

Complete Report

Results of Lake Assessment in the Lake Onalaska Lake Unit, Navigation Pool 7 of the upper Mississippi River, Fall 2008.

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28 July 2009

Purpose

The purpose of this work is to monitor the fall population length frequency and catch per unit effort of sunfishes, yellow perch and crappies in parts of Navigation Pool 7 of the upper Mississippi River. A secondary purpose is to estimate length and size distributions of other game fishes caught incidentally.

Methods

The Lake Onalaska (LO) Lake Unit is located in Navigation Pool 7 of the upper Mississippi River (Figure 1). The lake unit has a total water surface area of 9044 acres.

Standard Upper Mississippi River Conservation Committee (UMRCC) fyke nets were set by fisheries personnel. These fyke nets had a 50ft floating lead line, 3ft high and 6ft wide frame, and had a 0.75 inch bar mesh. Nets were set at locations thought likely to catch centrarchids and other fishes typical of backwaters from September 9 through September 12, 2008 (Figure 2). A total of 9 locations were chosen, with 1 fyke net at each. These nets fished a total of 35.32 net-days and were emptied every day during which all fish were removed.

In addition to fyke netting, an 18 foot-long welded aluminum flat-bottomed maxi-boom electro shocking boat equipped with a Wisconsin Box was used on approximately 10 minute day-time runs. Two booms extended 8 feet from the bow and the box controls were adjusted to produce 16 amps. A total of 47 runs were done during 7.849 hours of sampling (Figure 3) done on four days from October 1 through October 7, 2008. For both gears, all fish were counted. Of these fish, all pan fish and game fish were measured by total length.

Findings

The mean daily ambient water temperatures during 2008 sampling was 16.6°C and generally declined over the nine days of sampling (Table 2). During sampling, the water surface elevation measured at the Lock and Dam 7 pool gage changed as much as 0.18 feet. The mean daily flow in cubic feet per second was 12022 and fluctuated as much as 4300 cubic feet per second.

Fyke Netting Catch Per Effort

A total of 23 fish species and one hybrid were recorded from 967 fish captured in fyke nets (Table 3). The most common was bluegill followed by pumpkinseed, yellow perch and black crappie. Mean catch per net-day for these four fishes was 18.62, 3.98, 1.16 and 0.74, respectively. The mean catch per net-day for all species combined was 27.29 (standard deviation = 22.66, n=35).

Electro Shocking Catch Per Effort

A total of 38 fishes and one hybrid were recorded from 1806 fish captured during electro shocking (Table 4). The most common was largemouth bass followed by bluegill, spotted sucker and yellow perch. Mean

catch per hour for these four fishes was 79.88, 62.68, 15.80, and 12.10, respectively. The mean catch per hour for all species combined was 230.09 (standard deviation = 160.68, n=47).

Length Distribution from Fyke Netting

The frequency distribution of total length in inches for black crappie, bluegill, pumpkinseed and yellow perch from fyke nets are given in Figures 4, 6, 8 and 11. The mean lengths of measured fishes are given in Table 5. A total of 26.82 percent of the black crappies were greater than 9 inches. For bluegill, a total of 1.06 percent was greater than 7 inches while 1.42 percent of pumpkinseeds were greater than 7 inches. A total of 31.71 percent of yellow perch was larger than 8 inches.

Length Distribution from Electro Shocking

The frequency distribution for total length in inches for black crappie, bluegill, pumpkinseed, largemouth bass and yellow perch are given in Figures 5, 7, 9, 10, and 12. The mean lengths of fishes measured are given in Table 6. A total of 2.94 percent of the black crappies was greater than 9 inches. No bluegills and pumpkinseeds were greater than 7 inches while 2.71 percent of largemouth bass were larger than 14 inches. A total of 12.63 percent of yellow perch was larger than 8 inches.

Comparisons with Other Lake Units and Time Periods, Fyke Netting

Fyke netting data from the LO Lake Unit was compared to 11 other upper Mississippi River lake units sampled in the fall of 2007 and 2008. These 11 lake units include Robinson/Peterson/Beef Slough in Pool 4, Upper Pool 5 and Belvidere/Spring Lake in Pool 5, Upper Pool 5A in Pool 5A, Trempealeau Lakes in Pool 7, Goose Island/Stoddard in Pool 8, Cold Springs, Blackhawk, Ronkoski Slough, Goose Carcass Lake in Pool 9 and Sny McGill, Ambro and Harpers in Pool 10 (see Figure 1).

Catch per net-day for all fish combined was greatest in Harpers (77.38) (Table 7) and LO (27.29) was different only from Harpers and was the same as the remaining ten.

Catch per net-day for selected target species combined is presented in Table 8. Target species included black crappie, bluegill, largemouth bass, northern pike, smallmouth bass, pumpkinseed, white bass, white crappie, yellow bullhead, walleye, sauger and yellow perch. For these species combined, LO (25.01) did not differ from any of the 11 lake units.

Catch per net-day for selected individual species is presented in Table 9. For LO bluegill, catch rates were no different than any other lake unit. For each of black crappie and northern pike, LO catch rates were lower than four other lake units. LO pumpkinseed catch rate was higher than ten other lakes units. LO yellow perch catch rate was the same as most other lake units.

We compared mean total length of individual species caught with fyke nets among five other lake units sampled in 2008 (Table 10). Overall, sizes of selected LO fish were average compared to other lake units. LO black crappie mean size (8.39 inches) was different only from Belvidere/Spring Lake (5.00 inches) and Robinson/Peterson/Beef Sl. (9.97 inches). LO had averaged sized bluegills (5.51 inches) and were larger than those from Belvidere/Spring Lake (4.12 inches) but smaller than Trempealeau Lakes (6.36 inches), Goose Carcass Lake (6.09 inches) and Robinson/Peterson/Beef Sl. (6.00 inches). Northern pike mean size was the same across all lake units (about 24.7 inches). Pumpkinseeds were the same size from LO and Trempealeau lake units, the only two lake units where adequate sample sizes were available for this species. LO yellow perch (8.12 inches) were larger than the Sny McGill lake units (6.08 inches) but smaller than Trempealeau Lakes (10.5 inches).

We also compared catch rates and mean total lengths from fyke netting between 2008 and similarly collected from 2002-2004 in Lake Onalaska. We compared catch rate data among these two periods that were collected from September through early October. Mean length comparisons included these months plus mid August, 2003.

Catch per net-day for all fish combined was greatest in 2008 (27.29) (Table 14) followed by 2002 (21.65), 2004 (16.64) and 2003 (7.83). The 2008 catch rate was significantly higher than 2003 and 2004 and was the same as 2002.

Catch per net-day for all target fish combined from fyke netting was greatest in 2008 (25.01) (Table 15) followed by 2002 (18.75), 2004 (13.74) and 2003 (6.66). As with all fish combined, 2008 target fish catch rate was significantly higher than 2003 and 2004 and was the same as 2002.

We compared mean total length for four species among fyke netting years: black crappie, bluegill, pumpkinseed and yellow perch. The 2008 sample had consistently larger fish for each species (Table 16). Black crappie, bluegill and yellow perch from 2008 were significantly larger than two of the three earlier years and the same for the third year. Pumpkinseeds were larger than 2003 and the same size as the remaining two sampling years.

Comparisons with Other Lake Units, Electro Shocking

Electro shocking data from the LO Lake Unit was compared to 11 other upper Mississippi River lake units sampled in the fall of 2007 and 2008.

Catch per hour for all target fish combined was the same in LO (173.14) as all other lake units except one: Cold Springs, Blackhawk, Ronkoski Slough (302.80) (Table 11). Target species included black crappie, bluegill, largemouth bass, northern pike, smallmouth bass, pumpkinseed, white bass, white crappie, yellow bullhead, walleye, sauger and yellow perch.

Catch per hour for selected individual species is presented in Table 12. LO bluegill, northern pike, smallmouth bass and yellow perch catch rates were no different for each of these species than other lake units (about 62.68, 2.42, 2.55 and 12.10, respectively). For LO black crappie, the catch rate (4.33) was different only from Upper Pool 5A and Ambro. For largemouth bass in the LO Lake Unit, the catch rate (79.88) was the same as ten other lake units. For LO sauger, the catch rate (0.38) was lower than two other lake units.

We compared mean total length of individual species caught with electro shocking among 2008 lake units (Table 13). In general, LO electro shocked target fish were significantly smaller than ones from the other five lake units. LO black crappies (4.22 inches) were significantly smaller than one lake unit and the same as the remaining four. Mean total length of LO bluegills (3.43 inches) and largemouth bass (5.29 inches) were the smallest of all six lake units. LO northern pike (10.93 inches) were significantly smaller than three other lake units. Mean total length of LO yellow perch (4.49 inches) were smaller than only those from Belvidere/Spring Lake and were the same size as the remaining four lake units..

We investigated further the observed smaller size of electro shocked LO bluegill and largemouth bass by comparing whether smaller fish catch rates were higher, or whether larger fish catch rates were lower. Electro shocking catch rates of bluegills less than six inches and less than seven inches in total length differed little among 2008 lake units. For bluegills less than six inches, catch per hour (about 53) did not differ among the six lake units (about 52.61) (Table 17) and LO ranked second. For bluegills less than seven inches, LO catch per hour (61.54) differed from only Belvidere/Spring Lake (36.53) and was the same as the remaining four lake units (about 66.99). LO catch rates ranked second as well.

In contrast, electro shocking catch rates of bluegills greater than six inches and greater than seven inches in total length differed among the six 2008 lake units. For each of the two size groups, LO catch rates (4.71 and 1.15/Hr, respectively) ranked last. But, each size group catch rate was significantly different from only one lake unit (Trempealeau Lakes, 30.88 and 7.49/Hr, respectively) and was the same as the remaining four (about 8.65 and 2.80/Hr, respectively).

These size class comparisons suggest that the observed relatively small mean size of LO bluegills is due to a scarcity of fish larger than six inches rather than a relatively greater abundance of fish less than 6 inches. The scarcity of relatively large fish could be due to three causes including: low recruitment into the 6 inch size class resulting from poor young-of-the-year recruitment or survival; a relatively greater total mortality rate of larger fish, possibly due to angling pressure or differential natural mortality, or, differential vulnerability of large LO bluegills to electro shocking sampling methods.

We did similar comparisons and obtained similar results using electro shocked largemouth bass. LO largemouth bass less than 14 inches ranked second (77.08/Hr) among six lake unit catch rates (Table 18) and statistically differed from two: Belvidere/Spring Lake and Robinson/Peterson/Beef Slough (about 39.84). In contrast, LO largemouth bass larger than 14 inches (2.80/Hr) ranked last among these lake units but was statistically less than three lake units (about 14.72). These comparisons suggest that for largemouth bass, there

were slightly larger numbers of small largemouth bass and fewer large fish. Of these two comparisons, the paucity of larger bass appears to have contributed more to the observed overall small mean size than a relatively greater number of small bass.

