

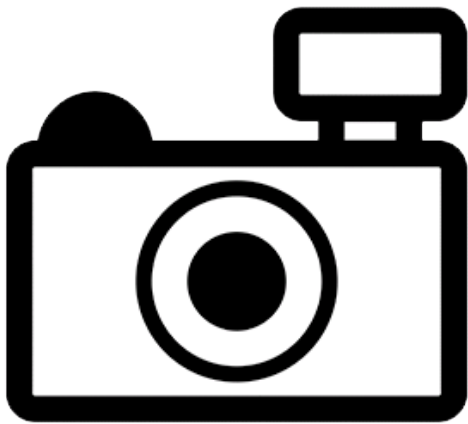
***Acanthogobius luridus* (a goby, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, April 2014

Revised, January 2018

Web Version, 5/23/2018



No Photo Available

1 Native Range, and Status in the United States

Native Range

From Froese and Pauly (2017):

“Northwest Pacific: Korean and Chinese coasts of Bohai Sea, Yellow Sea and East China Sea.”

Status in the United States

This species has not been reported in the United States. There is no indication that this species is in trade in the United States.

Means of Introductions in the United States

This species has not been reported in the United States.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2018):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Osteichthyes
Class Actinopterygii
Subclass Neopterygii
Infraclass Teleostei
Superorder Acanthopterygii
Order Perciformes
Suborder Gobioidi
Family *Gobiidae*
Genus *Acanthogobius*
Species *Acanthogobius luridus* Ni and Wu, 1985”

“Taxonomic Status: valid”

Size, Weight, and Age Range

From Froese and Pauly (2017):

“Max length : 6.0 cm TL male/unsexed; [Kim 1997]”

Environment

From Froese and Pauly (2017):

“Marine; freshwater; brackish; demersal; amphidromous [McDowall 1997].”

Climate/Range

From Froese and Pauly (2017):

“Subtropical”

Distribution Outside the United States

Native

From Froese and Pauly (2017):

“Northwest Pacific: Korean and Chinese coasts of Bohai Sea, Yellow Sea and East China Sea.”

Introduced

No introductions of this species have been reported.

Means of Introduction Outside the United States

No introductions of this species have been reported.

Short Description

No information reported for this species.

Biology

No information reported for this species.

Human Uses

No information reported for this species.

Diseases

No information available. No OIE reportable diseases have been documented for this species.

Threat to Humans

From Froese and Pauly (2017):

“Harmless”

3 Impacts of Introductions

No introductions of this species have been reported. Data on the impacts of introductions are lacking.

4 Global Distribution

Note: Occurrence data obtained from GBIF Secretariat (2017) is not georeferenced and therefore points cannot be accurately represented on a map.

According to GBIF Secretariat (2017), two occurrences of *A. luridus* are documented in South Korea in “Kyonggi-do, Hwasong-gun, Pansong-ri, Namyang River” and “Ch'ungch'ongnam-do, Tangjin-gun.” There are two occurrences documented in Shanghai, China, according to GBIF Secretariat (2017).

No precise occurrences were reported for the coast of the Bohai Sea, China, where Froese and Pauly (2017) report that the species is established.

5 Distribution Within the United States

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 (Sanders et al. 2014; 16 climate variables; Euclidean distance) was medium from Texas up through Nebraska and in the Southeast from peninsular Florida along the coast to Maryland and Delaware. Low matches occurred in the western United States, the Great Lake States, the northern Mid-Atlantic region, and New England. The highest match occurred on the Gulf side of the northern peninsula of Florida. The Climate 6 score indicated that the contiguous U.S. has a medium climate match. The range for a medium climate match is between 0.005 and 0.103; the Climate 6 score for *Acanthogobius luridus* is 0.020.

