

A war on water lettuce

Fritz Funk, longtime Mississippi river rat, spearheaded efforts to recruit volunteers to remove water lettuce from the time it was discovered in October to early December.



RUTH NISSEN

HOW COMMUNITY AND MULTI-AGENCY ACTION ERADICATED THIS AQUATIC INVASIVE.

Ruth Nissen

The sun was just disappearing behind the bluffs along the Mississippi River when Dave Jensen turned his jon boat into the Brice Prairie channel on his way back to the boat landing. He had spent this Tuesday evening in early October fishing for bass and pike on Lake Onalaska without much luck. Wild celery, an abundant aquatic plant, was releasing its long green tape-like leaves as it does every fall, and the leaves were accumulating into mats on the water's surface. Almost every cast had involved removing a tangle of decomposing leaves from his line.

As he motored up the channel, aggravated, Jensen noticed a half dozen plants floating on the surface of the water near the edge of the channel.

"They were mixed in with duckweed, rice plants and other aquatic plants," Jensen recalls. "Sort of like water lily, but the leaves were different. Then I saw a couple more and one here and one there so I stopped to collect a few, putting them in an empty pail."

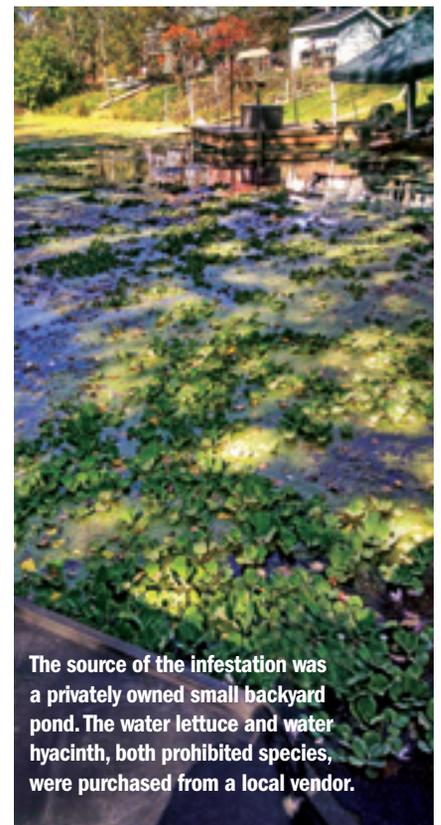
Fortuitously, he also took a couple of photos with his cell phone.

Once home, he went online to try to identify the odd looking plants. When he realized the plants were invasive water lettuce he became concerned.

"If there was a stiff north wind it could blow a lot of those floating plants out into the lake and along the shore," Jensen says.

His next search was to find the invasive species contact for the La Crosse area. His search led him to Jodi Lepsch, a DNR water resource specialist in Eau Claire. Jensen's investigation set the wheels in motion and was a critical step in controlling the water lettuce infestation — at least for one year.

Water lettuce is an invasive perennial aquatic plant that is sold for use in backyard ponds. The plant floats on the surface and spreads rapidly, forming dense mats that make fishing and boating difficult.



The source of the infestation was a privately owned small backyard pond. The water lettuce and water hyacinth, both prohibited species, were purchased from a local vendor.

SCOTT CAVEN

In Wisconsin, water lettuce is a prohibited plant, meaning that it is illegal to sell, give away, transport or possess it. It is temperature sensitive and it is assumed the plants cannot survive Wisconsin winters. But a water lettuce infestation on Pool 5 of the Mississippi River

near Winona, Minnesota was detected in 2011 and 2012, which suggests that the seeds may overwinter.

Lepsch contacted Scott Caven, aquatic invasive species coordinator with the River Alliance of Wisconsin. Caven serves La Crosse, Trempealeau and Buffalo counties and his role is to prevent, contain and control aquatic invasive species, and coordinate the La Crosse Area Aquatic Invasive Species Partnership; a collaboration of agency and non-agency organizations that have teamed up in the battle against aquatic invasive species.

Caven lives on Brice Prairie, so that evening he kayaked down the channel toward the lake to check out the situation. In short order, Caven confirmed it was water lettuce and easily collected a trash bag full before calling it quits for the evening.

