June 1 -- Early Summer Survey

In early summer, there was 100% coverage of the lake with aquatic plants. The most abundant plant in Birch Lake was fern pondweed and it was found at 96% of the 54 stations. Overall aquatic plants grew to a depth of 5 feet in 2007. Eurasian watermilfoil was found at 2 sites and a possible hybrid milfoil was found at 16 additional sites. A summary of the occurrence and density of aquatic plants is shown in Table 8.

An aquatic plant coverage map is shown in Figure 13.

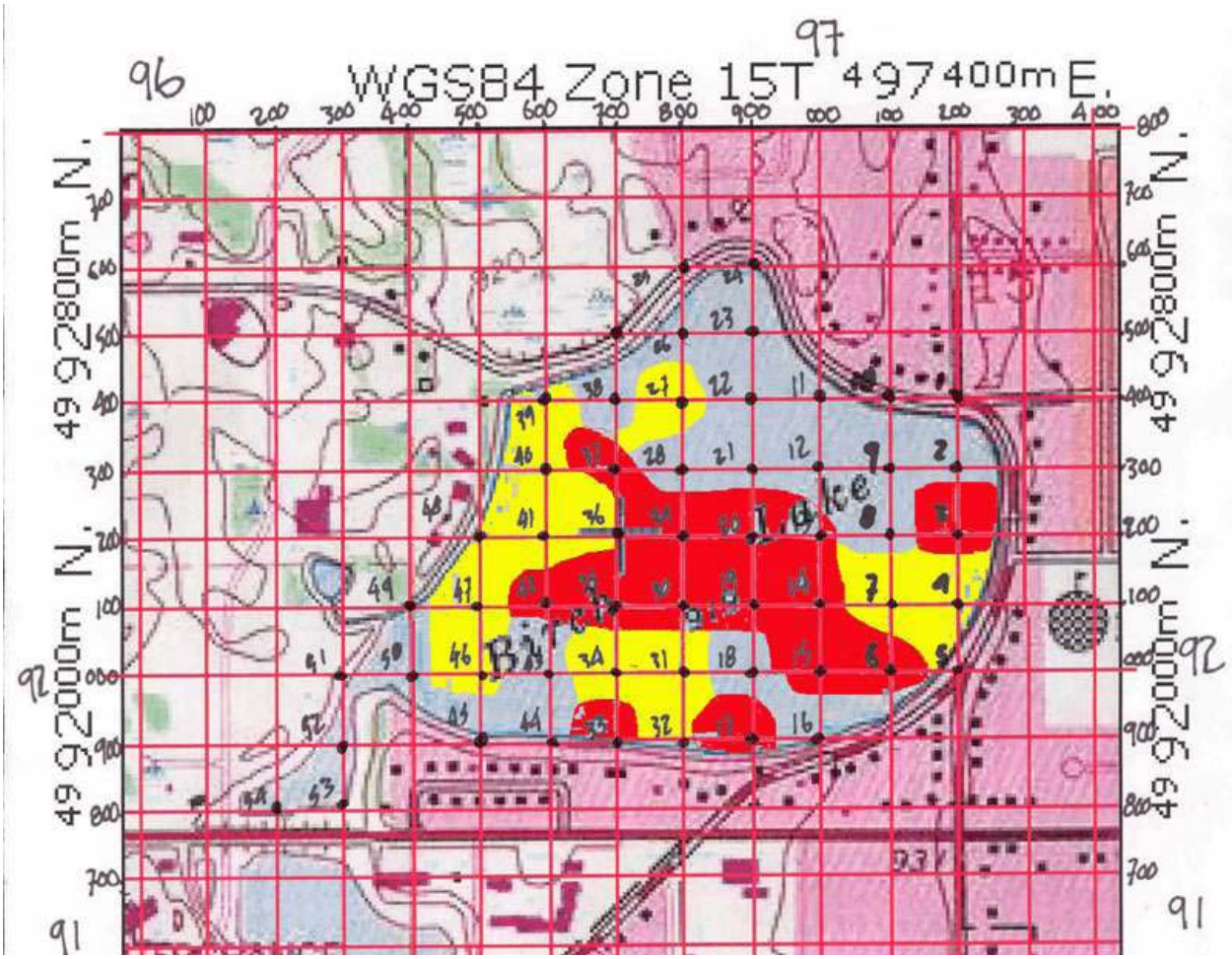

Figure 13. Early season (June) distribution of plants matting at the surface (shown in red). Areas with abundant growth but not reaching the surface are shown in yellow. Fern pondweed was the dominant plant.

Table 8. Birch Lake aquatic plant occurrences and densities for the June 1, 2007 survey based on 57 stations. Density ratings are 1-5 with 1 being low and 5 being most dense.