Similar comparisons were done on bluegill using fyke netting data rather than electro shocking data (Table 19). For both bluegill, there was no difference in LO catch rates among lake units for each of the six size groups. This is consistent with the average size of fish collected during fyke netting (see above).

Conclusions

The LO Lake Unit appears generally similar in catch rates to the other eleven Mississippi River lake units surveyed during the fall of 2008 and has increased over the last five years. Fyke net target species catch rate for this lake unit (25.01 fish per net-day) was the same as the other 2007-2008 eleven lake units. For all species combined, catch per net-day (27.29) was the same as ten of the eleven other 2007-2008 lake units. Catch rates within LO for all species combined appear to have more than doubled since 2003-2004. Similarly, the electro shocking catch rate of target species combined from the LO Lake Unit (173.14 fish per hour) was the same as ten of the other eleven 2007-2008 lake units.

From fyke netting, the mean size of target fish in the LO Lake Unit was similar to other lake units sampled in 2008.

Pan fish and game fish from LO Lake Unit electro shocking showed a different pattern for mean size. Bluegills and largemouth bass were the smallest of all 2008 six lake units. These small mean sizes were attributed to low abundance of larger individuals of each of these fishes as measured by low electro shocking catch rates. The paucity of larger fish could be due to poor recruitment or survival, greater total mortality rate of larger fish, or sampling gear bias. Black crappie, northern pike, and yellow perch were at least in the lower half of sizes.

Fyke netting through time showed a marked increase in pan fish mean size. Pan fish from 2008 were larger than two of the three previous sampling years.

In Navigation Pool 7 of the Mississippi River, Wisconsin and Minnesota fishing regulations limit harvest to 25 of each of yellow perch, rock bass and crappie. Bluegill and pumpkinseed are limited to 25 in total. White bass and yellow bass are also restricted to 25 in total. Largemouth and smallmouth bass have a 14 inch minimum size limit and a 5 total fish bag limit. All these fish have continuous open seasons.

Recommendations

1. Continue to monitoring backwater fishes in Pool 7 and other pools.
2. Using additional data, explore any longitudinal trends in mean total length or catch per effort along the Mississippi River bordering Wisconsin.

FIGURE 1. LOCATION OF 34 WDNR LAKE UNITS, UPPER MISSISSIPPI RIVER.
 (based on 1989 Long Term Resource Monitoring Program Land/Water and Aquatic Area Coverage)

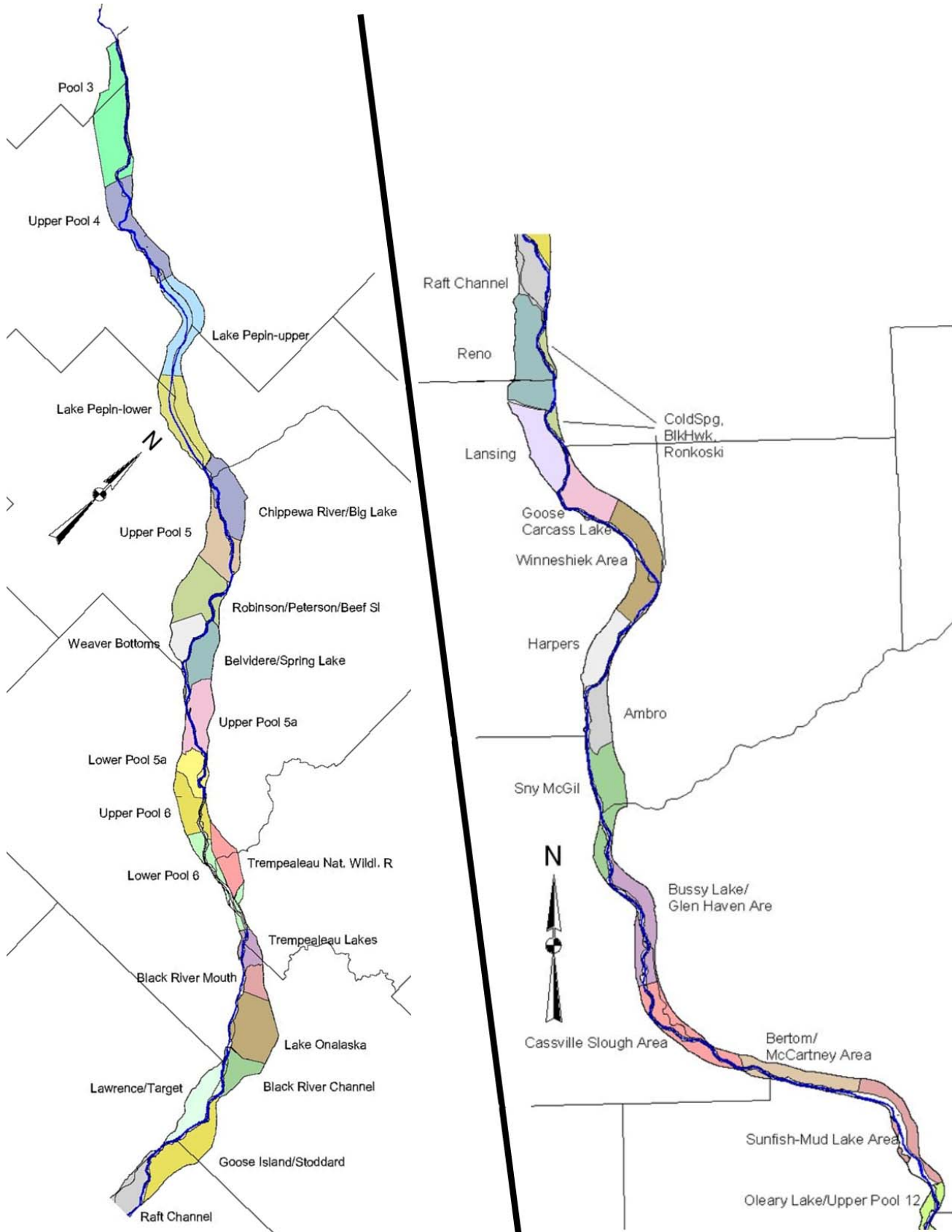


FIGURE 2. FALL 2008 FYKE NET LOCATIONS, LAKE ONALASKA LAKE UNIT. (2008 NAIP PHOTO).

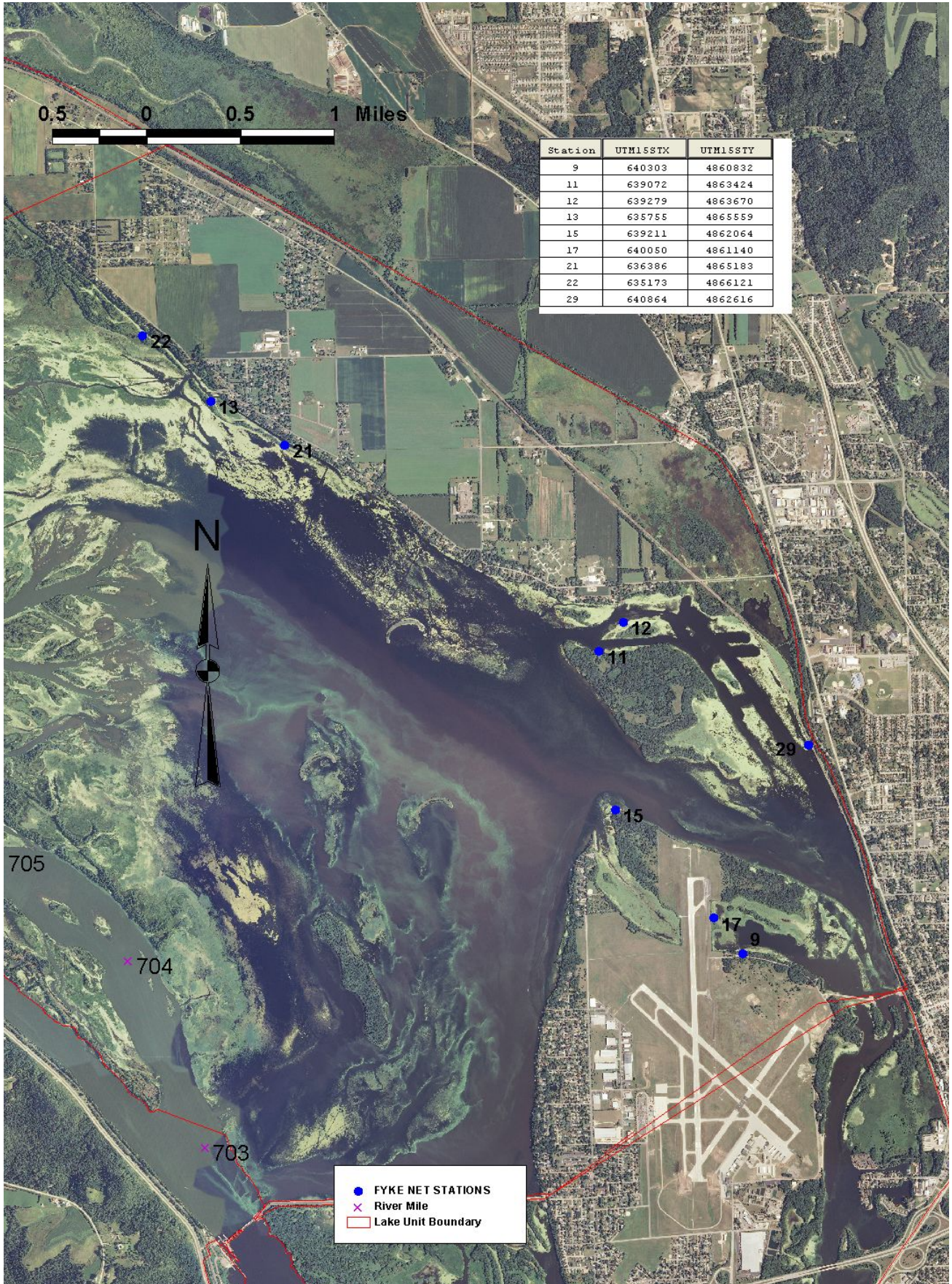


FIGURE 3. FALL 2008 ELECTROSHOCKING RUNS, LAKE ONALASKA LAKE UNIT. (2008 NAIP Photo).

