

Fort Loudoun Reservoir

Annual Report 2009

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Fort Loudoun Reservoir - 2009

Description

Area: 14,600 acres

Shoreline: 360 miles

Counties: Loudon, Knox, and Blount

Total Fishing Effort in 2009: 220,588 hours

Total Value by Anglers in 2009: \$823,930.00

Black Bass

Angling Pressure	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Mean
All Black Bass (hrs)	-	-	-	-	102,531	103,556	-	-	95,230	93,323	98,660
All Black Bass (hrs/acre)	-	-	-	-	7.02	7.09	-	-	6.52	6.39	6.76
Any Black Bass (hrs)	-	-	-	-	66,008	18,649	-	-	94,694	78,936	64,572
Any Black Bass (hrs/acre)	-	-	-	-	4.52	1.28	-	-	6.49	5.41	4.42
Largemouth Bass (hrs)	-	-	-	-	34,584	79,624	-	-	0	13,677	31,971
Largemouth Bass (hrs/acre)	-	-	-	-	2.37	5.45	-	-	0.00	0.94	2.19
Smallmouth Bass (hrs)	-	-	-	-	1,939	5,283	-	-	536	710	2,117
Smallmouth Bass (hrs/acre)	-	-	-	-	0.13	0.36	-	-	0.04	0.05	0.15
Spotted Bass (hrs)	-	-	-	-	0	0	-	-	0	0	0
Spotted Bass (hrs/acre)	-	-	-	-	0.00	0.00	-	-	0.00	0.00	0.00
Tournaments (all black bass)											
Tournament Angler Hrs/Acre (creel)	-	-	-	-	-	-	-	-	-	-	-
Tournament Catch Rate (creel)	-	-	-	-	-	-	-	-	-	-	-
Non-Tournament Catch Rate (creel)	-	-	-	-	-	-	-	-	-	-	-
Value of Fishery (Trip Expenditures)											
All Black Bass	-	-	-	-	\$257,260	\$437,060	-	-	\$490,470	\$397,170	\$395,490
Any Black Bass	-	-	-	-	\$146,520	\$63,990	-	-	\$487,630	\$386,360	\$271,125
Largemouth Bass	-	-	-	-	\$103,840	\$313,540	-	-	\$0	\$6,890	\$106,068
Smallmouth Bass	-	-	-	-	\$6,900	\$24,430	-	-	\$2,840	\$3,920	\$9,523
Spotted Bass	-	-	-	-	\$0	\$35,100	-	-	\$0	\$0	\$8,775

Largemouth Bass

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Mean
Recruitment (electrofishing)											
Substock CPUE	8.80	16.80	-	9.80	3.70	25.00	2.00	16.70	22.00	15.20	13.33
Density (electrofishing)											
PSD	67	60	-	75	65	94	60	71	51	64	67
RSD (preferred)	-	21	-	22	17	23	18	19	16	16	19
CPUE (total)	42.3	74.8	-	72.3	56.0	114.3	66.3	97.0	162.0	104.0	87.7
CPUE \geq Stock	33.5	58.0	-	62.5	52.3	89.3	64.3	80.3	140.0	88.8	74.3
CPUE \geq MLL (14-inches)	-	17.5	-	-	17.7	32.3	17.0	23.7	36.0	24.8	24.1
Growth (electrofishing)											
Length Age-1	-	-	-	-	-	-	-	-	-	-	-
Length Age-3	-	-	-	-	-	-	-	-	-	-	-
Condition (spring electrofishing)											
Stock	90.2	84.8	-	86.7	87.2	85.3	85.5	86.3	95.1	91.3	88.0
Quality	94.7	87.4	-	87.2	88.4	87.8	87.3	89.5	94.3	91.9	89.8
Preferred	98.7	97.0	-	96.3	92.3	91.5	89.6	91.7	96.2	99.6	94.8
Memorable	95.1	96.5	-	102.2	101.6	99.0	93.4	103.1	98.4	-	98.7
Mortality (electrofishing)											
Total Mortality	-	-	-	-	-	-	-	-	-	-	-
Fishing Success (creel)											
Catch Rate (intended)	-	-	-	-	0.77	0.64	-	-	-	0.46	0.62
Harvest Rate (intended)	-	-	-	-	0.34	0.09	-	-	-	0.09	0.17
% Released	-	-	-	-	91.1%	87.3%	-	-	96.5%	97.4%	93.1%
Mean Weight	-	-	-	-	0.66	2.64	-	-	2.44	2.89	2.16

Fishery Forecast: The TWRA has documented an increasing trend in largemouth electrofishing catch rates over the past 12-years. The population should remain stable or improve as a result of excellent recruitment of recent year classes.

Management Recommendations: The creel limit was changed from a two fish, 14-inch limit to a five fish (in combination with smallmouth), 14-inch minimum length limit in 2001. No changes are planned in the near future.

Smallmouth Bass

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Mean
Recruitment (electrofishing)											
Substock CPUE	1.30	1.00	-	0.80	1.00	0.30	3.00	10.00	6.00	0.80	2.69
Density (electrofishing)											
PSD	57	48	-	81	64	72	30	38	48	64	56
RSD (preferred)	-	40	-	52	5	25	19	13	26	36	27
CPUE (preferred)	1.5	1.3	-	1.8	0.3	1.7	1.0	1.0	1.3	1.6	1.3
CPUE (memorable)	0.4	1.0	-	1.0	1.0	0.0	1.3	0.0	0.7	0.8	0.7
CPUE (trophy)	0.0	0.3	-	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1
CPUE (total)	5.7	7.3	-	6.0	6.3	7.0	15.3	18.0	15.0	5.2	9.5
CPUE \geq Stock	4.4	6.3	-	5.2	5.3	6.7	12.3	8.0	9.0	4.4	6.8
CPUE \geq Preferred	1.9	2.6	-	2.8	1.3	1.7	2.3	1.0	2.3	2.4	2.0
CPUE \geq MLL (18-inches)	-	0.3	-	0.3	0.3	0.0	0.0	0.0	0.7	0.8	0.3
Growth (electrofishing)											
Length Age-1	-	-	-	-	-	-	-	-	-	-	-
Length Age-3	-	-	-	-	-	-	-	-	-	-	-
Condition (spring electrofishing)											
Stock	87.1	84.6	-	80.8	77.4	87.4	80.4	85.1	83.6	81.5	83.1
Quality	85.5	77.1	-	80.3	75.3	82.5	90.4	81.5	90.5	85.2	83.1
Preferred	87.5	85.9	-	82.5	62.7	78.3	73.6	79.6	73.4	83.6	78.6
Memorable	92.4	88.7	-	87.2	77.2	-	78.5	-	80.6	80.0	83.5
Mortality (electrofishing)											
Total Mortality	-	-	-	-	-	-	-	-	-	-	-
Fishing Success (creel)											
Catch Rate (intended)	-	-	-	-	0.40	0.30	-	-	0.25	0.77	0.43
Harvest Rate (intended)	-	-	-	-	0.00	0.10	-	-	0.00	0.15	0.06
% Released	-	-	-	-	100.0%	89.5%	-	-	99.4%	97.9%	96.7%
Mean Weight	-	-	-	-	-	3.11	-	-	3.75	3.16	3.34

Fishery Forecast: Smallmouth electrofishing catch rates improved during the past three years, but declined in 2009. The good number of substock fish observed in 2007 and 2008 should help strengthen the population over the next few years.

Management Recommendations: We encourage anglers to be patient with the relatively new 18-inch size limit. It may take several years to determine if it is going to help to improve the quality of the fishery.