	All Stations (n=57)		
	Occur	% Occur	Density
Three square (*Scirpus americanus*)	1	2	1.0
Arrowhead (*Sagittaria*)	1	2	1.0
Watershield (*Brasenia schreberi*)	2	4	1.0
Spatterdock (*Nuphar variegatum*)	8	15	4.0
White waterlilies (*Nympaea tuberosa*)	1	2	1.0
Chara (*Chara sp*)	7	13	1.1
Needle spikerush (*Eleocharis acicularis*)	1	2	1.0
Elodea (*Elodea canadensis*)	14	26	1.0
Northern watermilfoil (*Myriophyllum sibiricum*)	1	2	2.0
Milfoil (*M. sp*)	16	30	1.6
Eurasian watermilfoil (*M. spicatum*)	2	4	1.5
Cabbage (*Potamogeton amplifolius*)	17	31	1.6
Illinois pondweed (*P. illinoensis*)	1	2	0.5
Fern pondweed (*P. Robbinsii*)	52	96	3.6
Rosette (*Sagittaria sp*)	1	2	1
filamentous algae	3	6	1.3

September 5 -- Late Summer Survey

The dominant plant in September of 2007 in Birch Lake was fern pondweed (Table 10). Eurasian watermilfoil was found in this late summer survey. The occurrence and density of plants for each transect are shown in Table 11.

Overall, aquatic plants grew out to a depth of 5 feet and were found throughout the entire lake. A map of aquatic plant coverage is shown in Figure 14. Fern pondweed continues to grow densely in Birch Lake.

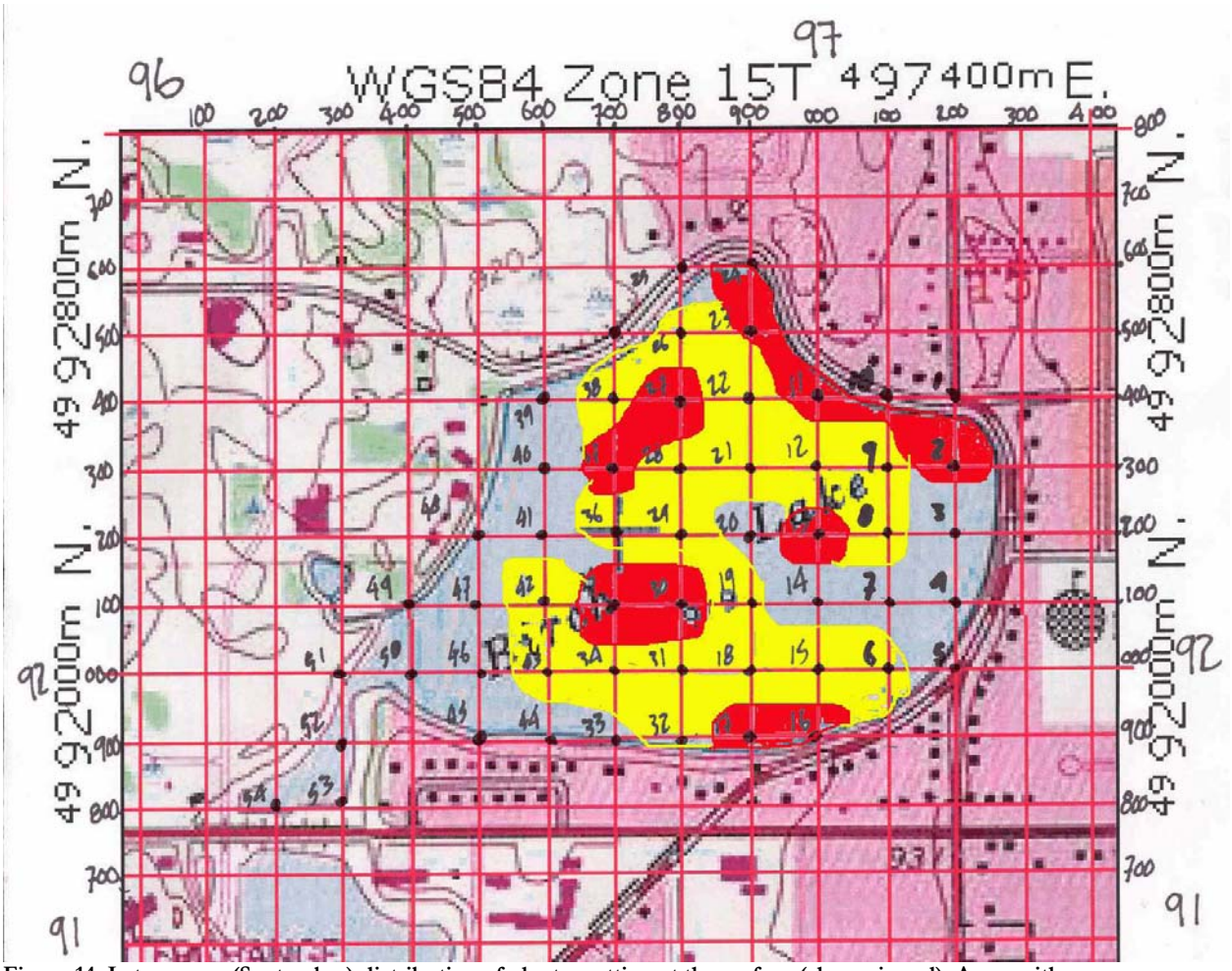

Figure 14. Late season (September) distribution of plants matting at the surface (shown in red). Areas with abundant growth but not reaching the surface are shown in yellow. Fern pondweed was the dominant plant.