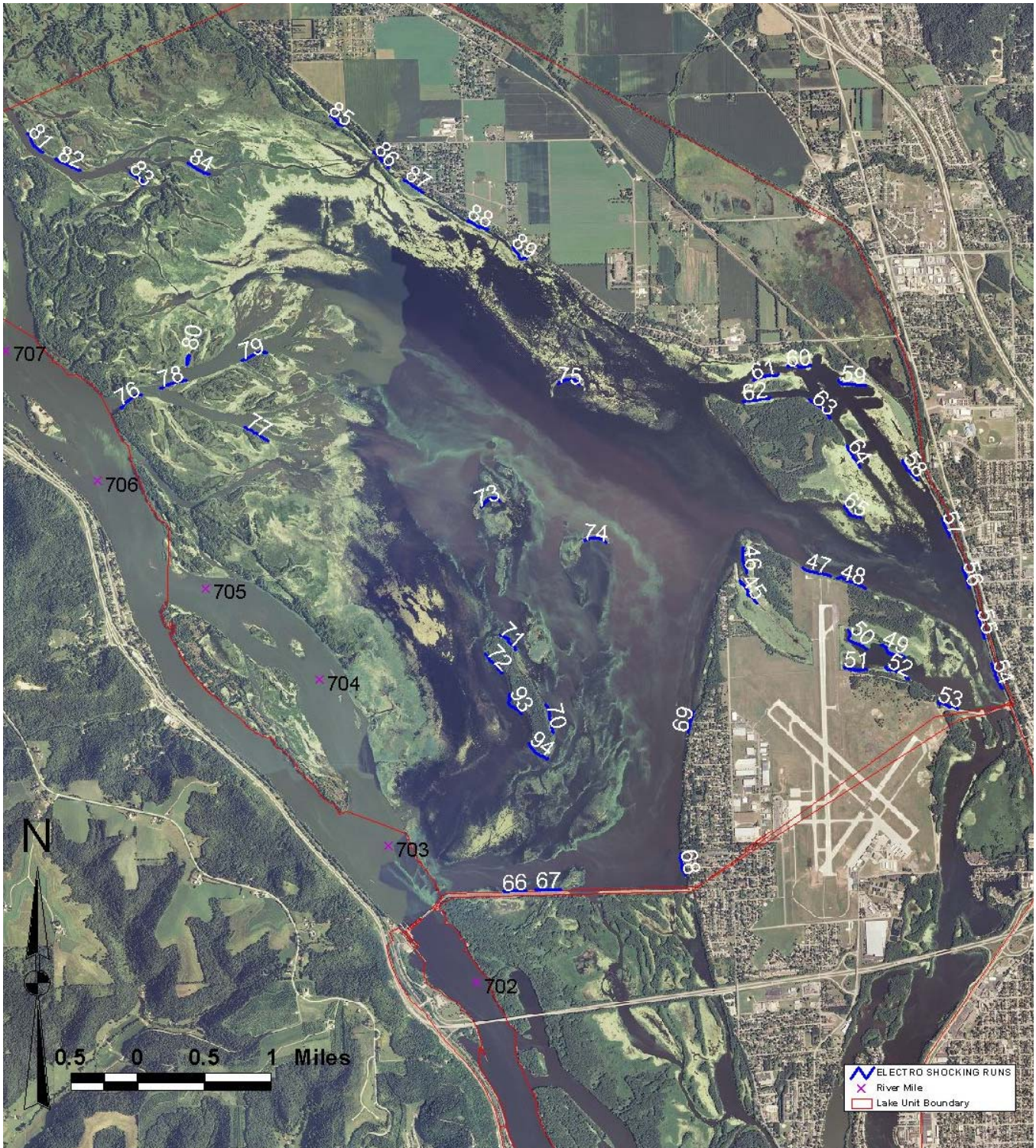


TABLE 1. ELECTRO SHOCKING STATION LOCATIONS AND LENGTH (M), FALL 2008 LAKE ONALASKA LAKE UNIT.

Station	LENGTH	Utm15stx	Utm15sty	Utm15edx	Utm15edy
45	368	639073	4861730	639234	4861505
46	345	639137	4861795	639107	4862041
47	290	639671	4861846	639945	4861759
48	338	639996	4861747	640278	4861649
49	335	640652	4860990	640421	4861103
50	321	640288	4861067	640109	4861252
51	254	640073	4860893	640294	4860869
52	332	640472	4860890	640692	4860781
53	283	640992	4860578	641170	4860491
54	310	641584	4860682	641485	4860930
55	284	641417	4861171	641343	4861434
56	243	641270	4861651	641209	4861859
57	199	641085	4862143	641013	4862315
58	273	640781	4862689	640631	4862887
59	318	640279	4863588	640020	4863653
60	261	639752	4863786	639532	4863776
61	275	639444	4863705	639198	4863641
62	286	639104	4863443	639368	4863478
63	290	639734	4863463	639936	4863276
64	267	640098	4863018	640223	4862813
65	245	640233	4862324	640072	4862443
66	233	636806	4858741	637027	4858743
67	271	637108	4858756	637356	4858750
68	251	638547	4858892	638503	4859101
69	242	638582	4860265	638634	4860460
70	297	637280	4860262	637207	4860534
71	261	636926	4861061	636766	4861202
72	267	636635	4861020	636799	4860834
73	249	636769	4862492	636599	4862428
74	234	637789	4862084	637586	4862104
75	290	637535	4863602	637333	4863614
76	286	633136	4863388	633342	4863505
77	289	634317	4863199	634552	4863066
78	279	633768	4863643	633515	4863568
79	270	634295	4863837	634539	4863914
80	207	633767	4863792	633766	4863808
81	264	632236	4866013	632391	4865836
82	283	632515	4865768	632750	4865659
83	276	633350	4865513	633231	4865645
84	254	633779	4865733	633994	4865623
85	181	635149	4866183	635273	4866092
86	253	635559	4865835	635702	4865685
87	300	635854	4865575	636040	4865453
88	251	636464	4865184	636656	4865095
89	231	636892	4864926	637030	4864807
93	276	636866	4860638	636983	4860443
94	254	637049	4860158	637232	4860019

TABLE 2. MEAN TEMPERATURE, WATER SURFACE ELEVATION AND FLOW DURING FALL 2008 LO SAMPLING.

DATE	MEAN DAILY TEMPERA- TURE °C	WATER SURFACE ELEVATION (ft), DAM 7 POOL	FLOW (cfs) DAM 7
09/09/2008	18.5	639.12	11600
09/10/2008	17.1	639.05	11200
09/11/2008	17.1	638.99	9500
09/12/2008	17.9	639.17	9500
09/30/2008	17.7	639.03	13800
10/01/2008	16.5	639.00	13600
10/02/2008	15.1	638.99	13600
10/03/2008	16.0	638.99	13600
10/07/2008	13.7	639.06	11800
MEAN	16.6	639.04	12022

TABLE 3. RELATIVE ABUNDANCE, MEAN CATCH PER NET-DAY, FYKE NETS, FALL 2008, LO LAKE UNIT.

	SPECIES	FREQUENCY	PERCENT	MEAN	STANDARD DEV.	MIN.	MAX.	NET-DAYS
1	black bullhead	2	0.21	0.06	0.25	0.00	1.09	35.32
2	black crappie	26	2.69	0.74	1.26	0.00	5.02	35.32
3	Bluegill	661	68.36	18.62	19.81	0.00	90.57	35.32
4	Bowfin	7	0.72	0.20	0.41	0.00	1.09	35.32
5	brown bullhead	1	0.10	0.03	0.16	0.00	0.93	35.32
6	common carp	9	0.93	0.25	0.69	0.00	2.93	35.32
7	freshwater drum	13	1.34	0.37	0.82	0.00	3.90	35.32
8	gizzard shad	1	0.10	0.03	0.17	0.00	0.98	35.32
9	golden redhorse	1	0.10	0.03	0.18	0.00	1.05	35.32
10	green sunfish	1	0.10	0.03	0.16	0.00	0.93	35.32
11	largemouth bass	7	0.72	0.20	0.88	0.00	4.88	35.32
12	northern pike	9	0.93	0.25	0.49	0.00	1.85	35.32
13	Pumpkinseed	141	14.58	3.98	3.80	0.00	17.58	35.32
14	pumpkinseed x bluegill	3	0.31	0.09	0.31	0.00	1.09	35.32
15	Quillback	1	0.10	0.03	0.17	0.00	1.00	35.32
16	river carpsucker	1	0.10	0.03	0.17	0.00	0.98	35.32
17	rock bass	3	0.31	0.08	0.36	0.00	1.95	35.32
18	shorthead redhorse	6	0.62	0.17	0.63	0.00	3.01	35.32
19	silver redhorse	3	0.31	0.08	0.36	0.00	1.92	35.32
20	spotted sucker	16	1.65	0.45	0.82	0.00	3.69	35.32
21	Walleye	1	0.10	0.03	0.17	0.00	1.00	35.32
22	Warmouth	8	0.83	0.23	0.50	0.00	2.17	35.32
23	white sucker	4	0.41	0.12	0.42	0.00	2.17	35.32
24	yellow bullhead	1	0.10	0.03	0.18	0.00	1.08	35.32
25	yellow perch	41	4.24	1.16	1.45	0.00	4.80	35.32
	ALL SPECIES	967	100.00	27.29	22.66	6.32	103.64	35.32

TABLE 4. RELATIVE ABUNDANCE, MEAN CATCH PER HOUR, ELECTRO SHOCKING, FALL 2008, LO LAKE UNIT.

