

# Environmental Awareness



**STOP AQUATIC HITCHHIKERS!**

Prevent the transport of nuisance species.  
Clean all recreational equipment.  
[www.ProtectYourWaters.net](http://www.ProtectYourWaters.net)

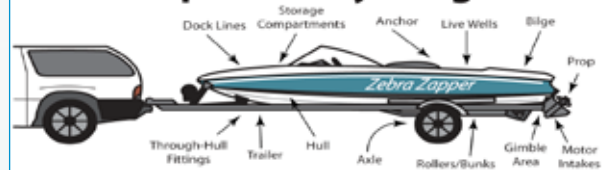
## **BEFORE LEAVING THE LAUNCH:**

- ✓ Clean: remove any visible mud, plants, fish or animals before transporting equipment.
- ✓ Drain: eliminates water from equipment, such as a live well, before transporting.

## **AT HOME PRIOR TO YOUR NEXT LAUNCH:**

- ✓ Dry: anything that comes into contact with water (boats, trailers, anchors, propellers, fishing equipment, clothing, dogs, etc.) for a minimum of one week.
- ✓ If drying isn't possible, wash with hot water (preferably high pressure).
- ✓ Never release plants, fish or animals into a body of water unless they came out of that body of water.
- ✓ Dispose any unused bait in an upland trash.

Before leaving and before launching...  
**inspect everything!**



## **HOW CAN I CLEAN**

### **MY BOAT TO PREVENT THE SPREAD?**

- ✓ Dry equipment for a minimum of one week (hot/dry weather) and a minimum of four weeks (cool/wet weather) before entering new waters.  
OR.....
- ✓ Wash with hot water, preferable high pressure.
- ✓ Dip equipment into 100% vinegar for 20 minutes prior to rinsing.
- ✓ Use a 1% salt solution and leave on for 24 hours prior to rinsing (2/3 cups of salt to 5 gallons of water).
- ✓ "Wet" with bleach solution (1 oz. per gallon) or soap and hot water (Lysol, boat soap, etc.) for 10 minutes prior to rinsing.

**What can I do to prevent the spread of non-native species!**

**N**on-native aquatic plants or animals are also known as nuisance or aquatic invasive species (AIS). These species tend to grow at a rate such that they can displace beneficial native species, disrupt the ecosystem and drastically reduce recreational activities, including swimming. Please prevent new introductions of invasive plants and animals:

**Clean, Drain, Dry your boat and gear.**

## MARINE AQUATIC INVASIVE SPECIES

If a vessel sits at a dock for too long, growth can occur on the hull. Invasive species can also collect in bilge areas, live wells, or other places that may collect water. If a vessel moves between seasonal ports, the introduction of an AIS may occur. Many of the fouling species that grow on vessel hulls exist because they are invasive and have no predators. Often the introductions are from ballast water taken on in foreign waters and discharged in US waters. Steps are being taken nationally to minimize these introductions. Local boaters can help by removing the species on their boats and trailers and properly preparing and maintaining their boat's bottom.

## FRESHWATER

Plant species such as Eurasian milfoil, variable leaf milfoil and fanwort have been introduced into Connecticut's lakes and ponds, and can impact the ecosystem and reduce recreational activities. Invasive plants can form a dense mat just below the water's surface, which interferes with boating, swimming and other recreational activities.

### 1. Eurasian milfoil:

Submerged, perennial aquatic plant with green feathered type leaves. The stems are brownish-red to light green. Milfoil produces pink flowers between July and August.



Photo Credit Robert Videk, Doronicum Kft, Hungary

### 2. Fanwort:

Submerged plant that ranges in color from grass green to olive and to reddish brown. The leaves are finely divided and strictly opposite arranged. Small white flowers with six petals emerge among the floating leaves.



Photo Credit Alison Fox, University of Florida, United States

### 3. Zebra mussel:

Zebra mussels are small, striped rigid mussel that grows to a maximum length of 2.5 cm (approximately one inch) in length. The shell color is black or brown with variable white to yellow striped or zig zag patterns and they can live up to five years.



Zebra mussels have recently become established in Lakes Lillinonah, Zoar and Housatonic in western Connecticut and for a longer period of time in the Twin Lakes, Salisbury. These mussels can impact the ecosystem, foul boat hulls and engine cooling systems, are sharp to step on and can clog power plant, industrial and drinking water intakes.