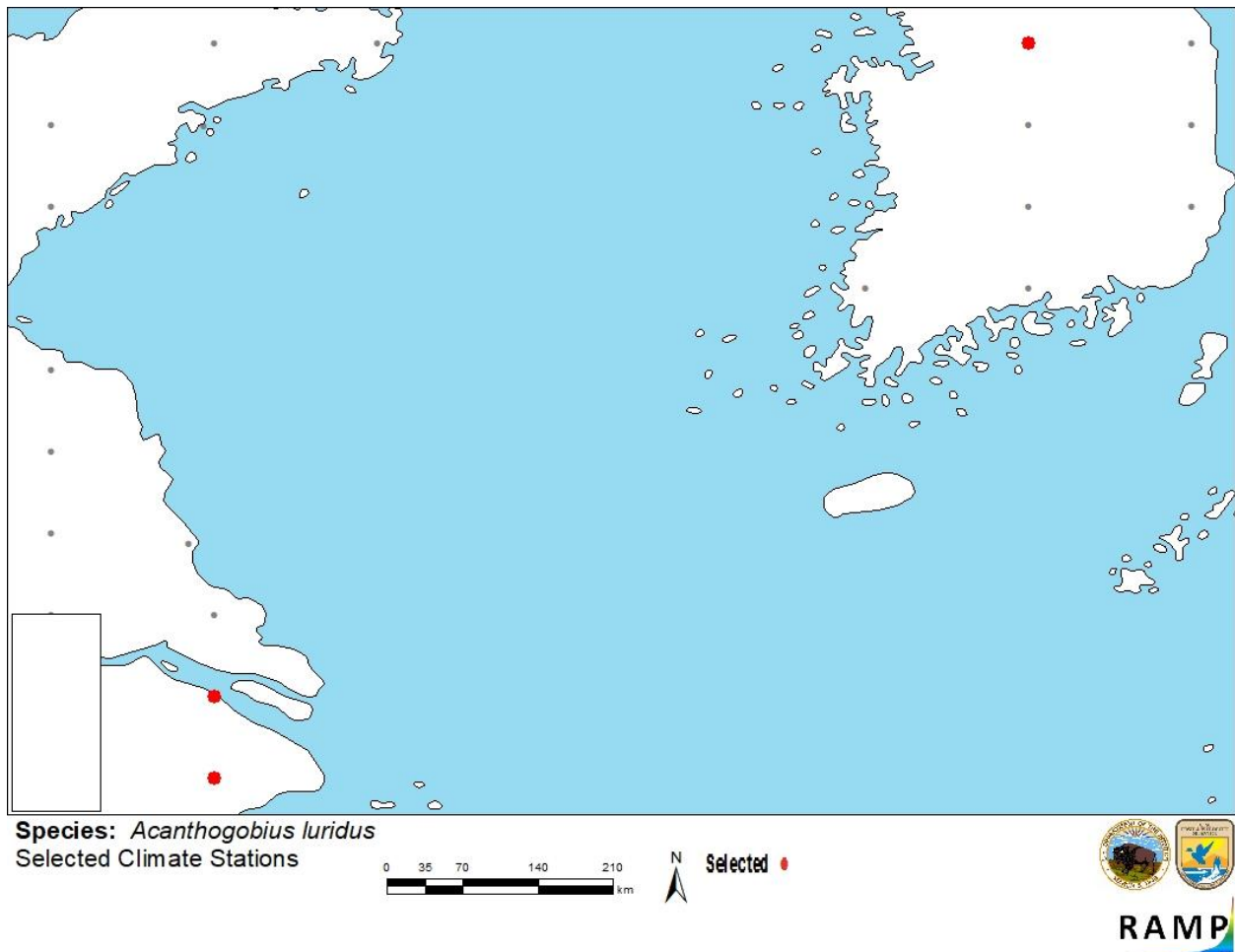


Figure 1. RAMP (Sanders et al. 2014) source map showing weather stations in South Korea and eastern China (near Shanghai) selected as source locations (red) and non-source locations (gray) for *Acanthogobius luridus* climate matching. Source locations approximated from occurrences verbally described by GBIF Secretariat (2017).