	SPECIES	FREQ.	PERCENT	MEAN PER HR	STANDARD DEV.	MIN.	MAX.	NO. OF RUNS	TOTAL HRS
1	black crappie	34	1.88	4.33	8.89	0.00	35.93	47	7.849
2	Bluegill	492	27.24	62.68	88.68	0.00	538.92	47	7.849
3	Bowfin	8	0.44	1.02	2.88	0.00	11.98	47	7.849
4	brook silverside	37	2.05	4.71	25.40	0.00	173.65	47	7.849
5	brown bullhead	1	0.06	0.13	0.87	0.00	5.99	47	7.849
6	central mudminnow	2	0.11	0.26	1.75	0.00	11.98	47	7.849
7	channel catfish	1	0.06	0.13	0.87	0.00	5.99	47	7.849
8	common carp	57	3.16	7.26	22.54	0.00	137.73	47	7.849
9	emerald shiner	11	0.61	1.40	7.09	0.00	47.90	47	7.849
10	flathead catfish	2	0.11	0.26	1.75	0.00	11.98	47	7.849
11	freshwater drum	12	0.66	1.53	5.79	0.00	35.93	47	7.849
12	gizzard shad	44	2.44	5.61	15.21	0.00	77.84	47	7.849
13	golden redhorse	1	0.06	0.13	0.87	0.00	5.99	47	7.849
14	green sunfish	5	0.28	0.64	4.37	0.00	29.94	47	7.849
15	johnny darter	1	0.06	0.13	0.87	0.00	5.99	47	7.849
16	largemouth bass	627	34.72	79.88	55.00	0.00	203.59	47	7.849
17	Logperch	9	0.50	1.15	3.67	0.00	17.96	47	7.849
18	longnose gar	1	0.06	0.13	0.87	0.00	5.99	47	7.849
19	northern pike	19	1.05	2.42	6.07	0.00	29.94	47	7.849
20	pirate perch	36	1.99	4.59	16.24	0.00	101.80	47	7.849
21	pugnose shiner	1	0.06	0.13	0.87	0.00	5.99	47	7.849
22	Pumpkinseed	51	2.82	6.50	11.97	0.00	65.87	47	7.849
23	pumpkinseed x bluegill	1	0.06	0.13	0.87	0.00	5.99	47	7.849
24	Quillback	4	0.22	0.51	2.74	0.00	17.96	47	7.849
25	river redhorse	1	0.06	0.13	0.87	0.00	5.99	47	7.849
26	rock bass	7	0.39	0.89	3.74	0.00	23.95	47	7.849
27	Sauger	3	0.17	0.38	1.94	0.00	11.98	47	7.849
28	shiners m20-29 m31-33 m35-40	39	2.16	4.97	14.52	0.00	65.87	47	7.849
29	shorthead redhorse	21	1.16	2.68	8.72	0.00	47.90	47	7.849
30	silver redhorse	8	0.44	1.02	2.60	0.00	11.98	47	7.849
31	smallmouth bass	20	1.11	2.55	16.60	0.00	113.77	47	7.849
32	spottail shiner	12	0.66	1.53	9.63	0.00	65.87	47	7.849
33	spotted sucker	124	6.87	15.80	44.49	0.00	257.49	47	7.849
34	Walleye	4	0.22	0.51	2.10	0.00	11.98	47	7.849
35	Warmouth	4	0.22	0.51	2.10	0.00	11.98	47	7.849
36	white crappie	3	0.17	0.38	2.62	0.00	17.96	47	7.849
37	white sucker	4	0.22	0.51	3.49	0.00	23.95	47	7.849
38	yellow bullhead	4	0.22	0.51	1.69	0.00	5.99	47	7.849
39	yellow perch	95	5.26	12.10	28.29	0.00	167.67	47	7.849
	ALL SPECIES	1806	100.00	230.09	160.68	29.94	790.42	47	7.849

FIGURE 4. FALL 2008 BLACK CRAPPIE LENGTH DISTRIBUTION (INCHES), LO LAKE UNIT FYKE NETTING.

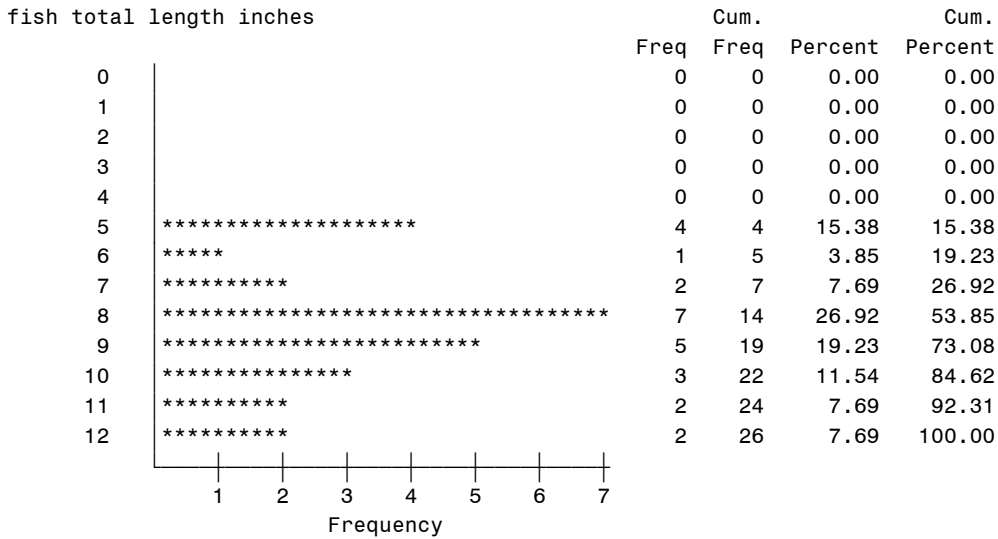


FIGURE 5. FALL 2008 BLACK CRAPPIE LENGTH DISTRIBUTION (INCHES), LO LAKE UNIT ELECTRO SHOCKING.

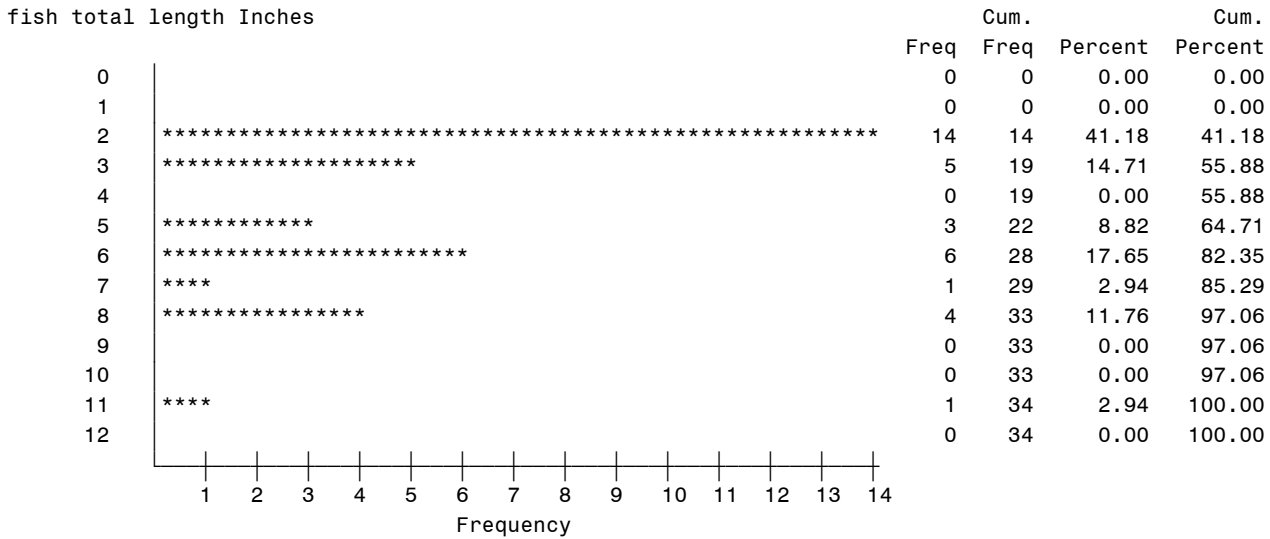


FIGURE 6. FALL 2008 BLUEGILL LENGTH DISTRIBUTION (INCHES), LO LAKE UNIT FYKE NETTING.

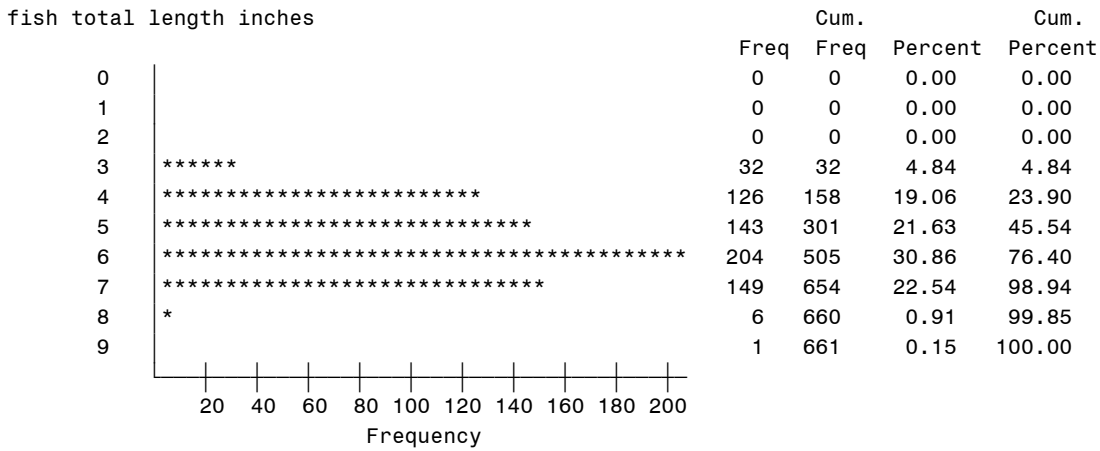


FIGURE 7. FALL 2008 BLUEGILL LENGTH DISTRIBUTION (INCHES), LO LAKE UNIT ELECTRO SHOCKING.

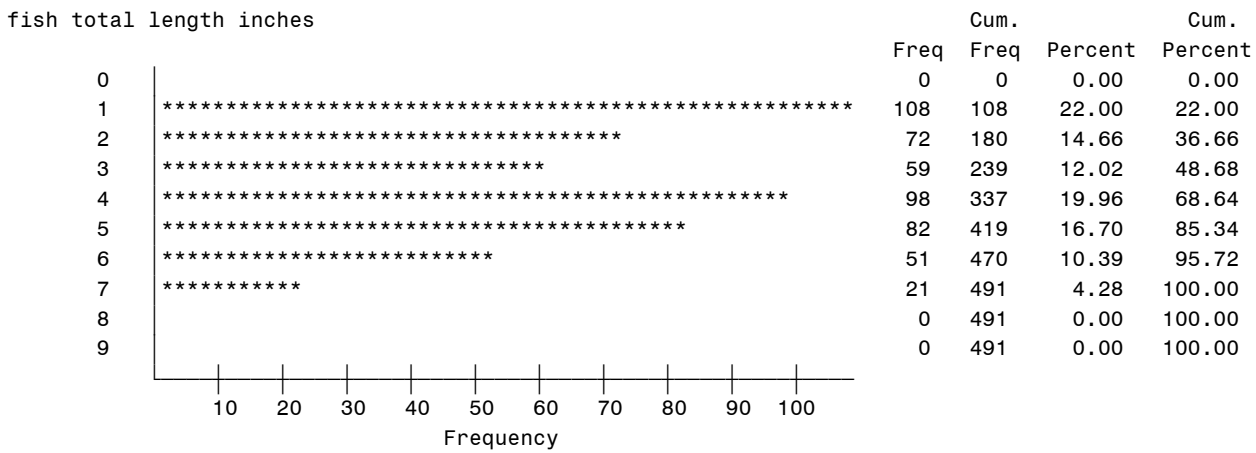


FIGURE 8. FALL 2008 PUMPKINSEED LENGTH DISTRIBUTION (INCHES), LO LAKE UNIT FYKE NETTING.