Black Crappie

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Mean
Density (electrofishing)											
PSD	100	94	-	100	100	94	91	100	99	100	98
RSD (preferred)	-	67	-	41	100	50	45	36	65	38	55
CPUE (total)	2.9	4.5	-	4.2	1.7	12.0	3.7	9.3	23.0	10.4	8.0
CPUE \geq Stock	-	4.5	-	4.3	1.7	12.0	3.7	9.3	23.0	10.4	8.6
CPUE \geq MLL (10-inches)	-	3.0	-	1.8	1.7	6.0	1.7	3.3	15.0	4.0	4.6
Growth (electrofishing)											
Length Age-1	-	-	-	-	-	-	-	-	-	-	-
Length Age-3	-	-	-	-	-	-	-	-	-	-	-
Condition (electrofishing)											
Stock	-	86.7	-	-	-	68.9	84.2	-	96.9	-	84.2
Quality	95.6	83.1	-	94.9	-	82.4	84.4	92.8	101.1	94.0	91.0
Preferred	88.5	89.3	-	91.4	93.3	83.0	81.8	92.5	95.9	91.4	89.7
Memorable	90.2	83.7	-	-	92.5	81.2	-	87.7	91.7	85.8	87.5
Mortality (electrofishing)											
Total Mortality	-	-	-	-	-	-	-	-	-	-	-
Angling Pressure (creel)											
Angler Hours (all crappie)	-	-	-	-	43,116	38,005	-	-	53,849	62,013	49,246
Angler Hours/Acre	-	-	-	-	3.0	2.6	-	-	3.7	4.2	3.4
Fishing Success (creel)											
Catch Rate (any crappie)	-	-	-	-	0.77	1.88	-	-	1.42	1.74	1.45
Harvest Rate (any crappie)	-	-	-	-	0.34	0.48	-	-	0.61	0.75	0.55
% Released (black crappie)	-	-	-	-	0.0%	59.7%	-	-	40.5%	23.4%	30.9%
Mean Weight (black crappie)	-	-	-	-	1.04	0.69	-	-	1.13	1.19	1.01
Value of Fishery (Trip Expenditures - creel)											
All Crappie	-	-	-	-	\$49,420	\$79,320	-	-	\$164,360	\$198,060	\$122,790

Fishery Forecast: TWRA's angler surveys indicate black crappie are not extremely abundant in the reservoir, but recent electrofishing results indicate their percentage of contribution to the fishery is increasing.

Management Recommendations: No changes in creel limits are planned for the future.

White Crappie

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Mean
Density (electrofishing)											
PSD	100	100	-	100	100	98	100	100	100	100	100
RSD (preferred)	-	56	-	56	87	60	77	86	90	70	73
CPUE (total)	3.8	4.0	-	16.5	11.3	15.0	13.0	11.7	20.7	12.4	12.0
CPUE \geq Stock	-	4.0	-	16.5	11.3	15.0	13.0	11.7	20.7	12.0	13.0
CPUE \geq MLL (10-inches)	-	2.3	-	9.3	10.7	9.0	10.0	10.0	18.7	8.4	9.8
Growth (electrofishing)											
Length Age-1	-	-	-	-	-	-	-	-	-	-	-
Length Age-3	-	-	-	-	-	-	-	-	-	-	-
Condition (electrofishing)											
Stock	-	-	-	-	-	117.0	-	-	-	-	117.0
Quality	91.3	84.7	-	95.9	95.7	79.7	88.7	90.3	98.7	103.8	92.1
Preferred	94.5	91.4	-	93.8	99.3	85.3	90.6	90.8	98.0	92.1	92.9
Memorable	92.8	85.0	-	89.7	97.8	84.9	88.5	87.9	97.3	88.0	90.2
Mortality (electrofishing)											
Total Mortality	-	-	-	-	-	-	-	-	-	-	-
Angling Pressure (creel)											
Angler Hours (all crappie)	-	-	-	-	43,116	38,005	-	-	53,849	62,013	49,246
Angler Hours/Acre	-	-	-	-	3.0	2.6	-	-	3.7	4.2	3.4
Fishing Success (creel)											
Catch Rate (any crappie)	-	-	-	-	0.77	1.88	-	-	1.42	1.74	1.45
Harvest Rate (any crappie)	-	-	-	-	0.34	0.48	-	-	0.61	0.75	0.55
% Released (white crappie)	-	-	-	-	48.9%	73.6%	-	-	63.4%	61.1%	61.8%
Mean Weight (white crappie)	-	-	-	-	0.70	0.69	-	-	0.90	0.97	0.82
Value of Fishery (Trip Expenditures - creel)											
All Crappie	-	-	-	-	\$49,420	\$79,320	-	-	\$164,360	\$198,060	\$122,790

Fishery Forecast: An average number of crappie were collected by electrofishing in 2009. Anglers have caught and harvest good numbers of crappie during the past several years as determined by our creel survey.

Management Recommendations: No changes in creel limits are planned for the future.

Sunfish

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Mean
Angling Pressure (creel)											
Angler Hours (all sunfish)	-	-	-	-	6,387	1,754	-	-	5,052	6,114	4,827
Angler Hours/Acre	-	-	-	-	0.4	0.1	-	-	0.3	0.4	0.3
Fishing Success (creel)											
Catch Rate (any sunfish)	-	-	-	-	0.81	4.41	-	-	1.66	2.50	2.35
Harvest Rate (any sunfish)	-	-	-	-	0.04	1.48	-	-	0.42	1.40	0.84
% Released (bluegill)	-	-	-	-	100.0%	81.1%	-	-	83.0%	71.5%	83.9%
Mean Weight (bluegill)	-	-	-	-	-	0.39	-	-	0.67	0.58	0.55
Value of Fishery (Trip Expenditures - creel)											
All Sunfish	-	-	-	-	\$33,630	\$4,610	-	-	\$14,020	\$15,800	\$17,015

Catfish

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Mean
Angling Pressure (creel)											
Angler Hours (all catfish)	-	-	-	-	9,806	5,995	-	-	9,449	14,431	9,920
Angler Hours/Acre	-	-	-	-	0.7	0.4	-	-	0.6	1.0	0.7
Fishing Success (creel)											
Catch Rate (any catfish)	-	-	-	-	0.22	0.14	-	-	0.43	0.70	0.37
Harvest Rate (any catfish)	-	-	-	-	0.00	0.01	-	-	0.09	0.25	0.09
% Released (channel)	-	-	-	-	-	100.0%	-	-	100.0%	68.3%	89.4%
Mean Weight (channel)	-	-	-	-	-	-	-	-	-	5.08	5.08
Value of Fishery (Trip Expenditures - creel)											
All Catfish	-	-	-	-	\$13,600	\$14,740	-	-	\$38,700	\$45,800	\$28,210

Habitat Enhancement

Type of Work	Details	Quantity	
		New	Renovated
Rebrush	Christmas trees with block	none	none

Tables

Table 1. Fort Loudoun Reservoir physical and chemical characteristics.

Surface Area	14,600 acres
Drainage Area	9,550 sq. mi.
Full Pool Elevation	813 feet-msl
Mean Annual Fluctuation	6 feet
Shoreline Distance	378 miles
Total Developed Shoreline	53%
Maximum Depth	78 feet
Outlet Depth	9 feet
Thermocline Depth	23 feet (Aug 2005)
Trophic Status (Forebay)	Eutrophic
Mean Chlorophyll (Forebay)	11.7 mg/L
Trophic Index Value	54.7
Hydraulic Retention Time	10 days
Year Impounded	1943

Table 3. Mean relative weight and standard error values by size class for Fort Loudoun Reservoir black crappie collected during the 2009 electrofishing sample.

Size Class	Mean Wr	Std. Error	N
8	94.4	2.5	11
9	93.2	2.6	5
10	94.3		1
11	88.9	1.7	7
12	85.0	0.7	2

Total Catch 26

Table 4. Mean relative weight and standard error values by size class for Fort Loudoun Reservoir largemouth bass collected during the 2009 electrofishing sample.

Size Class	Mean Wr	Std. Error	N
7	87.2	2.5	2
8	88.5	2.0	9
9	89.7	3.8	6
10	92.1	1.4	29
11	91.4	1.0	43
12	93.1	1.5	36
13	91.0	1.1	33
14	93.5	1.9	31
15	97.4	2.3	17
16	97.8		1
17	100.4	1.2	5
18	108.3	2.0	4
19	98.3	1.9	4

Total Catch 220

Table 5. Mean relative weight and standard error values by size class for Fort Loudoun Reservoir white crappie collected during the 2009 electrofishing sample.

