

Fluridone (brand name Sonar) and the BPI Lake Treatment for the invasive weed known as Eurasian Milfoil

Although an overabundance of aquatic plants can limit enjoyment of a lake, it is important to realize that aquatic plants are a vital component of aquatic ecosystems. They produce oxygen during photosynthesis, provide food and habitat for fish and other organisms, and help to stabilize shoreline and bottom sediments. The objective of a sound aquatic plant control program is to only remove plants from problem areas where excessive growth is occurring. Under NO circumstances should an attempt be made to remove all plants from the lake.

Eurasian milfoil is the primary nuisance plant species targeted for control in Big Pine Island Lake. This species is especially problematic in that it can spread rapidly by a process called vegetative propagation in which pieces of the plant break off, take root, and grow. It usually becomes established early in the growing season and will often grow to greater depths than most plants. The plant tends to form a thick canopy at the water surface that shades out more desirable plant species and interferes with recreational activities such as swimming and fishing. If Eurasian milfoil growth is left unchecked, the plant has the ability to become the dominant plant species in the lake. Because of its ability to spread by fragmentation, mechanical harvesting is generally not recommended to control Eurasian milfoil in that it can actually promote the spread of the plant. Most often, Eurasian milfoil is controlled via the application of a systemic herbicide. Systemic herbicides kill the entire plant, unlike contact herbicides that leave the roots intact.

This year, a whole-lake treatment of Big Pine Island Lake will be conducted (4-28-2010 and 5-14-2010) with a herbicide called fluridone (trade name Sonar). Fluridone is a systemic herbicide that, at low doses, selectively controls Eurasian milfoil while not significantly impacting desirable native plant species. Fluridone was used previously in Big Pine Island Lake in 1996, 1999, 2002, and 2006. In accordance with Michigan Department of Natural Resources and Environment (MDNRE) permit requirements, fluridone is applied in what is called a "6-bump-6" concentration of 6 parts per billion. About two weeks after the initial treatment, the concentration of fluridone in the lake is measured and the lake is treated again to bring the concentration back up to 6 parts per billion. This year's initial fluridone was applied on April 28, 2010. The second application is scheduled for May 14, 2010. At the low dose rates permitted, fluridone is slow acting. It takes several weeks for the Eurasian milfoil to be noticeably impacted. Although the response to fluridone is initially slow, Eurasian milfoil is generally controlled the entire year of treatment and is greatly reduced the following year as well. Often, in the year fluridone is used, mechanical harvesting of vegetation is not required, though small treatments may be needed to control nuisance algae. Biologists from Progressive AE will conduct post-treatment plant surveys to evaluate treatment effectiveness.

As required in the original MDNRE permit for the fluridone treatment, a detailed plant survey of the entire lake will be conducted in late summer of this year and again next year. Enjoy the summer at Big Pine Island

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