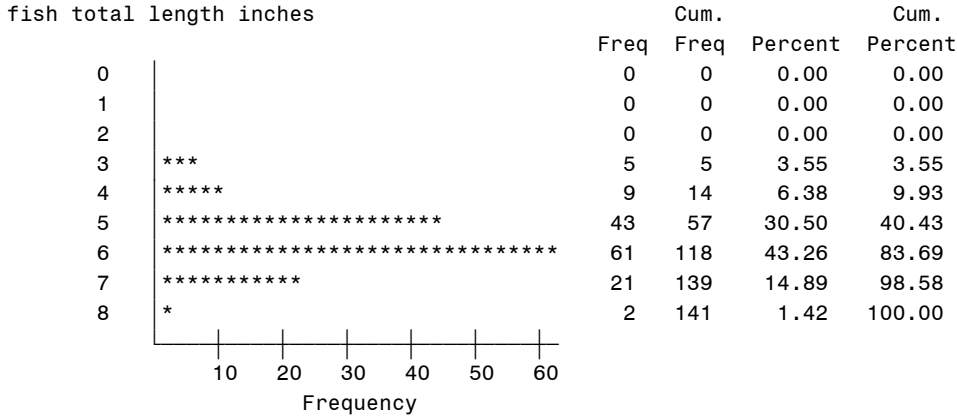


FIGURE 9. FALL 2008 PUMPKINSEED LENGTH DISTRIBUTION (INCHES), LO LAKE UNIT ELECTRO SHOCKING.

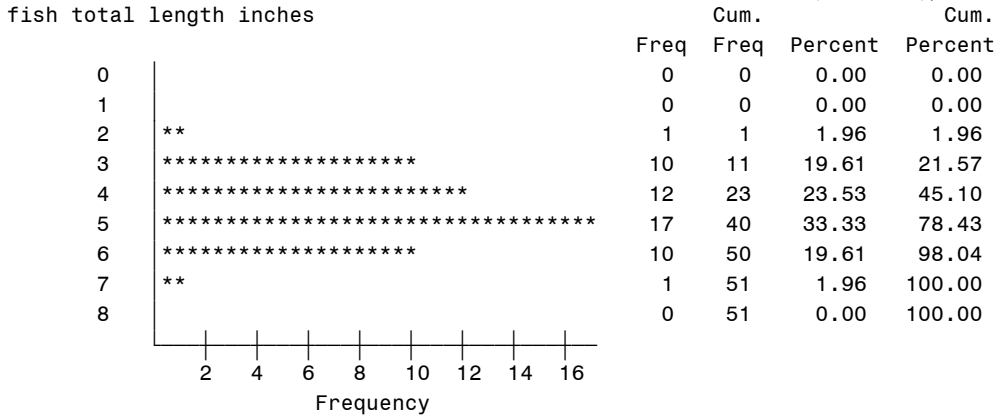


FIGURE 10. FALL 2008 LARGEMOUTH BASS LENGTH DISTRIBUTION (INCHES), LO LAKE UNIT ELECTRO SHOCKING.

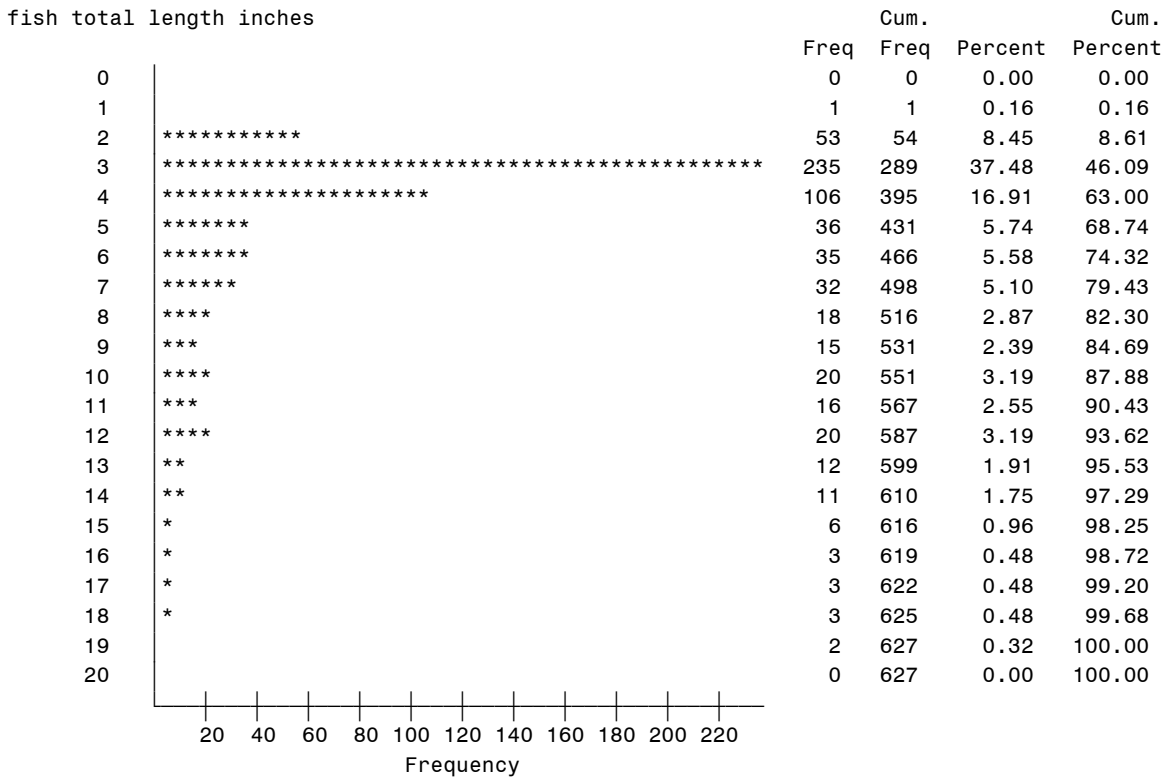


FIGURE 11. FALL 2008 YELLOW PERCH LENGTH DISTRIBUTION (INCHES), LO LAKE UNIT FYKE NETTING.

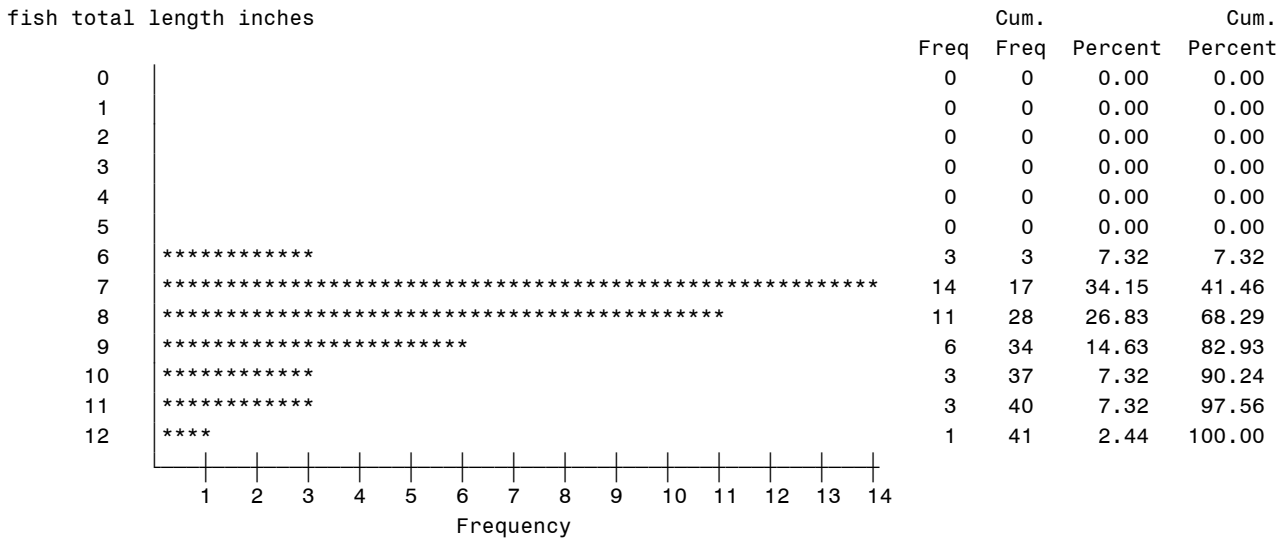


FIGURE 12. FALL 2008 YELLOW PERCH LENGTH DISTRIBUTION (INCHES), LO LAKE UNIT ELECTRO SHOCKING.

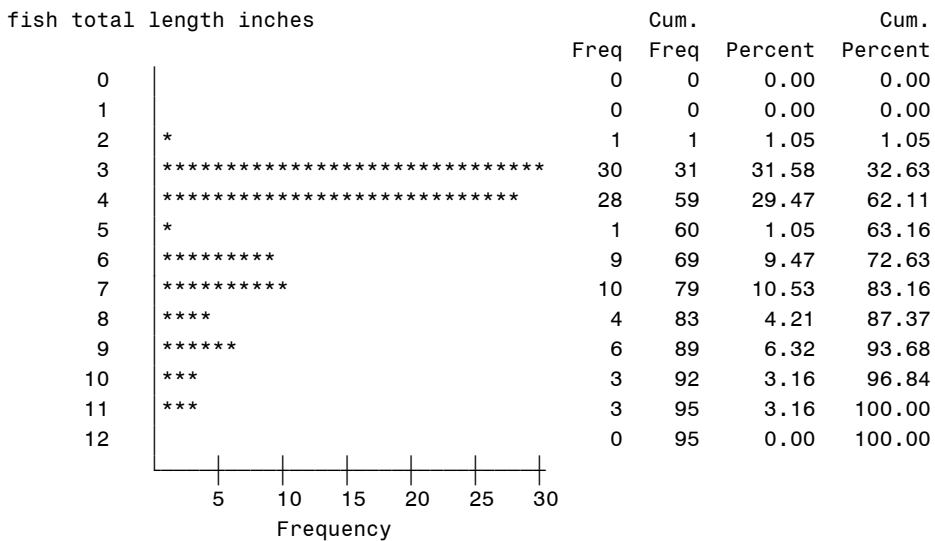


TABLE 5. MEAN LENGTH IN INCHES FOR MEASURED SPECIES, FALL 2008, LO LAKE UNIT, FYKE NETTING.

SPECIES	MEAN LENGTH	STANDARD DEV.	MIN.	MAX.	N
black crappie	8.39	2.12	4.65	11.97	26
bluegill	5.51	1.16	2.68	8.98	661
northern pike	25.26	7.82	8.43	35.04	9
pumpkinseed	5.61	0.93	3.03	7.76	141
warmouth	5.5	0.93	3.62	6.38	8
yellow perch	8.12	1.46	5.63	11.81	41

TABLE 6. MEAN LENGTH IN INCHES FOR MEASURED SPECIES, FALL 2008, LO LAKE UNIT, ELECTRO SHOCKING.

