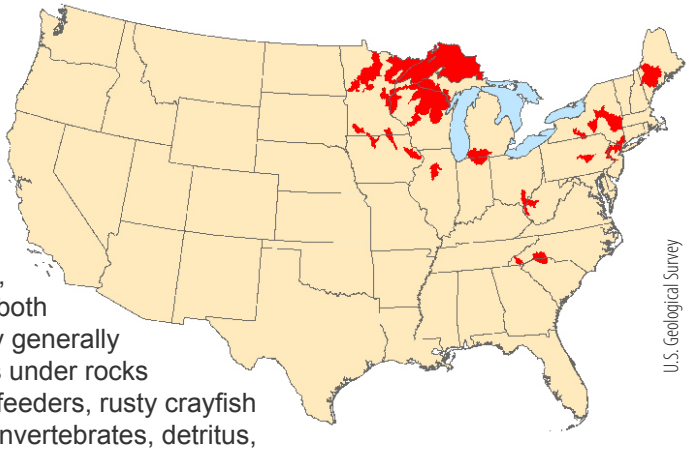
AQUATIC INVADERS

DRAFT

COMMON NAME: Rusty crayfish

SCIENTIFIC NAME: *Orconectes rusticus* (Girard, 1852)

NATIVE DISTRIBUTION: Ohio River Drainage and the states of Ohio, Kentucky, Tennessee, Indiana and Illinois



U.S. distribution: Rusty crayfish are now found in Michigan, Massachusetts, Missouri, Iowa, Minnesota, New Mexico, New York, New Jersey, Pennsylvania, Wisconsin, all New England states except Rhode Island, and many areas in Ontario, Canada.

Habitat: Rusty crayfish inhabit lakes, ponds and streams. Bottom types may be clay, silt, sand, gravel or rock. Rusty crayfish inhabit both pools and fast water areas of streams. They generally do not dig burrows other than small pockets under rocks and other debris. Considered opportunistic feeders, rusty crayfish feed on a variety of aquatic plants, benthic invertebrates, detritus, fish eggs and small fish.

Life cycle: Eggs hatch in 3 to 6 weeks, depending on water temperature. Once hatched, young crayfish cling to the female's swimming legs for 3 to 4 molts. The juveniles undergo 8 to 10 molts before they mature, which may occur during the first year. Because males have an additional molt each year, they are usually larger than females of the same age. A typical rusty crayfish lives 3 to 4 years.

Cool facts:

- One female carrying viable sperm could begin a new population if released into a suitable environment.
- Rusty crayfish force the native crayfish species from the best daytime hiding places — thus making natives more vulnerable to attack from predatory fish.
- Large numbers of rusty crayfish in some waterways have made swimming difficult because people are afraid of being pinched by the animals' claws.

Pathways of invasions: Anglers using crayfish as bait are one of the most common pathways of invasions. Rusty crayfish are also sold to schools by biological supply houses for classroom lessons and are sometimes released by well-meaning but uninformed teachers and students.

Impacts: Invading rusty crayfish are very aggressive and frequently displace native crayfish, reduce the amount and kinds of aquatic plants and invertebrates, and reduce some fish populations. Perhaps the most serious impact is the destruction of aquatic plant beds. Although other crayfish eat aquatic plants, rusty crayfish eat even more because they have a higher metabolic rate and appetite. Compared to native species they also grow larger, hide less from predators and therefore feed longer and attain larger populations.

Rusty crayfish, especially juveniles, feed heavily on benthic invertebrates like mayflies, stoneflies, midges and side-swimmers. So, rusty crayfish are more likely to compete with juvenile game fish and forage species for benthic invertebrates than are native crayfish species. Crayfish are eaten by fish — but because of their thick exoskeleton (shell), their food quality is not as high as many of the invertebrates that they replace. Less food or lower food quality means slower growth for native fish, which can reduce their survival rates.

Ways to prevent its spread:
Never dump your bait bucket into any water body.

Follow instructions from biological suppliers when ordering animals for classroom or other lessons.

Report invasive species to local officials and the USGS online at http://nas.er.usgs.gov/ or by calling 877-7867-267 (877-STOP-ANS).

Don't forget: Use native bait when fishing.

Adapted from Minnesota Sea Grant: html://seagrant.umn.edu/exotics/rusty.html