### 4. Quagga mussel:

The quagga is slightly larger than the zebra mussel.



Comparison of zebra and quagga mussels (Photo: Michigan Sea Grant)

The shell is striped but is more pale toward the end of the hinge. Color patterns vary widely with black, cream, or white bands. The quagga has a rounded angle and a convex ventral side. Quagga mussels have not been found in Connecticut waters.

### 5. Chinese mitten crab:

The claws are of equal size and appear "furry" with whitish tips. The smooth shell is brown to green with four spines (the fourth can be small) on each side. There is a notch between the eyes. In June, 2012, a juvenile Chinese mitten crab was collected from the Mianus River in Greenwich. This is the first confirmed report of this invasive in CT. This crab reproduces in saltwater but spends most of its life in freshwater.



**6. New Zealand mud snails:**

Relatively small snail that has brown or black cone shaped shell with seven to eight whorls. Between the whorls are deep grooves. This snail has the ability to reproduce quickly and populations can rapidly reach high densities under suitable conditions. New Zealand mud snails have not been found in Connecticut waters.



**7. Rusty crayfish:**

A large crayfish with reddish spots on each side of the body just in front of the tail, grayish green color, smooth mandibles (mouth parts without serrated edge) and black bands on tips of claws. Rusty crayfish are aggressive and can displace native crayfish. They feed heavily on invertebrates that are important food sources for fishes and can destroy aquatic vegetation beds, impacting habitat used by other invertebrates and game fish. Rusty crayfish are often spread via bait buckets. Rusty crayfish can be found in a number of freshwater systems throughout Connecticut.



**8. Asian clam:**

A bivalve that can grow as large as 5 cm (2 inches) wide and live up to seven years. Asian clams can be identified by the presence of yellow and brown color concentric rings on their shell. The outer side of the shell can flake, revealing white spots. Asian clam excretions encourage algal growth which reduces water quality for native flora and fauna. Asian clams can aggressively colonize the bottom of waterways and can outcompete native species for space. Asian clams can be found in a number of freshwater systems throughout Connecticut.



**Help stop the spread of invasive species, become a volunteer ramp monitor**

The DEEP Boating Division is recruiting volunteers to participate in our Invasive Investigator Program in an effort to keep our waters clean and stop the spread of aquatic weeds and animals into the lakes and rivers of Connecticut. Volunteers are needed to work at their local boat ramps to educate boaters on how to find aquatic invasives on their boats and steps to clean and prevent any unintentional spread of these hitchhikers.

All ramp monitors will receive training to recognize local invasive species, learn how to conduct a voluntary inspection and provide instructions regarding data collection. Volunteers will be under the local supervision of the lake or pond organization with whom they register and training will be held locally. For more information, contact Gwendolynn Flynn, Invasive Investigator Program Coordinator at 860-447-4339 or email: gwendolynn.flynn@ct.gov.

Help DEEP protect Connecticut's waters!

**HELP KEEP Aquatic Invasive Species (AIS) OUT OF CONNECTICUT'S WATERS!**

**It is critical that boaters take responsibility for stopping the spread of these plants and animals.**

Failure to remove all vegetation and the listed aquatic invasive species, that are visible and identifiable without optical magnification, is subject to a fine of \$95 for each such violation.



**IT IS ILLEGAL TO TRANSPORT** on a boat or trailer any vegetation and the following aquatic invasive species (as determined by the Commissioner pursuant to CGS Section 15-180; see [www.ct.gov/deep/boating](http://www.ct.gov/deep/boating)):

- Zebra mussel** (*Dreissena polymorpha*)
- Quagga mussel** (*Dreissena bugensis*)
- Chinese mitten crab** (*Eriocheir sinensis*)
- New Zealand mud snail** (*Potamopyrgus antipodarum*)
- Asian clam** (*Corbicula fluminea*)
- Rusty crayfish** (*Orconectes rusticus*)

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SEE PAGE 51 for methods to remove AIS



## Connecticut's Clean Boater Program

Using sound environmental boating practices protects our resources and ensures the future health of Connecticut's waters.

