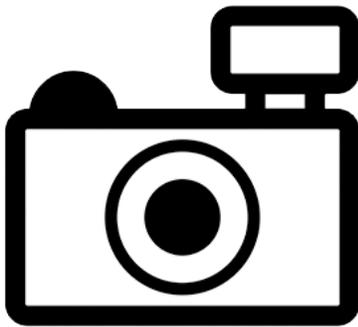


***Cherax gladstonensis* (a crayfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, September 2011
Revised, September 2012, November 2017
Web Version, 5/18/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Fetzner (2017):

“Type Locality
Railway pumping station, Gladstone, Queensland.”

“Australia: Queensland (NE coastal).”

Status in the United States

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

The Florida Fish and Wildlife Conservation Commission has listed the crayfish *Cherax gladstonensis* as a prohibited species. Prohibited nonnative species “are considered to be dangerous to the ecology and/or the health and welfare of the people of Florida. These species are not allowed to be personally possessed or used for commercial activities” (FFWCC 2017).

From Washington Department of Fish & Wildlife (2017):

“(1) Prohibited aquatic animal species. RCW 77.12.020

These species are considered by the commission to have a high risk of becoming an invasive species and may not be possessed, imported, purchased, sold, propagated, transported, or released into state waters except as provided in RCW 77.15.253.”

“[The list of prohibited aquatic animal species includes] Family Parastacidae: Crayfish: All genera except *Engaeus*, and except the species *Cherax quadricarinatus* [sic], *Cherax papuanus*, and *Cherax tenuimanus*.”

Means of Introductions to the United States

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

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From GBIF Secretariat (2017):

| | |
|----------|---|
| “Kingdom | Animalia |
| Phylum | Arthropoda |
| Class | Malacostraca |
| Order | Decapoda |
| Family | Parastacidae |
| Genus | <i>Cherax</i> Erichson, 1846 |
| Species | <i>Cherax gladstonensis</i> Riek, 1969” |

“SPECIES | ACCEPTED”

Size, Weight, and Age Range

No information available.

Environment

From Fetzner (2017):

“[...] freshwater. Ephemeral waters including acidic swamps [...]”

Climate/Range

No information available.

Distribution Outside the United States

Native

From Fetzner (2017):

“Type Locality
Railway pumping station, Gladstone, Queensland.”

“Australia: Queensland (NE coastal).”

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 available.

Biology

From Fetzner (2017):

“Burrowing [...] burrows connected to open water or the water table.”

Human Uses

No information available.

Diseases

No information available.

Threat to Humans

No information available.

3 Impacts of Introductions

No information available. No introductions of this species have been reported.

The Florida Fish and Wildlife Conservation Commission (FFWCC 2017) and the Washington Department of Fish and Wildlife (2017) have listed this species as a prohibited species.

4 Global Distribution



Figure 1. Location of Gladstone, Queensland, the type locality of *Cherax gladstonensis* (Fetzner 2017). No complete range map is available for this species. Map image by NordNordWest. Licensed under Creative Commons BY-SA 3.0 DE. Available: <https://commons.wikimedia.org/w/index.php?curid=8976725>.

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 in peninsular Florida and southern Texas, and low elsewhere in the contiguous U.S. Climate6 score indicated that the contiguous U.S. has a low climate match overall. The range of scores classified as low match is 0.000-0.005; Climate6 score for *Cherax gladstonensis* was 0.004. Because little information is available on the native range of this species, this climate matching analysis provides only a coarse estimate of climate matching to the contiguous U.S.

