

CHAPTER 8

Prevention steps

Chapter 2 highlighted the process that led to the development of national guidelines for recreational water users to prevent the spread of aquatic invasive species. Prevention steps for a number of water users are included below, along with web sites where additional information can be found. Boat wash stations are often discussed as a tool for preventing the spread of invasive species, so some guidance/considerations on boat wash stations is also included.

Boaters and anglers

Prevention steps for boaters and anglers should be as follows (with only minor differences, “wash” instead of “rinse” might be an example):

- * **Inspect** and **remove** aquatic plants, animals, and mud from boat, trailer, and equipment before leaving the water access;
- * **Drain** water from boat, motor, bilge, live wells, and bait containers before leaving the water access;
- * **Dispose** of unwanted bait in the trash;
- * **Spray/rinse** boats and recreational equipment with high pressure and/or hot tap water ($> 104^{\circ}$ F), especially if moored for more than a day, OR
- * **Dry** boats and equipment thoroughly for at least 5 days.

Additional steps for...

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.

Sailboats:

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

More detail is also available for the steps presented above. While this expanded level of detail isn't recommended for standard outreach materials that go to boaters and anglers – remember keep things simple! – it is helpful for special circumstances. For example, to clean hard-to-treat equipment, like the sampling nets and other materials used by agency staff, the recommendation is:

- * Use hot ($> 40^{\circ}\text{C}$ or 104°F) or salt water to clean your equipment.

The following recipes are recommended for cleaning hard-to-treat equipment that cannot be exposed to hot water:

- * Dipping equipment into 100% vinegar for 20 minutes will kill harmful aquatic hitchhiker species.
- * A 1% table salt solution for 24 hours can replace the vinegardip. This table provides correct mixtures for the 1% salt solution in water:

Gallons of Water	Cups of Salt
5	$\frac{2}{3}$
10	$1\frac{1}{4}$
25	3
50	$6\frac{1}{4}$
100	$12\frac{2}{3}$

- * If hot water is not available, spray equipment with high-pressure water.
- * Dry equipment. If possible, allow for 5 days of drying time before entering new waters.

Waterfowl Hunters

In addition to following the prevention steps for boater and anglers presented above, it is recommended that waterfowl hunters:

- * 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);
- * Drain water from decoys, boats, motors, etc.;
- * Cut cattails or other plants above the waterline when they are used for camouflage or blinds.

SCUBA Divers

In addition to following the prevention steps for boaters and anglers presented above, it is recommended that SCUBA divers:

- * Remove aquatic plants, animals and mud from all equipment, including regulators, masks, snorkels, and other dive gear;
- * Drain water from buoyancy compensator (bc), regulator, tank book, and other containers;
- * Rinse suit and inside of bc with hot water;
- * Dry gear, suit, and other equipment thoroughly.

Seaplanes

Seaplanes have the potential to transport aquatic invasive species between waterbodies. The following prevention steps are recommended:

Before take-off:

- * Remove aquatic plants and animals (e.g., zebra mussels) from floats, rudders, cables, transom, chine, wheel wells, and step area;
- * Pump water from floats;
- * Avoid taxiing through heavy growths of aquatic plants;
- * Raise and lower rudders several times to free aquatic plants.

After take-off:

- * Raise and lower rudders while over waters you are leaving or over land. If plants remain, return to that waterbody to remove.

Regular Maintenance – Use one or more of the following methods:

- * Spray floats with high-pressure water;
- * Dry floats by storing aircraft on land for at least 5 days;
- * Scrub or scrape undersides of floats (when spraying or drying is not possible) especially if moored for more than a day.

The prevention steps listed above correspond to those presented in the Stop Aquatic Hitchhikers! campaign. To view additional detailed information, visit www.protectyourwaters.net.

The web site and associated Stop Aquatic Hitchhikers! materials are part of the ANS Task Force public awareness campaign, and are sponsored by the U.S. Fish and Wildlife Service and the U.S. Coast Guard. Any organization, agency, club etc. can sign on to become a partner in the campaign... many state agencies nationwide have done so, including Wisconsin DNR. Including the Stop Aquatic Hitchhikers! logo on publications and using their campaign materials is another way to make materials created in Wisconsin, whether at a statewide or local level, consistent with others used nationwide.

Aquarium hobbyists and water gardeners

If you have acquired undesirable aquatic plant or fish species for your aquarium or water garden, it is important not to release these plants or animals into the environment. While most of these organisms will die, some may be able to survive. And a smaller number of those that do survive have the potential to create negative impacts on our natural environment and our wallets and misperceptions about your hobbies.

So, if you are faced with the situation of having an undesirable species, what can you do? By choosing between several alternatives, you can properly dispose of these unwanted aquatic plants or fish.

