

Norris Reservoir
Annual Report 2005

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Norris Reservoir - 2005

Largemouth Bass

Population Parameter	Annual Rating	Measure	Gear	Value
Recruitment	Good	Substock CPUE (per hr)	Electrofishing	4.7/hr
Structure	Good	PSD	Electrofishing	82
Density	Good	CPUE \geq Stock Size (203 mm) (per/hr)	Electrofishing	15.9/hr
Density	Good	CPUE \geq Minimum Size Limit (356 mm) (per hr)	Electrofishing	8.0/hr
Number Caught	Fair	Angler Catch	Creel Survey	16,346
Quality	Excellent	Average Weight	Creel Survey	1.3 kg
Value of Fishery*	Good	Trip Expenditures (\$)	Creel Survey	\$297,250

(*all black bass combined under intended species was used)

Fishery Forecast: The population has improved during the past couple of years. The average weight of largemouth caught by anglers in 2005 was 1.3 kg. The creel survey demonstrates anglers are not targeting largemouth as much as they are smallmouth.

Management Recommendations: Continue with the 356 mm minimum length limit.

Smallmouth Bass

Population Parameter	Annual Rating	Measure	Gear	Value
Recruitment	Poor	Substock CPUE (per hr)	Electrofishing	0.3/hr
Structure	Good	PSD	Electrofishing	90
Density	Poor	CPUE \geq Stock Size (178 mm) (per hr)	Electrofishing	4.2/hr
Density	Poor	CPUE \geq Minimum Size Limit (457 mm) (per hr)	Electrofishing	0.5/hr
Number Caught	Fair	Angler Catch	Creel Survey	30,271
Quality	Excellent	Average Weight	Creel Survey	1.8 kg
Value of Fishery*	Good	Trip Expenditures (\$)	Creel Survey	\$297,250

(*all black bass combined under intended species was used)

Fishery Forecast: The 457 mm minimum length limit has helped increase the number of large smallmouth and should continue to help improve the quality of the fishery.

Management Recommendations: Continue with the 457 mm minimum length limit.

Spotted Bass

Population Parameter	Annual Rating	Measure	Gear	Value
Recruitment	Fair	Substock CPUE (per hr)	Electrofishing	4.1/hr
Structure	Poor	PSD	Electrofishing	47
Density	Poor (too high)	CPUE \geq Stock Size (178 mm) (per hr)	Electrofishing	19.3/hr
Density	Poor (too high)	CPUE \geq Minimum Size Limit (none) (per hr)	Electrofishing	23.4/hr
Number Caught	Fair	Angler Catch	Creel Survey	20,785
Quality	Fair	Average Weight	Creel Survey	.5 kg
Value of Fishery*	Good	Trip Expenditures (\$)	Creel Survey	\$297,250

(*all black bass combined under intended species was used)

Fishery Forecast: There is a high percentage of small spotted bass in the fishery when compared to other black bass. Anglers are not harvesting enough spotted bass to decrease the density of this species.

Management Recommendations: Continue to encourage anglers to harvest spotted bass.

Walleye

Population Parameter	Annual Rating	Measure	Gear	Value
Growth	Excellent	Mean TL at Age-3 (mm)	Gill netting	459 mm
Structure	Good	PSD	Gill netting	91
Density	Good	CPUE \geq Stock Size (254 mm) (per net)	Gill netting	4.9/net
Density	Good	CPUE \geq Minimum Size Limit (381 mm) (per net)	Gill netting	4.4/net
Mortality	N/A	Total Mortality (Z) (%)	Gill netting	N/A
Angling Pressure	Fair	Fishing Effort (hr)	Creel Survey	57,604 hr
Fishing Success	Fair	Angler Catch Rate (per hr)	Creel Survey	0.2/hr
Number Caught	Good	Angler Catch	Creel Survey	19,444
Quality	Good	Average Weight	Creel Survey	1.0 kg
Value of Fishery	Good	Trip Expenditures (\$)	Creel Survey	\$154,570

Fishery Forecast: The walleye fishery has rebounded impressively since the initiation of an aggressive stocking campaign in 1998 and has remained stable during the last few years.

