U.S. Fish & Wildlife Service

Blue Canero (*Cetopsis coecutiens*)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, March 2014
Revised, December 2015, February 2017, April 2017
Web Version, 6/13/2018

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1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2014):

"South America: Amazon, Tocantins, and Orinoco River basins."

From Vari et al. (2005):

"*Cetopsis coecutiens* is broadly distributed through the Amazon basin in Bolivia, Brazil, Colombia, Peru, and Venezuela, and also inhabits the rio Tocantins basin in Brazil, and the río Orinoco basin in Colombia and Venezuela"

Status in the United States

No records of *Cetopsis coecutiens* in the United States were found.

Means of Introductions in the United States

No records of *Cetopsis coecutiens* in the United States were found.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2017), *Cetopsis coecutiens* (Lichtenstein 1819) is the valid name for this species. *Cetopsis coecutiens* was originally described as *Silurus coecutiens* Lichtenstein 1819.

From ITIS (2014):

"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 Cetopsidae
Subfamily Cetopsinae
Genus *Cetopsis* Agassiz in Spix and Agassiz, 1829
Species *Cetopsis coecutiens* (Lichtenstein, 1819)"

Size, Weight, and Age Range

From Froese and Pauly (2014):

"Max length: 26.5 cm SL male/unsexed; [Vari and Ferraris 2003]"

Environment

From Froese and Pauly (2014):

"Freshwater; benthopelagic. […]; 22°C - 28°C [assumed to be recommended aquarium temperature] [Baensch and Riehl 1995]"

Climate/Range

From Froese and Pauly (2014):

"Tropical; […]"

Distribution Outside the United States

Native

From Froese and Pauly (2014):

"South America: Amazon, Tocantins, and Orinoco River basins."

Introduced

No records of *Cetopsis coecutiens* introductions were found.

Means of Introduction Outside the United States

No records of *Cetopsis coecutiens* introductions were found.

Short Description

From Vari et al. (2005):

"Body relatively stout, slightly-compressed anteriorly, becoming increasingly compressed posteriorly. Body depth at dorsal-fin origin approximately 0.23-0.27 of SL, and approximately equal to HL. Lateral line on body complete, unbranched, and midlateral; […]. […] Caudal-peduncle depth approximately equal to caudal-peduncle length."

"Head triangular overall in lateral view and tapering to blunt point anteriorly. […] Snout obtusely pointed in dorsal view, […]."

"Eye situated on lateral surface of head; […] eye visible in dorsal view, but not in ventral view, of head."

"Mouth distinctly inferior; its width approximately equal to distance from tip of snout to posterior margin of orbit. Margin of lower jaw distinctly truncate, its posterior limit reaching to

vertical through anterior margin of orbit. […] Premaxillary teeth relatively small, conical, sharply-pointed, and arranged in three irregular rows. Vomerine teeth very large, bluntly conical, and arranged in single, slightly-arched, transverse row. Dentary with single row of large, conical teeth approximately equal in number to, but 1.5 to 2.0 times size of, vomerine teeth."

"Maxillary barbel very slender and short, its length approximately equal to distance from tip of snout to posterior margin of orbit; barbel origin located slightly anterior of vertical through anterior margin of orbit. Mental barbels approximately equal in size and length to maxillary barbel and to each other. […] Tips of adpressed mental barbels falling distinctly short of posterior margin of opercle."

"Dorsal fin relatively large overall […] Dorsal-fin spinelet absent. First dorsal-fin ray not spinous, but with distal filament becoming progressively longer ontogenetically in both sexes; filament very well developed in largest specimens. Distal margin of dorsal fin slightly concave, with first ray longest. Dorsal-fin origin located at anterior one-third of SL […] Posterior most dorsal-fin ray without posterior, membranous attachment to body."

"Caudal fin deeply-forked, symmetrical; tips of lobes acutely pointed. Length of longest caudal-fin ray approximately two times length of middle fin rays."

