

Rusty Crayfish

FACT SHEET

Pennsylvania Sea Grant, as part of the National Sea Grant Program, promotes efforts to improve the environmental and economic health of Pennsylvania's coastlines.

Focusing on the Lake Erie and Delaware River watersheds, Pennsylvania Sea Grant works to increase public awareness of coastal environmental and economic issues through extension, communication, applied research, and education activities.

The National Oceanic and Atmospheric Administration (NOAA) administers the National Sea Grant College Program. Pennsylvania Sea Grant is also supported by the Pennsylvania State University and the Commonwealth of Pennsylvania.

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Background Rusty crayfish (*Orconectes rusticus*) have invaded portions of New York, New Jersey, Pennsylvania, all New England states except Rhode Island, and areas in Ontario Canada. While native to parts of some Great Lakes states, rusty crayfish have spread to many northern lakes and streams where they cause a variety of ecological problems (Figure 1).

Figure 1. 2003 Rusty Crayfish Distribution

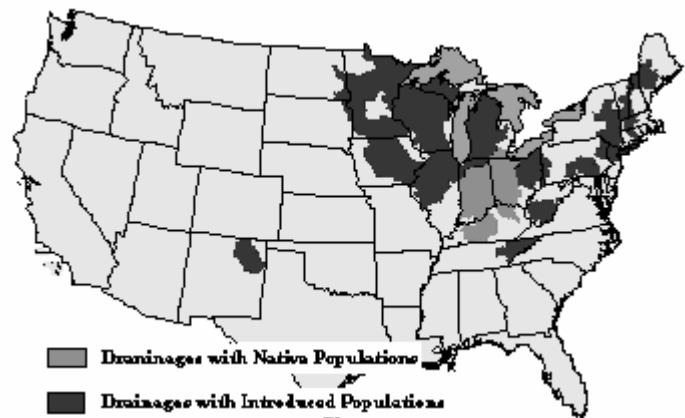


Image courtesy of USGS Web site:
<http://nas.er.usgs.gov/crustaceans/crayfish.htm>

Figure 2. Rusty Crayfish



Image courtesy of the GLIN Web site: <http://www.great-lakes.net/envt/flora-fauna/invasive/rusty.html>

The identifying features of the rusty crayfish are their robust grayish-green to reddish-brown smooth claws, and the dark, rusty spots on each side of its carapace (Figure 2). The spots are located on the carapace as though you picked up the crayfish with paint on your forefinger and thumb.

Impact Crayfish are considered opportunistic feeders, feeding on a variety of aquatic plants, benthic invertebrates (aquatic worms, snails, leeches, clams, aquatic insects, and crustaceans), detritus (decaying plants and animals including associated bacteria and fungi), fish eggs, and small fish. Rusty crayfish may cause a variety of negative environmental and economic impacts when introduced to new waters. They are an aggressive species that often displace native or existing crayfish species through a combination of crayfish-to-crayfish competition and increased fish predation. Perhaps the most serious impact of the rusty crayfish is their destruction of aquatic plant beds. Rusty crayfish have been shown to reduce aquatic plant abundance and species diversity. This can be especially

damaging in relatively unproductive northern lakes where beds of aquatic plants are not abundant. It is suspected that rusty crayfish have been introduced to new areas by anglers using them as fishing bait. As a result, rusty crayfish populations have increased and have been harvested by bait dealers and biological supply companies. The economic value use of this species in the bait industry has enhanced its expansion into new areas. Environmentally sound ways to eradicate or control introduced populations of rusty crayfish have not been developed; therefore, the best way to prevent further ecological problems is to prevent or slow their spread into new waters.

How to stop the spread The best method of control is to prevent their introduction. Educating anglers, crayfish trappers, bait dealers, and teachers about the threats posed by rusty crayfish will help reduce the risk of spreading rusty crayfish to new areas.

Information for this fact sheet was adapted from a variety of sources, including:

The Great Lakes Information Network - www.great-lakes.net

Sea Grant Nonindigenous Species Site (SGNIS) - www.sgnis.org

Great Lakes Sea Grant Network - www.uaf.edu/seagrant/private/SG-regional/greatlakes/index.html

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