

RED SWAMP CRAYFISH

Procambarus clarkii



Photo courtesy of Tony Loftin, iNaturalist, EOL



The red swamp crayfish, also known as the Louisiana crawfish, or mudbug, is a large and aggressive crayfish whose native range extends from northern Mexico to Florida and north to southern Illinois and Ohio. Often used in classrooms and as a popular food item, this highly adaptable crayfish has escaped to invade the Great Lakes and beyond, impacting aquatic ecosystems by chewing up vegetation, outcompeting native species, and altering water quality.

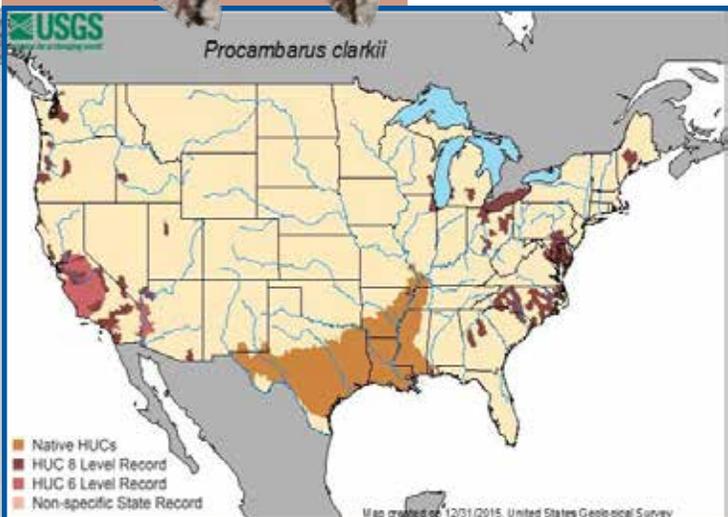
SPECIES DESCRIPTION

Adult red swamp crayfish are a dark red color with bright red, white, or black bumps (tubercles) covering the body and claws. A black wedge-shaped stripe is visible on the top of the abdomen. Juveniles are a uniform gray, sometimes overlain with dark wavy lines. Occasionally, a genetic mutation may turn the body and/or claws blue. A distinctive characteristic of this species is that the areola, which is the space found on the dorsal surface of the carapace between the two carapace plates, is straight or often indistinct. The pincers are narrow and long and the rostrum, or snout, has lateral spines or notches near its tip. Size is typically 5-13 cm (2-5 in).

This species may be confused with the white river crayfish (*Procambarus acutus acutus*), and the southern white river crayfish (*Procambarus zonangulus*). The white river crayfish has an areola that is narrow but always visible, and juveniles typically have spots on the carapace instead of wavy lines.

NATIVE & INTRODUCED RANGES

Native to the Gulf Coast and the Mississippi River drainage up to Illinois, this species has spread widely throughout the United States. It is found in Pennsylvania in Bucks, Chester, Delaware and Montgomery counties as well as on the campuses of Slippery Rock and Millersville Universities in Butler and Lancaster counties.



Map courtesy of the USGS NAS database

RED
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BIOLOGY & SPREAD

Because this species is widely available through the seafood industry and aquarium trade, it is most likely spread when it is intentionally and unintentionally released. Aquarists who keep them as pets, teachers and students who use them as live study specimens, and consumers who purchase them from live food markets, often release them into the wild. While they usually spread along connected waterways, they can crawl out of water for several miles at night and during wet weather.



Photo courtesy of Wikimedia Commons.

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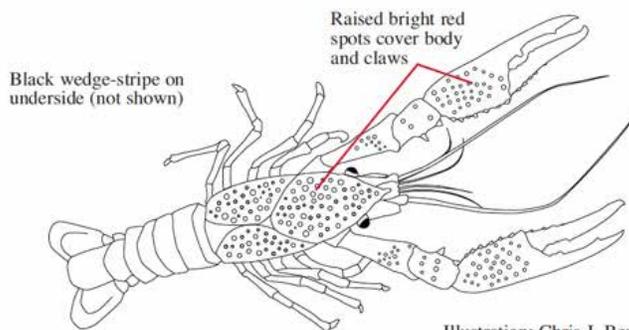


Illustration: Chris J. Benson

HABITAT

Red swamp crayfish are tolerant of a wide range of habitats, including low oxygen levels, extreme temperatures, pollution, and areas with large water level fluctuations. They prefer marshes, swamps, ponds, and slow moving rivers and streams where there is plenty of organic debris like logs, sticks, or water-soaked leaves. In times of drought or cold, the red swamp crayfish can burrow into the sediment until conditions are more favorable.

IMPACTS

Threat to Biodiversity

Red swamp crayfish can quickly dominate lakes, ponds, rivers, and wetland. They feed heavily on plants, snails, fish and amphibians, aggressively competing with native crayfish and other species for food and habitat.

Economic Costs

The burrowing behavior of red swamp crayfish can be problematic to levees, dams, and irrigation systems, and can cause bank destabilization that increases water turbidity.

Health Risks

They can carry crayfish fungus plague which can lead to declines in native crayfish.

PREVENTION & CONTROL

Many chemicals kill crayfish; however, none are currently registered for crayfish control and none selectively kill invasive crayfish without killing other crayfish species. The best way to prevent further ecological problems caused by the red swamp crayfish is to prevent their introduction or slow their spread into new waters. Learn how to identify the red swamp crayfish. Never release live bait into any water body, and never transport any crayfish from one water body to another. It is illegal in Pennsylvania to possess, sell, barter, or transport any crayfish unless the head is removed and the crayfish is dead.

References:

Minnesota Sea Grant. Red Swamp Crayfish Species Profile Page.
<<http://www.seagrant.umn.edu/ais/redswampcrayfish>>.

Lieb, D.A., Bouchard, R.W., Carline, R.F., Nuttall, T.R., Wallace, J.R., and Burkholder, C.L. 2011.
Conservation and management of crayfishes: lessons from Pennsylvania. Fisheries 36 (10): 489-507.

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