





Don't Dump That Bait!

Let's keep invasive species
from colonizing new waters.

by Brian Canaday, Bob DiStefano and Chris Riggert

“The invasive species are coming! The invasive species are coming!”

Imagine Paul Revere shouting that warning while riding his horse through Missouri towns. It's likely that few people would panic, but Missourians do need to be on the alert. Many invasive species are assaulting our biological communities, threatening our native species and degrading natural habitats. Some of our most treasured natural resources are in danger.



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The proper disposal of bait bucket contents will help prevent the spread of invasive species such as this round goby.

Nonnative species have the potential to eliminate native species, disrupt food chains and harm prized fisheries.

Invasive species come from other places, usually other regions or continents. When they arrive, either naturally or by some kind of introduction, a few of them find conditions ideal for growth and reproduction. They may be larger, more aggressive or more fertile than the native species they compete against, and the new environment may lack predators or other natural checks on their population.

Missouri's bountiful streams, lakes, ponds and marshes are particularly at risk. Missouri is blessed with more than 200 species of native fish, 65 species of native mussels and at least 33 species of native crayfish. Nonnative species, however, are invading our waterways at an alarming rate and have the potential to eliminate native species, disrupt food chains and harm prized fisheries.

Not all invasive species travel across oceans, mountain ranges or political boundaries to find

their way into our local fishing holes. Although many invaders do originate from faraway places, some of Missouri's most severe problems are the result of species that have been transported only a few miles, for example, from one stream to another.

"Transported" is a key word here. There are several ways that people are moving invasive species from one water body to another. Most of the time these introductions are not intentional. People don't realize the potential impact their actions might have. That's good news, for it means that most of these modes of transport can be stopped easily as people learn how to avoid them.

Bait Buckets

Biologists recognize "bait bucket introductions" as one of the most common means of spread-



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Rusty crayfish are larger than most of our native crayfish and have rust-colored patches on the backs of their carapaces.

ing aquatic invaders. Bait bucket introductions occur when anglers dump live bait into a water body from which that bait did not originate.

It's easy to see how this might happen. Picture yourself at your favorite fishing hole. It's time to head home. You gather your equipment and carefully pick up any litter. Your bait bucket still contains live crayfish or minnows. Not wanting to waste these critters, you release them into the water. This practice has caused the spread of some of the most notorious invaders, including rusty crayfish and round goby, and maybe even zebra mussels.

The solution to bait bucket introductions is simple. Anglers shouldn't dump their leftover bait in Missouri waters at the end of a fishing trip.

Alternatives to dumping include taking your bait home to use on a future fishing trip, offer-

ing it to another angler to use, dumping it on land far away from any waterway or placing it in a sealed container in the trash.

Releasing Captives

Another dangerous practice that appears to be increasing is that of "liberating" or releasing aquatic creatures that have been held captive in private aquariums or ponds.

The fish or animals may have grown too large to be confined, or their owners may no longer have the time or inclination to care for them. Many people believe the humane thing to do with



Rusty crayfish have black-tipped claws, which may have red or orange on the tips.

Dump leftover bait on land, far away from water.

unwanted fish or other animals is to release them into the wild.

Actually, this practice often causes harm to many other animals and can completely upset balanced ecological systems. Because of the severe damage even a single release can engender, the Conservation Department suggests that creatures kept in aquariums or ponds should never be released to the wild. If a person feels they can no longer care for an animal, we recommend the following alternatives:

- Talk to a pet store owner or the hobby aquarium society (www.missouri-aquariumsociety.org).

They may be able to help find a home for your pet.

- Give the fish or other animals to others who might wish to care for them.
- Dispose of the animals in a sealed container. Your veterinarian may be able to help if you feel that euthanizing the animals is the most appropriate solution.

Mussels on the Move

Aquatic invasive species like the zebra mussel can inadvertently be transferred from one lake to another. Zebra mussels “hitchhike” on boats, motors, trailers and aquatic plants. Adult zebra mussels can live for several days out of water, and their microscopic larvae can survive in boat bilge water, live wells, engine cooling systems and in bait buckets.

The solution to preventing the spread of invasive species that attach themselves to boats and other watercraft is somewhat more challenging, but you can help by following a few simple steps.

The Law on Liberation

Missouri prohibits importing, exporting or liberating fish, amphibians, reptiles, mammals or any other form of wildlife unless specifically authorized by the *Wildlife Code*.

Missouri’s *Wildlife Code* also establishes a list of “Prohibited Species” that may not be possessed in Missouri. This list includes snakehead fish, walking catfish, rusty crayfish and several species of snails. For a complete list see 3 CSR 10-4.117 of the *Wildlife Code*.

The best argument for not dumping the contents of your bait bucket or aquarium into waters of the state is that the species you are introducing might cause great and irreversible harm to our aquatic resources.

Close Call

In August 2003, Conservation Department agents and biologists told the owners of Nemo Bait Inc., a bait wholesale company in Perry that thousands of crayfish they had purchased from Wisconsin and distributed to dozens of Missouri bait shops were rusty crayfish, a species that has invaded at least 18 states and caused severe damage to water bodies and their fisheries.

Concerned about potential harm to Missouri fisheries, Vince and Zelda Smith, the owners of the company, undertook the considerable task and financial burden of removing all the rusty crayfish they had distributed to bait shops. They also sacrificed their remaining rusty crayfish stock. Their timely and appropriate response likely prevented serious problems for Missouri waterways.



Owners of NEMO Bait Inc. Vince Smith (right) with son Cody.

- Inspect your boats and trailers thoroughly and remove any trash, mussels or aquatic weeds before leaving any water body.
- Drain water from the motor, live well, bilge and transom wells, as well as any other water from your boat and equipment, before leaving any water body.
- Dump leftover bait on land, far away from water.
- Rinse your boat, trailer and equipment (including live wells, bilge and cooling systems) thoroughly with a hard spray of hot (104 degrees) water, like that found at a self-serve carwash.
- Dry boat, motor, trailer and equipment thoroughly in the hot sun before using it again.
- Several Missouri Stream Teams are helping by monitoring lakes and streams for zebra mussels. If you would like to join the effort, call 800-781-1989 or visit the Stream Team Web site at www.mostreamteam.org.

Even if everyone implemented all the preventative measures we’ve discussed, we probably would not be able to completely halt the spread of invasive aquatic species in our state. By working together, however, we can slow their spread and protect the recreational, aesthetic, health and economic benefits of Missouri’s lakes, ponds and streams.

Every angler, boater, pet owner and pond owner plays an important role in containing the spread of invasive species. Talk to your family, friends and coworkers about the threats invasive species pose to Missouri waters and enlist them in the fight. If everyone does a small part, we will see big benefits. ▲



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One way to prevent the spread of zebra mussels is to thoroughly clean your boat, trailer and equipment at a car wash.



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