

Yellowflag Iris and Purple Loosestrife are Riparian Weeds!



yellowflag iris
Iris pseudacorus



purple loosestrife
Lythrum salicaria

Why are these Alien Invaders called Riparian Weeds?

Riparian areas are on or relating to the bank of a natural course of water. Yellowflag iris and purple loosestrife pose serious threats to water resources. These two weeds are not only Riparian Weeds, they are legally listed as Noxious Weeds because of the damages they can cause.

Yellowflag Iris Origin: *Europe and the British Isles, western Asia, North Africa, and the Mediterranean region*

Yellowflag iris was first introduced in the United States as an ornamental. It escaped cultivation in some areas. In natural wetlands and riparian areas, yellowflag iris displaces desirable vegetation and can be toxic to livestock.

Yellowflag iris typically develops colonies along river and stream banks, sloughs, pond margins, in irrigation ditches, and other wet places. It displaces native plants including sedges and rushes. This can reduce the capacity of wetlands for waterfowl and disrupt other ecological relationships. The plant can reduce flow in waterways and restrict irrigation canals and flood control ditches.



Purple Loosestrife
Native Range: *Europe*

Purple loosestrife, initially, spread by way of canal traffic to the middle United States. It subsequently made its way to the western U.S. Ornamental plantings can readily move into aquatic sites, crowding out native vegetation and wildlife habitat.



Saltcedar and Russian Olive are Weeds found in Wetlands!



saltcedar
Tamarix ramosissima



Russian olive
Elaeagnus angustifolia

These alien invaders provide habitat for wildlife.

Wetlands are lowland areas such as a marsh or swamp which is saturated with moisture, especially when viewed as the natural habitat of wildlife. Saltcedar and Russian olive provide limited habitat for wildlife. Management options are regulated to protect endangered wildlife.

Saltcedar Origin: *Europe and Asia*

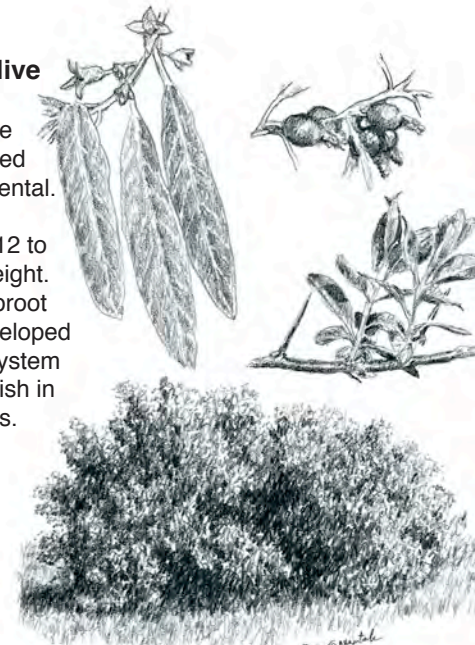
Saltcedar was introduced into the United States about 1823 as an ornamental and for stream bank stabilization. Saltcedar escaped cultivation in the early 1900s and spread rapidly after the late 1920s.

Saltcedar is found in riparian areas, including saline (salty) or nonsaline river valleys, and around springs, small streams, playa lakes, and reservoir shorelines. Saltcedars dry up desert springs and small streams, alter stream geomorphology and water quality, and increase soil salinity. All of these actions seriously degrade wildlife habitat, including many sensitive species of birds, fish, and other animals and plants.



Russian Olive

Russian Olive was introduced as an ornamental. It can reach 4-9 meters (12 to 25 feet) in height. The deep taproot and well-developed lateral root system help it establish in riparian areas.



Eurasian Watermilfoil grows in reservoirs and lakes.



Eurasian watermilfoil
Myriophyllum spicatum

It is easily spread on boat parts.

Eurasian watermilfoil is both a legally listed noxious weed and aquatic nuisance species.

