

Skyles Lake

Surface Area: 38 acres

Maximum Depth: 16 feet (4.9 meters)

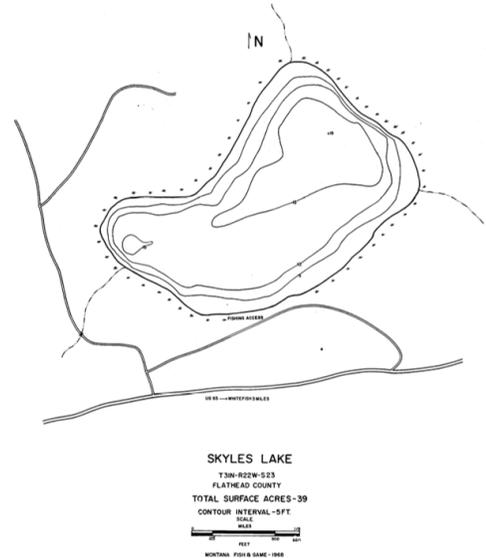
Drainage Size: 1,260 acres

Shoreline Length: 5,755 feet (1.09 miles)

Elevation: 3,199 feet (975 meters)

GENERAL INFORMATION

The lake is located in Flathead County 3 miles west of Whitefish on Highway 93. The drainage area is dominated by the Piegan group belt series (84%) with the remainder being composed of alluvium and glacial till. Surrounding land ownership is entirely private. There is one primitive non-motorized public access that is difficult to find on the south side of the lake.



Location: 114.05853 N, 114.401396 W

FISHERIES INFORMATION

The lake was chemically treated in the 1950s to allow trout populations to flourish, but illegal introductions of sunfish and bass have dramatically influenced the fish community assemblage. Fish distribution includes largemouth bass, northern pike, pumpkinseed, sunfish, reidside shiner, westslope cutthroat trout, and yellow perch. For more information see: <https://fwp.mt.gov/fish/stocking.html>

ADDITIONAL INFORMATION

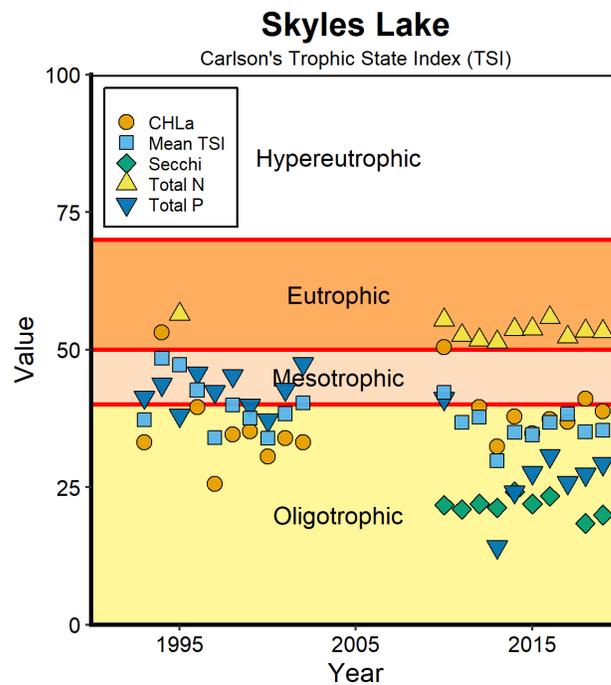
- A macrophyte survey was conducted in 2014.
- In 2015 and 2016, Skyles ranked highest among small lakes for total persulfate nitrogen.
- Current NMLN citizen volunteers include: Cody McCarthy