Management Recommendations: Continue to monitor the density and health of the fishery to determine future stocking rates. Consider increasing the minimum size limit to 457 mm to protect fish until they reach Age III.

Black Crappie

Population Parameter	Annual Rating	Measure	Gear	Value
Recruitment	Fair	Substock CPUE (net night)	Trap Net	0.9/net
Structure	Good	PSD	Trap Net	64
Density	Poor Fair	CPUE \geq Stock Size (127 mm)	Trap Net Electro	1.1/hr 6.8/hr
Density	Poor Fair	CPUE \geq Minimum size Limit (254 mm)	Trap Net Electro	0.2/net 4.2/hr
Angling Pressure*	Fair	Fishing Effort (hr)	Creel Survey	23,367 hr
Fishing Success*	Good	Angler Catch Rate (per hr)	Creel Survey	0.98/hr
Number Caught*	Good	Angler Catch	Creel Survey	29,668
Quality	Fair	Average Weight	Creel Survey	0.3 kg
Value of Fishery*	Good	Trip Expenditures (\$)	Creel Survey	\$42,820

(*all crappie combined)

Fishery Forecast: Although trap net samples have shown a decline in the fishery, electrofishing and creel have demonstrated there are good numbers of harvestable size crappie throughout the reservoir. Recruitment has been below average during the past several years.

Management Recommendations: There are no creel limit changes proposed, though reducing the creel to five per day would help insure the fishery remains intact.

Striped Bass

Population Parameter	Annual Rating	Measure	Gear	Value
Angling Pressure	Good	Fishing Effort (hr)	Creel Survey	40,493 hr
Fishing Success	Fair	Angler Catch Rate (per hr)	Creel Survey	0.14/hr
Number Caught	Fair	Angler Catch	Creel Survey	10,879
Quality	Fair	Average Weight	Creel Survey	4.2 kg
Value of Fishery	Good	Trip Expenditures (\$)	Creel Survey	\$142,730

Fishery Forecast: The summer of 2003 was a difficult period for quality striped bass and there was significant mortality of large stripers as a result of poor DO levels in association with a parasitic copepod. Young 1-6 year old stripers are relatively abundant, but it will take several years for the quality of the fishery to improve to historic levels.

Management Recommendations: No further changes in length limits are proposed.

Stocking and Stocking Evaluations

Species	Number Stocked 2003	Mark	Evaluation	Value
Striped Bass	103,655	NA	NA	NA
Black & Blacknose Crappie	149,125	NA	NA	NA
Walleye	260,144	N/A	NA	NA

Habitat Enhancement and Monitoring

Fish Attractors (Shallow Water)	Expanded	17 sites, 1000 units, 20.0 acres
	Renovated	none
Water Quality	Temperature	July-September (Normal)
	D.O.	July-September (Normal)

Tables

Table 1. Norris Reservoir physical and chemical characteristics.

Surface Area	34,200 acres	13,841 hectares
Drainage Area	2,912 sq. mi.	7,548 sq. km
Full Pool Elevation	1,020 feet-msl	311 m-msi
Mean Annual Fluctuation	60 feet	18.3 m
Shoreline Distance	809 miles	1302 km
Total Developed Shoreline	13%	
Maximum Depth	196 feet	60 m
Outlet Depth (upper)	147 feet	45 m
(lower)	167 feet	51 m
Thermocline Depth	16 feet	5 m
Trophic Status (Forebay)	Oligotrophic	
Mean Chlorophyll (Forebay)	2.4 mg/L	
Trophic Index Value Carlson (1977)	39.0	
Hydraulic Retention Time	245 days	
Reservoir Age	69 years	

Table 2. Norris Reservoir fish stockings 1993 - 2005.

