

***Obesogammarus olvianus* (an amphipod, no common name)**

Ecological Risk Screening Summary

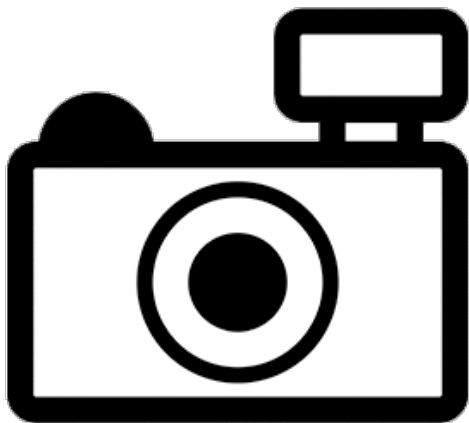
U.S. Fish & Wildlife Service, January 2022

Revised, February 2022

Web Version, 12/7/2022

Organism Type: Crustacean

Overall Risk Assessment Category: Uncertain



No Photo Available

1 Native Range and Status in the United States

Native Range

According to Konopacka et al. (2014), *Obesogammarus olvianus* is known from the Dniester River outside of Moldova.

Copilaş-Ciocianu and Sidorov (2022) list *O. olvianus* as native to the Caspian and Ponto-Azov basins.

Status in the United States

No records of *Obesogammarus olvianus* in trade or in the wild in the United States were found.

Means of Introductions in the United States

No records of *Obesogammarus olvianus* in the wild in the United States were found.

Remarks

Additional information for *Obesogammarus olvianus* was found during this assessment in languages other than English. Information searches were conducted using the valid name, *Obesogammarus olvianus*, and the synonyms *Pontogammarus olvianus* and *Gammarus olvianus*.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Horton et al. (2022):

“Animalia (Kingdom) > Arthropoda (Phylum) > Crustacea (Subphylum) > Multicrustacea (Superclass) > Malacostraca (Class) > Eumalacostraca (Subclass) > Peracarida (Superorder) > Amphipoda (Order) > Senticaudata (Suborder) > Gammarida (Infraorder) > Gammaridira (Parvorder) > Gammaroidea (Superfamily) > Pontogammaridae (Family) > *Obesogammarus* (Genus) > *Obesogammarus olvianus* (Species)”

“Status accepted
Rank Species”

Horton et al. (2022) lists *Gammarus olvianus* and *Pontogammarus olvianus* as synonyms of *O. olvianus*.

Size, Weight, and Age Range

No information on size, weight, and age range was found for *Obesogammarus olvianus*.

Environment

According to Horton et al. (2022), *Obesogammarus olvianus* is known from brackish and freshwater.

Copilaș-Ciocianu and Sidorov (2022) list *O. olvianus* as being found in depths from 0.5m to 7m over muddy bottoms.

Climate

No information on climate was found for *Obesogammarus olvianus*.

Distribution Outside the United States

Native

According to Konopacka et al. (2014), *Obesogammarus olvianus* is known from the Dniester River outside of Moldova.

Copilaș-Ciocianu and Sidorov (2022) list *O. olvianus* as native to the Caspian and Ponto-Azov basins.

Introduced

No records of introductions were found for *Obesogammarus olvianus*.

Means of Introduction Outside the United States

No records of introductions were found for *Obesogammarus olvianus*.

Short Description

No information for a short description was found for *Obesogammarus olvianus*.

Biology

No information on biology was found for *Obesogammarus olvianus*.

Human Uses

No information on human uses was found for *Obesogammarus olvianus*.

Diseases

No records of OIE-reportable diseases (OIE 2021) were found for *Obesogammarus olvianus*.

There was no information available on diseases associated with *Obesogammarus olvianus*.

Threat to Humans

No information on any threats to humans was found for *Obesogammarus olvianus*.

3 Impacts of Introductions

No records of *Obesogammarus olvianus* introductions were found; therefore, there is no information on impacts of introductions to evaluate.

4 History of Invasiveness

No records of *Obesogammarus olvianus* introductions were found; therefore, the history of invasiveness is classified as No Known Nonnative Population.

5 Global Distribution

A global distribution map was not available for *Obesogammarus olvianus*. According to Konopacka et al. (2014), *Obesogammarus olvianus* is known from the Dniester River outside of Moldova. The remainder of the Dniester River's flow is in Ukraine.

6 Distribution Within the United States

No records of *Obesogammarus olvianus* in the wild in the United States were found.