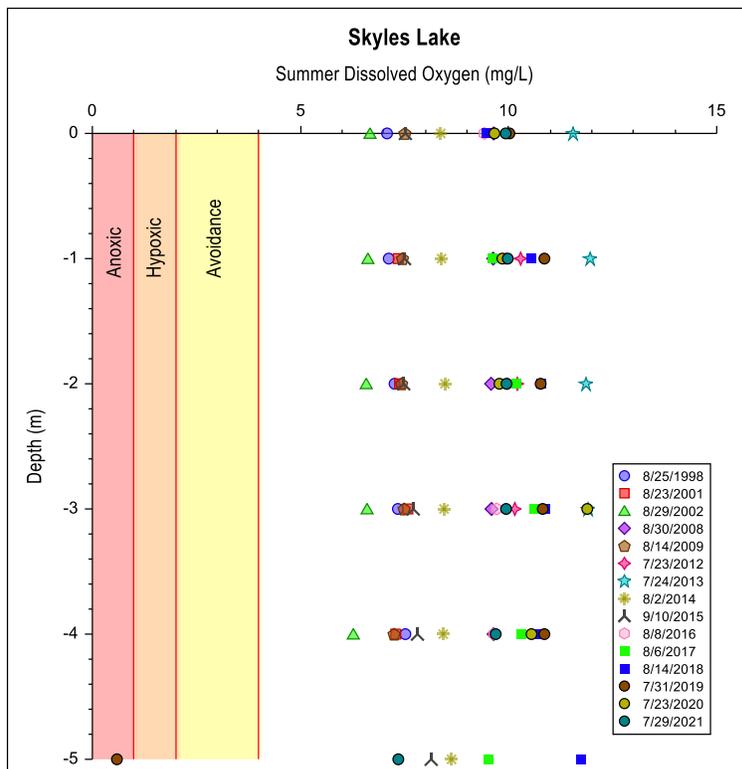
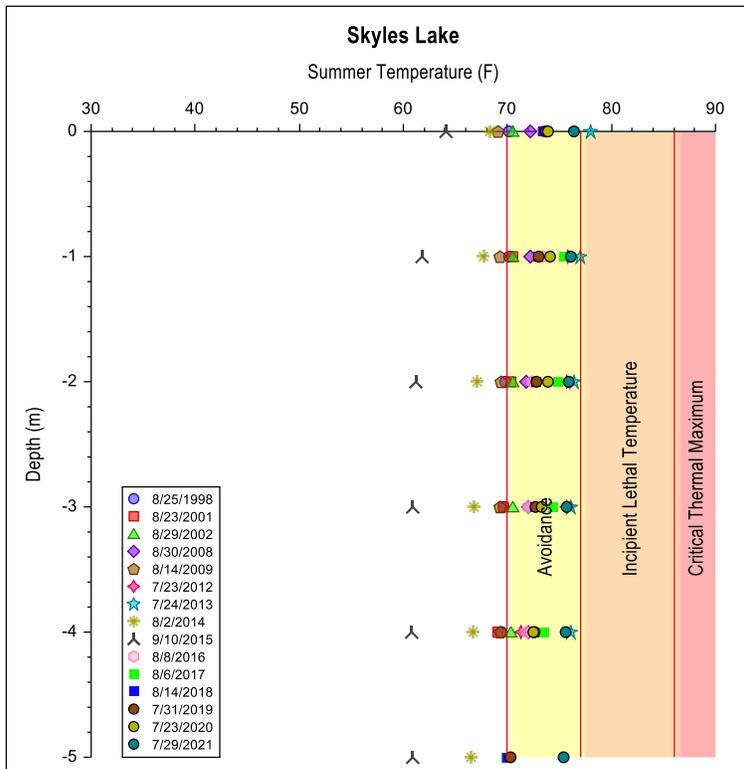