Species	Date	Rate (per hectare)	Total Stocked
Black Crappie	June-Dec. 1995*	11.0	151,711
	May-Nov. 1996	5.7	79,586
	September 1998	1.4	20,000
	November 1999*	24.6	340,844
	Sept.-Nov. 2000*	23.7	327,951
	Oct.-Nov. 2001*	22.7	314,120
	Oct.-Nov. 2002*	8.6	119,137
	Oct.-Nov. 2003*	7.8	107,658
	June-Nov 2004*	10.4	143,434
	Oct.-Nov. 2005*	10.8	149,125
Striped Bass	July 1993	11.6	160,187
	July 1994	13.1	182,133
	July 1995	14.8	204,416
	July 1999	7.4	102,685
	June-July 2000	7.5	103,607
	July 2001	7.6	105,857
	July 2002	7.5	104,200
	July 2003	7.5	103,489
	June-July 2004	7.5	103,196
	Jul-05	7.5	103,655
Walleye	May 1994	3.0	41,295
	May-Sep. 1997	9.8	135,582
	May 1998	29.9	414,762
	May-Sep. 1999	24.2	334,878
	May-Sep. 2000	25.1	347,465
	May-Oct. 2001	24.3	336,878
	May 2002	22.6	313,214
	May 2003	12.4	171,594
	May 2004	12.5	173,354
	May-05	18.8	260,144
Paddlefish	May 1993	7.2	100,000
Largemouth Bass	Sep.- Oct. 1995	5.7	78,900
	June 1995	2.6	35,960

*includes blacknose black crappie

Table 6. Summary of creel results for Norris Reservoir 1998-2005.

Norris Species	YEAR	Intended Angler Hrs	Intended Angler Trips	Intended Trip Expeniture	Intended Caught	Intended Caught per hr	Intended Harvested	Intended Harvested per hr	Intended Interviews	(Total) Caught	(Total) Harvest	Ave Weight lb	(#) Fish Rec.	% Released	% Harvest Comp.	Total Intend Effort
White Crappie	1998									2,199	246	2.69	5			
	1999				14,438					15,819	3,865	0.67	40	75.6	5.9	
	2000				11,548		1,119			14,220	1,902	0.75	34	86.6	3.1	
	2001				2,737		891			2,737	891	0.75	8	67.4	0.9	
	2002				11,869		2,604			12,710	2,741	0.73	40	78.4	3.6	
	2003				4,745		1,403			4,903	1,497	0.62	16	69.5	2.1	
	2004				2,994		1,045			3,078	1,045	0.79	32	66.0	1.9	
2005				5,534		702			5,672	702	0.69	6	87.6	0.9		
Black Crappie	1998									9,532	2,682	0.83	56			
	1999				10,549					12,533	4,618	0.84	45	63.2	7.0	
	2000				12,175		2,231			13,310	2,918	0.76	34	78.1	4.8	
	2001				6,271		4,070			6,550	4,227	0.77	27	35.5	4.2	
	2002				13,973		5,699			14,247	5,962	0.72	68	58.2	7.9	
	2003				4,129		2,150			4,129	2,150	0.75	17	47.9	3.0	
	2004				7,457		4,856			7,659	4,972	0.85	43	35.1	9.2	
2005				21,390		5,481			21,681	5,608	0.65	44	74.1	7.1		
Black-nose Crappie	1998				0					0	0	na	0			
	1999				902		0			0	0	na	0		0.0	
	2000				86		0			902	0	na	0		0.0	
	2001				2,705		474			86	0	na	0		0.0	
	2002				4,080		777			2,921	632	0.83	8	78.4	0.8	
	2003				1,959		249			4,185	907	0.86	7	78.3	1.3	
	2004				2,315		499			1,959	249	0.30	1	87.3	0.5	
2005									2,315	499	0.85	3	78.4	0.6		
Channel Catfish	1998									1,636	791	1.90	14			
	1999				1,484					3,202	2,137	4.09	23	33.3	3.2	
	2000				4,737		4,891			15,294	7,861	2.18	45	48.6	12.9	
	2001				5,450		5,560			16,039	10,722	1.76	54	33.2	10.6	
	2002				2,431		1,438			10,128	3,308	1.51	23	67.3	4.4	
	2003				1,512		1,015			6,500	2,610	2.17	18	59.8	3.6	
	2004				791		386			9,265	2,959	1.94	23	68.1	5.5	
2005				4,569		2,295			9,815	2,817	2.41	27	71.3	3.5		
Flathead Catfish	1998									3,064	591	2.46	8			
	1999				237					356	341	6.04	5	4.2	0.5	
	2000				191		148			508	295	4.60	4	41.9	0.5	
	2001				551		551			1,102	1,102	4.83	4	0.0	1.1	
	2002				177		185			353	277	2.65	3	21.5	0.4	
	2003				236		287			354	287	1.28	287	18.9	0.4	
	2004				396		396			792	792	1.16	4	0.0	1.5	
2005				137		137			411	411	2.13	3	0.0	0.5		
Bluegill	1998									54,619	22,871	0.30	277			
	1999				44,922		22,124			54,297	24,537	0.83	244	54.8	37.2	
	2000				80,586		23,563			89,623	25,705	0.19	288	71.3	42.1	
	2001				73,774		40,883			89,907	43,937	0.20	187	51.1	43.4	
	2002				64,767		30,876			85,803	36,272	0.27	242	57.7	48.1	
	2003				63,347		30,947			82,166	33,491	0.23	237	59.2	46.7	
	2004				49,171		18,958			66,695	25,700	0.27	324	61.5	47.5	
2005				132,854		42,514			147,552	44,083	0.23	308	70.1	55.6		
White Bass	1998									430	84	0.88	3			
	1999	718	148		82	0.04	34	0.04	2	164	34	1.15	2	79.3	0.1	
	2000				0		0			0	0	na	0	na	0.0	
	2001	794	146		174	0.50	247			2,787	494	0.53	4	82.3	0.5	
	2002				0		0			2,646	1,484	0.52	20	43.9	2.0	
	2003	831	128	\$5,130	0	0.00	0	0.00	0	391	324	0.78	2	17.1	0.5	
	2004				129		0			3,738	1,908	0.47	13	49.0	3.5	
2005	502	87	\$2,170	109	0.33	0	0.00	1	1,745	49	1.60	2	97.2	0.1		
TOTAL	1998	266,554	52,768							158,023	38,369		607			266,554
	1999	302,469	62,574		171,161		56,064		828	206,200	64,588		685			302,469
	2000	392,121	69,556	\$873,910	192,583		51,226		676	238,348	61,009		638			392,121
	2001	402,116	79,647	\$935,710	200,722		82,574		659	267,666	101,293		517			402,102
	2002	419,504	71,249	\$953,870	215,023		62,198		744	275,254	75,476		599			419,504
	2003	372,263	67,076	\$882,580	159,698		60,213		576	204,295	70,336		459			372,263
	2004	271,214	48,676	\$698,470	118,286		40,671		478	166,343	53,821		608			271,214
2005	354,865	62,854	\$1,055,410	249,577		73,391		482	292,084	78,199		550			354,865	