Size Class	Mean Wr	Std. Error	N
8	104.9	4.9	2
9	101.9	3.0	8
10	92.4	3.4	7
11	90.4	3.3	4
12	87.8	2.6	7
13	89.8	1.8	2

Total Catch 30

Table 6. Fort Loudoun Reservoir water levels for 2009. (TVA)

ELEVATION	MONTH	DAY	ELEVATION	MONTH	DAY	ELEVATION	MONTH	DAY
809.12	JANUARY	1	808.00	FEBRUARY	24	811.55	APRIL	19
808.91	JANUARY	2	807.67	FEBRUARY	25	811.62	APRIL	20
808.97	JANUARY	3	808.32	FEBRUARY	26	811.60	APRIL	21
808.71	JANUARY	4	808.52	FEBRUARY	27	811.64	APRIL	22
808.59	JANUARY	5	808.88	FEBRUARY	28	811.70	APRIL	23
810.01	JANUARY	6	808.94	MARCH	1	811.76	APRIL	24
812.40	JANUARY	7	808.72	MARCH	2	811.83	APRIL	25
810.57	JANUARY	8	808.70	MARCH	3	811.93	APRIL	26
809.48	JANUARY	9	808.56	MARCH	4	811.96	APRIL	27
809.00	JANUARY	10	808.90	MARCH	5	812.00	APRIL	28
808.59	JANUARY	11	809.24	MARCH	6	812.05	APRIL	29
807.97	JANUARY	12	809.34	MARCH	7	812.09	APRIL	30
807.53	JANUARY	13	809.00	MARCH	8	812.22	MAY	1
807.98	JANUARY	14	808.77	MARCH	9	812.41	MAY	2
808.31	JANUARY	15	808.70	MARCH	10	812.98	MAY	3
808.64	JANUARY	16	808.66	MARCH	11	813.36	MAY	4
809.04	JANUARY	17	808.70	MARCH	12	812.99	MAY	5
808.78	JANUARY	18	808.85	MARCH	13	812.31	MAY	6
809.04	JANUARY	19	809.19	MARCH	14	812.08	MAY	7
808.99	JANUARY	20	809.79	MARCH	15	812.69	MAY	8
809.11	JANUARY	21	810.17	MARCH	16	813.13	MAY	9
809.01	JANUARY	22	810.27	MARCH	17	813.29	MAY	10
809.06	JANUARY	23	810.17	MARCH	18	813.11	MAY	11
808.84	JANUARY	24	810.17	MARCH	19	813.01	MAY	12
808.83	JANUARY	25	810.13	MARCH	20	812.97	MAY	13
808.73	JANUARY	26	810.04	MARCH	21	813.04	MAY	14
808.00	JANUARY	27	809.88	MARCH	22	812.81	MAY	15
807.79	JANUARY	28	809.81	MARCH	23	812.21	MAY	16
808.23	JANUARY	29	809.72	MARCH	24	812.88	MAY	17
808.01	JANUARY	30	809.69	MARCH	25	812.73	MAY	18
807.95	JANUARY	31	809.75	MARCH	26	812.46	MAY	19
807.85	FEBRUARY	1	809.73	MARCH	27	812.41	MAY	20
808.05	FEBRUARY	2	809.80	MARCH	28	812.69	MAY	21
808.17	FEBRUARY	3	810.13	MARCH	29	812.99	MAY	22
808.45	FEBRUARY	4	810.20	MARCH	30	813.10	MAY	23
808.90	FEBRUARY	5	810.19	MARCH	31	813.00	MAY	24
809.04	FEBRUARY	6	810.34	APRIL	1	812.99	MAY	25
808.90	FEBRUARY	7	810.60	APRIL	2	812.83	MAY	26
808.55	FEBRUARY	8	810.80	APRIL	3	812.74	MAY	27
808.27	FEBRUARY	9	810.95	APRIL	4	812.92	MAY	28
808.10	FEBRUARY	10	811.12	APRIL	5	813.09	MAY	29
808.00	FEBRUARY	11	811.11	APRIL	6	813.17	MAY	30
808.15	FEBRUARY	12	811.11	APRIL	7	813.08	MAY	31
808.35	FEBRUARY	13	811.12	APRIL	8	812.86	JUNE	1
808.41	FEBRUARY	14	811.21	APRIL	9	812.84	JUNE	2
808.46	FEBRUARY	15	811.51	APRIL	10	812.57	JUNE	3
808.49	FEBRUARY	16	811.96	APRIL	11	812.90	JUNE	4
808.64	FEBRUARY	17	811.97	APRIL	12	813.16	JUNE	5
808.98	FEBRUARY	18	811.81	APRIL	13	813.22	JUNE	6
809.18	FEBRUARY	19	811.61	APRIL	14	813.04	JUNE	7
809.35	FEBRUARY	20	811.54	APRIL	15	812.94	JUNE	8
809.15	FEBRUARY	21	811.54	APRIL	16	812.64	JUNE	9
808.86	FEBRUARY	22	811.52	APRIL	17	812.92	JUNE	10
808.54	FEBRUARY	23	811.47	APRIL	18	813.01	JUNE	11

Table 7. Fort Loudoun Reservoir water levels for 2009. (TVA)

ELEVATION	MONTH	DAY	ELEVATION	MONTH	DAY	ELEVATION	MONTH	DAY
813.05	JUNE	12	812.50	AUGUST	5	812.77	SEPTEMBER	28
812.96	JUNE	13	812.28	AUGUST	6	811.97	SEPTEMBER	29
812.93	JUNE	14	812.49	AUGUST	7	812.00	SEPTEMBER	30
812.95	JUNE	15	812.56	AUGUST	8	812.12	OCTOBER	1
812.89	JUNE	16	812.58	AUGUST	9	812.34	OCTOBER	2
813.02	JUNE	17	812.33	AUGUST	10	812.19	OCTOBER	3
813.36	JUNE	18	812.38	AUGUST	11	812.06	OCTOBER	4
813.21	JUNE	19	812.21	AUGUST	12	812.16	OCTOBER	5
813.21	JUNE	20	812.18	AUGUST	13	812.02	OCTOBER	6
813.35	JUNE	21	812.18	AUGUST	14	811.99	OCTOBER	7
813.45	JUNE	22	812.04	AUGUST	15	812.01	OCTOBER	8
813.26	JUNE	23	812.14	AUGUST	16	812.04	OCTOBER	9
813.01	JUNE	24	812.19	AUGUST	17	812.34	OCTOBER	10
812.84	JUNE	25	812.34	AUGUST	18	811.93	OCTOBER	11
813.13	JUNE	26	812.69	AUGUST	19	811.65	OCTOBER	12
812.90	JUNE	27	812.71	AUGUST	20	811.78	OCTOBER	13
812.66	JUNE	28	812.72	AUGUST	21	812.20	OCTOBER	14
812.75	JUNE	29	812.96	AUGUST	22	812.94	OCTOBER	15
812.84	JUNE	30	812.90	AUGUST	23	813.57	OCTOBER	16
812.80	JULY	1	812.71	AUGUST	24	813.23	OCTOBER	17
812.71	JULY	2	812.71	AUGUST	25	813.07	OCTOBER	18
812.64	JULY	3	812.72	AUGUST	26	813.10	OCTOBER	19
812.82	JULY	4	812.86	AUGUST	27	813.17	OCTOBER	20
812.81	JULY	5	813.06	AUGUST	28	813.02	OCTOBER	21
812.70	JULY	6	813.43	AUGUST	29	812.62	OCTOBER	22
812.41	JULY	7	812.90	AUGUST	30	812.41	OCTOBER	23
812.49	JULY	8	811.63	AUGUST	31	812.32	OCTOBER	24
812.74	JULY	9	811.65	SEPTEMBER	1	811.80	OCTOBER	25
812.93	JULY	10	812.20	SEPTEMBER	2	812.21	OCTOBER	26
812.57	JULY	11	812.09	SEPTEMBER	3	812.63	OCTOBER	27
812.69	JULY	12	811.92	SEPTEMBER	4	812.92	OCTOBER	28
812.72	JULY	13	812.19	SEPTEMBER	5	813.03	OCTOBER	29
812.57	JULY	14	812.38	SEPTEMBER	6	813.33	OCTOBER	30
812.34	JULY	15	812.33	SEPTEMBER	7	813.27	OCTOBER	31
812.91	JULY	16	812.49	SEPTEMBER	8	812.90	NOVEMBER	1
812.49	JULY	17	812.60	SEPTEMBER	9	812.91	NOVEMBER	2
812.31	JULY	18	812.76	SEPTEMBER	10	812.89	NOVEMBER	3
812.38	JULY	19	812.73	SEPTEMBER	11	812.92	NOVEMBER	4
812.47	JULY	20	812.66	SEPTEMBER	12	812.85	NOVEMBER	5
812.53	JULY	21	812.60	SEPTEMBER	13	812.94	NOVEMBER	6
812.46	JULY	22	812.41	SEPTEMBER	14	812.43	NOVEMBER	7
812.49	JULY	23	812.48	SEPTEMBER	15	811.71	NOVEMBER	8
812.41	JULY	24	812.55	SEPTEMBER	16	811.52	NOVEMBER	9
812.72	JULY	25	812.45	SEPTEMBER	17	812.01	NOVEMBER	10
812.60	JULY	26	812.56	SEPTEMBER	18	813.70	NOVEMBER	11
812.72	JULY	27	812.70	SEPTEMBER	19	812.82	NOVEMBER	12
812.93	JULY	28	812.81	SEPTEMBER	20	812.16	NOVEMBER	13
812.84	JULY	29	812.77	SEPTEMBER	21	811.53	NOVEMBER	14
812.86	JULY	30	812.76	SEPTEMBER	22	811.04	NOVEMBER	15
813.79	JULY	31	812.84	SEPTEMBER	23	810.48	NOVEMBER	16
813.44	AUGUST	1	812.66	SEPTEMBER	24	810.20	NOVEMBER	17
812.96	AUGUST	2	812.57	SEPTEMBER	25	810.26	NOVEMBER	18
812.41	AUGUST	3	813.55	SEPTEMBER	26	810.26	NOVEMBER	19
812.37	AUGUST	4	813.89	SEPTEMBER	27	810.26	NOVEMBER	20