SPECIES	MEAN LENGTH	STANDARD DEV.	MIN.	MAX.	N
black crappie	4.22	2.49	1.97	11.22	34
bluegill	3.43	1.77	0.71	7.36	491
common carp	5.42	3.28	2.6	13.03	31
largemouth bass	5.29	3.6	1.38	19.49	627
northern pike	10.93	7.92	2.95	27.76	19
pumpkinseed	4.58	1.11	2.4	6.61	51
smallmouth bass	10.25	3.94	2.17	17.56	20
yellow perch	5.1	2.35	2.05	11.5	95

TABLE 7. COMPARISON OF MEAN CATCH PER FYKE NET-DAY FOR ALL SPECIES COMBINED AMONG TWELVE LAKE UNITS, FALL 2007 AND 2008.

MEAN	STD. DEV.	N	LAKE UNIT	DIFFERENT (means with the same letter are not Sign. Different)	
77.38	101.02	32	2007 HARPERS		A
51.24	30.76	32	2007 GOOSE ISLAND/STODDARD	B	A
50.82	40.96	30	2008 SNY MCGIL	B	A
48.39	29.01	30	2007 COLDSPG, BLKHWK, RONKOSKI	B	A
43.98	29.99	24	2007 AMBRO	B	A
36.08	34.22	33	2008 TREMPPEALEAU LAKES	B	
34.06	21.40	32	2007 UPPER POOL 5	B	
33.90	38.44	32	2007 UPPER POOL 5A	B	
27.29	22.66	35	2008 LAKE ONALASKA	B	
26.43	26.07	32	2008 GOOSE CARCASS LAKE	B	
25.47	27.01	16	2008 BELVIDERE/SPRING LAKE	B	
21.68	29.97	32	2008 ROBINSON/PETERSON/BEEF SL	B	

TABLE 8. COMPARISON OF MEAN CATCH PER FYKE NET-DAY FOR ALL TARGET SPECIES COMBINED AMONG TWELVE LAKE UNITS, FALL 2007 AND 2008.

MEAN	STD. DEV.	N	LAKE UNIT	DIFFERENT (means with the same letter are not Sign. Different)	
41.59	28.53	32	2007 GOOSE ISLAND/STODDARD		A
38.38	30.08	32	2007 HARPERS		A
33.22	32.83	33	2008 TREMPPEALEAU LAKES	B	A
31.33	20.82	30	2007 COLDSPG, BLKHWK, RONKOSKI	B	A
31.02	37.16	30	2008 SNY MCGIL	B	A
27.33	38.57	32	2007 UPPER POOL 5A	B	A
26.23	16.39	32	2007 UPPER POOL 5	B	A
25.60	23.18	24	2007 AMBRO	B	A
25.01	22.17	35	2008 LAKE ONALASKA	B	A
24.64	27.27	16	2008 BELVIDERE/SPRING LAKE	B	A
21.64	24.03	32	2008 GOOSE CARCASS LAKE	B	A
12.52	26.35	32	2008 ROBINSON/PETERSON/BEEF SL	B	

TABLE 9. COMPARISON OF MEAN CATCH PER FYKE NET-DAY FOR SELECTED INDIVIDUAL SPECIES AMONG TWELVE LAKE UNITS, FALL 2007 AND 2008.

SPECIES	MEAN	STD. DEV.	N	LAKE UNIT	DIFFERENT (means with the same letter are not Sign. Different)				
BLACK CRAPPIE									
	15.51	14.43	32	2007 UPPER POOL 5				A	
	15.19	17.62	32	2007 HARPERS				A	
	14.79	15.63	30	2007 COLDSPG, BLKHWK, RONKOSKI		B		A	
	11.09	14.01	24	2007 AMBRO		B		A	C
	10.65	20.42	32	2007 UPPER POOL 5A		B	D	A	C
	8.07	7.24	33	2008 TREMPLEALEAU LAKES	E	B	D	A	C
	7.32	7.13	32	2007 GOOSE ISLAND/STODDARD	E	B	D	A	C
	6.37	6.34	32	2008 GOOSE CARCASS LAKE	E	B	D	A	C
	4.80	7.07	30	2008 SNY MCGIL	E	B	D		C
	2.97	4.06	32	2008 ROBINSON/PETERSON/BEEF SL	E		D		C
	0.74	1.26	35	2008 LAKE ONALASKA	E		D		
	0.52	0.85	16	2008 BELVIDERE/SPRING LAKE	E				
BLUEGILL									
	28.13	22.36	32	2007 GOOSE ISLAND/STODDARD		A			
	23.83	36.79	30	2008 SNY MCGIL	B	A			
	20.89	26.84	16	2008 BELVIDERE/SPRING LAKE	B	A			
	20.28	27.18	33	2008 TREMPLEALEAU LAKES	B	A			
	18.62	19.81	35	2008 LAKE ONALASKA	B	A			
	16.44	16.86	32	2007 HARPERS	B	A			
	14.17	20.65	32	2007 UPPER POOL 5A	B	A			
	12.73	20.12	32	2008 GOOSE CARCASS LAKE	B	A			
	12.14	8.15	30	2007 COLDSPG, BLKHWK, RONKOSKI	B	A			
	9.30	8.47	32	2007 UPPER POOL 5	B				
	7.79	9.38	24	2007 AMBRO	B				
	6.80	20.99	32	2008 ROBINSON/PETERSON/BEEF SL	B				
GIZZARD SHAD									
	34.47	99.92	32	2007 HARPERS		A			
	17.11	31.61	30	2008 SNY MCGIL	B	A			
	9.52	10.08	24	2007 AMBRO	B	A			
	8.10	11.82	30	2007 COLDSPG, BLKHWK, RONKOSKI	B	A			
	3.49	13.45	32	2008 ROBINSON/PETERSON/BEEF SL	B				
	2.97	5.94	32	2007 UPPER POOL 5A	B				
	0.83	1.69	32	2007 GOOSE ISLAND/STODDARD	B				
	0.80	3.03	32	2008 GOOSE CARCASS LAKE	B				
	0.38	0.62	32	2007 UPPER POOL 5	B				
	0.03	0.17	35	2008 LAKE ONALASKA	B				
	0.00	0.00	16	2008 BELVIDERE/SPRING LAKE	B				
	0.00	0.00	33	2008 TREMPLEALEAU LAKES	B				

TABLE 9 (CONTINUED)

NORTHERN PIKE								
	2.18	2.13	24	2007 AMBRO			A	
	1.78	2.49	30	2007 COLDSPG, BLKHWK, RONKOSKI	B		A	
	1.69	1.86	32	2007 HARPERS	B		A	C
	1.50	1.71	32	2007 GOOSE ISLAND/STODDARD	B	D	A	C
	0.76	0.82	32	2007 UPPER POOL 5A	B	D		E C
	0.76	1.55	32	2008 ROBINSON/PETERSON/BEEF SL	B	D		E C
	0.64	0.89	16	2008 BELVIDERE/SPRING LAKE	B	D		E C
	0.63	0.93	30	2008 SNY MCGIL	B	D		E C
	0.52	0.78	32	2008 GOOSE CARCASS LAKE		D		E C
	0.48	0.70	33	2008 TREMPLEALEU LAKES		D		E
	0.41	0.71	32	2007 UPPER POOL 5		D		E
	0.25	0.49	35	2008 LAKE ONALASKA				E
PUMPKINSEED								
	3.98	3.80	35	2008 LAKE ONALASKA			A	
	2.41	6.47	33	2008 TREMPLEALEU LAKES	B		A	
	0.39	1.95	30	2007 COLDSPG, BLKHWK, RONKOSKI	B			C
	0.35	0.88	32	2007 GOOSE ISLAND/STODDARD	B			C
	0.23	0.83	32	2008 ROBINSON/PETERSON/BEEF SL				C
	0.22	0.61	32	2008 GOOSE CARCASS LAKE				C
	0.07	0.27	16	2008 BELVIDERE/SPRING LAKE				C
	0.06	0.25	32	2007 UPPER POOL 5A				C
	0.03	0.18	32	2007 UPPER POOL 5				C
	0.03	0.18	32	2007 HARPERS				C
	0.03	0.17	30	2008 SNY MCGIL				C
	0.00	0.00	24	2007 AMBRO				C
SILVER REDHORSE								
	2.55	5.31	32	2008 ROBINSON/PETERSON/BEEF SL			A	
	2.38	3.10	32	2007 UPPER POOL 5	B		A	
	1.18	1.89	32	2007 GOOSE ISLAND/STODDARD	B		A	
	0.81	1.06	32	2007 UPPER POOL 5A	B			C
	0.37	0.96	30	2007 COLDSPG, BLKHWK, RONKOSKI				C
	0.35	1.10	32	2008 GOOSE CARCASS LAKE				C
	0.25	0.77	16	2008 BELVIDERE/SPRING LAKE				C
	0.08	0.36	35	2008 LAKE ONALASKA				C
	0.03	0.16	33	2008 TREMPLEALEU LAKES				C
	0.00	0.00	24	2007 AMBRO				C
	0.00	0.00	32	2007 HARPERS				C
	0.00	0.00	30	2008 SNY MCGIL				C
SPOTTED SUCKER								
	2.80	6.83	24	2007 AMBRO			A	
	2.58	3.85	32	2007 UPPER POOL 5	B		A	
	1.27	2.31	32	2007 GOOSE ISLAND/STODDARD	B		A	
	1.25	2.29	30	2007 COLDSPG, BLKHWK, RONKOSKI	B		A	
	1.13	1.43	33	2008 TREMPLEALEU LAKES	B		A	
	0.56	1.19	32	2007 HARPERS	B			C
	0.47	0.85	32	2007 UPPER POOL 5A				C
	0.45	0.82	35	2008 LAKE ONALASKA				C
	0.31	0.65	32	2008 GOOSE CARCASS LAKE				C
	0.28	0.47	30	2008 SNY MCGIL				C
	0.19	0.54	32	2008 ROBINSON/PETERSON/BEEF SL				C
	0.13	0.35	16	2008 BELVIDERE/SPRING LAKE				C

TABLE 9 (CONTINUED)

YELLOW PERCH									
	4.00	5.34	32	2007 GOOSE ISLAND/STODDARD		A			
	2.38	4.20	24	2007 AMBRO	B	A			
	1.16	1.45	35	2008 LAKE ONALASKA	B		C		
	0.85	1.46	16	2008 BELVIDERE/SPRING LAKE	B		C		
	0.66	0.94	32	2007 HARPERS	B		C		
	0.55	1.07	32	2007 UPPER POOL 5	B		C		
	0.52	1.29	32	2007 UPPER POOL 5A	B		C		
	0.51	0.93	32	2008 ROBINSON/PETERSON/BEEF SL	B		C		
	0.48	0.66	30	2007 COLDSPG, BLKHWK, RONKOSKI			C		
	0.42	0.92	30	2008 SNY MCGIL			C		
	0.37	1.27	33	2008 TREMPLEAU LAKES			C		
	0.31	0.72	32	2008 GOOSE CARCASS LAKE			C		

TABLE 10. COMPARISON OF MEAN TOTAL LENGTH FOR SELECTED INDIVIDUAL SPECIES, AMONG SIX LAKE UNITS, FYKE NETS, FALL 2008.

