



## Tips For Careful Cleaning

Everyone who fishes needs to be a Clean Angler, one who makes *Clean, Drain & Dry* an automatic part of every trip. Many fishermen understand how important this is and are taking these simple actions. The three steps of *Clean, Drain & Dry* are self-descriptive. Just from these three words, people understand what they are to do and the actions they produce are what we need.

If you want more detailed information about how to clean, The Center for Aquatic Nuisance Species has these suggestions for cleaning fishing gear, boats and trailers.

### Cleaning Fishing Gear

**Waders** must be cleaned very carefully!

- Separate all individual components such as insoles, socks, booties, ankle guards, and laces. Then wash everything - inside and out with water.
- Make sure you remove all dirt, plants and other visible substances. Be sure the treads, seams and any creases or crevasses are completely clean. Use a small brush if needed.
- If possible, thoroughly dry everything before you reassemble the waders.

**Other Equipment**- Reels, nets, lines, gear bags etc.

- Thoroughly wash them to remove dirt, plants and other visible substances. Completely dry them, ideally in the sun on a hot day.

**Heat and cold** can kill many invasives that might be hitchhiking on your equipment. These treatments can be used to supplement careful inspection and cleaning. However, these methods do not kill all invaders. So realize that they help but are not perfect.

- Heat - Soak in a bucket or tub of the hottest water available. Be aware that many hot water heaters do not produce water hot enough to kill AIS. Available research studies suggest minimum of 140° F is necessary. Remove and dry.
- Cold – Store your gear in a freezer to kill many invasives. After overnight freezing remove, thaw and dry. Freezing might be the only good option if you are on a traveling fishing trip with no time to dry between waters. Some motels have freezer space if you ask nicely. Remember, freezing will kill many but not all of the aquatic invasive species (AIS) we are concerned about.

**Drying** kills most invasives. High temperatures and low humidity are deadly to most AIS. Do everything possible to expose your equipment to hot and dry conditions for as long as possible. It's best to dry gear in the sun. If possible, after cleaning, allow the gear to air-dry for at least 7 days. Longer is better.

**Where to Clean** is just as important as how you clean. It's important to clean in the right location. If possible, clean your gear on-site at the end of your trip. If you wash off any invasives at the water you have been fishing on that day, you will just be leaving them where you got them. Don't let them hitchhike away from the site.

If you are not able to clean before you leave the site, make sure to clean in a place where there is no possibility of anything removed getting into another water source. Be aware that runoff from your driveway could lead to surface water and some species are tough enough to survive the journey from your driveway to a nearby water. So, if you are cleaning at home, do it on the lawn and make sure that the wash water is all absorbed into the ground.

Never clean at the launch point for a new trip. That would be like intentionally introducing a species. Always clean before you visit a river or lake. Most self-serve car washes are good places to clean but make sure that any water goes down the drain in the middle of the floor.

**Chemicals** are not recommended! AIS can be a variety of different types of living organisms; plant, animal or microbe and there is no known chemical treatment that is effective at killing all of the potential AIS without being harmful to the environment. There are specific chemicals that are effective for controlling single species but they fail to guard against other species. Therefore, we do not recommend the use of chemicals ever.

There are a lot of different recommendations regarding the use of chemicals that have been, and are still being, provided by agencies and others. It is common to hear these misinterpreted and passed on to others as advice that is just plain wrong. If you are advised to use chemicals make sure that you understand why and based on what. If the recommendation is from an agency ask what the specific species is that they are trying to fight. Never think that the use of any chemical takes care of your basic Clean Angling responsibilities of *Clean, Drain & Dry*. If you've been told that bleach, Formula 409, salt, one of the many commercial products or any other chemical rids your gear of all AIS, it is not true.

**Pets can spread invasives!** If you take your dog fishing remember that it may have been exposed to invasive species. Inspect and clean its paws and carefully wash away any visible mud or foreign matter. At home, give your dog a good bath and combing it to remove any remaining invasives. Be sure to properly dispose of any weed seeds or other material.

## Cleaning Boats and Trailers

These recommendations were developed for powerboats and associated recreation. The principles can be adapted to any type of watercraft, including drift boats, rafts and personal watercraft.