- * Educate yourself about your hobby's potential environmental consequences;
- * Adopt these alternatives to release as responsible consumer behaviors:
 - Contact retailer for proper handling advice or for possible returns
 - Give/trade with another aquarist, pond owner, or water gardener
 - Donate to a local aquarium society, school, or aquatic business
 - Seal aquatic plants in plastic bags and dispose in trash
 - Contact veterinarian or pet retailer for guidance about humane disposal of animals
- ❖ Model and promote these behaviors within your peer groups as ways for aquarium hobbyists and water gardeners to show their environmental values;
- * Become involved with policy solutions.

The prevention information listed above is part of the national Habitattitude campaign, sponsored by Sea Grant, the Pet Industry Joint Advisory Council, and the U.S. Fish and Wildlife Service. More details can be found at: www.habitattitude.net

BOAT WASH FACILITIES

So you're considering a boat washing facility...

DNR and Extension staff receives a number of questions on the feasibility of installing boat washing stations at water access sites. (See Chapter 3 for legal questions and answers concerning boat launches and wash stations.) The stations could be used as tools to reduce the risk of transport of aquatic invasive species by recreational boaters. Wisconsin has not conducted any studies to determine the feasibility of using boat wash facilities. However, other states and provinces (Minnesota and Ontario) have tested various applications of boat washing stations, both permanent and portable, under mandatory and volunteer situations. From those studies, we have learned:

- ① Boat washing facilities should not be considered as a substitute for the steps that the aquatic invasive species program asks boaters to take when leaving the launch site.

The cornerstone of Wisconsin's invasive species program is a consistent list of prevention steps, which is emphasized in all public education brochures, pamphlets, watch cards, public service announcements and signage. Those steps can be found on page 114 of this chapter. Boat washing is just one of the prevention steps, and installation of a wash station should accompany other education efforts focusing on all of the steps.

- ② Boat washing stations are a costly alternative to an effective watercraft inspection program and a well-planned education campaign.

There are several issues to consider before the installation of washing stations:

- ① Costs for construction and maintenance of these facilities;
 - ② Physical constraints for installation of the stations;
 - ③ Washing cannot be made mandatory for all boaters;
 - ④ Safety of the facility and liability are issues;
 - ⑤ Practical concerns about how best to capture and treat the waste water;
 - ⑥ Boaters acceptance of delays due to washing; and
 - ⑦ Unresolved legal questions related to whether fees can be charged for cleaning boats as a condition of launching.
- ③ There are circumstances and situations under which it may be advisable to install a boat wash facility.

If prevention and containment is a serious issue or a condition of a permit or if there is a venue where heavy use is occurring as a result of a specific activity (boating and fishing tournaments or sailing regattas) or heavy boating periods (July 4th and Labor Day), a boat wash facility may serve an important purpose. In these situations a portable washing unit could work well as an educational and awareness tool to show boaters how to properly clean their boats.

If lake organizations are considering installing and operating a boat wash station, the following is a list of guidelines that should be followed:

- ★ The wash station should be part of an overall watercraft inspection and education program, not simply a substitute for other prevention steps;
- ★ Do not require washing as a condition of launching but rather treat boat washing as a voluntary option to ensure that boaters are doing everything possible to protect the resource;
- ★ Use common sense in designing the facility—do not drain the water back to the lake and compost or put all the waste in the trash;
- ★ Give serious thought to whether the facility should be manned or unmanned, portable or permanent;
- ★ Make sure that a reliable construction firm is in charge of the design, construction and maintenance of the facility;
- ★ Be aware of the safety issues and liability of a wash station and follow all OSHA regulations;
- ★ Seek feedback on boater acceptance of the facility, if possible, to improve statewide understanding of the issue;
- ★ Consider installing a boat washing facility for boaters leaving an infested waterbody to prevent the spread of invasive aquatic species to other waters;
- ★ Stay at least 75 feet back from the lake with the placement of any wash station to avoid conflicts with shoreland zoning regulations;
- ★ Use the lake water as a source for the washing facility if possible;
- ★ Restrict the use of detergents, algacides or disinfecting agents that could harm the lake or nearby residents;
- ★ Provide clear instructions on how to use the boat washing facility properly and safely and include an educational message as to why it's important;
- ★ Use high-pressure hot water for the wash facility if possible (it is most effective);
- ★ Charge only a reasonable fee for cleaning a boat before launching (such a fee would be based on the resident state park daily entrance fee).

Please note that specifications on the types of boat washing facilities that are most effective are not readily available, and are likely to vary based on specific needs. Therefore, they are not included in the guidelines presented above. Lake organizations can contact their local DNR staff to obtain information on vendors in their area that could help the community decide what type of wash facility would be most effective for their particular launch site(s).

The key message that should be shared with all groups that may be interested in installing a boat wash facility is as follows: wash stations are a poor substitute for an effective education and watercraft inspection program that emphasizes the basic 'inspection and removal' message, BUT washing stations can be one component of an overall prevention and control strategy.