Table 10. Birch Lake aquatic plant occurrences and densities for the September 5, 2007 survey based on 57 stations. Density ratings are 1-5 with 1 being low and 5 being most dense.

	All Stations (n=47)		
	Occur	% Occur	Density
Bulrush (*Scirpus sp*)	1	2	1.0
Watershield (*Brasenia schreberi*)	2	4	4.5
Spatterdock (*Nuphar variegatum*)	1	2	4.0
White waterlilies (*Nympaea tuberosa*)	1	2	2.0
Coontail (*Ceratophyllum demersum*)	1	2	1.0
Elodea (*Elodea canadensis*)	3	6	1.0
Eurasian watermilfoil (*Myriophyllum spicatum*)	16	34	1.5
Naiads (*Najas flexilis*)	1	2	1.0
Cabbage (*Potamogeton amplifolius*)	20	43	0.9
Fern pondweed (*P. Robbinsii*)	47	100	3.8
Water celery (*Vallisneria americana*)	12	26	1.5

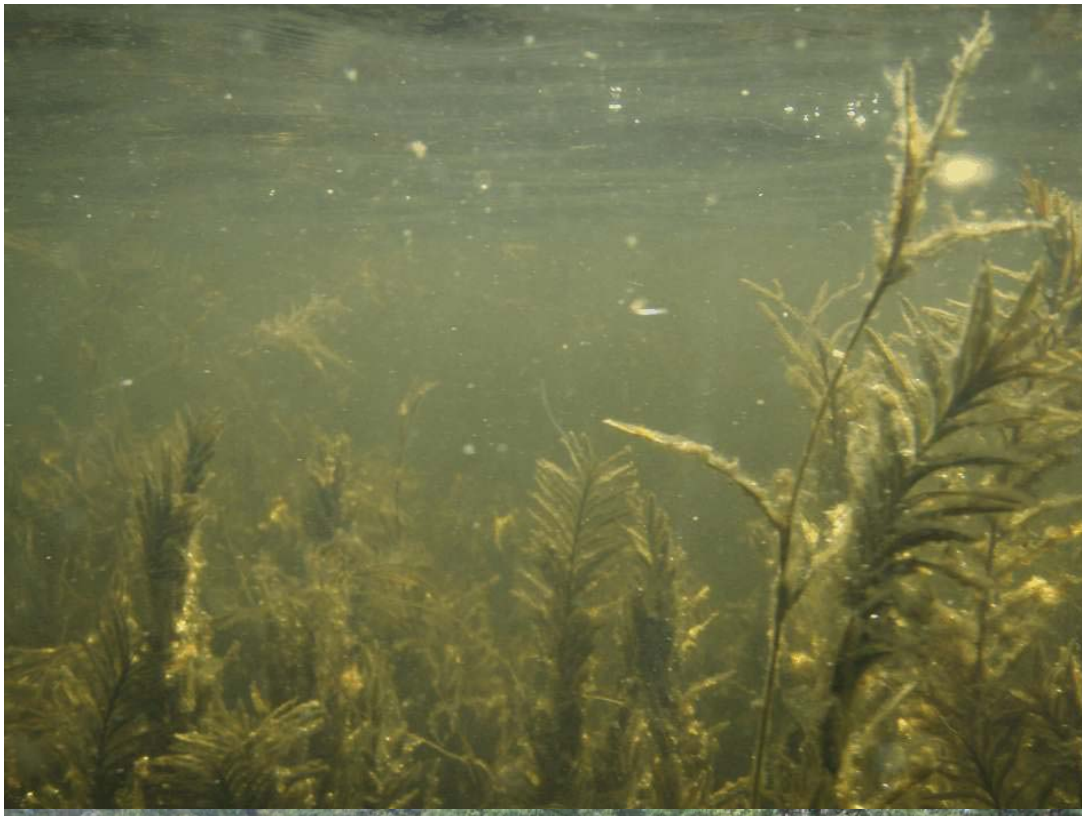

Figure 15. [top] Fern pondweed is the dominant plant in Birch Lake.
[bottom] Fern pondweed was sampled at every site in the September 2007 plant survey. Here is fern pondweed at a density of a "4".