Table 7. Mean relative weight and standard error values by size class for Norris Reservoir black crappie collected during the 2005 electrofishing sample.

Size Class	Mean Wr	Std. Error	N
175	93.573	2.900	2
200	90.777	1.934	13
225	91.838	2.741	10
250	83.708	3.645	4
275	88.722	1.397	20
300	86.602	1.475	12
325	83.323	1.392	4
350			
375	81.828		1
Total Catch			66

Table 8. Mean relative weight (Wr) and standard error values by size class for Norris Reservoir black crappie collected during the 2005 trap net sample.

Size Class	Mean Wr	Std. Error	N
100	92.081		1
125	82.581	3.223	7
150	89.479	2.611	9
175	88.395	1.255	22
200	88.553	1.791	31
225	89.214	2.491	21
250	90.623	2.073	14
275	87.604	3.379	5
300	94.534		1
Total Catch			111

Table 9. Mean relative weight and standard error values by size class for Norris Reservoir largemouth bass collected during the 2005 electrofishing sample.

Size Class	Mean Wr	Std. Error	N
150	70.882	0.215	2
175	86.469	4.673	8
200	85.952	3.010	7
225	86.473	11.967	3
250	87.910	2.723	9
275	87.908	2.488	9
300	87.260	1.625	22
325	82.510	1.576	12
350	85.017	2.166	9
375	85.909	1.149	24
400	87.622	1.776	18
425	86.623	2.121	17
450	88.672	3.205	10
475	89.956	2.612	11
500	82.157		1
525	94.797	2.339	3

Total Catch 165

Table 10. Mean relative weight and standard error values by size class for Norris Reservoir smallmouth bass collected during the 2005 electrofishing sample.

