, the species also occurs at the upper rio Tiquié into Departamento Vaupés in Colombia, but no specimens are available from the latter area.”

Introduced

No records of introduction were found for *Hypostomus kopeyaka*.

Means of Introduction Outside the United States

No records of introduction were found for *Hypostomus kopeyaka*.

Short Description

From Carvalho et al. (2010):

“Dorsal profile slightly convex to straight from snout tip to interorbital area, convex from interorbital area to dorsal-fin origin, and almost straight from dorsal-fin origin to end of adipose fin. Ventral profile almost straight from snout tip to caudal fin. Caudal peduncle laterally compressed, roughly ovoid in cross section. Body width at cleithral region greater than head depth. Head broad and deep, covered dorsally with plates, except for naked area on snout tip. Median elongated bulge associated with mesethmoid terminating coequally with transversal through nares. Supraoccipital bone with conspicuous moderately to highly developed median ridge, and with relatively well-developed posterior process bordered by wide nuchal plate. A conspicuous ridge originating laterally to the nares, passing through supraorbital, and extending to posterior portion of pterotic-supracleithrum. Opercle small, with odontodes more developed distally. Oral disk round, medium-sized, lower lip not reaching transversal through gill openings, ventral surface covered with numerous small papillae decreasing in size posteriorly. Maxillary barbels moderately developed, about as long as orbital diameter. Horizontal patch of odontodes present over anterior surface of upper lip, just below the snout. Buccal papilla well-developed, its tip usually with granular surface. Jaws acutely angled, averaging less than 80° between left and right dentaries rami. Eight to 16 [...] teeth in premaxilla, seven to 14 [...] in dentary. Teeth bicuspid, curved inward distally, mesial cusp considerably larger than lateral cusp, rounded in shape [...].

Body covered with five rows of moderately spinulose dermal plates. Tip of snout mostly naked even in large specimens, bearing two lateral vertical patches of odontodes. Dorsal-fin base naked. Predorsal region with two conspicuous keels, area between keels flat. Dorsal series of lateral plates with keel from first to third plate, displaced downward from fourth plate onwards, and extending to sixteenth to eighteenth dorsal plate. Mid-dorsal series of lateral plates with keel from first to third plate, slightly displaced downward from fourth plate onwards, and extending to 24th to 27th mid-dorsal plate. Median series of plates with moderately-developed keel and bearing lateral line. Mid-ventral series of plates with keel more developed from the first to the fifth or sixth plate. Ventral series of plates with weakly-developed keel along corner of ventral and lateral surfaces, deflecting laterally in the latter 5 to 6 plates. Ventral surface of head covered with platelets, with exception to the region around lower lip. Abdomen completely covered with minute platelets in specimens larger than 150 mm SL, with exception of small areas around pectoral and pelvic-fin insertions and at urogenital opening. Preanal plate present, [...]. Twenty-four to 25 [...] dorsal plates, 26 to 29 [...] mid-dorsal plates, 27 to 28 [...] median plates, 28 to 29 [...] mid-ventral plates, 22 to 24 [...] ventral plates. Three predorsal plates, eight to nine plates below dorsal fin [...], seven to eight preadipose plates [...], seven to eight plates between adipose fin and caudal fin [...], 14 to 15 plates between anal fin and caudal fin [...].

Dorsal-fin II,7, its origin at vertical through midpoint between pectoral and pelvic fins, or slightly posterior to that point. Dorsal-fin margin convex. Adipose-fin spine compressed and curved inward. Pectoral fin I,6, its posterior border straight. Pectoral-fin spine slightly curved

inward, covered with weakly developed odontodes, a little more developed on its distal portion in larger specimens. Tip of adpressed pectoral fin reaching one-third pelvic-fin spine length. Pelvic-fin i,5, its posterior border straight to slightly roundish. Pelvic-fin spine just surpassing anal-fin origin when adpressed. Anal fin i,4, its tip reaching the sixth or seventh plate after its origin. Rays of anal fin progressively increasing in size, third branched ray usually the longer. Caudal-fin margin concave, i,14,i, with inferior lobe longer than superior one.”