The Brice Prairie Channel, barrier island and Lake Onalaska are part of the backwaters of Pool 7 of the Mississippi River and are located within the Upper Mississippi River National Wildlife and Fish Refuge-La Crosse District. The first phone call Caven made the next morning was to the La Crosse District Office, located on Brice Prairie.

Wednesday was volunteer work day at the La Crosse District, which provided an opportunity for Kendra Niemec, deputy La Crosse District manager, to spread the word that many volunteers would be needed to remove invasive water lettuce on Lake Onalaska.

The water lettuce infestation that had been found on Pool 5 in 2011 and 2012 — Winona District of the refuge — had required plant removal over the course of two summers by staff from the refuge, Wisconsin Department of Natural Resources, Minnesota Department of Natural Resources and numerous volunteers, including a local kayaking club. Niemec expressed the same concern as Jensen — winds from the north could move the newly discovered lettuce over a much larger area — with an ultimate possibility of the current moving the plants downstream into Pool 8.

Fritz Funk, one of the volunteers, lives along the Brice Prairie Channel and qualifies as a “long time river rat.” Funk retired from Alaska Department of Fish and Game several years ago and returned to this area where he spent his childhood, hunting and fishing on the river and doing “river rat things.”

Funk checked the weather forecast and quickly realized that they weren’t going to have much time to mobilize as



Volunteers such as Amy Cooper were a key component of a successful water lettuce removal campaign.

SCOTT COOPER

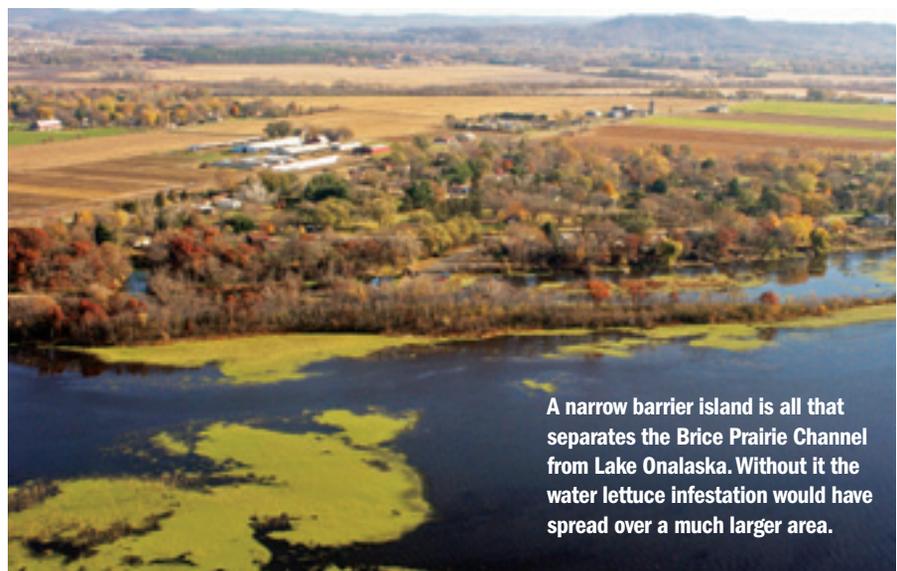
high winds were predicted for Monday out of the worst possible direction. Funk started contacting everyone he knew on Brice Prairie.

“I pulled out all stops while it was still something we could control, otherwise it was going to be Pandora’s Box,” Funk recalls.

He quickly organized a Saturday spot cleanup of the shoreline by Brice Prairie residents using the Brice Prairie Conservation Association’s email list. He later expanded this communication effort by developing a chronology of lettuce collection efforts which was posted on the Lake Onalaska Protection and Rehabilitation District website. This readily-available source provided daily updates for agencies and media, but more impor-

tantly served as a way to recruit volunteers over the next three weeks.

On Friday, Caven and Niemec conducted an airboat survey to determine the extent of the lettuce infestation and find the source. As they headed out from the landing into the channel they turned north to search for where the water lettuce had been introduced to the channel. An extensive mat of water lettuce and water hyacinth filled the water between and around several docks at the north end of the channel and appeared to be foci of the infestation. It was later confirmed by law enforcement that a nearby home owner with a small pond 20 feet uphill from the water’s edge was the source of the introduction. The small pond had overflowed and carried the



A narrow barrier island is all that separates the Brice Prairie Channel from Lake Onalaska. Without it the water lettuce infestation would have spread over a much larger area.

