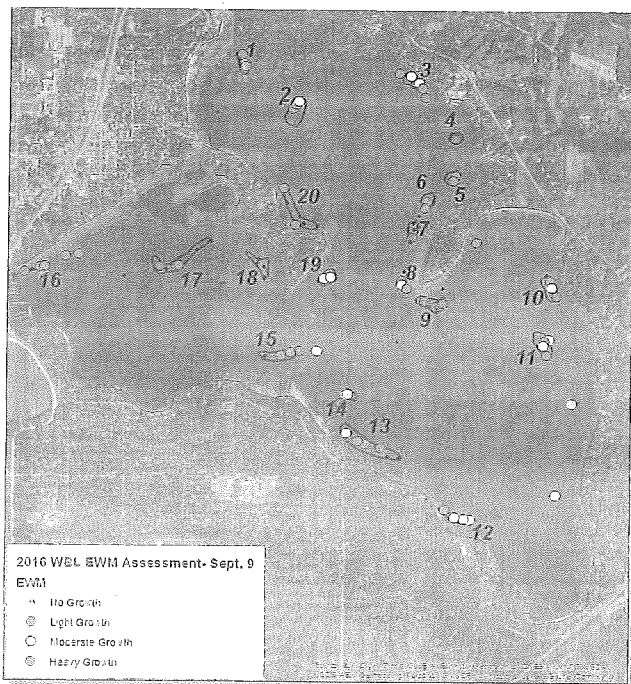


Invasive species battle rages on



This colored map assesses the success of 20 areas treated for Eurasian watermilfoil in July. Control ranged from poor to excellent.

BY DEBRA NEUTKENS
EDITOR

WHITE BEAR LAKE — If the "lake doctor," as some refer to him, was going to worry about an invasive species, he'd probably pick spiny water flea.

"That one makes me a little nervous," said Steve McComas, an aquatics expert with Blue Water Science and consultant to the White Bear Lake Conservation District.

Recently found in Mille Lacs Lake, the spiny water flea is not widespread in Minnesota — at least not yet. "We prefer to keep them out. They can't be eradicated and we're finding spiny water flea might have a bigger impact on a lake's ecosystem than zebra mussels."

That's where boat inspections come in, McComas told the lake conservation board. He appeared at the district's monthly meeting Sept. 20 to present an update on this summer's Eurasian watermilfoil (EWM) treatment and answered questions on other nuisance species.

Basically, of 20 EWM treatment sites covering 60 acres, success rate ranged

from poor to excellent. "Some areas that were treated did not get good control," McComas said. "No. 9 (off tip of peninsula — see map), for example, had poor control. No. 18 (west of Manitou Island) had excellent control."

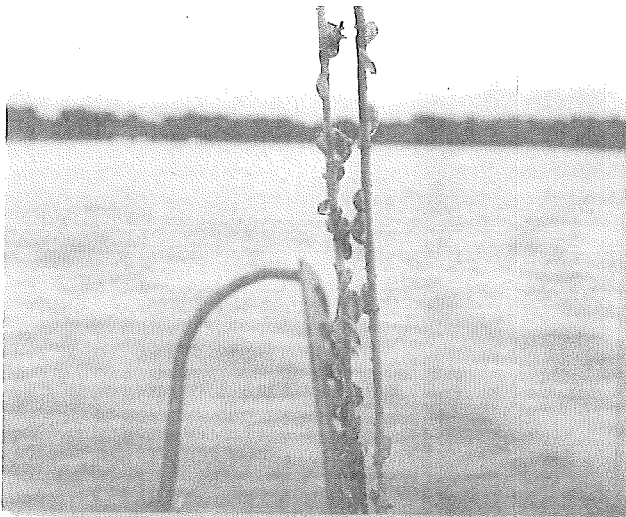
It was a good year for EWM growth all over the metro, McComas added. In some areas, herbicide stopped the milfoil from growing but did not kill it. Fragments too, can survive. Pieces of milfoil can float for a week, then form little rootlets, McComas said. The pieces sink and if conditions are suitable for growing, sprout and form new plants next year.

"Water levels are having an impact on EWM growth," McComas told the board. "For a number of years when lake levels were up, we were treating 15 to 20 acres near the shoreline. When lake levels started dropping in 2009 and 2010, more EWM was coming to the surface and becoming a nuisance. Sunlight has an easier time reaching the bottom when lake level is low, which boosts growth."

There was another surprise on the plant stems when they pulled EWM out

BY THE NUMBERS

- 922.38 ft. White Bear Lake level Sept. 20
- 9.75 in. Increase in level over last year
- 5.5 in. Rainfall since August meeting
- 68 degrees Water temperature
- 0 No. of BWI citations this summer



For the first time, zebra mussels were found growing on milfoil plant stems.

of the water. For the first time, McComas found zebra mussels clinging to the stalks.

There is a symbiosis between the two invasive species. Zebra mussels improve water clarity, which means more sunlight and better lake penetration for EWM growth, even with high water levels. Native plants benefit, too, he said.

Several factors affect treatment success with the herbicide: length of contact time with the plant, and currents, wind and wave action.

When asked for a status report on the invasive mussels, McComas said White Bear Lake is "moderately fertile," meaning zebra mussels are in the "exponential growth" stage. "We can expect them to be prolific," he said.

The good news is that White Bear has good water quality and the right type of algae, not blue-greens, which zebra mussels cannot filter. Once the mussels deplete the algae below their food needs, they'll start dying back, too.

"We'll get a dieback in a couple years," McComas said.

He suspects that zebra mussels were already in the lake at least a year before they were discovered.

Zebra mussels will not be the last invasive species to enter White Bear Lake, noted the aquatics expert. "Prevention is still a good solid approach. Inspection is still critical. Most new species come in at a public access," he said.

Not to be just doom and gloom, McComas told the board that aquatic invasive species (AIS) can indeed change a lake's ecology. Mille Lacs, for instance, is shifting to a world-class smallmouth bass haven, he said. "I have yet to see an AIS sustain terrible damage on a long-term basis. Mother Nature is pretty good at putting up controls to keep things from getting too far out of line. We were pretty concerned when EWM came in. It takes time and money, but we can manage it."