SPECIES	MEAN	STD. DEV.	N	LAKE UNIT	DIFFERENT (means with the same letter are not Sign. Different)		
BLACK CRAPPIE							
	9.97	1.82	93	ROBINSON/PETERSON/BEEF SL		A	
	9.57	1.91	204	GOOSE CARCASS LAKE	B	A	
	8.83	1.47	270	TREMPEALEAU LAKES	B	A	C
	8.39	2.12	26	LAKE ONALASKA	B		C
	8.12	2.20	140	SNY MCGIL			C
	5.00	1.70	8	BELVIDERE/SPRING LAKE		D	
BLUEGILL	6.36	1.02	663	TREMPEALEAU LAKES	A		
	6.09	1.44	408	GOOSE CARCASS LAKE	B		
	6.00	1.35	211	ROBINSON/PETERSON/BEEF SL	B		
	5.51	1.16	661	LAKE ONALASKA	C		
	4.53	1.34	623	SNY MCGIL	C		
	4.12	1.19	320	BELVIDERE/SPRING LAKE	E		
NORTHERN PIKE							
	26.15	2.92	18	SNY MCGIL	A		
	25.50	3.79	24	ROBINSON/PETERSON/BEEF SL	A		
	25.40	4.43	16	TREMPEALEAU LAKES	A		
	25.26	7.82	9	LAKE ONALASKA	A		
	24.28	3.59	17	GOOSE CARCASS LAKE	A		
	21.60	4.04	10	BELVIDERE/SPRING LAKE	A		
PUMPKINSEED							
	5.98	0.83	81	TREMPEALEAU LAKES	A		
	5.61	0.93	141	LAKE ONALASKA	A		
YELLOW PERCH							
	10.50	2.69	12	TREMPEALEAU LAKES		A	
	9.58	2.09	10	GOOSE CARCASS LAKE	B	A	
	9.49	1.35	16	ROBINSON/PETERSON/BEEF SL	B	A	
	8.34	1.79	13	BELVIDERE/SPRING LAKE	B		
	8.12	1.46	41	LAKE ONALASKA	B		
	6.08	0.88	12	SNY MCGIL		C	

TABLE 11. COMPARISON OF MEAN CATCH PER HOUR FROM ELECTRO SHOCKING FOR ALL TARGET SPECIES COMBINED AMONG TWELVE LAKE UNITS, FALL 2007 AND 2008.

MEAN	STD. DEV.	N	LAKE UNIT	DIFFERENT (means with the same letter are not Sign. Different)	
302.80	300.03	25	2007 COLDSPG, BLKHWK, RONKOSKI		A
223.44	130.92	32	2008 TREMPEALEAU LAKES	B	A
212.97	150.86	52	2007 GOOSE ISLAND/STODDARD	B	A
203.11	125.55	25	2007 UPPER POOL 5A	B	A
193.36	145.48	31	2007 AMBRO	B	A
178.44	140.45	30	2008 GOOSE CARCASS LAKE	B	A
173.14	132.79	47	2008 LAKE ONALASKA	B	
153.33	204.82	33	2008 ROBINSON/PETERSON/BEEF SL	B	
145.04	80.09	27	2007 UPPER POOL 5	B	
143.51	120.08	30	2007 HARPERS	B	
131.01	92.65	30	2008 SNY MCGIL	B	
110.78	107.69	30	2008 BELVIDERE/SPRING LAKE	B	

TABLE 12. COMPARISON OF MEAN CATCH PER HOUR FROM ELECTRO SHOCKING FOR SELECTED INDIVIDUAL SPECIES AMONG TWELVE LAKE UNITS, FALL 2007 AND 2008.

SPECIES	MEAN	STD. DEV.	N	LAKE UNIT	DIFFERENT (means with the same letter are not Sign. Different)		
BLACK CRAPPIE							
	13.89	14.01	25	2007 UPPER POOL 5A		A	
	13.52	26.64	31	2007 AMBRO		A	
	8.58	10.96	25	2007 COLDSPG, BLKHWK, RONKOSKI	B	A	
	6.57	9.42	32	2008 TREMPEALEAU LAKES	B	A	
	6.39	9.16	30	2007 HARPERS	B	A	
	4.50	7.68	52	2007 GOOSE ISLAND/STODDARD	B		
	4.33	8.89	47	2008 LAKE ONALASKA	B		
	4.21	4.93	27	2007 UPPER POOL 5	B		
	3.08	5.63	33	2008 ROBINSON/PETERSON/BEEF SL	B		
	2.59	6.61	30	2008 GOOSE CARCASS LAKE	B		
	2.02	3.30	30	2008 SNY MCGIL	B		
	1.00	2.76	30	2008 BELVIDERE/SPRING LAKE	B		
BLUEGILL							
	123.96	119.80	32	2008 TREMPEALEAU LAKES	A		
	112.93	165.41	25	2007 COLDSPG, BLKHWK, RONKOSKI	A		
	93.89	111.21	25	2007 UPPER POOL 5A	A		
	92.18	91.04	52	2007 GOOSE ISLAND/STODDARD	A		
	65.87	97.43	31	2007 AMBRO	A		
	64.05	190.83	33	2008 ROBINSON/PETERSON/BEEF SL	A		
	62.68	88.68	47	2008 LAKE ONALASKA	A		
	62.68	72.66	30	2007 HARPERS	A		
	57.22	61.37	27	2007 UPPER POOL 5	A		
	55.29	93.12	30	2008 GOOSE CARCASS LAKE	A		
	41.34	46.20	30	2008 SNY MCGIL	A		
	38.52	94.31	30	2008 BELVIDERE/SPRING LAKE	A		
LARGEMOUTH BASS							
	163.68	182.87	25	2007 COLDSPG, BLKHWK, RONKOSKI	A		
	94.40	107.13	52	2007 GOOSE ISLAND/STODDARD	B		
	93.01	60.27	30	2008 GOOSE CARCASS LAKE	B		
	92.91	60.10	31	2007 AMBRO	B		
	79.88	55.00	47	2008 LAKE ONALASKA	B		
	78.56	79.37	25	2007 UPPER POOL 5A	B		
	62.79	52.18	30	2008 SNY MCGIL	B		
	60.74	39.89	32	2008 TREMPEALEAU LAKES	B		
	60.32	52.91	27	2007 UPPER POOL 5	B		
	53.53	50.68	33	2008 ROBINSON/PETERSON/BEEF SL	B		
	51.90	46.58	30	2007 HARPERS	B		
	51.10	38.83	30	2008 BELVIDERE/SPRING LAKE	B		
NORTHERN PIKE							
	6.79	7.16	30	2008 BELVIDERE/SPRING LAKE		A	
	6.35	10.58	33	2008 ROBINSON/PETERSON/BEEF SL		A	
	5.19	6.04	30	2008 GOOSE CARCASS LAKE	B	A	
	4.79	7.92	25	2007 UPPER POOL 5A	B	A	
	3.99	6.64	27	2007 UPPER POOL 5	B	A	
	3.92	5.80	52	2007 GOOSE ISLAND/STODDARD	B	A	
	2.99	6.27	32	2008 TREMPEALEAU LAKES	B	A	
	2.42	6.07	47	2008 LAKE ONALASKA	B	A	
	2.40	4.04	30	2007 HARPERS	B	A	
	2.05	2.96	30	2008 SNY MCGIL	B	A	
	1.20	2.44	25	2007 COLDSPG, BLKHWK, RONKOSKI	B		
	1.16	2.86	31	2007 AMBRO	B		

TABLE 12 (CONTINUED)

SAUGER							
	6.06	7.04	30	2008 SNY MCGIL		A	
	5.99	12.78	30	2008 GOOSE CARCASS LAKE	B	A	
	3.99	6.91	30	2007 HARPERS	B	A	C
	2.83	7.30	32	2008 TREMPEALEAU LAKES	B	A	C
	1.92	3.33	25	2007 COLDSPG, BLKHWK, RONKOSKI	B	A	C
	1.72	4.48	52	2007 GOOSE ISLAND/STODDARD	B	A	C
	1.33	3.84	27	2007 UPPER POOL 5	B		C
	1.27	3.27	33	2008 ROBINSON/PETERSON/BEEF SL			C
	1.00	2.27	30	2008 BELVIDERE/SPRING LAKE			C
	0.97	3.49	31	2007 AMBRO			C
	0.38	1.94	47	2008 LAKE ONALASKA			C
	0.24	1.20	25	2007 UPPER POOL 5A			C
SMALLMOUTH BASS							
	9.31	24.26	27	2007 UPPER POOL 5A	A		
	8.89	15.13	33	2008 ROBINSON/PETERSON/BEEF SL	A		
	5.75	17.50	25	2007 COLDSPG, BLKHWK, RONKOSKI	A		
	5.39	8.66	30	2008 BELVIDERE/SPRING LAKE	A		
	4.39	8.46	30	2008 GOOSE CARCASS LAKE	A		
	4.26	11.70	52	2007 GOOSE ISLAND/STODDARD	A		
	2.63	8.48	25	2007 UPPER POOL 5A	A		
	2.55	16.60	47	2008 LAKE ONALASKA	A		
	1.55	4.47	30	2008 SNY MCGIL	A		
	1.20	3.98	30	2007 HARPERS	A		
	0.39	1.50	31	2007 AMBRO	A		
	0.00	0.00	32	2008 TREMPEALEAU LAKES	A		
YELLOW PERCH							
	19.50	35.07	32	2008 TREMPEALEAU LAKES		A	
	12.10	28.29	47	2008 LAKE ONALASKA	B	A	
	11.25	12.32	33	2008 ROBINSON/PETERSON/BEEF SL	B	A	
	6.59	12.91	30	2008 GOOSE CARCASS LAKE	B	A	
	6.43	7.23	27	2007 UPPER POOL 5	B	A	
	5.17	9.41	52	2007 GOOSE ISLAND/STODDARD	B		
	4.30	13.19	30	2008 SNY MCGIL	B		
	3.67	5.50	31	2007 AMBRO	B		
	3.59	5.36	30	2008 BELVIDERE/SPRING LAKE	B		
	2.85	5.75	25	2007 COLDSPG, BLKHWK, RONKOSKI	B		
	1.20	2.99	25	2007 UPPER POOL 5A	B		
	1.00	2.27	30	2007 HARPERS	B		

TABLE 13. COMPARISON OF MEAN TOTAL LENGTH FOR SELECTED INDIVIDUAL SPECIES, AMONG SIX LAKE UNITS, ELECTRO SHOCKING, FALL 2008.