The Clean Boater Program encourages the state's boaters to use clean boating techniques. Support marinas that are environmentally responsible. For information about the Clean Boater Program or Clean Marina Program, contact the Boating Division at 860-434-8638 or visit: [www.ct.gov/deep/boating](http://www.ct.gov/deep/boating).

## Boat Hull Maintenance

If your marina allows underwater hull cleaning, please proceed with caution:

- DO NOT clean boat bottoms painted with abrasive paints.
- Use hard bottom paint if you need to clean your boat bottom throughout the season (sailboats).
- Ask your marina operator if there are any specific guidelines you need to follow while cleaning your boat bottom.
- Use only soft material (sponges, not brushes!) to clean growth off the hull.
- Use stainless steel pads and/or brushes only on UNPAINTED surfaces.
- Stop cleaning in the water if colored plumes of paint appear in the water.
- Do not paint zincs. When replacing zinc anodes, bring them ashore for recycling.
- Hire a professional diver and tell them you expect them to minimize pollution.

## MARPOL Regulations

All vessels must obey MARPOL regulations developed in the 1970s, revised in 2006 and guidelines accepted in 2012 to protect the marine environment from operational pollution. The U.S. legislation that implements MARPOL Annex V, bans the dumping of specified garbage and all plastics in all navigable waters of the United States. (It is illegal to discard fishing line on land or in state waters.) It also places restrictions on the disposal of other types of shipboard solid wastes. Vessels over 26 feet must display a durable placard explaining MARPOL Annex V disposal regulations.

## Marine Sanitation Devices (MSDs)

All vessels with an installed toilet are required to have a Coast Guard certified Marine Sanitation Device (MSD) attached to the toilet. Visit [www.ct.gov/deep/cva](http://www.ct.gov/deep/cva) for more information. A macerator alone is not a certified MSD. A macerator only grinds the sewage. It does not treat it to kill bacteria and viruses. All Coast Guard certified Type I and Type II MSDs have a

certification label affixed by the manufacturer. Holding tanks are not required to have a certification label. Visit the Environmental Protection Agency website at <http://water.epa.gov/polwaste/vwd/vsdmsd.cfm>.

The U.S. Coast Guard can issue fines of up to \$2,000 for the illegal discharge of untreated sewage. Section 15-175(a) of the Connecticut General Statutes provides that any person owning or operating a vessel from which untreated sewage is discharged from a MSD or bypass into the waters of this state has committed a class A misdemeanor. A class A misdemeanor is a criminal offense for which a person, if convicted, may be sentenced to a term of imprisonment of not more than one year and be fined an amount not more than two thousand dollars. State conservation officers and municipal marine police may enforce this law.

## No Discharge Areas

It is illegal to discharge untreated sewage from your boat into any of Connecticut's waters.

**Connecticut:** All waters of Fishers Island Sound and its harbors from the Rhode Island State boundary to Byram Point, Greenwich, as well as the navigable reaches of all Connecticut rivers and tidal streams that drain into Long Island Sound within state boundaries, including the Hammonasset River, Menunketesuck River, Niantic River, Thames River, Housatonic River from the Derby Dam, and Quinnipiac River from the southern border of North Haven.

**New York:** Long Island Sound, including the open waters, harbors, bays and navigable tributaries of the Sound and a portion of the East River, from the Hell Gate Bridge in the west to the northern bounds of Block Island Sound in the east. Included in the NDA are: Peconic Estuary and East Hampton, Mamaroneck Harbor,

Huntington-Northport Bay Complex, Port Jefferson Complex, Hempstead Harbor, Oyster Bay/Cold Spring Harbor Complex, and Hudson River.

**Rhode Island:** All waters.

See the EPA website at: <http://www.epa.gov/region1/eco/nodiscrg/> for a list of NDAs in New England waters.

## Pumpout Facilities

The Federal Clean Vessel Act directs excise tax dollars, collected on fishing tackle and motorboat fuel, to construct, operate and maintain pumpout stations. All CT CVA funded pumpouts and dump stations available to recreational boating public are FREE.

To find a land based pumpout facility or pumpout boat near you, see the map on page 34-35 or visit [www.ct.gov/deep/pumpoutdirectory](http://www.ct.gov/deep/pumpoutdirectory). Pumpouts in Connecticut are free of charge.