Releasing bait fish, or transferring fish or water to another water body, could ruin angling.

Don't Release That Fish

It might seem charitable. Or Conservation minded.

Fishermen often believe that by releasing bait minnows or game fish into local lakes and ponds they are helping to improve the resource. Their logic: Releases help feed the gamefish and improve fishing.

Unfortunately, most of the time, nothing could be further from the truth. Usually these activities are destructive to fishing quality and may result in the potential spread of an exotic species or undesirable native species. After years of poor fishing, an expensive rehabilitation using a piscicide (fish poison) called rotenone is required, followed by restocking. And then there is the angling time lost while waiting for the quality to redevelop.

The damages don't stop there. The budgets of resource management agencies, such as the Department of Natural Resources, are impacted, as are revenues of local businesses supplying fishermen with bait, drinks, food, gas and lodging. On occasion, the results are irreversible and, when an exotic species is involved, could eventually become a national disaster.

Some people believe a fisheries biologist can simply remove undesirable fish by electrofishing, or shocking. This is impossible in even the smallest pond. Fry and small fish are not collected in significant numbers by electrofishing. The only way to effectively remove undesirable species of fish from a water body is to drain it completely or use rotenone, which kills all the fish, most of the time.

Some anglers may believe that only exotic (not native) species of fish stocked into a water body would be the likely culprits to blame for reduced fishing quality. This is true in many instances, with common carp being a prime example. However, even native species can damage fishing quality

In some situations, native species, such as golden shiners, can be detrimental when introduced to an aquatic system.

(Photo By Adele Hodde.)

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Photos By Eric Engbretson
www.underwaterfishphotos.com.

when introduced into certain situations. At least 160 species of plants and animals have been identified that damage waterways in states around the Great Lakes, including Illinois. Many are not exotics, but are native species.

For example, golden shiners are a native species and a common and popular bait minnow available at most bait shops. Generally sold as 2-3 inch minnows, these fish are capable of avoiding being eaten by bass and other fish predators when released in lakes or ponds. They can quickly grow to 8 inches and reproduce successfully in nearly all water bodies. In small lakes and ponds, they compete with bluegill for the same—usually limited—food resources, resulting in a slow-growing bluegill population and the eventual demise of the bass population as well. Poor fishing for all species then follows. Responsible anglers never release their bait into the water but will dispose of unused bait in the trash.

Unfortunately, native fish, including crappie, stripers (yellow bass), drum perch (freshwater drum), yellow bellies (bullhead catfish) and sunfish (various species of the genus *Lepomis*)—and non-native carp—are too often stocked from one water body to another by well-intentioned fishermen. These fish can reproduce well in most waters. Some believe these fish will grow big and improve fishing. Crappie may grow well for a short time, but all these species compete with bluegill and bass in small lakes and ponds for the limited food resources. Eventually, good reproduction, and then competition for limited food resources, results in slow growth rates for all species and poor fishing, unless poisoned and restocked. Responsible fishermen release fish only back into the same water body from which they were caught.

Largemouth bass virus is an introduced disease which can seriously affect bass numbers in a lake for years after causing a bass kill. Many species, including bluegill, crappie and sunfish, carry the disease as well. Moving fish from one lake to another may have not have been a problem for spreading diseases in the past, but now it is. Largemouth bass virus cannot be treated in a hatchery or in the wild.

Recently, the pathogen causing Viral Hemorragic Septicemia has been devastating fish populations in water bodies around the Great Lakes. In the fall of 2008, an emergency administrative rule was adopted making it illegal in Illinois to move fish from one water body to another without written permission from DNR, in an attempt to curtail the spread of this disease.

Even moving water, possibly with minnows or gamefish, from one water body to the next can be harmful.

An exotic species of water flea, *Daphnia lumholtzi*, originally found in Africa, Australia and southern Asia, is common in many of Illinois' larger lakes. Although they may be the right size for fish to eat, an elongated, sharp spine deters consumption. Water fleas are easily transferred from one water body to the next, and are believed to reduce numbers of native water fleas, a preferred food for fish hatchlings.