Table 8. Fort Loudoun Reservoir water levels for 2009. (TVA)

ELEVATION	MONTH	DAY
810.01	NOVEMBER	21
809.18	NOVEMBER	22
809.15	NOVEMBER	23
809.28	NOVEMBER	24
809.64	NOVEMBER	25
810.04	NOVEMBER	26
810.23	NOVEMBER	27
810.45	NOVEMBER	28
810.52	NOVEMBER	29
810.51	NOVEMBER	30
810.26	DECEMBER	1
810.17	DECEMBER	2
810.20	DECEMBER	3
809.98	DECEMBER	4
809.61	DECEMBER	5
809.19	DECEMBER	6
808.54	DECEMBER	7
808.22	DECEMBER	8
810.32	DECEMBER	9
810.38	DECEMBER	10
809.72	DECEMBER	11
808.84	DECEMBER	12
807.99	DECEMBER	13
807.88	DECEMBER	14
808.45	DECEMBER	15
808.95	DECEMBER	16
808.88	DECEMBER	17
809.34	DECEMBER	18
809.80	DECEMBER	19
809.66	DECEMBER	20
809.02	DECEMBER	21
808.28	DECEMBER	22
808.06	DECEMBER	23
808.46	DECEMBER	24
809.85	DECEMBER	25
809.81	DECEMBER	26
809.50	DECEMBER	27
809.15	DECEMBER	28
809.03	DECEMBER	29
808.67	DECEMBER	30
808.80	DECEMBER	31

Table 9. Fort Loudoun Reservoir stockings 2002 - 2009

Species	Year	Rate (per acre)	Total Stocked
Lake Sturgeon	2002	0.1	1,040
	2005	0.2	2,940
	2007	0.1	2,163
	2008	0.2	2,761
	2008	0.6	9,472

Figures

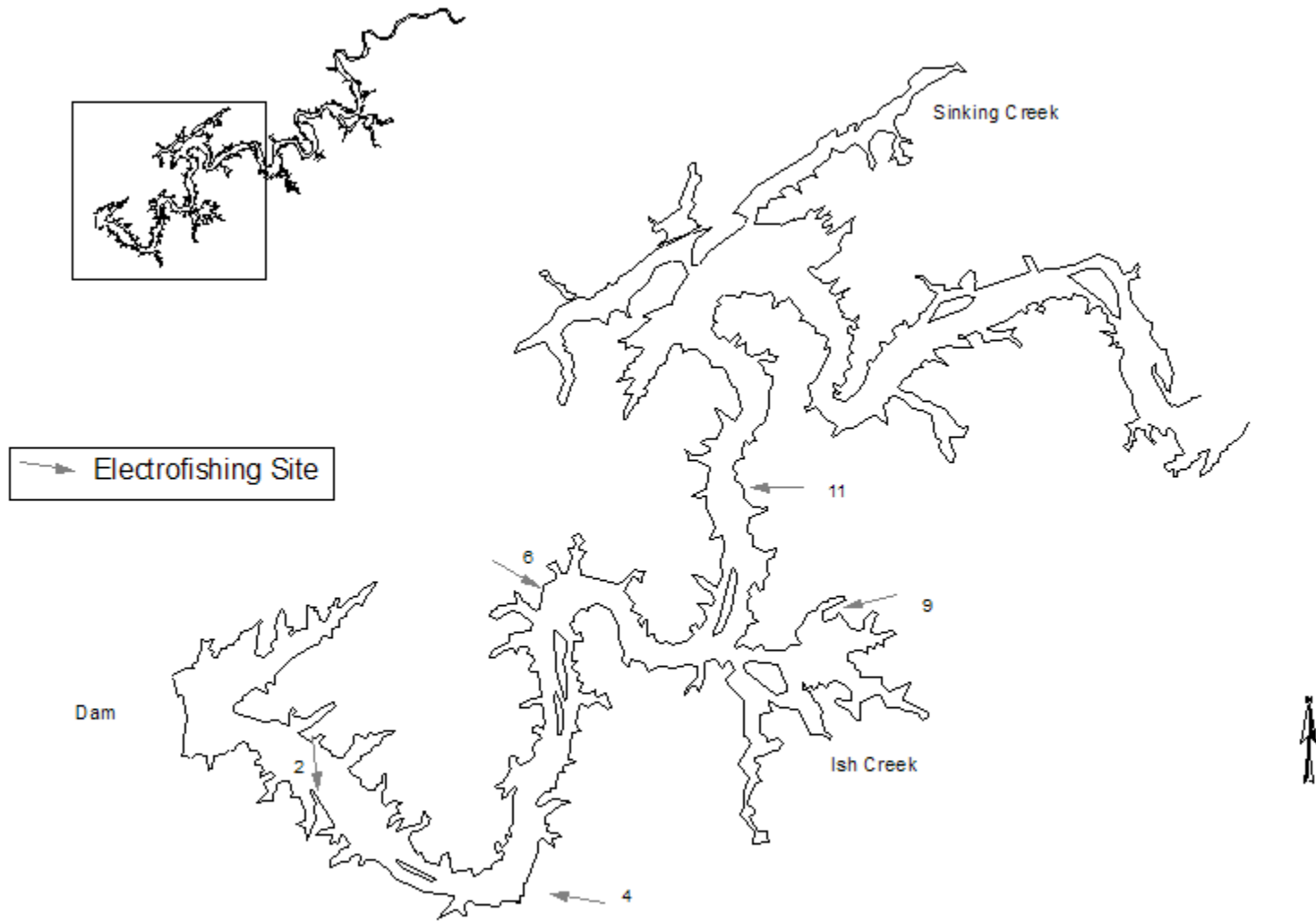


Figure 1. Electrofishing sites in the lower section of Fort Loudoun Reservoir in 2009.