Biology

From Carvalho et al. (2010):

“*Hypostomus kopeyaka* was collected in rapids, cataract pools, and slow-flowing portions of the rio Tiquié and some large tributaries (igarapé Umari Norte, and igarapé Castanha). No clear habitat preference was identified, though most specimens were collected in relatively slow flowing portions of the rio Tiquié itself or at its large whitewater tributary, the igarapé Castanha.”

Human Uses

No information on human uses of *Hypostomus kopeyaka* was found.

Diseases

No records of diseases were found for *Hypostomus kopeyaka*.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of introduction were found for *Hypostomus kopeyaka*, therefore there is no information on impacts of introduction.

4 Global Distribution

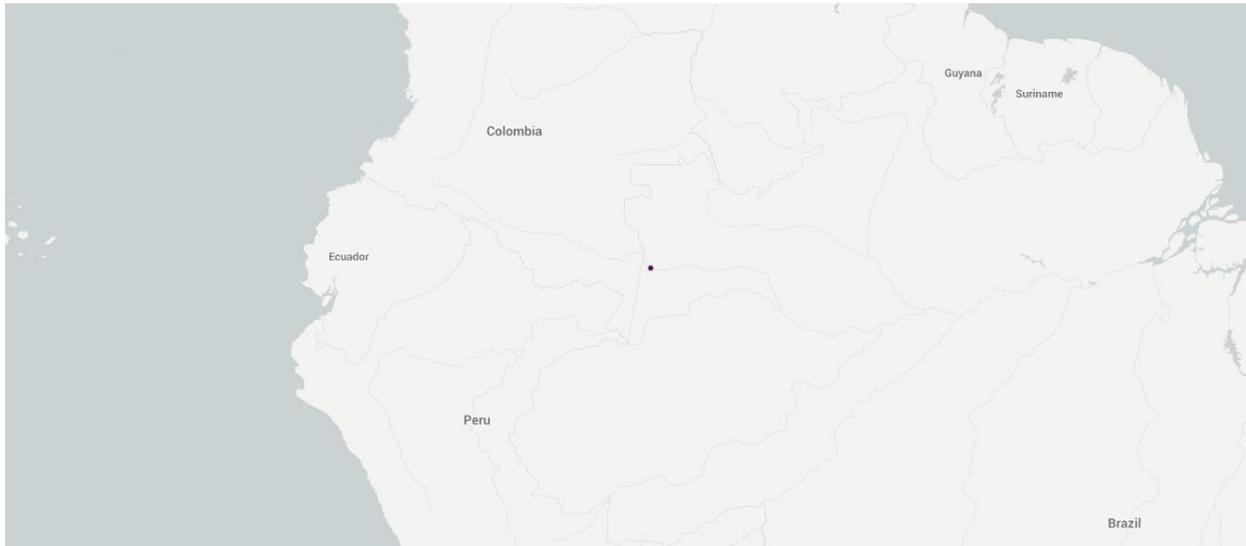


Figure 1. Known global distribution of *Hypostomus kopeyaka*. Location is in northwestern Brazil. Map from GBIF Secretariat (2018).

5 Distribution Within the United States

No records of *Hypostomus kopeyaka* in the wild in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Hypostomus kopeyaka* 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. The range for a low climate score is from 0.0 to 0.005, inclusive. All states had low individual climate scores.