"Base of anal fin comparatively short, approximately one-fourth of SL. Anal-fin origin located posterior of middle of TL. Anal-fin margin straight in females and immature males, with posterior most unbranched ray longest and lengths of subsequent rays becoming gradually shorter. Anal-fin margin in mature males slightly convex along anterior three-fourths of fin and then slightly concave along posterior five or six rays thereby giving appearance of slight lobe in anterior portion of fin. Posterior most anal-fin ray without posterior, membranous attachment to body."

"Pelvic fin short, truncate, with distal margin nearly straight and first ray longest. […] Medial most pelvic-fin ray with membranous attachment to body for basal one-half of its length."

"Pectoral-fin margin concave anteriorly and convex along posterior four rays. First pectoral-fin ray not spinous, but with distal filament; filament proportionally much longer in larger specimens."

"Head in medium to larger-sized specimens dusky dorsally with darker pigmentation becoming progressively diffuse ventrally. Smaller specimens with indistinct dusky band extending across interorbital region and with snout very pale. Body dusky dorsally, lighter ventrally, with relatively distinct ventral limit to field of dusky body pigmentation."

"Dorsal fin with dark pigmentation present on interradial membrane between first and second branched rays and with remainder of fin pale. Pectoral fin pale other than for dark pigmentation on interradial membrane between first and second rays. Pattern of darker pigmentation on dorsal and pectoral fins more pronounced in larger specimens. Caudal, anal, and pelvic fins without pronounced dark pigmentation."

Biology

From Lundberg and Py-Daniel (1994):

"These two species [*C. coecutiens* and *H. candiru*] often attack gillnetted fishes and carrion in swiftly moving surface waters."

Human Uses

No information on human uses of *Cetopsis coecutiens* was found.

Diseases

No records of OIE reportable diseases were found.

From Scholz et al. (2011):

"[…] *Brooksieila praeputialis* (Rego, Santos, and Silva, 1974), a parasite of *Cetopsis coecutiens* (Siluriformes: Cetopsidae) in the Neotropical Region, by de Chambrier, Rego, and Mariaux (2004)."

Threat to Humans

From Froese and Pauly (2014):

"Harmless"

From Vari et al. (2005):

"*Cetopsis candiru* and *C. coecutiens*, which achieve the largest body sizes within the Cetopsinae, are notorious for their voracious feeding habits; attacking not only carrion, but also live fishes in gill-nets (Barthem & Goulding, 1997: 44), and on occasion humans (Goulding, 1989: 185)."

3 Impacts of Introductions

No records of *Cetopsis coecutiens* introductions were found.

4 Global Distribution

Figure 1. Known distribution of *Cetopsis coecutiens* in South America. Map from GBIF Secretariat (2014).

The location given in the ocean east of Brazil (Figure 1) is the result of recorded coordinate issues with a specimen collected from Brazil (GBIF Secretariat 2014). That point was not used as a source point for the climate match.

5 Distribution Within the United States

No records of *Cetopsis coecutiens* in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Cetopsis coecutiens* was high in Florida, medium for some areas of the Gulf Coast, and low everywhere else. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.008, medium. Florida had a high individual climate score.