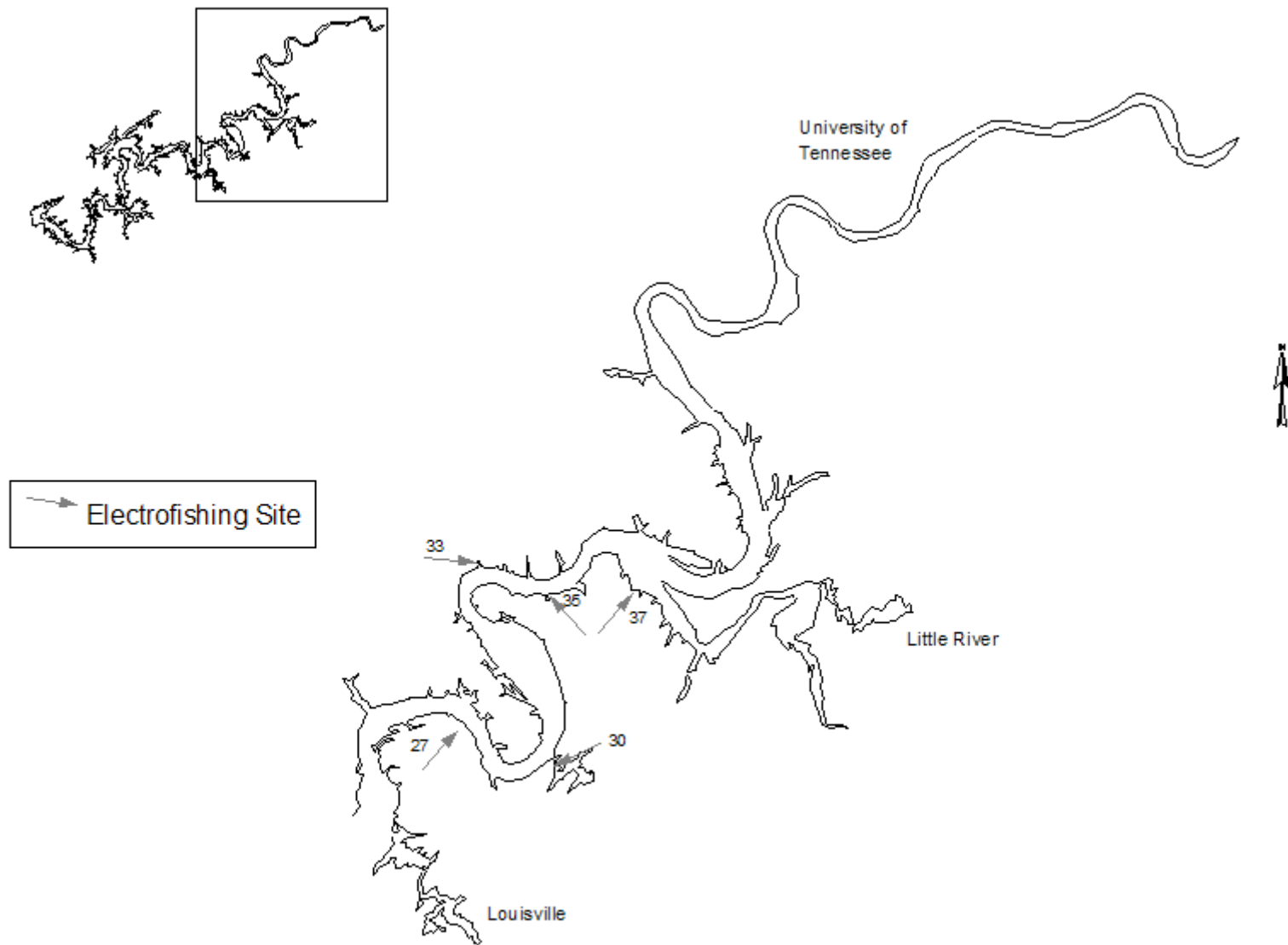


Figure 2. Electrofishing sites in the upper section of Fort Loudoun Reservoir in 2009.

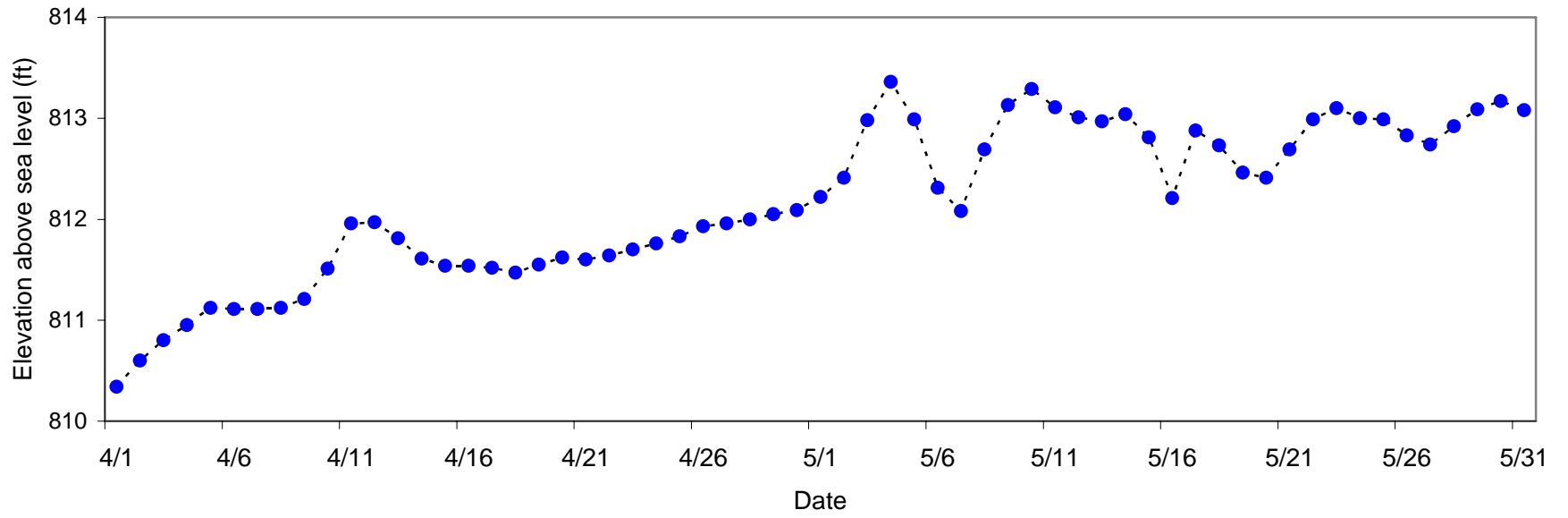


Figure 3. Fort Loudoun's 2009 April and May water levels (TVA data).

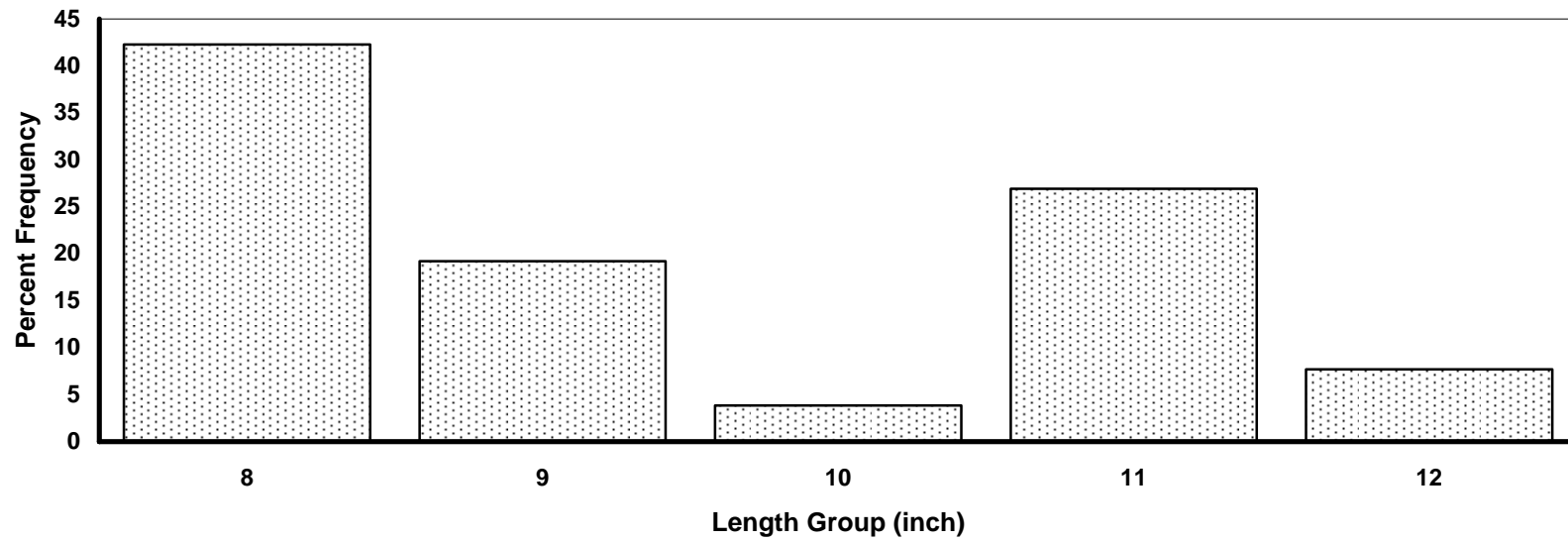


Figure 4. Fort Loudoun Reservoir black crappie length frequency by percent for the 2009 electrofishing sample (n=26).

