
Lake Conservation Notes

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WaterWise Boating – Tips for Reducing Nonpoint Source Pollution From Boats and Jet Skis

Every form of water based recreation has the potential to degrade water quality. This fact sheet lists practices boat and jet ski operators can implement to prevent nonpoint source pollution, and decrease the chance that new exotic plants and animals will be introduced into northeast South Dakota lakes and streams.

1. **Reduce the speed of your motorboat or jet ski while operating near shorelines,** the wakes from these crafts can cause shoreline erosion. A speed that produces no wake should be observed when operating your boat or jet ski within 150 feet of the shoreline.
 2. **Do not use powerful boat motors or jet skis in shallow areas.** Nutrient-laden sediments can be mixed into the overlying water releasing nutrients that increase algae growth. Rooted aquatic plants can be spread to other areas of a lake when uprooted or cut by motorboats and jet skis.
 3. **Prevent fuel tank overflows and spills.** Fill boat and jet ski fuel tanks on land where spills can be easily cleaned up. Report large spills to local Law or Conservation Officers. Keep boat motors and jet skis in proper running condition.
 4. **Keep all garbage on board and dispose of it properly on land.** Aluminum cans and plastic soda bottles can trap and kill aquatic wildlife. Waterfowl and other birds can be injured when they become entangled in fishing line or the plastic rings from six packs. Snapping turtles have died from ingesting styrofoam bait containers.
 5. **Protect colonial nesting birds.** Many species of birds' nest in colonies located in flooded trees, on islands, along a lake's shoreline or on the waters surface. Do not disturb nesting colonies of pelicans, egrets, herons, and grebes.
 6. **Help stop the spread of exotic aquatic species!** Practice the following procedures before leaving any lake access area.
 - Remove all visible plants and animals from your boat, trailer, and accessories (anchors etc.).
 - Drain live wells, bilge water, and transom wells on shore away from the lake.
 - Empty your bait bucket on land, never into a water body. State law prohibits the release of live bait and non-native fish and crustaceans into public and private waters.
 - Wash your boat, tackle, down riggers and trailer with hot water when you arrive back home. Allow everything to dry for three days before transporting your boat to another water body. A combination of hot water and drying will kill Zebra mussel larvae and Spiny water fleas.
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Do you use your boat out-of state or on the Missouri River or other South Dakota lakes?

The Threat of Exotic Species Introduction

Exotics are plants and animals that have been introduced into nonnative habitats. These plants and animals have few or no natural predators, parasites, pathogens or competitors to keep their populations in check. There are several species of exotic plants and animals now established in surrounding states and the Missouri River that could be accidentally introduced into northeast South Dakota lakes.

A good example of an exotic species is the Common carp. This fish, native to the Caspian Sea in Asia, was brought to North America in the 1800s. Common carp quickly spread throughout the continent, and today unfortunately carp account for a large percentage of the fish bio-mass in lakes, rivers, and streams. Other exotic species of fish that threaten our waters include the Bighead, Grass and Silver carps, and the European rudd. Once exotic fish like carp become established, they are rarely eliminated.

Eurasian watermilfoil and Curlyleaf pondweed are already established in several of the Missouri River impoundments in the State. Originally from Europe, these aquatic weed have become a nuisance species in many Minnesota lakes. A single segment of a plant's stem or leaf clinging to a boat motor or trailer can establish a new colony in uninfested waters. Eurasian watermilfoil forms dense beds that crowd out native aquatic plants. Dense floating mats of Eurasian watermilfoil may also prevent recreational activities like boating, swimming, and fishing from taking place. Purple loosestrife is another exotic plant that has become established near Pickerel Lake in Day County. This is an emergent plant that becomes established along shorelines, drainages, and wetlands crowding out native plants along these habitats. Efforts are underway to control Purple loosestrife before it becomes established elsewhere in northeast South Dakota.

The Zebra mussel is a small clam native to Asia that came to the Great Lakes probably in the ballast water of a large ship. It has become established in many of Minnesota's lakes, rivers, and streams, and was recently observed in the Missouri River below Ft Randall and Gavin's Point Dams in South Dakota. Zebra mussels have the potential of disrupting the aquatic food chain by reducing the zooplankton young fish feed upon. The microscopic larvae can be carried to a water body in a boat's live well, bilge water, or a boat motor's cooling system.

The Spiny water flea is a tiny crustacean native to Great Britain and northern Europe that is now established in the Great Lakes and some Minnesota lakes. Biologists are not sure what effect this exotic species will have on a lake's ecology. This invertebrate may compete with young Yellow perch and Walleye for food. The sharp spines of the Spiny water fleas tail may prevent it from being consumed by small fish.