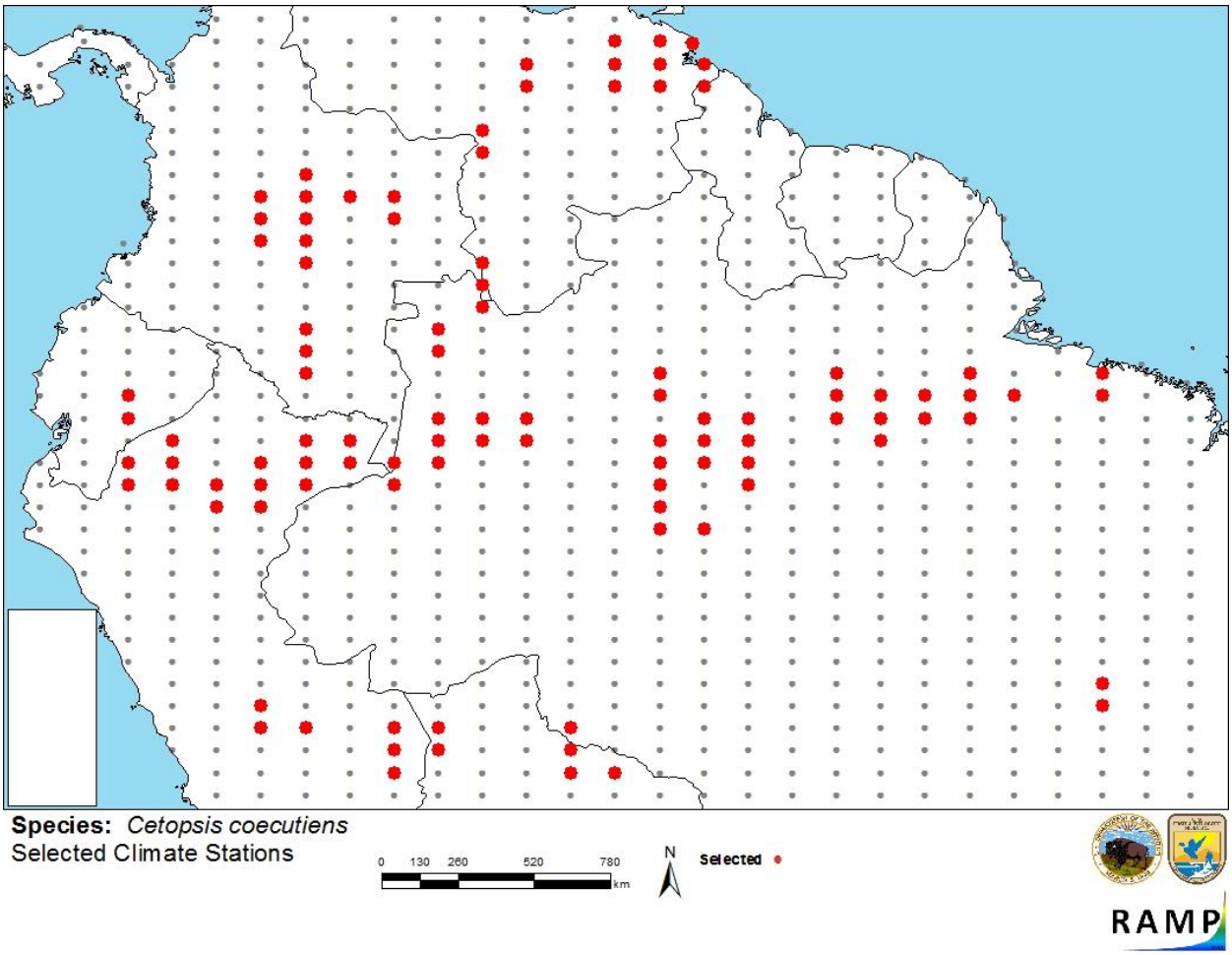

Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected in northern South America as source locations (red) and non-source locations (grey) for *Cetopsis coecutiens* climate matching. Source locations from GBIF Secretariat (2014).