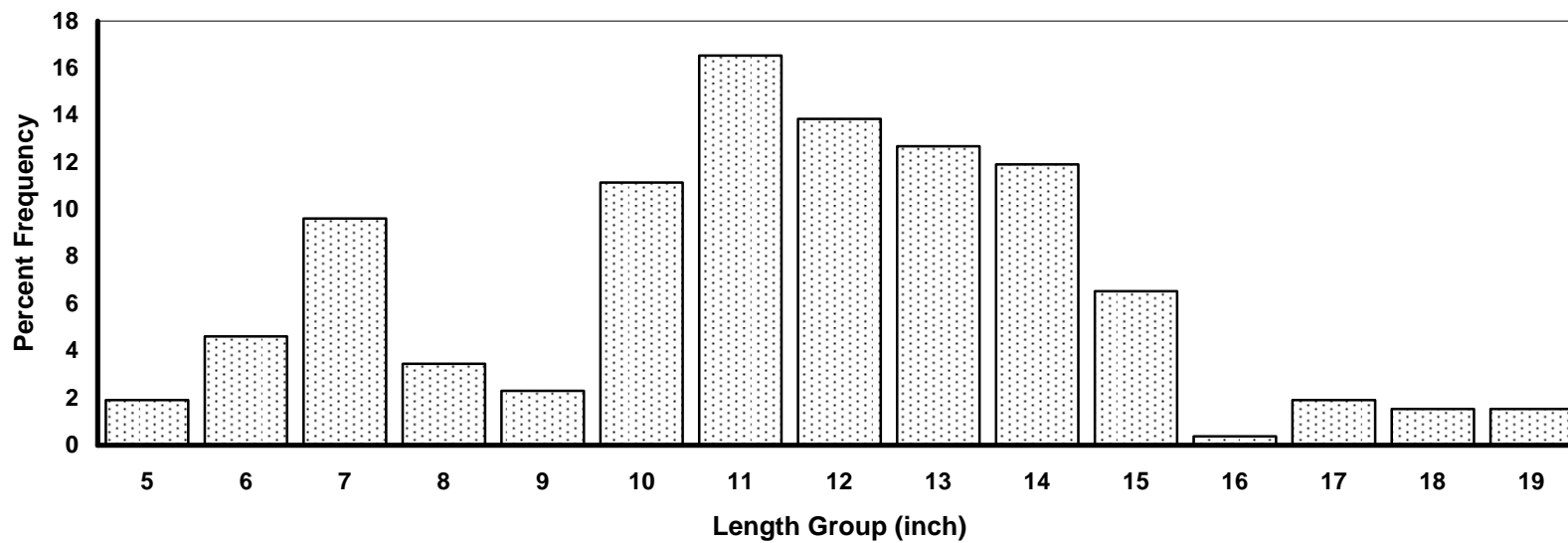


Figure 5. Fort Loudoun Reservoir largemouth bass length frequency by percent for the 2009 electrofishing sample (n=260).

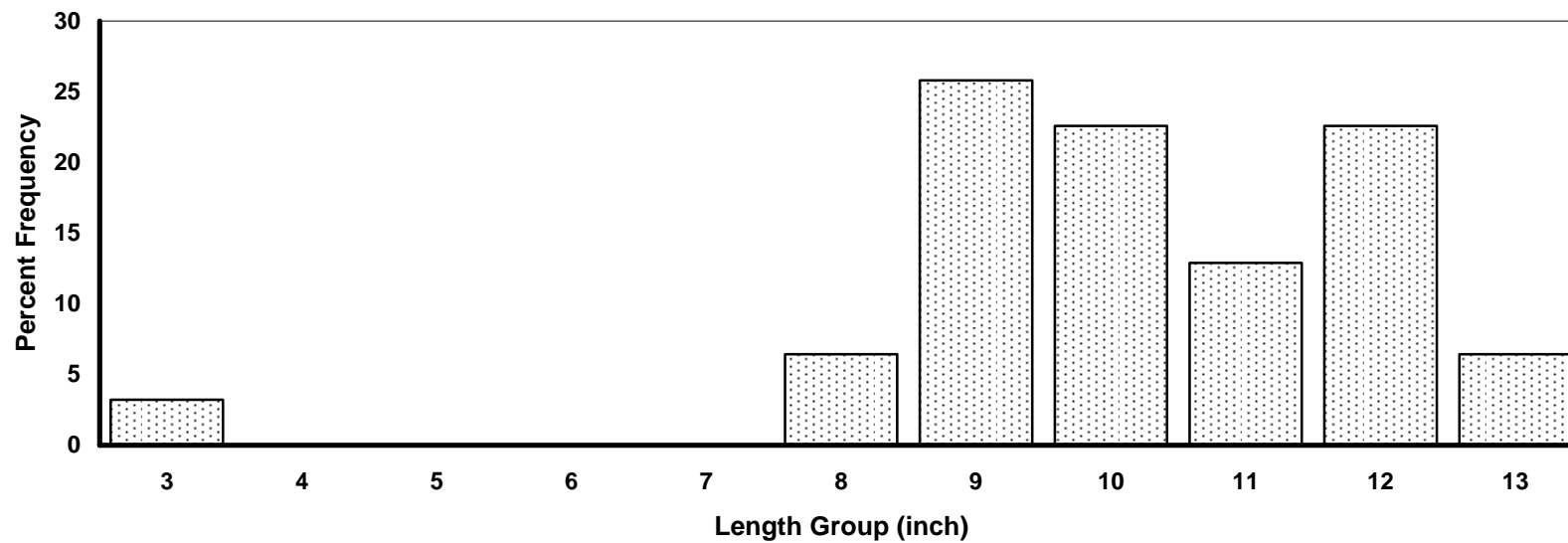


Figure 6. Fort Loudoun Reservoir white crappie length frequency by percent for the 2009 electrofishing sample (n=31).

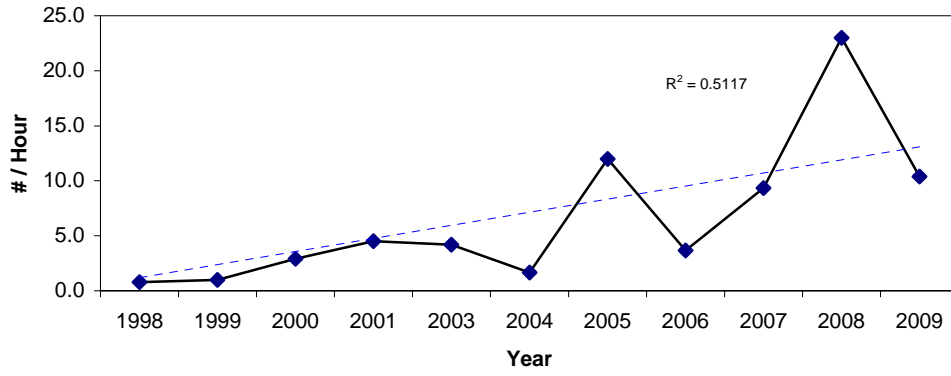


Figure 7. Fort Loudoun Reservoir black crappie electrofishing catch rates from 1998 to 2009.

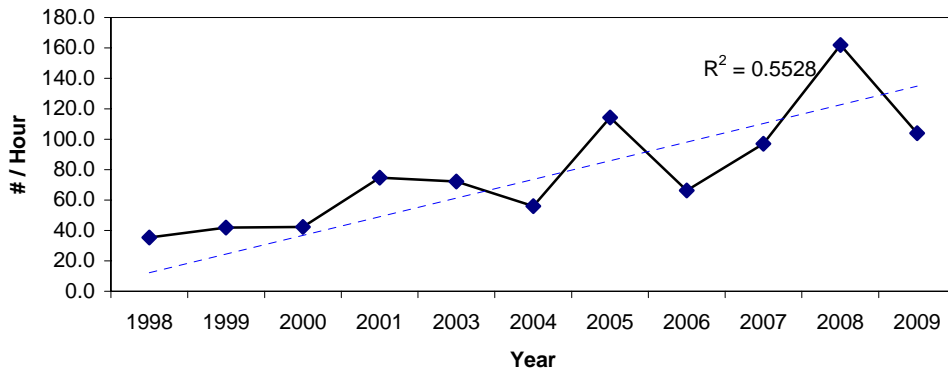


Figure 8. Fort Loudoun Reservoir largemouth bass electrofishing catch rates from 1998 to 2009.

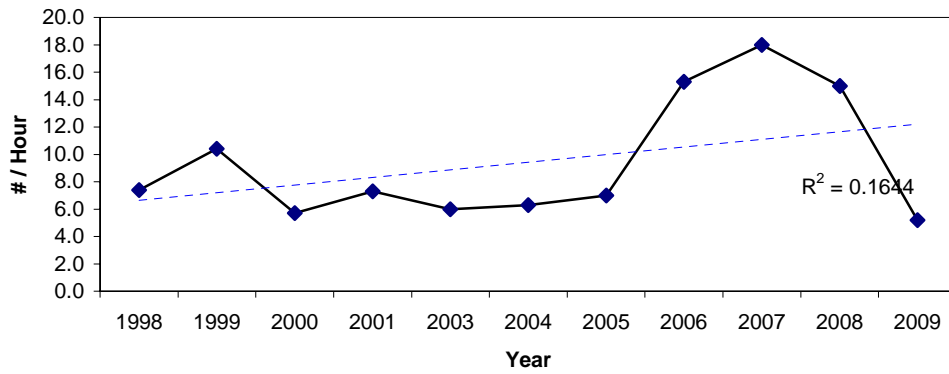


Figure 9. Fort Loudoun Reservoir smallmouth bass electrofishing catch rates from 1998 to 2009.