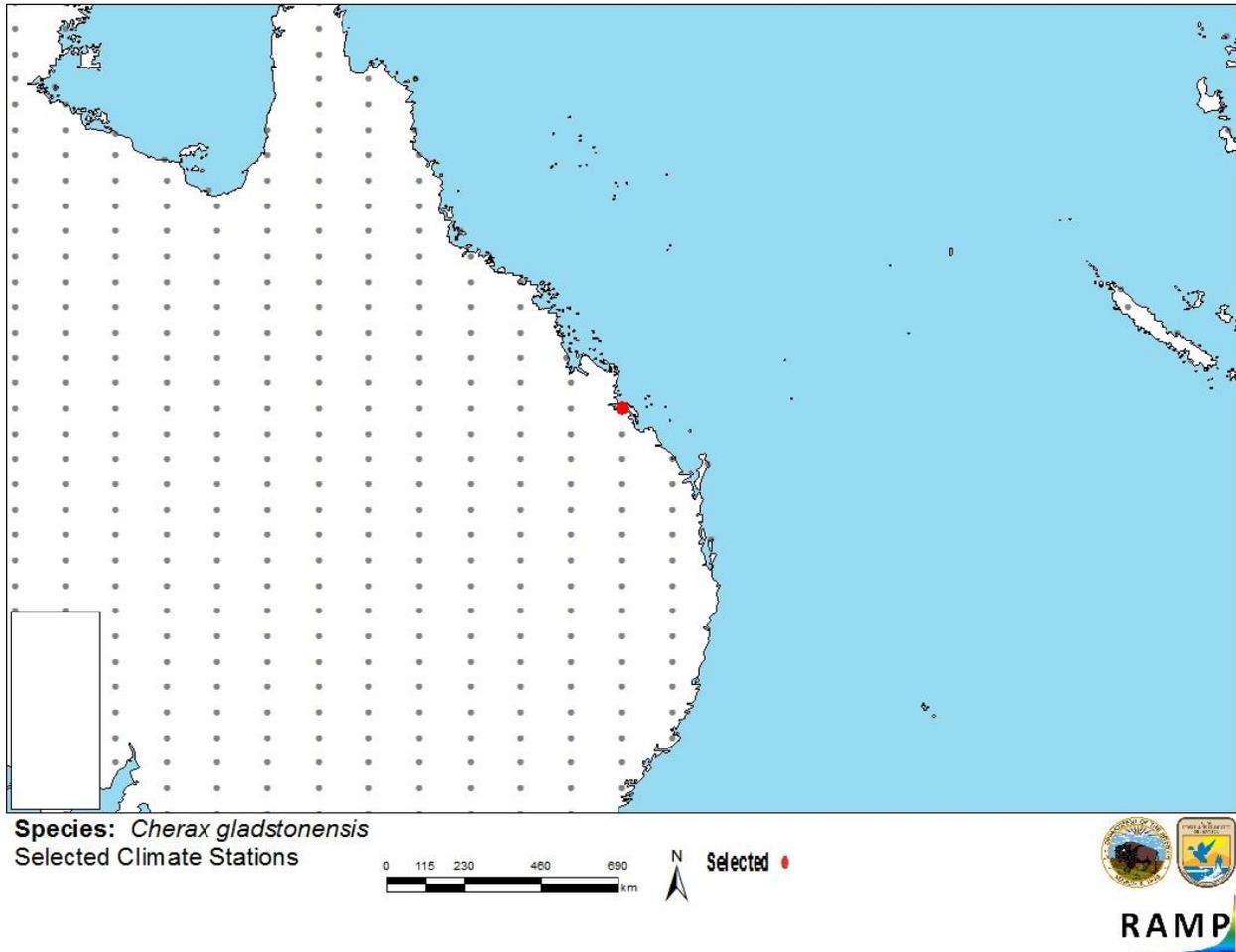


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in Queensland, Australia, selected as source locations (red) and non-source locations (gray) for *Cherax gladstonensis* climate matching. Source location from Fetzner (2017).

