

2010 updates for Big Sandy Lake, Aitkin County, Mn

Purple loosestrife- Two locations were identified on Big Sandy Lake in the late summer of 2008 as supporting large, well-developed populations of Purple Loosestrife. The PLS plants were dense and many grew to over 6 feet tall. Populations of this size are not well suited to control by herbicide because of the expense associated with herbicide and the fact that a large volume of herbicide is required to treat such an area. These sites were marked for biocontrol efforts in 2009.

In May of 2009 several thousand purple loosestrife beetles (*Galerucella species*) were transplanted from a site near Hibbing to the two locations. Water levels were down at the time of the beetle release and it appeared that they would do a fine job in controlling the PLS plants. An inspection later in the summer of 2009 confirmed that the beetles had caused tremendous damage to the plants. Few if any of the plants flowered in 2009 which, of course, prevented a seed crop from forming.

First year success is no guarantee that PLS beetles will survive over winter and continue their biocontrol the next year. At many sites in northern Minnesota, in fact, PLS beetles do not survive the months from late summer until the following spring.

The PLS sites on Big Sandy Lake were inspected the week of June 20 2010 to determine the extent of biocontrol for the second year. Fortunately, both sites showed evidence that an early spring generation of beetles had survived the winter and emerged to feed on the PLS plants. One of the sites had considerable plant damage while the other showed evidence of beetles but far less severe plant damage. Eggs and larvae beetles from the spring generation were seen on the plants which is a sure sign that further damage to PLS plants will continue this summer.

The Big Sandy site is on a list of annual inspection sites and will be monitored for several seasons in the future. Should additional beetles be needed they will be released as necessary until the PLS plants are no longer an invasive threat.

Flowering Rush - The invasive plant Flowering Rush was discovered on Big Sandy Lake in 2008 at the same time PLS was discovered. Flowering Rush is a very difficult plant to control once it becomes established so concern arose over the report on Big Sandy. The plants that were discovered were removed by hand picking in 2008.

In 2009 the same group who found the original Flowering Rush infestation returned to the site where the plants had been growing the previous year. They found three or four small plants at the site which were again hand-picked and removed from the lake. Extensive surveys by DNR invasive species program staff found no additional Flowering Rush sites in 2008 or 2009.

No surveys have yet been conducted in 2010. Both ICC and the DNR intend to survey Big Sandy Lake again at some point during the summer.

Other Invasive Species around the State.

None of the following are found on Big Sandy Lake

Eurasian watermilfoil There are over 200 lakes around the State where Eurasian milfoil is growing. Fortunately, the plant has NOT been found in or near Big Sandy Lake. Mille lacs lake supports a population in various bays, a few lakes in the Brainerd area, and three lakes in Pine and Carlton Counties are the nearest lakes with EWM.

Curly-leaf pondweed This invasive aquatic plant is found in over 800 lakes in Minnesota. It is problematic in some lakes but nearly invisible in others. Many lakes in Aitkin County have CLP but Big Sandy does not have problems with it.

Zebra Mussels No new reports of Zebra Mussels have arisen in 2010. A large, rapidly growing population lives in Mille Lacs lake, however, and poses a threat to non-infested near-by lakes. Two lakes near Brainerd and the Mississippi River from the Pine River confluence south are listed as infested with Zebra Mussels.

Spiny Waterflea This invasive zooplankton has been in the Great Lakes for decades and has lived in the cold, deep, BWCA and Canadian border lakes for many years. In 2009 the Spiny Waterflea was reported in Mille Lacs Lake. Since the population was so recently discovered there very little is known about how large the population is and whether or not it is expanding in Mille Lacs Lake. There is significant concern over the potential movement of this organism from Mille Lacs Lake because it is very small and difficult to see and can be easily moved in relatively small volumes of water. New laws are in place on August 1 that REQUIRE drain plugs to be removed from boats being moved from ANY LAKE in Mn. This will reduce the chance of movement of Spiny Waterfleas from Mille Lacs to other lakes in Mn.

VHS VHS, or, Viral Hemorrhagic Septicemia is a virus that causes harm to many fish species. The virus was not found in any Minnesota waters until early this year when it was discovered in the Minnesota waters of Lake Superior and the Duluth harbor. Quarantine efforts were implemented in an attempt to prevent the spread of this very dangerous virus into the inland waters of Minnesota. As of June 2010 there are NO reports of the virus in any inland lakes in MN.