Daphnia lumholtzi

(Photo courtesy James Stoeckel, INHS/Auburn.)

Zebra (*Dreissena polymorpha*) and quagga (*D. rostriformis*) mussels are another major concern. The microscopic young, called veligers, may live for days in a bait bucket or the water-pump

Transporting water from one place to another has resulted in the spread of exotic water fleas (above) and zebra mussels (below).

Dreissena polymorpha

yellow bass

(Photo by Kathy Andrews.)

longear sunfish

housing of a boat motor until "released" into another water body, where they compete with native organisms for food resources. Bleach treatments can kill these hitch-hikers.

On occasion, misinformed people release aquatic pets after tiring of caring for them.

Goldfish, for example, can grow to 10 to 12 inches and successfully reproduce in most water bodies. Their young compete with native fish hatchlings for food, reducing native fish survival rates. Fish, other animals and even aquaria plants should never be turned loose into the wild. Responsible pet owners will find another home, return animals to the pet shop where the pet(s) were purchased, or dispose of the pet humanely and properly.

Well-intentioned anglers stocking yellow bass, sunfish and black bullheads all too often find these fish out-compete bass and bluegill for limited food supplies.

Releasing pet fish into the wild may eventually require that a biologist poison the water body, killing the entire fish population just to remove one undesirable species. This situation occurred recently in Maryland and Virginia where, despite significant efforts by biologists to eradicate the northern snakehead, it still persists. Hopefully, no one would want to be responsible for causing such an ecological nightmare.

Fish biologists spend a significant amount of time and money eliminating undesirable native and exotic species of fish and plants from Illinois water bodies, exotics that were released by fishermen and others. Only in small water bodies are these attempts successful. Some fish species are resistant to rotenone, which results in additional expense and time.

Fishermen interested in helping to "make fishing better" can work with their local fisheries biologist to determine the suitability of a particular species instead of taking matters into their own hands.

Those not heeding this advice will significantly lower—perhaps even ruin—the fishing quality for themselves and other anglers, possibly permanently.

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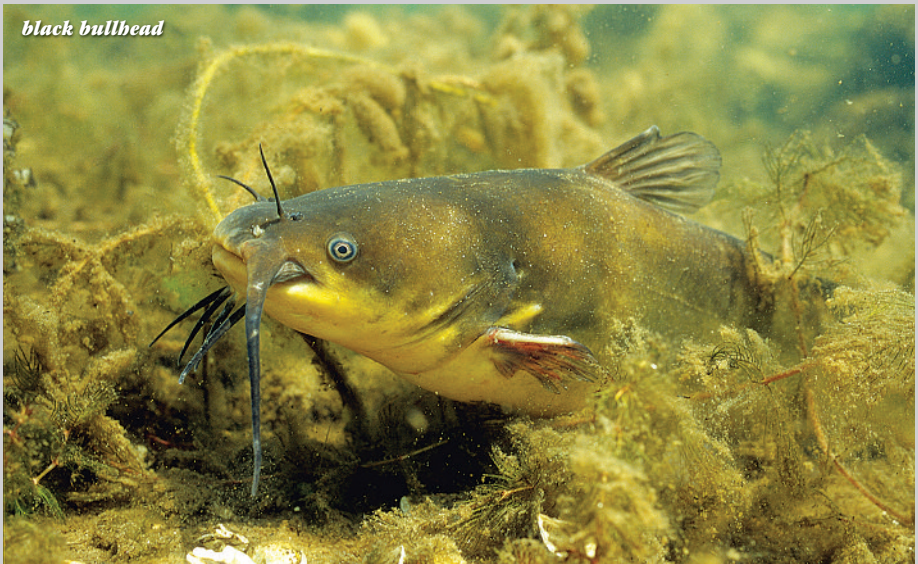
black bullhead

Protecting Illinois' waterways means not releasing bait, pet fish or aquaria plants into the wild.