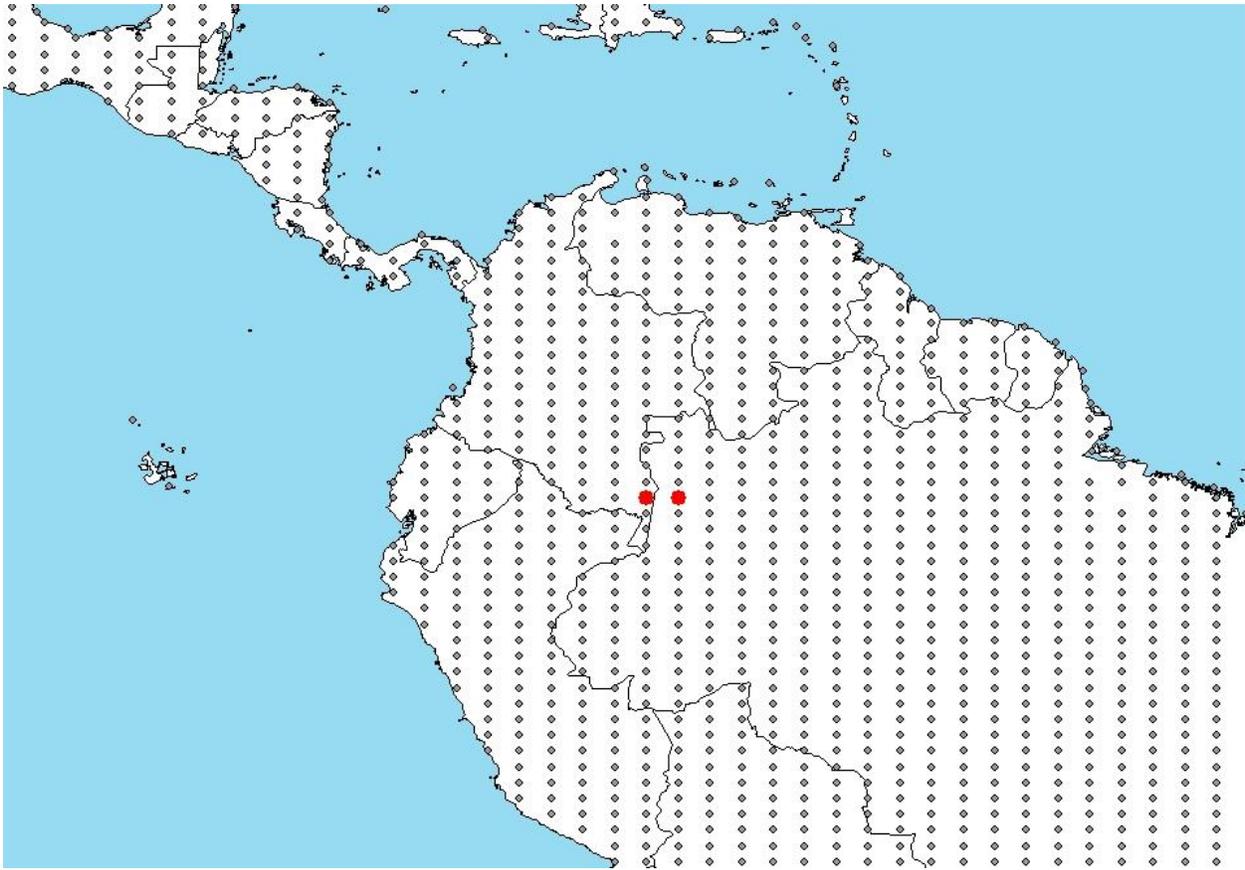


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations selected as source locations (red; Colombia, Brazil) and non-source locations (gray) for *Hypostomus kopeyaka* climate matching. Source locations from GBIF Secretariat (2018).