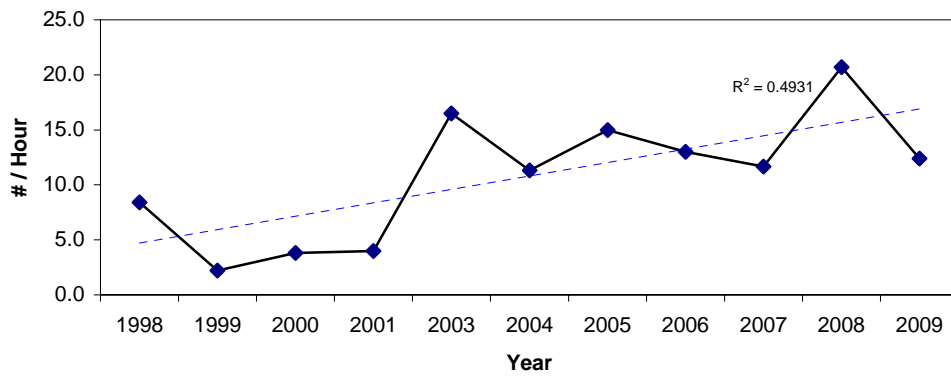


Figure 10. Fort Loudoun Reservoir white crappie electrofishing catch rates from 1998 to 2009.

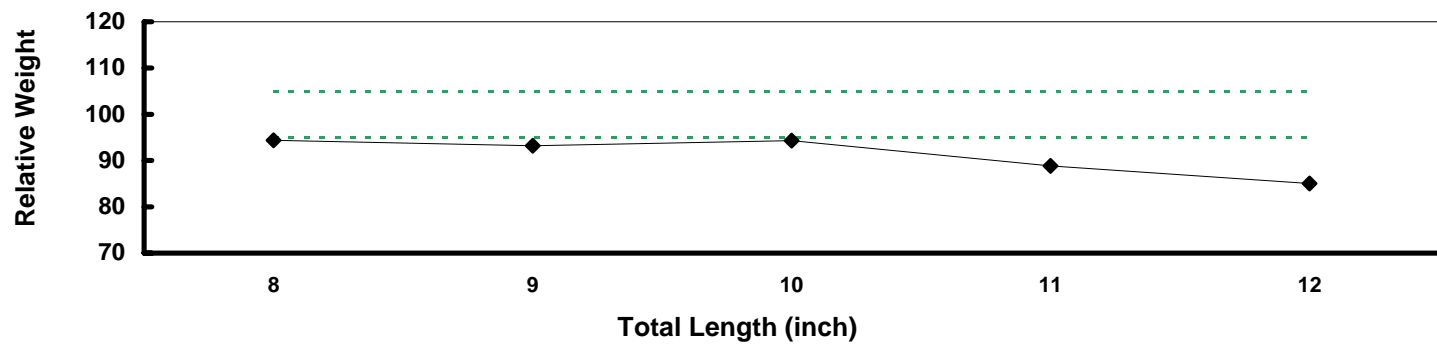


Figure 11. Fort Loudoun Reservoir black crappie mean relative weight values from the 2009 electrofishing sample (n=26).

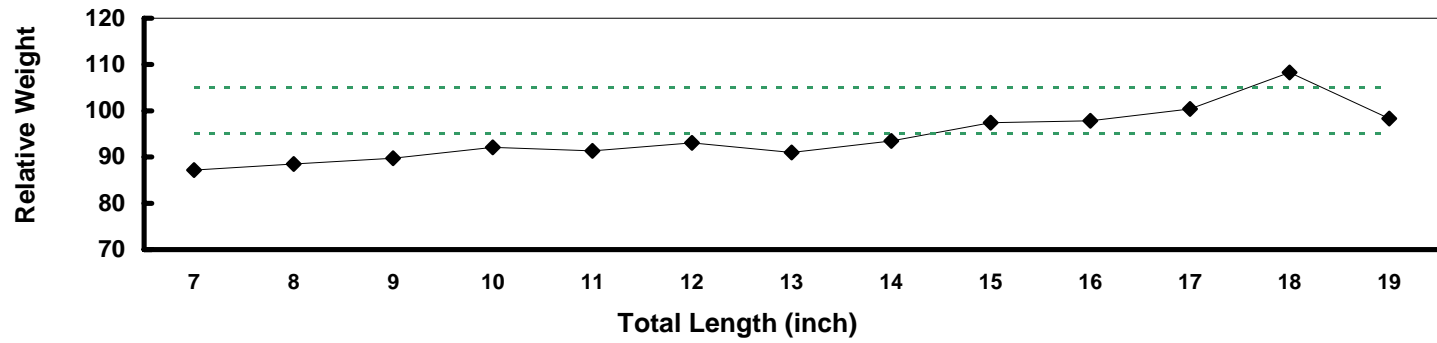


Figure 12. Fort Loudoun Reservoir largemouth bass mean relative weight values from the 2009 electrofishing sample (n=220).

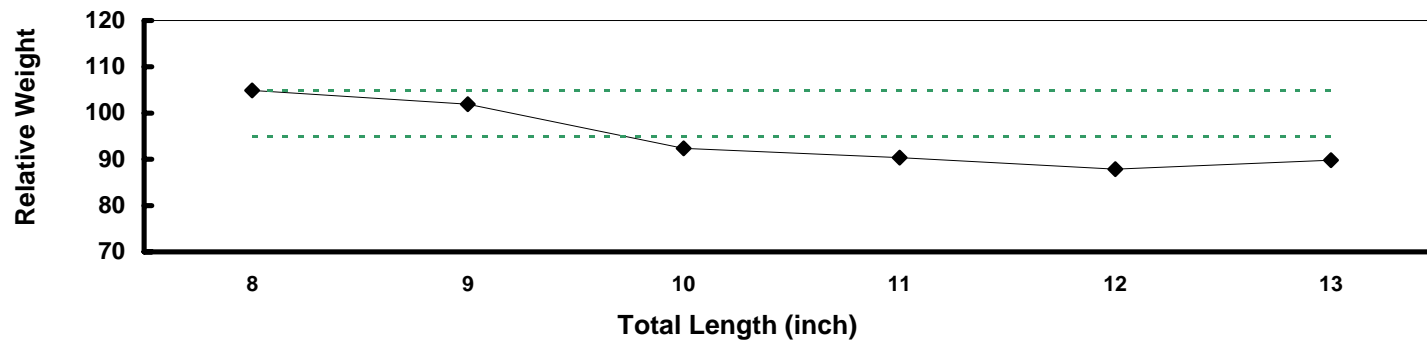


Figure 13. Fort Loudoun Reservoir white crappie mean relative weight values from the 2009 electrofishing sample (n=30).

Appendix – Creel

MONTHLY ANGLING EFFORT FOR ALL ANGLERS - 2009

LAKE=FT. LOUDOUN

MONTH	ANGLER HOURS	RELATIVE STANDARD ERROR	HOURS PER ACRE	ANGLER TRIPS	TRIPS PER ACRE	PERCENT EFFORT
01 JANUARY	13880	50.0	1.0	2610	0.2	6.3
02 FEBRUARY	3680	.	0.3	1338	0.1	1.7
03 MARCH	20668	16.9	1.4	4161	0.3	9.4
04 APRIL	24719	12.9	1.7	5527	0.4	11.2
05 MAY	29268	7.7	2.0	5969	0.4	13.3
06 JUNE	29210	6.1	2.0	6996	0.5	13.2
07 JULY	20915	31.2	1.4	5074	0.3	9.5
08 AUGUST	24608	49.6	1.7	5275	0.4	11.2
09 SEPTEMBER	21144	20.7	1.4	4458	0.3	9.6
10 OCTOBER	15607	7.0	1.1	3698	0.3	7.1
11 NOVEMBER	13437	20.6	0.9	3238	0.2	6.1
12 DECEMBER	3452	31.1	0.2	958	0.1	1.6
----- TOTAL	220588			49302		

MONTHLY CATCH STATISTICS FOR ALL ANGLERS - 2009

LAKE=FT. LOUDOUN

MONTH	NUMBER FISH CAUGHT	RSE FOR CATCH	FISH CAUGHT PER HOUR	RSE FOR CATCH RATE	NUMBER FISH HARVESTED	RSE FOR HARVEST	FISH HARVESTED PER HOUR	RSE FOR HARVEST RATE
01 JANUARY	14158	90.5	1.02	67.7	3886	57.7	0.28	26.0
02 FEBRUARY	0	.	0.00	.	0	.	0.00	.
03 MARCH	14881	22.0	0.72	13.9	2894	39.2	0.14	34.3
04 APRIL	44741	14.3	1.81	6.2	10629	31.3	0.43	28.4
05 MAY	57951	10.8	1.98	7.7	5854	12.7	0.20	10.0
06 JUNE	33592	13.4	1.15	11.9	3505	52.4	0.12	53.1
07 JULY	32837	49.3	1.57	36.3	2928	50.0	0.14	36.6
08 AUGUST	29284	50.3	1.19	7.5	3691	71.7	0.15	45.4
09 SEPTEMBER	26853	25.7	1.27	14.9	7189	38.8	0.34	31.7
10 OCTOBER	17636	14.3	1.13	12.5	6711	22.7	0.43	21.6
11 NOVEMBER	19618	26.9	1.46	17.0	7659	28.6	0.57	19.6
12 DECEMBER	8285	57.0	2.40	45.7	5040	55.1	1.46	43.4
----- TOTAL	299836				59986			