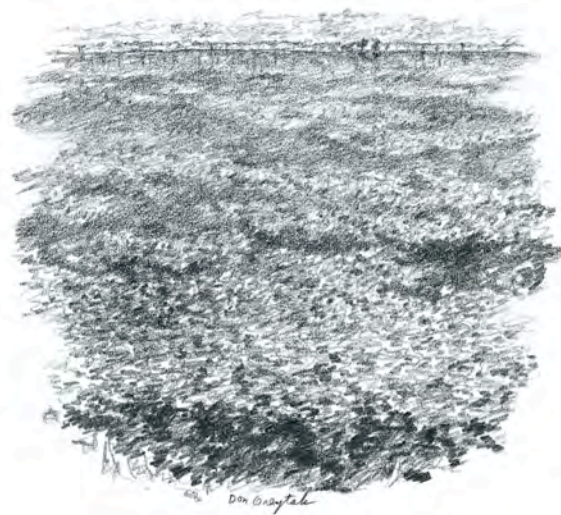
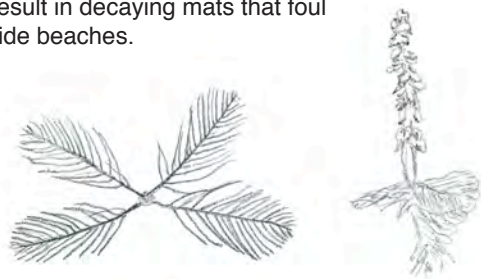
Stop Eurasian watermilfoil in its tracks!

- Remove all aquatic plant parts, sediment and animals.
- Drain water from boat before leaving lake or river.
- Deposit unwanted live bit and trash in a landfill.
- Wash boat and all fishing gear between trips.
- Dry boats, trailers, gear, and equipment for as long as possible between use in different areas.

Eurasian watermilfoil

Eurasian watermilfoil is a noxious weed that reduces fish populations and inhibits recreational opportunities. Eurasian watermilfoil competes aggressively to displace and reduce the diversity of native vegetation and aquatic species.

Impacts from watermilfoil infestations also include the loss of recreational opportunities, the loss of millions of public and private dollars for cleanup costs, and reduced and compromised irrigation systems. Typical dense beds restrict swimming, fishing, and boating, clog water intakes and result in decaying mats that foul lakeside beaches.



What is a noxious weed?

Noxious weed is a legal definition of a plant having negative impacts on economic and ecological resources to the extent that the governing body declares it illegal for any citizen to allow it to propagate and spread.

What is an aquatic nuisance species (ANS)?

Aquatic nuisance species is a legal definition for non-native aquatic plants, animals, and pathogens that when introduced into new ecosystems have harmful impacts on the way the ecosystem functions. Aquatic nuisance species ultimately reduce the recreational and functional value of aquatic resources.

What are potential aquatic nuisance species impacts?

- damage to recreational opportunities
- damage to plants and animals that live in the ecosystem
- in some cases damage to the infrastructure such as water treatment facilities and water distribution used for power plants and irrigation.



Fishing rod recovered from Lake Eldorado, KS zebra mussel settlement
Zebra mussel cluster showing different life stages after settlement - photo taken at Lake Eldorado, KS

How do aquatic nuisance species spread? Any way they can!
Releases Accidental or not, "bucket biologists" who release predatory or bait fish, unwanted pers, or non-native plants can quickly change an entire fishery.

Careless Dumping Some organisms are microscopic. Dumping a can of commercially sold live worms, water from a bait bucket, or even seafood packing materials, can start an invasion.

Boats Whether in boat hulls, live wells or bilge pumps, water can easily transport invasive species from one area to another.

Trailers and Motor Props Small animals can attach and aquatic plants can tangle in propellers and trailers and hitch a ride from one place to the next.

Fishing Gear Wading boots, for example, can pick up organisms on their soles and in their felt and transport them to new areas.

Invasive species are tough and determined. So we better be, too.

Here's how you can stop aquatic nuisance species!

- Remove all aquatic plants from boats, trailers, fishing gear, etc.
- Drain lake or river water from your boat before launching at a new site
- Dispose of unwanted bait in the trash
- Wash your boat, trailer and all fishing gear after use
- Dry everything for as long as possible
- Never move water, plants or animals between bodies of water

Learn more at www.protectyourwaters.net www.weedawareness.org
www.mtweed.org <http://mtweeds.ucdavis.edu/esadocs.html>

Recognize and report these aquatic nuisance species



Invasive mussels



Asian carp



Eurasian watermilfoil



New Zealand mudsnails



Symptom in trout whirling disease pathogen

Statewide Noxious Weed Awareness and Education Campaign

Montana State University Dept. of Land Resources and Environmental Sciences *in cooperation with* United States Department of Agriculture Animal and Plant Health Inspection Service Plant Protection and Quarantine