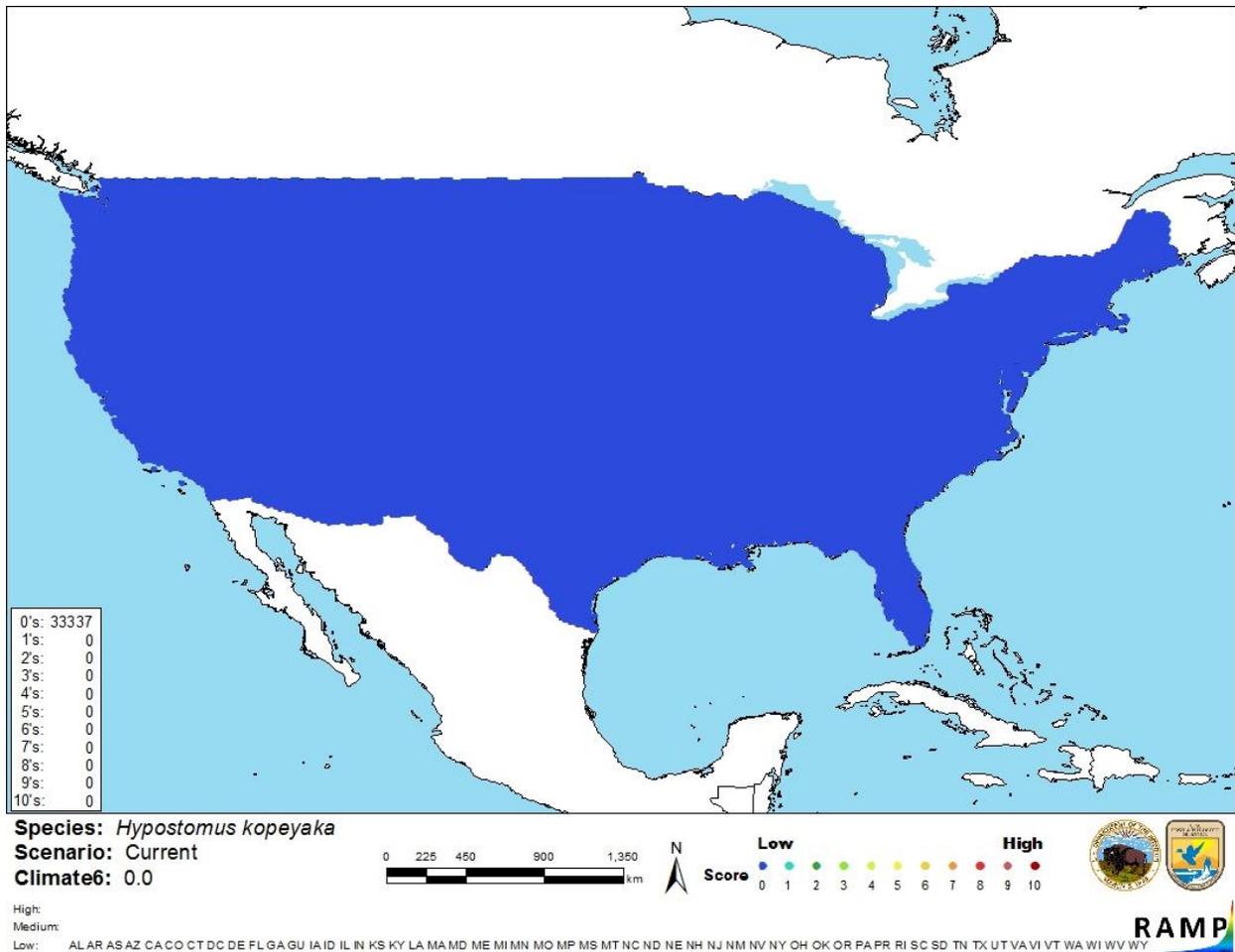


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Hypostomus kopeyaka* in the contiguous United States based on source location reported by GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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
$0.000 \leq X < 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

The certainty of assessment is low. This fish was first described to science in 2010. There was minimal biological information available for this species and only one georeferenced location available for climate matching. There were no records of introductions found, so impacts of introduction are unknown.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Hypostomus kopeyaka is a member of the suckermouth armored catfish family (Loricariidae), native to South America. This fish was first described to science in 2010. Little information is available about the species. The history of invasiveness is uncertain. No records of introductions were found. The climate match was low for the contiguous United States. Only one georeferenced location was available to use as a source point in the climate match, contributing to uncertainty. The certainty of assessment is low; 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:** This fish was first described to science in 2010.
- **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.

- Bailly, N. 2017. *Hypostomus kopeyaka*. World Register of Marine Species. Available: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=1008107>. (August 2018).
- Carvalho, P. H., F. C. T. Lima, and C. H. Zawadzki. 2010. Two new species of the *Hypostomus cochliodon* group (Siluriformes: Loricariidae) from the rio Negro basin in Brazil. *Neotropical Ichthyology* 8(1):39–48.
- 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/fishcatmain.asp>. (August 2018).
- Froese, R., and D. Pauly, editors. 2018. *Hypostomus kopeyaka* Carvalho, Lima & Zawadzki, 2010. Available: <https://www.fishbase.de/summary/Hypostomus-kopeyaka.html>. (August 2018).
- GBIF Secretariat. 2018. GBIF backbone taxonomy: *Hypostomus kopeyaka* Carvalho, Lima & Zawadzki, 2010. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5961517>. (August 2018).

Sanders, S., C. Castiglione, and M. 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.

No references in this section.