7 Climate Matching

Summary of Climate Matching Analysis

Most of the central contiguous United States, Great Lakes, and New England had a medium to high match for *Obesogammarus olivianus*. Areas of high match were found in the western Great Lakes and the southwestern plains. Most of the Pacific Coast and Southeast had a low match. The overall Climate 6 score (Sanders et al. 2021; 16 climate variables; Euclidean distance) for the contiguous United States was 0.497, indicating High Overall Climate Match (scores greater than or equal to 0.103 are classified as High; table 1). Most States had a high individual Climate 6 score. Connecticut, Kentucky, Massachusetts, New Jersey, North Carolina, Oregon, Tennessee, and Washington had medium individual scores. Alabama, Arkansas, California, Delaware, Florida, Georgia, Louisiana, Mississippi, Rhode Island, and South Carolina had low individual scores.



Figure 1. RAMP (Sanders et al. 2021) source map showing weather stations in eastern Europe selected as source locations (red; Ukraine) and non-source locations (gray) for *Obesogammarus olivianus* climate matching. Source locations from Konopacka et al. (2014). Selected source locations represent the verbal description of the species native range as georeferenced observations were not available to use in selecting source points.

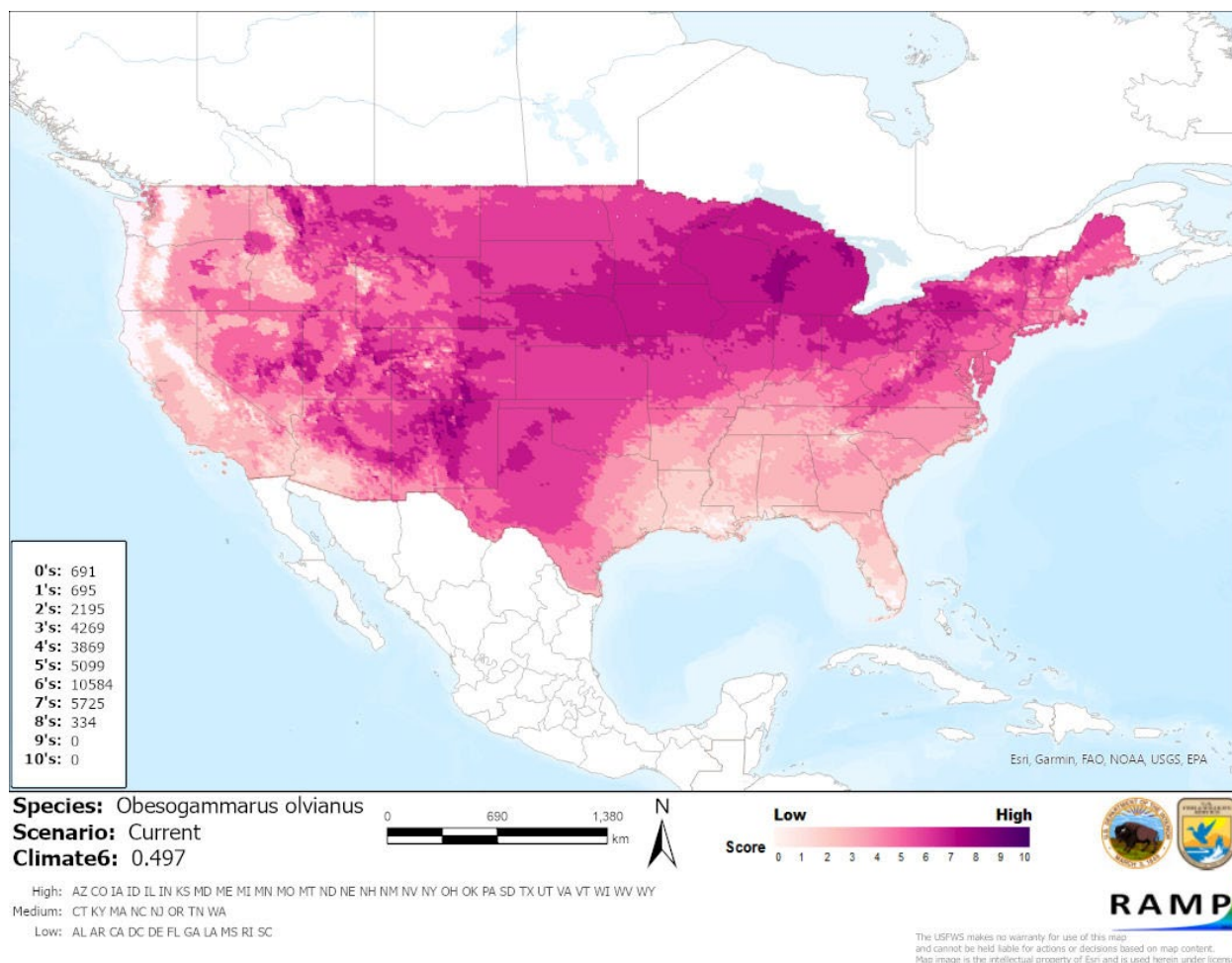


Figure 2. Map of RAMP (Sanders et al. 2021) climate matches for *Obesogammarus olivianus* in the contiguous United States based on source locations reported by Konopacka et al. (2014). Counts of climate match scores are tabulated on the left. 0/Pale Pink = Lowest match, 10/Dark Purple = Highest match.

The High, Medium, and Low Climate match Categories are based on the following table:

| | |
|--|--------------------------------------|
| Climate 6: (Count of target points with climate scores 6-10)/ (Count of all target points) | Overall Climate Match Category |
| $0.000 \leq X \leq 0.005$ | Low |
| $0.005 < X < 0.103$ | Medium |
| ≥ 0.103 | High |

8 Certainty of Assessment

There is almost no information available for *Obesogammarus olivianus*. Information on its biology and ecology could not be found. A single, brief description of the species' presence in one river drainage was the only information available regarding distribution. Due to that, the climate match source points may not represent the entire range of the species and the certainty in