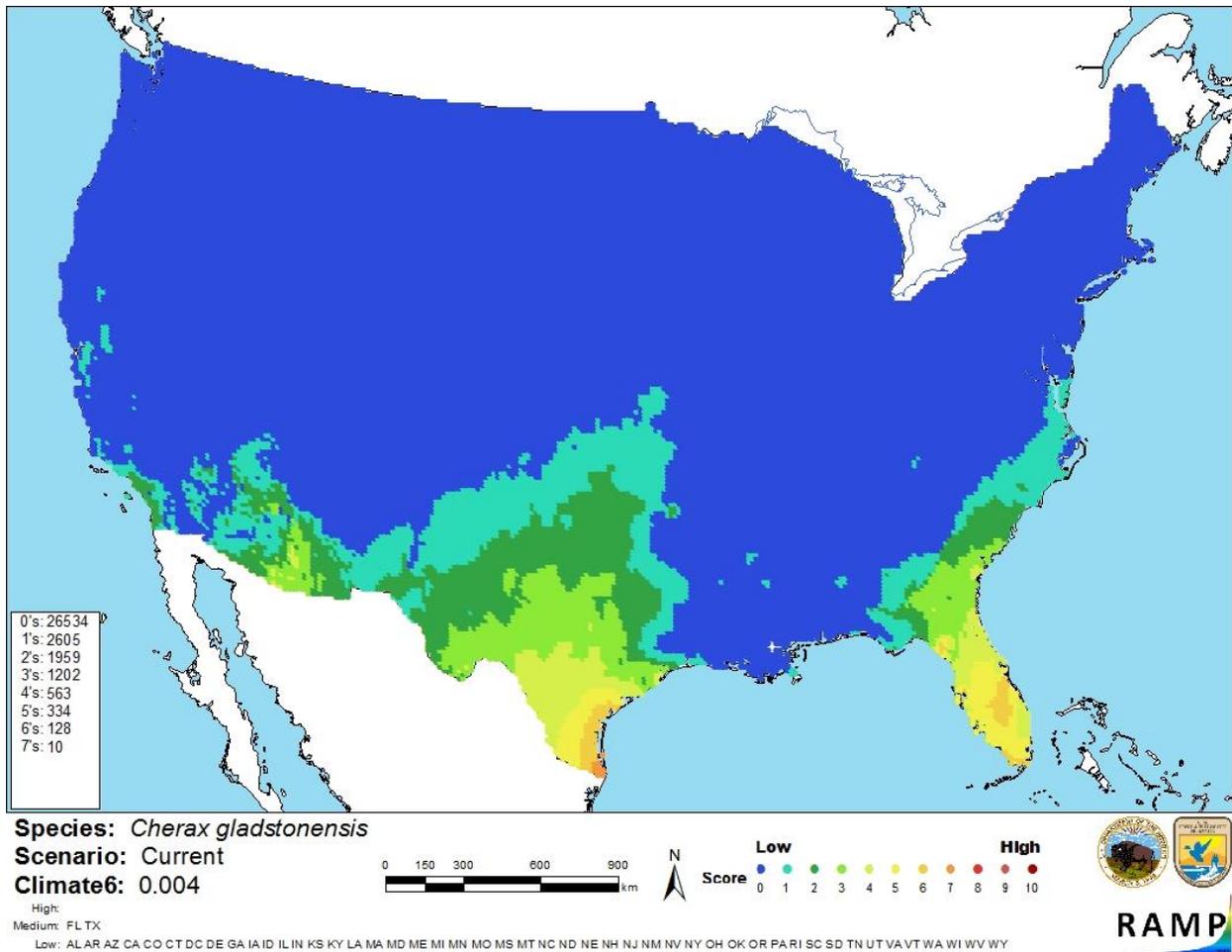


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Cherax gladstonensis* in the contiguous United States based on source location from Fetzner (2017). 0=Lowest match, 10=Highest match.

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 |
|--|---------------------------|
| $0.000 < X < 0.005$ | Low |
| $0.005 < X < 0.103$ | Medium |
| ≥ 0.103 | High |

7 Certainty of Assessment

Extremely little information is available on the biology, ecology, and distribution of *Cherax gladstonensis*. No information is available on impacts of introduction of *Cherax gladstonensis*, either, because no introductions have been reported. With so little known about this species, certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Cherax gladstonensis is a crayfish native to coastal Queensland, Australia. Climate matching to the type locality of *C. gladstonensis* shows the highest climate matches within the contiguous U.S. occur in Florida and Texas. No introductions of this species have been reported, so impacts of introduction are unknown. Florida and Washington prohibit the possession or trade of *C. gladstonensis*. The overall risk assessment is uncertain because of the poorly-described range, lack of introduction history, low climate match score, and general lack of information available on the species.

Assessment Elements

- **History of Invasiveness: Uncertain**
- **Climate Match: Low**
- **Certainty of Assessment: Low**
- **Overall Risk Assessment Category: Uncertain**

9 References

- Fetzner, J. W., Jr. 2017. *Cherax gladstonensis* Riek, 1969. In The crayfish & lobster taxonomy browser. Carnegie Museum of Natural History, Pittsburgh, Pennsylvania. Available: <http://iz.carnegiemnh.org/crayfish/NewAstacidea/species.asp?g=Cherax&s=gladstonensis&ssp=>. (November 2017).
- FFWCC (Florida Fish and Wildlife Conservation Commission). 2017. Prohibited species list. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida. Available: <http://myfwc.com/wildlifehabitats/nonnatives/regulations/prohibited/>. (November 2017).
- GBIF Secretariat. 2017. GBIF backbone taxonomy: *Cherax gladstonensis* Riek, 1969. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/4648626>. (November 2017).
- Sanders, S., C. Castiglione, and M. Hoff. 2014. Risk Assessment Mapping Program: RAMP. U.S. Fish and Wildlife Service.
- Washington Department of Fish and Wildlife. 2017. WAC 220-12-090 classification - nonnative aquatic animal species. Washington Department of Fish and Wildlife, Olympia, Washington. Available: <http://wdfw.wa.gov/ais/wac.html>. (November 2017).