SPECIES	MEAN	STD. DEV.	N	LAKE UNIT	DIFFERENT (means with the same letter are not Sign. Different)		
BLACK CRAPPIE							
	7.84	4.14	13	GOOSE CARCASS LAKE		A	
	6.91	2.60	10	SNY MCGIL	B	A	
	6.86	3.70	5	BELVIDERE/SPRING LAKE	B	A	
	6.48	2.86	35	TREMPEALEAU LAKES	B	A	
	5.53	3.42	17	ROBINSON/PETERSON/BEEF SL	B	A	
	4.22	2.49	34	LAKE ONALASKA	B		
BLUEGILL							
	4.87	1.49	197	SNY MCGIL		A	
	4.78	1.55	662	TREMPEALEAU LAKES	B	A	
	4.59	1.56	277	GOOSE CARCASS LAKE	B	A	C
	4.49	1.40	353	ROBINSON/PETERSON/BEEF SL	B		C
	4.29	1.38	193	BELVIDERE/SPRING LAKE			C
	3.43	1.77	491	LAKE ONALASKA		D	
LARGEMOUTH BASS							
	11.30	3.61	296	SNY MCGIL		A	
	9.48	5.08	295	ROBINSON/PETERSON/BEEF SL		B	
	8.70	5.13	256	BELVIDERE/SPRING LAKE	C	B	
	8.27	4.83	466	GOOSE CARCASS LAKE	C	D	
	7.59	4.22	321	TREMPEALEAU LAKES		D	
	5.29	3.60	627	LAKE ONALASKA		E	
NORTHERN PIKE							
	22.21	5.58	10	SNY MCGIL		A	
	20.55	7.4	26	GOOSE CARCASS LAKE	B	A	
	17.62	6.08	34	BELVIDERE/SPRING LAKE	B	A	C
	14.11	8.82	16	TREMPEALEAU LAKES	B	D	C
	12.77	7.11	35	ROBINSON/PETERSON/BEEF SL		D	C
	10.93	7.92	19	LAKE ONALASKA		D	
YELLOW PERCH							
	7.58	3.01	18	BELVIDERE/SPRING LAKE	A		
	5.72	2.77	33	GOOSE CARCASS LAKE	B		
	5.55	2.54	62	ROBINSON/PETERSON/BEEF SL	B		
	5.45	2.20	21	SNY MCGIL	B		
	5.10	2.35	95	LAKE ONALASKA	B		
	4.49	1.76	103	TREMPEALEAU LAKES	B		

TABLE 14. COMPARISON OF MEAN CATCH PER FYKE NET-DAY FOR ALL SPECIES COMBINED IN LAKE ONALASKA, 2002, 2003, 2004 AND 2008.

MEAN	STD. DEV.	N	YEAR	DIFFERENT (means with the same letter are not Sign. Different)	
27.29	22.66	35	2008		A
21.65	21.27	52	2002	B	A
16.64	15.01	80	2004	B	C
7.83	6.71	32	2003		C

TABLE 15. COMPARISON OF MEAN CATCH PER FYKE NET-DAY FOR ALL TARGET SPECIES COMBINED AMONG IN LAKE ONALASKA, 2002, 2003, 2004 AND 2008.

MEAN	STD. DEV.	N	YEAR	DIFFERENT (means with the same letter are not Sign. Different)	
25.01	22.17	35	2008		A
18.75	19.91	52	2002	B	A
13.74	14.18	80	2004	B	C
6.66	6.20	32	2003		C

TABLE 16. COMPARISON OF MEAN TOTAL LENGTH FOR SELECTED INDIVIDUAL SPECIES, AMONG 2002-2004 AND 2008 LAKE ONALASKA FYKE NETTING.

SPECIES	MEAN	STD. DEV.	N	YEAR	DIFFERENT (means with the same letter are not Sign. Different)		
BLACK CRAPPIE	8.39	2.12	26	2008	A		
	7.48	2.69	39	2003	A	B	
	6.78	2.10	192	2004		B	
	6.57	2.41	124	2002		B	
BLUEGILL	5.51	1.16	661	2008	A		
	5.47	1.27	729	2004	A		
	4.91	1.48	634	2002		B	
	4.89	1.46	265	2003		B	
PUMPKINSEED	5.61	0.93	141	2008	A		
	5.31	1.34	56	2004	A	B	
	5.23	1.08	104	2002	A	B	
	4.92	0.86	13	2003		B	
YELLOW PERCH	8.12	1.46	41	2008	A		
	7.65	1.49	57	2004	A	B	
	6.90	1.75	29	2002		B	
	6.77	1.51	13	2003		B	

TABLE 17. COMPARISON OF MEAN CATCH PER HOUR FOR BLUEGILL OF SELECTED SIZES, AMONG SIX LAKE UNITS, ELECTRO SHOCKING, FALL 2008.

SPECIES	MEAN	STD. DEV.	N	LAKE UNIT	DIFFERENT (means with the same letter are not Sign. Different)	
BLUEGILL < 6 INCHES	93.09	101.43	32	TREMPEALEAU LAKES	A	
	57.97	87.18	47	LAKE ONALASKA	A	
	53.53	159.53	33	ROBINSON/PETERSON/BEEF SL	A	
	45.51	75.39	30	GOOSE CARCASS LAKE	A	
	33.33	87.95	30	BELVIDERE/SPRING LAKE	A	
	32.25	38.83	30	SNY MCGIL	A	
BLUEGILL < 7 INCHES	116.48	116.64	32	TREMPEALEAU LAKES		A
	61.54	88.59	47	LAKE ONALASKA		A
	61.33	183.86	33	ROBINSON/PETERSON/BEEF SL	B	A
	51.70	88.36	30	GOOSE CARCASS LAKE	B	A
	38.46	43.65	30	SNY MCGIL	B	A
	36.53	92.05	30	BELVIDERE/SPRING LAKE	B	
BLUEGILL > 6 INCHES	30.88	43.16	32	TREMPEALEAU LAKES	A	
	10.52	32.42	33	ROBINSON/PETERSON/BEEF SL	B	
	9.78	20.71	30	GOOSE CARCASS LAKE	B	
	9.09	14.45	30	SNY MCGIL	B	
	5.19	9.91	30	BELVIDERE/SPRING LAKE	B	
	4.71	9.00	47	LAKE ONALASKA	B	
BLUEGILL > 7 INCHES	7.49	11.18	32	TREMPEALEAU LAKES		A
	3.59	6.78	30	GOOSE CARCASS LAKE	B	A
	2.88	4.73	30	SNY MCGIL	B	A
	2.72	7.50	33	ROBINSON/PETERSON/BEEF SL	B	A
	2.00	5.06	30	BELVIDERE/SPRING LAKE	B	
	1.15	3.67	47	LAKE ONALASKA	B	

TABLE 18. COMPARISON OF MEAN CATCH PER HOUR FOR LARGEMOUTH BASS OF SELECTED SIZES, AMONG SIX LAKE UNITS, ELECTRO SHOCKING, FALL 2008.

SPECIES	MEAN	STD. DEV.	N	LAKE UNIT	DIFFERENT (means with the same letter are not Sign. Different)		
LARGEMOUTH BASS <14 INCHES							
	78.84	56.81	30	GOOSE CARCASS LAKE		A	
	77.08	54.95	47	LAKE ONALASKA		A	
	56.79	38.09	32	TREMPEALEAU LAKES	B	A	
	46.78	46.00	30	SNY MCGIL	B	A	
	40.12	34.06	30	BELVIDERE/SPRING LAKE	B		
	39.56	31.47	33	ROBINSON/PETERSON/BEEF SL	B		
LARGEMOUTH BASS >14 INCHES							
	16.01	13.12	30	SNY MCGIL		A	
	14.17	18.97	30	GOOSE CARCASS LAKE	B	A	
	13.97	24.49	33	ROBINSON/PETERSON/BEEF SL	B	A	
	10.98	15.25	30	BELVIDERE/SPRING LAKE	B	A	C
	3.95	7.70	32	TREMPEALEAU LAKES	B		C
	2.80	6.22	47	LAKE ONALASKA			C

TABLE 19. COMPARISON OF MEAN CATCH PER DAY FOR BLUEGILL OF SELECTED SIZES, AMONG SIX LAKE UNITS, FYKE NETTING, FALL 2008.

SPECIES	MEAN	STD. DEV.	N	LAKE UNIT	DIFFERENT (means with the same letter are not Sign. Different)	
BLUEGILL < 6 INCHES	20.48	34.97	30	SNY MCGIL		A
	18.44	27.08	16	BELVIDERE/SPRING LAKE	B	A
	11.12	16.17	35	LAKE ONALASKA	B	A
	5.89	11.51	33	TREMPEALEAU LAKES	B	A
	5.71	14.94	32	GOOSE CARCASS LAKE	B	A
	3.36	9.47	32	ROBINSON/PETERSON/BEEF SL	B	
BLUEGILL < 7 INCHES						
	22.60	36.02	30	SNY MCGIL		A
	19.75	27.18	16	BELVIDERE/SPRING LAKE	B	A
	16.88	18.65	35	LAKE ONALASKA	B	A
	14.49	19.64	33	TREMPEALEAU LAKES	B	A
	8.44	17.11	32	GOOSE CARCASS LAKE	B	A
	4.94	13.99	32	ROBINSON/PETERSON/BEEF SL	B	
BLUEGILL > 6 INCHES						
	14.40	22.65	33	TREMPEALEAU LAKES		A
	7.50	8.10	35	LAKE ONALASKA	B	A
	7.02	11.75	32	GOOSE CARCASS LAKE	B	A
	3.43	12.23	32	ROBINSON/PETERSON/BEEF SL	B	
	3.35	7.65	30	SNY MCGIL	B	
	2.45	4.70	16	BELVIDERE/SPRING LAKE	B	
BLUEGILL > 7 INCHES						
	5.80	9.61	33	TREMPEALEAU LAKES	A	
	4.29	8.61	32	GOOSE CARCASS LAKE	A	
	1.86	7.68	32	ROBINSON/PETERSON/BEEF SL	A	
	1.74	1.84	35	LAKE ONALASKA	A	
	1.23	3.27	30	SNY MCGIL	A	
	1.14	2.34	16	BELVIDERE/SPRING LAKE	A	