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June 2001

Controlling exotics

Sometimes coping is the only option.

Phil Moy

'Clean boats, clean waters' is the cornerstone of DNR's program to prevent the spread of aquatic exotics.

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They are stubborn.

Once an exotic species becomes established in a lake or stream, it is virtually impossible to eliminate it from the ecosystem -- complete eradication of an aquatic species is rarely, if ever an option. The most we can hope for is to limit the population to a small area, and check that the control strategy doesn't seriously harm other organisms.

When the Asian longhorn beetle was found in Chicago, for example, affected trees were identified, quarantined and cut down.

Experience with the sea lamprey also has shown that even when a species-specific toxin is available, only long-term control rather than eradication is possible.

We cannot eliminate zebra mussels from a lake or river system once they

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become established without affecting other species. Their high reproductive rate and free-floating larval form requires that an entire population in a lake would need to be eliminated at the same time to remove them from the system. Some fish and ducks feed on zebra mussels, but they are not likely to eliminate zebra mussels from the environment.

Purple invaders

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Options for dealing with established exotic species are to manage the population or modify the ways we use aquatic resources. Industrial and municipal water suppliers use chemicals or hot water to prevent zebra mussels from clogging pipes and screens.

Eurasian water milfoil can clog boating lanes and affect the ability of fish to maneuver through the water. Even though Eurasian water milfoil can reproduce from floating fragments, mechanical harvest is the only option to keep waterways open.

Biological control using plant-eating insects is an option for exterminating exotics such as purple loosestrife and Eurasian water milfoil, but it takes time to see results. Until biological control can be expanded, hand pulling of pioneering populations and spot treatment using herbicides will continue to be important to curb its spread.

Since the invasion of the zebra mussel, significant effort has been devoted to public education, including boaters, as a key component in preventing its unintentional spread.

To raise awareness, the University of Minnesota Sea Grant Program produced a video that featured John Ratzenberger (a.k.a. Cliff Claven from "Cheers") to encourage boaters to stop the spread of exotics by cleaning their boats. The video is based on the national boater guidelines approved by the U.S. Coast Guard.

Zebra mussel, purple loosestrife, round goby and ruffe "watch identification cards" are distributed like baseball trading cards and provide a photo, a description of the exotic species, plus advice on what to do to report one. The Internet offers access to photos, articles and more.

Some states use roadside inspections to check boats and trailers for invasive species that may be "hitching a ride" to another lake. In many states it is unlawful to transport exotic species.

Boat launches offer an opportunity for education rather than enforcement. Educational efforts at the launches could include instructing boaters to clean weeds off motor, boat, trailer and water intake ports, and to drain live wells. Wisconsin boaters get information about exotic species when they apply for boat registration. Some states include such information in fishing and hunting regulations and provide a list of infested waters.

Children also need to understand the effects of exotic species to help prevent their spread. Kits and workshops can provide teachers with information and materials on exotic species. Some lake associations have "floating classrooms" on pontoon boats to help young lake users learn about

their lake and non-native species.

University of Wisconsin-Extension along with the Wisconsin Department of Natural Resources, University of Minnesota Sea Grant and the Wisconsin Association of Lake Districts have each developed their own exotics trunks, which contain key educational materials on invasive species.

"The trunks (the ones now being used by the Department of Natural Resources) contain teaching props focusing on four species – purple loosestrife, Eurasian water milfoil, rusty crayfish and zebra mussels," explains Laura Felda, the Wisconsin Lakes Partnership Adopt-a-Lake Coordinator. "This includes pressed specimens and brochures."

There are over 100 such trunks currently in circulation. For information on how you can receive an aquatic exotics trunk, call (715) 346-3366.



Students use "Attack Packs" to teach others about exotics. The packs contain books, a video, samples, activities and overheads on exotic species.

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The aquatic nuisance species "Attack Pack" is another tool used by high schoolers to teach elementary school students about exotic species. The packs contain books, a video about aquatic exotics, activities, overheads and a PowerPoint presentation on exotic species in Wisconsin. In addition, a ruffe, round goby and zebra mussel are mounted in plastic paperweights. This allows the students to handle the specimen and easily examine all sides. Brochures and watch cards also are provided along with colorful maps to illustrate the distribution of exotics in Wisconsin and the United States. These materials are packaged in an easy-to-carry backpack.

For more information about the Attack Pack or to obtain one for use in your school, please contact Phil Moy at (920) 683-4697 or e-mail to pmoy@uwc.edu.

Follow these steps to make a difference

Controlling the spread of exotic species can include several approaches: eradication (trying to destroy a population when it is relatively small); containment (developing a strategy to limit or slow the spread of a population); or suppression (attempting to keep populations below thresholds that are harmful).

Education is a key component of all these approaches. However, for prevention programs to be effective, partnerships and cooperation between groups also is essential.

Take these simple steps every time you remove your boat from the water, regardless of whether you know the lake is infested or not:

- Drain water from live wells, bilges and other containers before leaving the launch area
- Remove plant parts and animals from your boat, trailer and accessory
 equipment. Dispose of the removed materials in the garbage either at the launch
 area (if cans are available) or at home.
- Do not release live bait or aquarium pets into any waters.
- Wash your boat and trailer thoroughly with tap water when you get home. Flush
 water through your motor's cooling system, live wells and other areas that hold
 water or dry your boat and equipment for five days in a sunny location before
 transferring it to a new body of water.

To help stop the spread of exotics, also watch for signs at boat ramps this summer.

The red "stop" sign, which may be posted at any water, reminds boaters to remove aquatic plants and other potential sources of exotic species from their boat and trailer. The yellow "caution" sign is posted at infested waters. The green "help" sign contains general information on preventing the spread of aquatic exotics.

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Last revised: July 18, 2005 Contact: WNR Webmaster