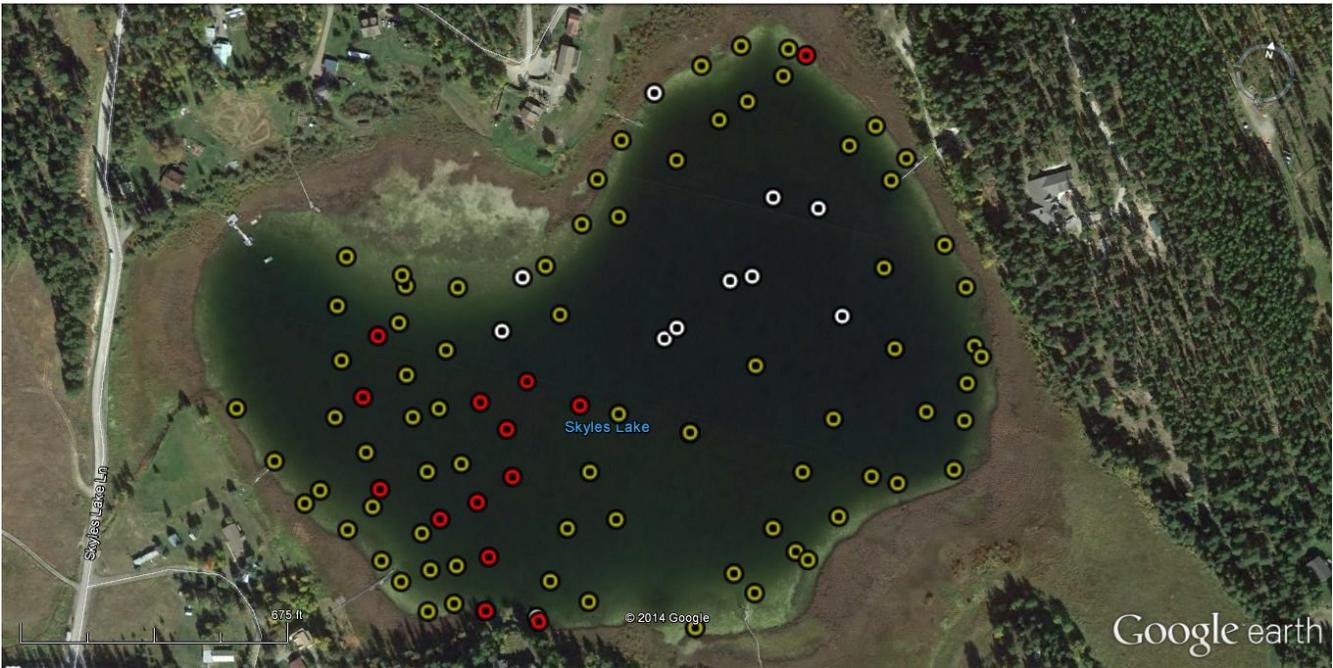
Volunteer Cathi Lai rows to the monitoring location.

LAKE METRICS SUMMARY AND SCORES

Metric	Score	Description
Cold-water fish habitat	Low	Temperature and oxygen profiles show that Skyles Lake was evenly mixed during all of the summer sampling dates. Summer temperature profiles show Skyles in avoidance thresholds for salmonids throughout the depth profile. Dissolved oxygen levels are outside of the avoidance threshold. Skyles is considered a warm water fishery.
Nutrient Levels	Medium-high	Skyles Lake often ranks medium to high for small lakes for total phosphorus, total nitrogen, and chlorophyll (<i>a</i>).
Nutrient Trend	Consistent	No trend is apparent
Trophic Status	Oligo-mesotrophic	Carlson's Trophic Index trend shows Skyles Lake is consistently oligo-mesotrophic except total nitrogen levels fall into the eutrophic category.
Dreissenid Colonization Potential (Calcium)	High	Skyles Lake's 2010, 2011, and 2016 average calcium concentration was 39 mg/L classifying it as a high risk for zebra mussel colonization. The 2012 alkalinity level was reported at 210 mg/L.
Known AIS infestations	None	