RUTH NISSEN

LAKE ONALASKA WATER LETTUCE INFESTATION



Water lettuce plants were collected all along the east side of Lake Onalaska, a major backwater of Navigation Pool 7, Mississippi River. The buoyant lettuce plants floated over a mile from Brice Prairie to the opposite shoreline near the La Crosse Airport.

decorative pond plants into the Brice Prairie channel. The resulting thick carpet of lettuce and water hyacinth was the result of one summer's growth.

After spinning the airboat around in the narrow channel Caven and Niemec headed back to finish mapping the extent of the infestation. On the south end of the channel they discovered the infestation had spread beyond the shelter of the barrier island. Thin stands of wild rice stalks and mats of floating wild celery leaves caught in the rice had acted as a giant net preventing the lettuce from drifting with the wind out into Lake Onalaska.

Upon returning to the landing they checked the weather forecast and came to the same conclusion as Funk. The high winds forecasted for Monday would widely broadcast the large numbers of lettuce plants entrapped in the rice and floating mats of vegetation. A multi-agency and volunteer cleanup event was planned by Niemec, Caven and Funk for Sunday morning (less than two days away) using refuge volunteer lists and Funk's local contacts to spread the word.

"The local newspaper was contacted on Saturday and they went all out to get the notice that volunteers were needed in the Sunday morning edition," Funk says.

When volunteers heard the call to action they showed up Sunday morning

at the boat landing with their kayaks, canoes, pontoons and jon boats. Other volunteers brought chest waders and knee boots to work the shoreline. They came from cities and towns bordering the Mississippi River in Wisconsin and Minnesota.

"Over 40 volunteers were present during the day, many of whom stayed until late afternoon when all visible lettuce plants had been removed from the beds of rice and mats of vegetation along the south end of the channel," Funk says.

On Monday, as predicted, high winds struck with gusts over 40 mph, breaking up the vegetation mats that had been holding back lettuce plants.

"Only small numbers of plants that were overlooked during the Sunday cleanup moved east along the Brice Prairie shoreline," Funk recalls.

Although no further large scale cleanup events were scheduled, refuge staff and Shawn Giblin, DNR's Mississippi River water quality specialist, continued cleaning up at the "source."

Caven and Giblin, spent many hours searching along the shoreline and islands of Lake Onalaska. Funk, with other volunteers, kept the pressure on in the channel by checking daily for three weeks, diligently searching the mats of vegetation still remaining among the

rice stalks, the edges of the channel and around the numerous docks which also harbored the floating plants.

Despite the daily searches, lettuce plants continued to be discovered each day for three weeks until Oct. 27.

At that time Funk finally felt confident that, "We have been able to contain the risk of additional plants escaping downwind/downstream out into the lake and river."

Nevertheless, weekly checks continued on into early December covering the channel and the south shore with occasional lettuce plants still being collected.

Giblin praised the volunteers' persistence. "This was much less about resource agency response than it was about Funk, the local organizations and the incredible efforts of all the volunteers. The whole experience made me very proud to live in the La Crosse area where the citizen environmental and work ethic is very strong."

It appears for now that the lettuce infestation was successfully averted, but plans are being made to continue surveillance for the presence of water lettuce. Those involved, are keenly aware that one of the drawbacks of a mild winter is it increases the possibility of seeds, and potentially invasive plants, successfully overwintering.

One thing is for sure, though. The partnership of volunteers, Caven and agency staff that formed last October will be ready.

"The effort and coordination put forth by volunteers for this response has been exemplary and should be looked at as a model for how the Department of Natural Resources and local partners can work together to help protect Wisconsin's waters from the impacts of invasive species," says Shelley Thomsen, DNR's Land and Rivers Team Leader, Bureau of Water Quality.

Ruth Nissen is stationed in La Crosse and works with the DNR's Mississippi River Team.

HOW CAN YOU HELP

Keep your eyes peeled when boating, hunting, fishing or trapping. If you see something suspicious go on the DNR website at dnr.wi.gov and follow directions for contacting the Department of Natural Resources, or contact the River Alliance of Wisconsin at 608-257-2424, or email info@wisconsinrivers.org.