SUMMARY OF SPECIES CATCH STATISTICS - 2009

LAKE=FT. LOUDOUN

SPECIES	TOTAL	RSE	SPECIES	INTENDED	TOTAL	RSE	SPECIES	INTENDED	% OF	AVERAGE	NUMBER
	NUMBER	FOR	CATCH	NUMBER	NUMBER	FOR	HARVEST	NUMBER	CAUGHT	WEIGHT	FISH
	CAUGHT	CATCH	(%)	CAUGHT	HARVESTED	HARVEST	(%)	HARVESTED	RELEASED	(LBS)	RECORDED
CARP	237	970.9	0.1	237	49	1200.0	0.1	49	79.3	22.50	1
BLUE CATFISH	4923	98.0	1.6	4841	2536	87.2	4.2	2464	48.5	6.22	35
CHANNEL CATFISH	2342	184.8	0.8	2155	742	212.8	1.2	607	68.3	5.08	11
WHITE BASS	15842	72.5	5.3	10525	813	130.1	1.4	452	94.9	1.41	9
STRIPED BASS	12257	76.2	4.1	3960	0	.	0.0	0	100.0	.	0
BLUEGILL	35974	28.5	12.0	26464	10247	33.8	17.1	7912	71.5	0.58	158
SMALLMOUTH BASS	17345	45.0	5.8	14984	363	170.1	0.6	363	97.9	3.16	5
SPOTTED BASS	2364	273.6	0.8	2273	0	.	0.0	0	100.0	.	0
LARGEMOUTH BASS	89841	14.6	29.9	83179	2363	44.0	3.9	2268	97.4	2.89	25
WHITE CRAPPIE	96979	14.4	32.3	95622	37742	15.0	62.9	37592	61.1	0.97	502
BLACK CRAPPIE	3430	101.9	1.1	3430	2628	81.4	4.4	2628	23.4	1.19	34
BLACKNOSE CRAPPIE	248	896.4	0.1	248	120	582.9	0.2	120	51.6	1.20	2
FRESHWATER DRUM	3402	236.4	1.1	928	0	.	0.0	0	100.0	.	0

SUMMARY OF FISHING EFFORT AND CATCH RATES FOR INTENDED SPECIES GROUPS - 2009

LAKE=FT. LOUDOUN

INTENDED SPECIES	ANGLER HOURS	RSE FOR ANGLER HOURS	ANGLER TRIPS	PERCENT EFFORT	NUMBER CAUGHT PER HOUR	RSE FOR CATCH PER HOUR	NUMBER HARVESTED PER HOUR	RSE FOR HARVEST PER HOUR	NUMBER OF INTERVIEWS
ANY CATFISH	14431	19.6	3241	6.5	0.70	43.9	0.25	48.8	36
WHITE BASS	2901	49.0	651	1.3	1.62		0.00		3
STRIPED BASS	2654	45.0	590	1.2	1.03	210.9	0.00		6
ANY SUNFISH	6114	30.2	1380	2.8	2.50	53.8	1.40	41.9	14
ANY BLACK BASS	78936	11.1	17384	35.8	1.23	19.3	0.03	115.6	226
SMALLMOUTH BASS	710	71.5	154	0.3	0.77		0.15		2
LARGEMOUTH BASS	1002	56.7	245	0.5	0.46	0.0	0.09	0.0	4
ANY CRAPPIE	62013	10.0	13850	28.1	1.74	23.5	0.75	23.6	167
SAUGER	3139	18.7	990	1.4	0.00		0.00		5
ANY SPECIES	48685	12.4	10819	22.1	0.70	29.5	0.08	106.9	81
-----	-----		-----						
TOTAL	220585		49304						

SUMMARY OF RELATIVE SPECIES CATCH RATES
WITHIN TARGET GROUPS - 2009

LAKE=FT. LOUDOUN

TARGET GROUP	SPECIES WITHIN TARGET GROUPS	RELATIVE CATCH RATE	RELATIVE HARVEST RATE
ANY CATFISH	ANY CATFISH	0.00	0.00
	BLUE CATFISH	0.48	0.20
	CHANNEL CATFISH	0.22	0.05
ANY SUNFISH	BLUEGILL	2.50	1.40
ANY BLACK BASS	SMALLMOUTH BASS	0.19	0.00
	SPOTTED BASS	0.03	0.00
	LARGEMOUTH BASS	1.03	0.03
ANY CRAPPIE	WHITE CRAPPIE	1.68	0.70
	BLACK CRAPPIE	0.06	0.05
	BLACKNOSE CRAPPIE	0.00	0.00

COMPARISON OF BLACK BASS CATCH RATES (# FISH/HOUR) BETWEEN TOURNAMENT AND NON-TOURNAMENT ANGLERS
(MONTHS ARE LISTED ONLY IF > 90% OF BLACK BASS ANGLERS RESPONDED TO THE QUESTION ON TOURNAMENT PARTICIPATION)

LAKE=FT. LOUDOUN

MONTH	% BLACK BASS EFFORT BY TOURNAMENT ANGLERS	CATCH RATE FOR TOURNAMENT ANGLERS	# OF INTERVIEWS (TOURNAMENT)	CATCH RATE FOR NON-TOURNAMENT ANGLERS	# OF INTERVIEWS (NON-TOURNAMENT)
01 JANUARY	0		0	0.19	8
03 MARCH	0		0	0.72	23
04 APRIL	26	1.50	3	1.92	18
05 MAY	0		0	1.48	37
06 JUNE	4	0.00	4	1.27	15
07 JULY	3	1.00	2	1.08	24
08 AUGUST	24	0.30	4	1.18	22
09 SEPTEMBER	3	0.67	2	1.51	27
10 OCTOBER	0		0	1.21	26
11 NOVEMBER	0		0	1.35	14
12 DECEMBER	0		0	0.00	3

**SUMMARY OF TRIP EXPENDITURES AND CONSUMER SURPLUS
FOR INTENDED SPECIES - 2009**

LAKE=FT. LOUDOUN

INTENDED SPECIES	TOTAL TRIP EXPENDITURES	TOTAL CONSUMER SURPLUS	TOTAL VALUE BY ANGLERS	NUMBER OF INTERVIEWS
ANY CATFISH	45800	21050	66850	36
WHITE BASS	35690	2620	38300	3
STRIPED BASS	7590	8490	16080	6
ANY SUNFISH	15800	6280	22070	14
ANY BLACK BASS	386360	404730	791090	226
SMALLMOUTH BASS	3920	1920	5840	2
LARGEMOUTH BASS	6890	3830	10720	4
ANY CRAPPIE	198060	82160	280210	167
SAUGER	13690	4110	17800	5
ANY SPECIES	110130	24680	134810	81
TOTAL	823930	559870	1383770	544

SUMMARY OF SOCIOLOGICAL QUESTIONS - 2009

LAKE=FT. LOUDOUN

DISTRIBUTION OF STATES OF RESIDENCE OF INTERVIEWED ANGLERS

STATE	NUMBER ANGLERS INTERVIEWED	PERCENT CONTRIBUTION
TN	1020	99.7
OTHERS	3	0.3

DISTRIBUTION OF COUNTIES OF RESIDENCE OF INTERVIEWED ANGLERS

COUNTY	NUMBER ANGLERS INTERVIEWED	PERCENT CONTRIBUTION
BLOUNT	435	42.5
KNOX	453	44.3
LOUDON	65	6.4
OTHERS IN TN	67	6.5
OUT-OF-STATE	3	0.3

DISTRIBUTION OF ONE-WAY MILEAGE OF ANGLERS INTERVIEWED

ONE-WAY MILES TRAVELED	NUMBER ANGLERS INTERVIEWED	PERCENT CONTRIBUTION
A) 0-25	995	97.3
B) 26-100	26	2.5
C) 101-250	2	0.2

DISTRIBUTION OF REASONS WHY INTERVIEWED ANGLERS MADE THE TRIP

REASON FOR TRIP	NUMBER ANGLERS INTERVIEWED	PERCENT CONTRIBUTION
A) FISHING	543	99.8
B) VACATION	1	0.2

DISTRIBUTION OF NUMBER OF DAYS IN TRIPS OF INTERVIEWED ANGLERS

NUMBER DAYS IN TRIP	NUMBER ANGLERS INTERVIEWED	PERCENT CONTRIBUTION
A) 1	541	99.4
B) 2-5	3	0.6