

Lake Report: Bone Lake, Polk County

Data for the Bone Lake report was collected on August 23, 2006. Data collectors for this report were Cody Mattison, Don Taylor, and Keith Groehler. Refer to data collection sheets for general lake information.

Bone Lake is located in Polk County, Wisconsin, a few miles west of Luck. Bone Lake's legal description is townships 35 and 36, range 16, sections 31, 5, 6, 7, 8, 17, 18, and 20. Bone Lake is 1,781 acres and has a maximum water depth of 43 feet.

Physical Characteristics

Physical parameters measured include stand density (sparse, medium, or dense), sediment type (gravel, muck, sand, detritus, rock, or combination), sediment depth, water depth, DO (ppm), pH, temperature, and conductivity.

Ranges for the above physical parameters were taken from within the rice beds and listed below.

	Low	High
Sediment Density (in)	1.5	2
Water Depth (in)	12	19
pH	6.36	9.56
Temperature (°C)	19.5	24.1
Conductivity (mV)	-017	-109

The water level throughout the lake seemed to be at an average level for the lake. We could not see a high water mark anywhere and it was not flooding in any areas.

Wild rice was only found on the north end of the lake. The sediment in the area was a slight muck mixed with sand. The sediment density varied from 1.5-2 in. Around the area surveyed, the sediment appeared to be mostly sand with a light brown color.

Rice stand density at the north end of the lake was medium. There seemed to be a decent amount of rice in the area but it was not as dense as it could be possibly from competing plants and animals. The rice seemed to cover approximately 60% of the coverage area.

The rice bed acreages are as follows:

Bone Lake	Acreages
Rice bed #1	5.43 acres
Rice bed remnant	0.12 acres

Biological Characteristics

The rice did not have an extremely heavy competition with other aquatics. It seemed to be growing as well as it could in the area it inhabited. It was mixed with a little duckweed, coon tail, and common waterweed.

Throughout the lake we found a variety of aquatic plants including: Arrowhead (*Sagittaria spp.*), bulrush (*Scirpus acutus, steinmetzii*), Cattail (*Typha latifolia*), Coon tail (*Ceratophyllum demersum*), Common Waterweed (*Elodea Canadensis*), Duckweed (*Lemna minor*), algae, clasping leaf pondweed (*Potamogeton richardsonii*), Curly leaf pondweed (*Potamogeton crispus*), sedge (*Carex spp.*), white water-lily (*Nymphaea odorata*), and wild celery (*Vallisneria americana*).

Several animals were spotted while on the lake including painted turtles, eagles, blue herons, green herons, ducks, otter, bass, minnows, bluegills, and snails.

The only rice in Bone Lake seemed to be quite healthy. Some of the plants appeared to be possibly burnt from the sun. The bed looked fairly healthy other than the burnt plants and looked like it will be possible for harvest for one or several people.

Management Recommendations

The rice appears to be growing in the only possible place for it to grow. There are several small bays that could have once supported rice but now are well developed with docks in the water in almost every available spot. The areas where the docks are not inserted into the water, the bulrush has taken over. The only thing that could help the rice at this point is continued monitoring of the rice where it is at and possibly helping it reseed itself.