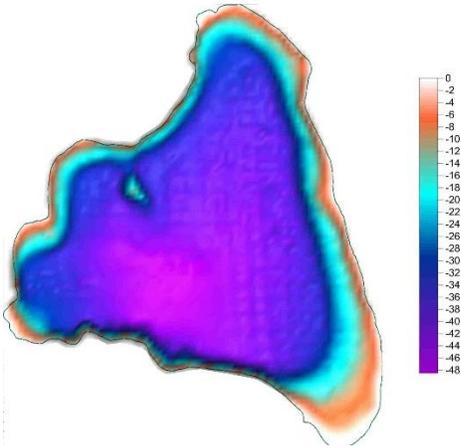


Lake Mary Ronan

Trophic Status: Mesotrophic

Surface Area: 1,513 acres

Maximum Depth: 47 feet (14.3 meters)



Lake Mary Ronan has a basin area of 18,977 acres. The geology of the drainage area is dominated by the Ravalli group belt series (87%) with the remainder split between the Wallace formation belt series (4%) and glacial till (1%) (Ellis & Craft, 2008).

Lake Mary Ronan is located in Lake County at an elevation of 1,131 meters. Fish distribution records indicate a presence of kokanee, largemouth bass, pumpkinseed, rainbow trout, westslope cutthroat trout, and yellow perch. There is one motorized public access site located on the east side of the lake.

Water Chemistry Samples were not collected at Lake Mary Ronan East during the summer of 2011. The lake is 303d listed for Chlorophyll (a).

There are two monitoring locations on the lake. The east site is closer to the shoreline where there are houses, and the west site is located more mid-lake. Lake Mary Ronan west and east continue to rank highest among large lakes for total phosphorus, total nitrogen, and chlorophyll (a) The lake's 2010, 2011, and 2016 average calcium concentration was 16.2mg/L classifying it as a low risk for zebra mussel colonization. The 2012 alkalinity level was reported at 54mg/L.