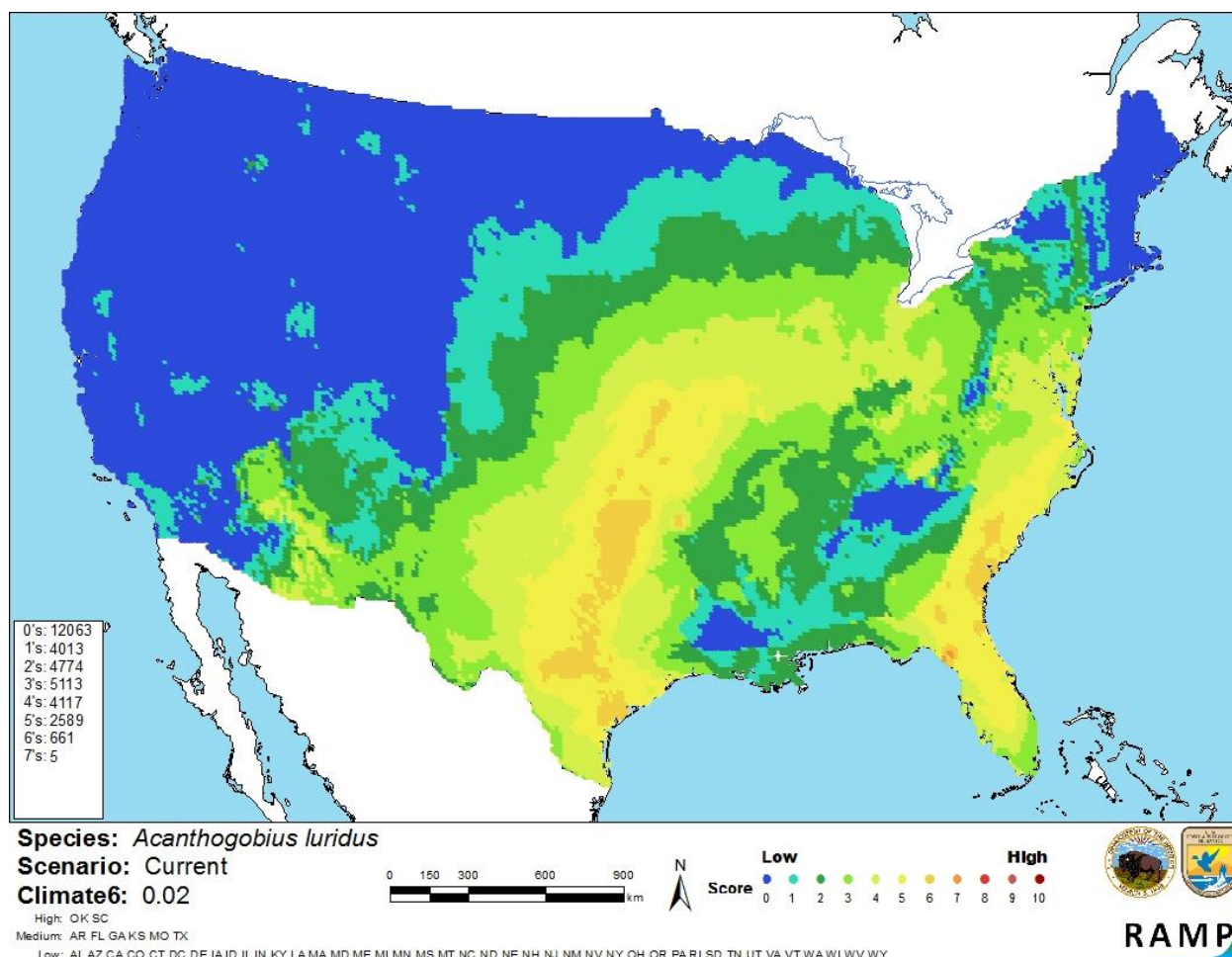


Figure 2. Map of RAMP (Sanders et al. 2014) climate matches for *Acanthogobius luridus* in the contiguous United States based on source locations approximated from occurrences verbally described by GBIF Secretariat (2017). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated 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

Information on the biology and distribution of *Acanthogobius luridus* is not widely available. No georeferenced occurrences were available for climate matching; source locations for climate matching had to be approximated from verbal descriptions of collections. No introductions of this species have been reported. Therefore, there is no information on the impacts of introductions. Absence of this information makes the certainty of this assessment low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Acanthogobius luridus is a fish native to China and South Korea. It has not been reported as introduced outside of its natural range. Data on impacts of introductions are lacking. Absence of this information makes the certainty of this assessment low. The climate match with the contiguous United States is medium. However, source locations for climate matching were approximated from occurrences verbally described by GBIF Secretariat (2017) because no georeferenced occurrences were available. Therefore, the climate match is an approximation. Overall risk posed by this species is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Medium**
- **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.

Froese, R. and D. Pauly, editors. 2017. FishBase. Available:

<http://www.fishbase.us/summary/Acanthogobius-luridus.html> (January 2018).

GBIF Secretariat. 2017. GBIF backbone taxonomy: *Acanthogobius luridus* (Ni and Wu 1985).

Global Biodiversity Information Facility, Copenhagen. Available:

<https://www.gbif.org/species/2375970> (January 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Acanthogobius luridus* (Ni and Wu 1985). Integrated Taxonomic Information System. Available:

https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=636888#null (January 2018).

Sanders, S., C. Castiglione, and M. H. Hoff. 2014. Risk Assessment Mapping Program: RAMP. 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.

Kim, I. S. 1997. Illustrated encyclopedia of fauna and flora of Korea. Vol. 37. Freshwater fishes. Ministry of Education, Seoul, Korea.

McDowall, R. M. 1997. The evolution of diadromy in fishes (revisited) and its place in phylogenetic analysis. *Reviews in Fish Biology and Fisheries* 7(4):443-462.