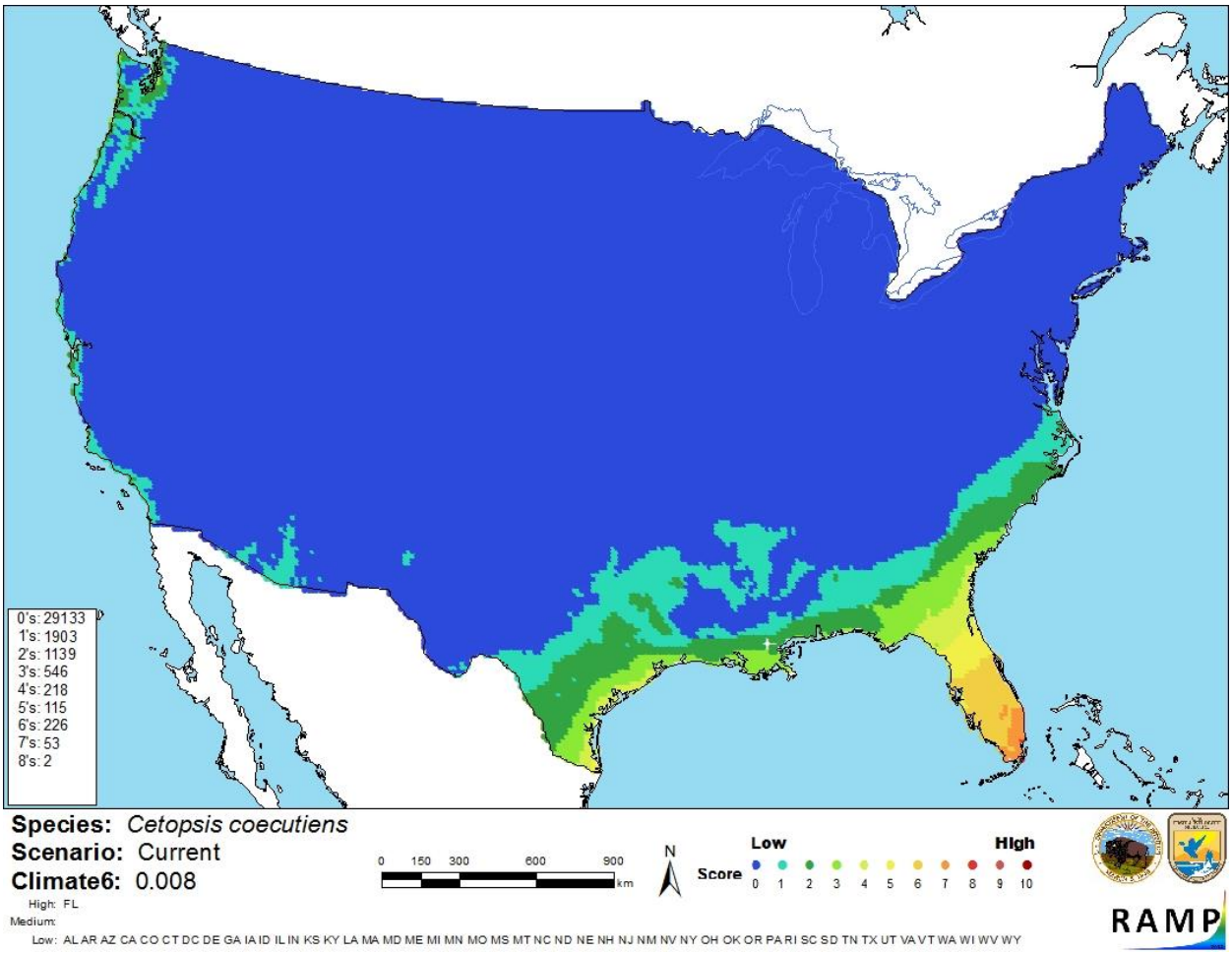

Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Cetopsis coecutiens* in the contiguous United States based on source locations reported by GBIF Secretariat (2014). 0 = Lowest match, 10 = Highest match. Counts of climate match scores are tabulated on the bottom left side of the map.

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 medium. Minimal information was available for *Cetopsis coecutiens*. There were no records of introduction found and no other information that would make a determination on the invasiveness of these species possible.

8 Risk Assessment

Summary of Risk to the Contiguous United States

The history of invasiveness is uncertain. No records of introductions were found but there was also not much information available relating to *Cetopsis coecutiens*' potential presence in trade. The climate match is medium with a high match for Florida. The certainty of assessment is medium. There were significant gaps in the information available. The overall risk assessment category is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Medium**
- **Certainty of Assessment (Sec. 7): Medium**
- **Remarks/Important additional information** No additional remarks.
- **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.

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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.

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