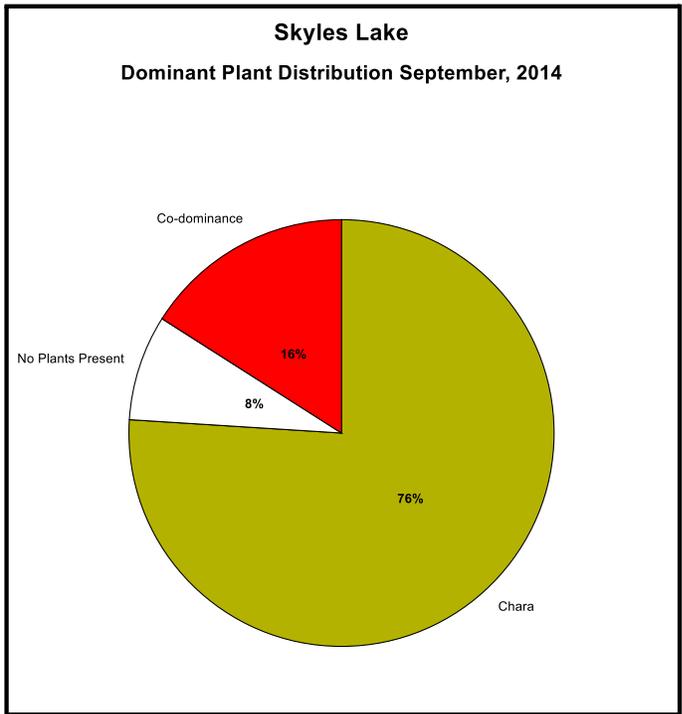




A macrophyte survey was conducted on Skyles Lake on September 2, 2014. A total of 100 sites were surveyed for aquatic plants, shoreline plants and substrate. Skyles is an algae dominated lake (chara).

Shoreline plants in order of dominance were:
 1) Bulrush, 2) Cattail, 3) Carex, 4) Equisetum

Substrate composition for all sites was predominately gyttja, followed by gravel, boulder and cobble.



Co-dominant Plant Species Composition	Percentage of Co-dominant Slice
Chara / Filamentous Algae	87.5
Chara / Yellow Water Lily	6.25
Chara / Bladderwort	6.25

Chara or muskgrass is anchored green algae that are native to Montana that spends its entire life submerged without flowering. Chara is often referred to as muskgrass or skunkweed because of its foul odor. Because Chara is usually encrusted with carbonates, it typically feels crunchy to the touch. Skyles Lake is almost completely dominated by Chara.

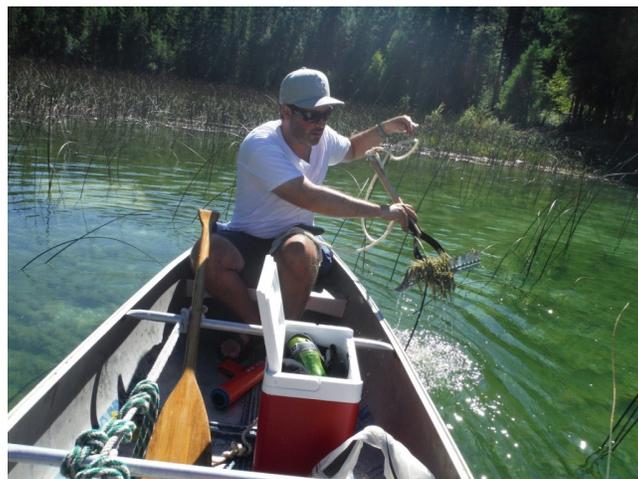


Chara. Photo courtesy WLI.



A close up of chara. Photo courtesy WLI.

Program Coordinator, Josh Gubits (right), surveys the lake and identifies plants on the rake. Both ocular surveys and rake throws were used to determine plant dominance. The maximum depth of the rake was 6.1m. Where lake depth exceeded 7.6m, the rake was not thrown and a data point was not recorded. All plants observed at each site were recorded, and rated on a scale of 1-5 for density.



Josh Gubits of AquaTerra Solutions surveys lake vegetation. Photo courtesy WLI.