- Dispose of unused bait into a dumpster. Do not take bait home or dispose of it by dumping it on the ground. NEVER release unwanted bait into any water body.
- Drain ALL water from the boat, especially the live well. Drain all water from the bilge, motor well and any water-holding compartments. Do this before you leave the water. If you wait until you get home to empty water it could spread invasives.
- Completely drain all water from the motor cooling system. Failure to do this can result in invasives growing inside the engine block and in the lines carrying cooling water to and from the motor.

Thoroughly inspect the boat, trailer and all equipment for mud and plants. Completely remove anything you find. Specifically, check the following areas.

- Trailer - trailer frame, rollers & bunks, license plate, lights, wiring, axles, springs, fenders, hangers, pockets & hollow spaces, trailer tires & wheels
- Water Craft Exterior - entire hull, trim tabs - including hinges, thru-hull fittings, cavitation plates, anchors, anchor rope, depth sounders, water intakes & outlets, lights, bumpers etc.
- Motors - entire exterior housing, propeller and all related parts.
- Propulsion systems - lower unit, gimbal area, water intakes & outlets,
- Boat Contents – nets, personal flotation devices, rope & equipment lockers, recreational equipment, down riggers & other fishing equipment, etc.
- Oars – examine the condition of your oars for any splits or crevasses that may hold invasive species and rinse completely. Maintain the condition of your oars to minimize any splits in the structure.

Wash with a pressurized power sprayer using the hottest water possible whenever necessary.

- Completely spray the entire exterior of the craft and the trailer. Perform the wash slowly and carefully. Since the water at commercial car washes is not hot enough to kill the organisms it is important to thoroughly spray the entire boat with pressurized water to remove any AIS. Be sure to spray all small nooks and crannies.
- No soap, detergent or chemicals are necessary.

**Drying Kills Most Invasives** High temperatures and low humidity are deadly to most aquatic invaders. Do everything possible to expose your equipment to hot and dry conditions for as long as possible. It's best to leave your boat outside in the sun, after opening and exposing all compartments and

wet locations.

If possible, after inspection and cleaning according to these procedures, allow the boat and trailer to air dry for at least 7 days. Longer is better.

## Weeds are Invaders Too

When you are out fishing, boating or enjoying the outdoors make sure to do what you can to avoid spreading noxious weeds through your activities. These invaders have significant ecological and economic impacts. They can harm our waters in many ways and every angler needs to act to prevent their spread.

Here's what you can do:

- Learn to identify the problem weeds you might encounter. It's easy to learn to identify the problem weeds in most areas and you can find a host of free ID guides wherever you are or are going.
  - Avoid parking in weed patches. Most weeds spread along roadways, as vehicles can easily transport many types of weeds and seeds. Avoid parking in weedy spots. If you are driving off the pavement, try to identify a course that will avoid any weeds. Avoid walking through weed patches. Many weed seeds will cling to waders, vests or clothing. If you avoid walking through weeds you will reduce the amount of seed that you might be transporting.
  - Carefully inspect yourself and your equipment at the end of your trip. Weed seeds will cling to most materials so be sure to carefully check everything for weed seeds. Do this before you leave a site and throw the seeds in the trash.
  - Wash your vehicle undercarriage as soon as possible after leaving a weedy area. If you know you have been in weeds go straight to the car wash without any delay. As soon as you drive out of the weeds you will begin spreading seeds so the sooner you can get to a car wash the better. Make sure to spray the undercarriage of your vehicle with high pressure water to wash off any seeds. Only wash inside the car wash bay and never spray weed seeds outside the car wash bay.
  - Report any new weed discoveries. The key to stopping the spread of weeds is to quickly respond when they first become established. Learn to look for plants that don't belong and report any suspicious plants to authorities. When weeds are caught early they can almost always be eradicated.

All of these suggestions are intended to help you do a better job of reducing the chances that you are spreading AIS. Everything that the Center for Aquatic Nuisance Species wants people to do is aimed at reducing the risk to our waters. *Inspect, Clean & Dry* cannot provide complete protection of our rivers and lakes. However, without doubt, following these steps will reduce the risk to our resources.

Be a Clean Angler and teach others to be the same.