the interpretation of the results is reduced. Additionally, the original description of this species is not in English and was not available during this assessment. Certainty of this assessment is Low.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Obesogammarus olvianus is a species of amphipod known from brackish and freshwater. A single record of the species presence in the Dniester River outside of Moldovan territory is the extent of distribution information that was available. No records of introduction were found. The history of invasiveness is classified as No Known Nonnative Population. The overall climate match was High. There were medium to high matches in the central contiguous United States as well as in the Great Lakes and New England. The climate match was based on a single report of the species presence in a river basin and not georeferenced observations or a full description of the range. This reduces the certainty of the interpretation of the climate match. The certainty of this assessment is Low due to a lack of available information for this species, including its range. The overall risk assessment category is Uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 4): No Known Nonnative Population**
- **Overall Climate Match Category (Sec. 7): High**
- **Certainty of Assessment (Sec. 8): Low**
- **Remarks, Important additional information: Extremely limited information available for this species**
- **Overall Risk Assessment Category: Uncertain**

10 Literature Cited

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 11.

Copilaş-Ciocianu D, Sidorov D. 2022. Taxonomic, ecological and morphological diversity of Ponto-Caspian gammaroidean amphipods: a review. *Organisms Diversity & Evolution* 22:285–315. Doi: 10.1007/s13127-021-00536-6.

Horton T, Lowry J, De Broyer C, Bellan-Santini D, Coleman CO, Corbari L, Costello MJ, Daneliya M, Dauvin J-C, Fišer C, Gasca R, Grabowski M, Guerra-García JM, Hendrycks E, Hugues L, Jaume D, Jazdzewski K, Kim Y-H, King R, Krapp-Schickel T, LeCroy S, Lörz A-N, Mamos T, Senna AR, Serejo C, Sket B, Souza-Filho JF, Tandberg AH, Thomas JD, Thurston M, Vader W, Väinölä R, Vonk R, White K, Zeidler W. 2022. *Obesogammarus olvianus* (Sowinsky, 1904). World Register of Marine Species. Available: <https://www.marinespecies.org/aphia.php?p=taxdetails&id=1613879> (December 2022).

Konopacka A, Hupało K, Rewicz T, Grabowski M. 2014. Species inventory and distribution patterns of freshwater amphipods in Moldova. *North-western Journal of Zoology* 10(2):382–392.

[OIE] World Organisation for Animal Health. 2021. Animal diseases. Available: <https://www.oie.int/en/what-we-do/animal-health-and-welfare/animal-diseases/> (May 2021).

11 Literature Cited in Quoted Material

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.

Sowinsky VK. 1904. Introduction a l'étude de la faune du bassin marin Ponto-Aralo-Kaspien sous le point de vue d'une province zoogéographique indépendante. *Mémoires De La Société Des Naturalistes De Kief* 8:1–487.