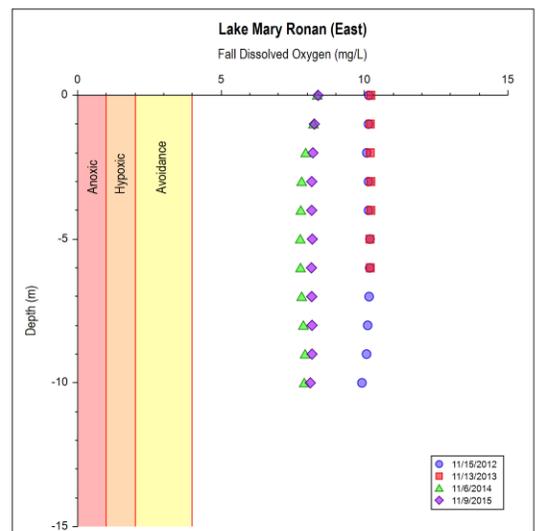
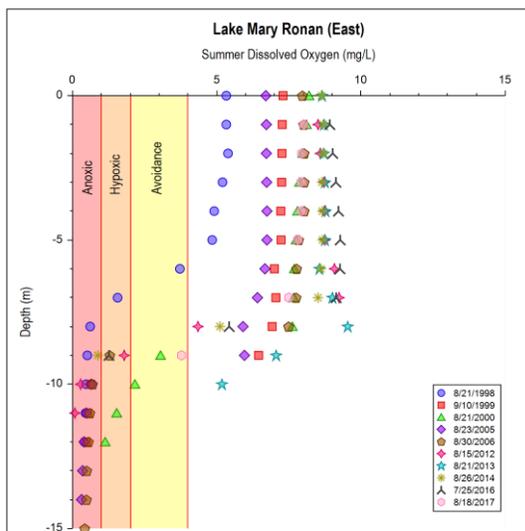
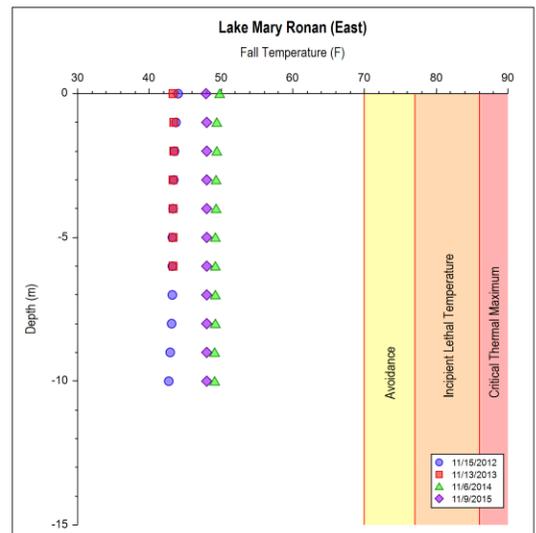
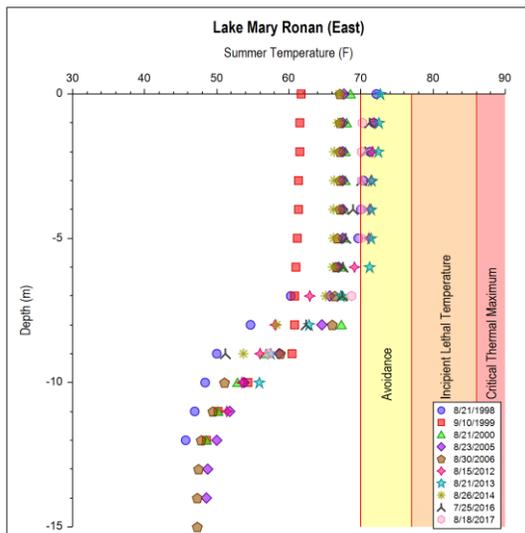
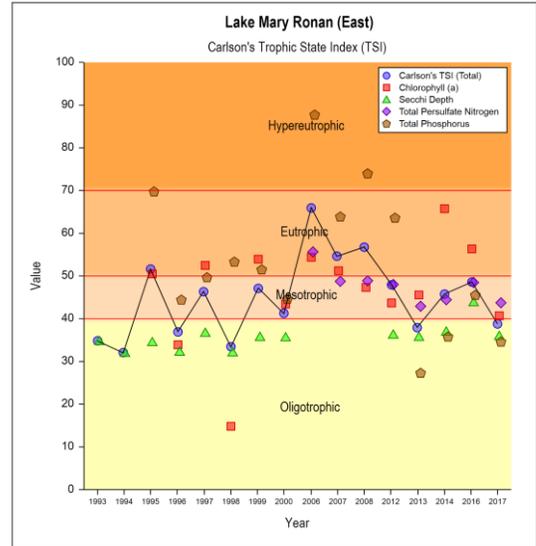
In 2011, a EWM survey was conducted at many locations including the public access site yielding no suspect results. Additional surveying is recommended based on nutrient levels, lake size, recreational use, and the amount of macrophytes observed during the initial survey. All Hydrolab profiles show that Lake Mary Ronan was mixed during summer sampling.

Lake Mary Ronan (East)

Location: 47.9362 N, 114.39283

Depth: 49 feet (15 meters)

Temperature and oxygen profiles show that Lake Mary Ronan East was stratified during summer sampling dates. Temperature profiles indicate that Mary Ronan East has been within the avoidance threshold range for salmonids at depths of up to 6 meters during August. Oxygen profiles show that Mary Ronan East has been between avoidance and anoxic concentration thresholds for salmonids at depths greater than 6 meters. Anoxia has been observed at depths greater than 8 meters. When anoxic conditions occur at the benthic interface an oxidation reduction potential exists and nutrients stored in the sediment can be liberated back into the water column given the right conditions.



Lake Mary Ronan (West)

Location: 47.9259 N, 114.40219

Depth: 43 feet (13 meters)

Temperature and oxygen profiles show that Lake Mary Ronan West was stratified during summer sampling dates. Temperature profiles indicate that this site has been within the avoidance threshold range for salmonids at depths of up to 6 meters during July and August.

Oxygen profiles suggest that Mary Ronan West has been between avoidance and anoxic concentration thresholds for salmonids at depths greater than 8 meters. Anoxia has been observed at depths greater than 9 meters.

When anoxic conditions occur at the benthic interface an oxidation reduction potential exists and nutrients stored in the sediment can be liberated back into the water column given the right conditions.

