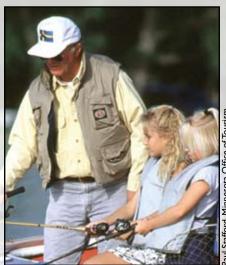


Enjoying the great outdoors is

important to many of us. Boating, fishing, hunting, and wildlife watching are traditions that we want to preserve for our children and their children. Today, these traditions are at risk. Aquatic invaders such as round goby, zebra

mussels, purple loosestrife, Eurasian watermilfoil. bighead and silver carp, and New Zealand mudsnail threaten our valuable waters and recreation. These and other non-native, or exotic, plants and animals do not naturally occur in our waters and



are called invasive species because they cause ecological or economic harm.

The main way invasive species get into lakes, rivers, and wetlands is by "hitching" rides with anglers, boaters, and

other outdoor recreationists. If you leave a body of water without taking precautions recommended in this brochure. you may be transporting these harmful species from one lake, river, or wetland to another. These "aquatic hitchhikers," such as Eurasian watermilfoil (right), have invaded many waters, doing irreparable harm to lakes, streams, and wetlands and their native inhabitants.



The good news is that the majority of waters are not yet infested with invasive species and you can help protect our valuable waters.

Stop Aquatic Hitchhikers!

Aquatic hitchhikers can spread in many ways such as on aquatic plants, on recreational equipment, and in water. Fortunately, there are a few simple actions you can take to prevent them from spreading.



In many states and provinces it is illegal to transport aquatic invasive species, so taking the following actions may also help avoid a citation (see back page).

INSPECT your boat, trailer, and equipment and **REMOVE** visible aquatic plants, animals, and mud before leaving the water access.

It is important to carefully remove all plant fragments before you leave the access area to ensure you are not transporting an invasive plant species. This will also reduce the threat of moving zebra mussels that hitchhike by attaching to aquatic plants.



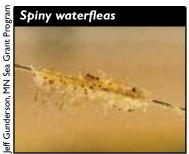
"Stop Aquatic Hitchhikers!" is a national campaign that helps recreational users to become part of the solution in stopping the transport and spread of aquatic invasive species.

DRAIN water from your boat, motor, bilge, live wells, and bait containers before leaving the water access.

Many types of invasive species are very small and easily overlooked. For example, zebra mussel larvae are invisible to the naked eye. Seeds or small fragments of invasive



plants, spiny waterfleas, eggs of fish and small aquatic animals, and fish diseases can be carried in water. Draining water before you leave the access area will effectively reduce the chance that any remaining plants and animals survive.



Spiny waterfleas are tiny animals that can be a problem for anglers because they form gelatinous globs on fishing lines, lures, and downigger cables. Their eggs can remain viable out of water for a long time, so it is important to inspect and remove them from equipment.

REPORT new sightings.

If you suspect a new infestation of an invasive plant or animal, save a specimen and report it to a local natural resource or Sea Grant office. Many agencies have "ID" cards, Web sites, and volunteer monitoring networks to help you identify and report invasive species.

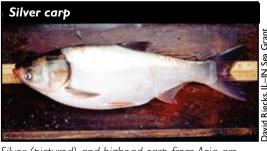
DISPOSE of unwanted bait and other animals or aquatic plants in the trash.

Releasing live animals and plants in a lake, river, or along the shore often causes invasive species to become established. Identifying fish when they are small is difficult and it is hard to be absolutely sure there are no invasive fish in your bait bucket. Even earthworms that you collect in northern states or buy for bait are

not native and should Round goby not be dumped on the ground. Likewise, other aquatic plants or animals that you collect, or buy in a pet store, should never be released into the wild.



Round gobies are bottom-dwelling fish from Europe. They're aggressive, attacking bait and eating the eggs of other fish, such as smallmouth bass. This aggressive behavior contributes to the decline of valuable sport fish populations.



Silver (pictured) and bighead carp from Asia are threats to aquatic ecosystems and water recreation. Silver carp can jump into boats and hit boaters and waterskiers. Because young silver carp look similar to native minnows they could accidentally be spread via live bait.

SPRAY, RINSE, or DRY boats and

recreational equipment to remove or kill

species that were not visible when leaving a waterbody. Before transporting to another water:

- Spray/rinse with high pressure, and/or hot tap water (above 104° F or 40° C), especially if moored for more than a day.
 Or -
- Dry for at least five days.



Zebra mussels attach to native mussels, plants, and boats. They foul beaches, cut swimmers' and dogs' feet, interfere with food webs, and clog water intakes.

CONSULT your natural resource agency.

Do-it-yourself control treatments could be illegal and can make matters worse by harming native fish, wildlife, and plants. It is best to contact your natural resource agency before you try to control an invasive species or add new plants along your shoreline. These

agencies can provide recommendations and notify you what permits are required.

Purple loosestrife invades wetlands, degrading wildlife habitat. Its seeds can be present in large amounts in mud that might be incidentally moved on waders, boots, and equipment.



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ADDITIONAL STEPS are

recommended for the following activities.

Shore and fly-fishing

Remove aquatic plants, animals, and mud from waders and hip boots.

Drain water from bait containers.

Personal watercraft

Avoid running engine through aquatic plants.

Run engine for 5-10 seconds on

the trailer to blow out excess water and vegetation from internal drive, then turn off engine.

Remove aquatic plants and animals from water intake grate, steering nozzle, watercraft hull, and trailer.



Remove aquatic plants and animals from hull, centerboard or bilgeboard wells, rudderpost area, and trailer.

Scuba diving

Remove aquatic plants, animals, and mud from equipment.

Drain water from buoyancy compensator (bc), regulator, tank boot, and other containers.

Rinse suit and inside of bc with hot water.

Waterfowl hunting

Remove aquatic plants, animals, and mud from boat, motor, trailer, waders or hip boots, decoy lines, and anchors (elliptical and bulb-shaped anchors can help reduce snagging aquatic plants).



Deborah Rose, MNDNF

Minnesota Regulations

In Minnesota, it is illegal to transport aquatic plants, water from infested waters, and prohibited species on boats and trailers when on public roads. The State has established fines up to \$1,000 for violating these regulations. To report violations, call Turn-In-Poachers at 1-800-652-9093.



For More Information

If you would like more information about aquatic invasive species, the problems they cause, regulations to prevent their spread, or methods and permits for their control, contact one of the following resources:

Minnesota Department of Natural Resources Ecological Services–Invasive Species Program 500 Lafayette Road St. Paul, MN 55155-4025 651-296-2835 1-888-MINNDNR



University of Minnesota Sea Grant Program Aquatic Invasive Species Information Center 2305 East Fifth Street Duluth, MN 55812-1445

www.dnr.state.mn.us/invasives/index.html



218-726-8712 www.seagrant.umn.edu

www.ProtectYourWaters.net



Thanks to the following for supporting educational efforts on aquatic invasive species:

- U.S. Fish and Wildlife Service
- •
- Great Lakes Indian Fish and Wildlife Commission
- National Park Service

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This document is available in alternative formats to individuals with disabilities by calling (651) 296-6157 (Metro Area) or 1-888-MINNDNR (MN Toll Free) or Telecommunication Device for the Deaf/TTY: (651) 296-5484 (Metro Area) or 1-800-657-3929 (Toll Free TTY).

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