



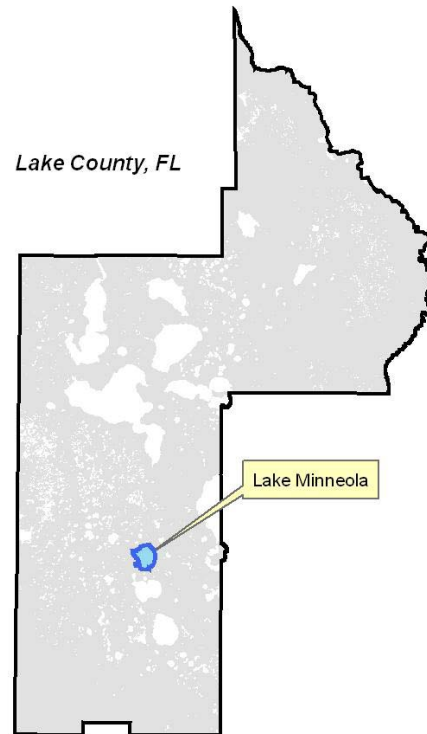
Lake Minneola EcoSummary

June & July 2009

Lake Condition Index (LCI): A biological assessment tool developed by the Florida Department of Environmental Protection to indicate ecosystem health and identify impairment in Florida lakes

Watershed Characteristics

Located in south Lake County, the 1,883-acre Lake Minneola is surrounded largely by a mix of residential, natural (wetlands and forest/rangelands) and commercial lands. Lake Minneola is part of the Clermont Chain of Lakes and is designated as one of the Outstanding Florida Waters (OFW). An OFW is a water body designated worthy of special protection because of its natural attributes. This special designation is intended to protect existing good water quality. Because Lake Minneola is larger than 1000 acres in size, two separate LCIs were performed, one on the north end and one on the south end. The 12 benthic grabs for Lake Minneola South were taken in July of 2009 and 12 benthic grabs for Lake Minneola North in June of 2009.



Results

Lake Minneola North and South both received a very good rating on the LCI. Twenty five different macroinvertebrate taxa were collected on the north portion and twenty four taxa on the south. On Lake Minneola North, the most abundant macroinvertebrates collected were the Chironominae *Pseudochironomus sp.*, the Mollusca *Corbicula fluminea* the Oligochaeta *Limnodrilus hoffmeisteri* . These three groups accounted for 38% of the total population of macroinvertebrates present in the north portion of the lake. The Chironominae *Polypedilum halterale* group and *Ablabesmyia (Asayia) annulata*, the Oligochaeta *Limnodrilus hoffmeisteri* and Ephemeroptera *Hexaginia* were the predominate taxa present in the south portion of Lake Minneola and comprised 7.4%,7.4% 18.5% and 14.8% respectively, of the total population of macroinvertebrates. The benthic samples taken in the lake were predominately sand with some coarse particulate organic material and a small amount of muck (found mainly in north portion of the lake). Lake Minneola North LCI received a Hulbert Index score of 17. Lake Minneola South received a Hulbert Index score of 19. The Hulbert Index is based on the

number of pollution-intolerant lake macroinvertebrate species present. Therefore, higher Hulbert Index scores indicate a greater number of pollution sensitive species present or better water quality. Both Minneola North and South had a large number of organisms which are sensitive to pollution.



Hexagenia mayfly larvae

Significance

Lake Minneola is in very good condition, as is reflected in the biota (LCI) and in water chemistry. The Lake County Water Authority will continue to monitor the Clermont Chain of Lakes, one of the Outstanding Florida Waters, to ensure continued good water quality.

Suggestions

Lakeside property owners can help keep the lake healthy by minimizing, or eliminating, the use of pesticides, herbicides and inorganic fertilizers, by preserving native shorezone vegetation, by minimizing impervious surfaces on their properties, by being careful with the use and storage of petroleum products, and by properly maintaining septic or sewer systems.



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