



2011 Six Mile Lake Summary:

Since 2009, the Six Mile Lake Association has utilized EnviroScience's Milfoil Solution® to manage its Eurasian watermilfoil infestation using the native milfoil weevil (*Euhrychiopsis lecontei*). This year was the third season of stocking the weevil as part of a multiple-year program. In addition to stocking, data was collected for milfoil densities and for weevil densities. Other site observations were recorded such as native plant species present, visual indicators of a weevil population, and the overall condition of the milfoil. The following is a summary of 2011 survey and stocking activities and results:

Site 1 (S1)

This site is located on the east side of the lake, south of the power line and north of both S2 and S3. 5,000 weevils were stocked in S1 in 2011. This site displayed the most weevil-induced damage and twenty-four weevil life stages were found on the analyzed plant samples over the course of the summer. Field observations included extensive plant damage, as well as the presence of adult weevils. From the time of stocking to follow-up surveys this year, milfoil density has decreased by about 25% from 88.89 stems/m² to 66.67 stems/m².

Site 2 (S2)

This site is located on the west side of the lake, between S1 and S3. 5,000 weevils were stocked in S2 in 2011. Six weevil life stages were found during laboratory analysis of the initial and follow-up survey samples. A native weevil population exists at this site, but visual observations found few milfoil stems damaged by weevils compared to S1. Despite this visual analysis, sample analysis shows that milfoil density at this site has decreased by approximately 86% from the time of stocking to the follow up survey (211.11 stems/m² to 29.63 stems/m²).

Site 3 (S3)

Site 3 is located on the southwest side of the lake, south of both S1 and S2. 6,000 weevils were stocked in S3 in 2011. From the time of stocking to the follow-up survey, milfoil density in this site has decreased by 70% from 133.33 stems/m² to 40.74 stems/m². Four weevil life stages were observed at this site during laboratory analysis and weevil-induced damage to the milfoil was observed in the field.

In most cases, milfoil densities increase over the growing season from May to August. The fact that the opposite has happened in Six Mile Lake this year is a positive indicator that the weevil population is thriving. This is further supported by finding adult weevils and various life stages in all sites this year. In addition, the milfoil at all three stocking sites was observed to be one to three feet below the surface of the water and has not been healthy enough to grow to the surface this year. These factors contribute to a program that is progressing at an acceptable rate considering the lower numbers stocked in the initial year of this program.