2013 WATER SUCCESS STORY

Bureau of Water Quality

Mississippi River water hyacinth, water lettuce and parrot feather, oh my!

By: Scott Provost and Julia Riley

A small group of explorers set off in canoes from the shores of the Mississippi River in September 2013 to survey Pool 5 near Buffalo City, Wisconsin. Staff from a variety of governmental agencies and nonprofit groups paddled through the shallow backwater bays and bayous in search of any remaining exotic aquatic invasive plants that were detected in 2011 and 2012. The team concluded that the intensive efforts of a multi-agency rapid response team were successful in removing all of the invasive water hyacinth, water lettuce and parrot feather aquatic plants from areas mapped with the infestations.

The non-native species of free-floating plants are often sold in the aquaculture trade for use in backyard ponds. The plants can grow rapidly when released into natural aquatic environments. These aquatic invasive species (AIS) had not been found to this extent in Wisconsin. Immediate action was taken to prevent the spread of the plants to other areas of the Mississippi River, and possibly to inland lakes, when water hyacinth and water lettuce were detected by veteran DNR Mississippi River Water Quality Biologist, John Sullivan, in August 2011 in the Upper Mississippi River National Wildlife and Fish Refuge.

U.S. Fish and Wildlife Service (FWS) staff and researchers from the DNR's Bureau of Science Services assisted in recording the locations of the plants and extracting them manually. Approximately 1,000 plants were handpicked and destroyed within a three-week period after the initial discovery. Then the DNR and the FWS collaborated to develop research management options and determine an information and education strategy to get citizens involved in spotting the invasive plant and reporting any additional infestation locations.

Aquatic Invasive Species (AIS) Photos

Non-native invasive water hyacinth (Eichhornia crassipes) in bloom. DNR Photo.

Water lettuce (Pistia stratiotes). Parrot feather (Myriophyllum aquaticum), not shown, was also detected growing in the Mississippi River. DNR Photo.

Mississippi River AIS Story Continued

During the summer of 2012, staff from the DNR and FWS joined citizens, including local kayaking club members, to scour the many sloughs of the refuge in search of plants that had survived the winter. Unfortunately, a large stand of water hyacinth, water lettuce and a new non-native species, parrot feather, was found in an isolated bay. The stand consisted of thousands of plants, and it was too extensive for manual removal.

Through consultation with the DNR's established commercial aquatic herbicide network, university scientist, and the U.S. Army Corps of Engineers (ACOE), the department and FWS recommended an herbicide treatment to help contain what appeared to be exponential growth of these plants. The FWS contracted with an herbicide applicator and treatment occurred. Chemical treatment decreased the plant populations, and the remaining plants were handpicked and transported by canoe for collection and disposal.

Water hyacinth, water lettuce and parrot feather plants were handpicked and transported by canoe for collection and disposal. DNR photo.

Then just as the plants seemed controlled, the FWS found water lettuce growing on the Minnesota side of the river. FWS organized a rapid response effort with Minnesota DNR to remove thousands of water lettuce plants growing in a ¾-mile-long section of a river channel. All partners realized a more intensive rapid response was needed, including prevention outreach to the public. The department, Minnesota DNR, FWS, ACOE and others met in the winter of 2012 to develop a more comprehensive management plan that included being one of the first applicants to use the department's new Streamlined Clean Boats, Clean Waters Grant application process.

Funding from the program was used to hire watercraft inspectors at nearby boat landings to ensure no plants were transported from one location of the river to another. FWS also worked with department AIS staff to develop boater educational materials for circulation in the eradication zone areas.

The rapid response in eradicating the invasive

FWS created signs of this flyer and posted them at boat ramps. Photo courtesy of FWS.

plants is a testimony of the dedication of Wisconsin DNR staff in assembling and working with partners to protect our shared waterways from AIS. Continued AIS surveillance efforts in the refuge and prevention education and outreach to the public will be needed to ensure that the plants remain eradicated and other new more inconspicuous species are not established. Department staff remain watchful and ready to take further action as needed.

HOW YOU CAN HELP:

- Build your aquascapes away from natural waterways and flood zones.
- Learn to recognize invasive species.
- Purchase and plant non-invasive and native plants.
- Check plant orders for unwanted invasive hitchhikers.
- Do not use invasive plants, fish, crayfish or snails in your garden.
- Do not release any plants, fish or invertebrates into natural waters.
- Learn more on how you can "Protect Your Water Garden" at http://dnr.wi.gov/topic/invasives/documents/ss1115PondsBro.pdf.