Size Class	Mean Wr	Std. Error	N
200	91.135	2.094	3
225			
250	91.998		1
275	87.239	3.777	3
300	86.919	2.934	6
325	86.124	2.097	6
350	89.349	3.813	4
375	82.452	4.780	2
400	83.041	1.256	5
425	84.109	2.969	6
450	73.256	2.245	3
475	71.914	4.865	2

Total Catch 41

Table 11. Mean relative weight and standard error values by size class for Norris Reservoir spotted bass collected during the 2005 electrofishing sample.

Size Class	Mean Wr	Std. Error	N
125	95.352		1
150	101.670	5.958	7
175	96.339	2.327	16
200	95.706	2.850	16
225	95.565	1.924	23
250	98.137	2.946	21
275	89.554	1.305	23
300	89.707	1.373	32
325	91.269	2.582	20
350	90.371	2.634	10
375	91.586	2.373	7
400	95.698		1

Total Catch 177

Table 12. Mean relative weight and standard error values by size class for Norris Reservoir walleye collected during the 2005 electrofishing sample.

Size Class	Mean Wr	Std. Error	N
125	95.352		1
150	101.670	5.958	7
175	96.339	2.327	16
200	95.706	2.850	16
225	95.565	1.924	23
250	98.137	2.946	21
275	89.554	1.305	23
300	89.707	1.373	32
325	91.269	2.582	20
350	90.371	2.634	10
375	91.586	2.373	7
400	95.698		1

Total Catch 177

Table 13. Mean relative weight and standard error values by size class for Norris Reservoir walleye collected during the 2005 winter gill net sample.

Size Class	Mean Wr	Std. Error	N
225	89.611		1
250			
275	89.929	3.183	3
300	96.565	3.201	4
325	94.051		1
350	88.412	6.281	2
375	88.898	2.456	13
400	89.775	1.375	22
425	88.861	1.096	26
450	89.766	1.107	24
475	88.033	1.485	13
500	85.104	2.176	7
525	83.993	2.185	8
550	92.440	1.407	3
575	84.491	1.258	2
600	87.072	0.408	2
625			
650			
675			
700			
725			
750			
775	109.316		1
Total Catch			132

Table 14. Geometric means from Norris shad gill net sampling.

	YEAR	GEOMETRIC MEAN	LOWER CI	UPPER CI
alewife	1993*	4.9	4.0	5.8
	1994*	3.8	3.3	4.4
	1995*	3.5	2.8	4.3
	1996*	0.2	0.0	0.3
	2001	2.1	0.4	5.8
	2002	0.3	0.0	0.7
	2003	17.3	9.7	30.4
	2004	0.7	0.3	1.2
	2005	0.4	0.1	0.7
	threadfin	1993*	13.3	12.3
1994*		1.5	0.9	2.0
1995*		11.1	10.1	12.1
1996*		0.3	0.0	0.6
2001		8.8	4.0	18.3
2002		5.8	2.4	12.5
2003		17.9	10.9	29.3
2004		14.6	8.1	25.7
2005		3.8	1.6	8.0
gizzard		1993*	0.7	0.4
	1994*	1.0	0.7	1.2
	1995*	1.0	0.7	1.2
	1996*	1.4	1.1	1.7
	2001	1.9	0.8	3.6
	2002	4.3	2.7	6.6
	2003	5.8	3.4	9.4
	2005	3.7	2.6	5.1

* from Chris O'bara's work

Table 15. Geometric means of Region IV shad gill net catches in 2002.

	Alewife Geometric Mean	Threadfin Geometric Mean	Gizzard Geometric Mean
Norris	0.3	5.8	4.3
Cherokee	16.2	17.1	14.1
S Holston	3.5	29.7	3.2
Boone	4.6	22.2	32.7

Table 16. Geometric means of Region IV shad gill net catches in 2003.

	Alewife Geometric Mean	Threadfin Geometric Mean	Gizzard Geometric Mean
Norris	17.3	17.9	5.8
Cherokee	67.3	1.9	67.7
S Holston	8.2	5.5	4.0
Boone	107.3	0.0	14.4

Table 17. Geometric means of Region IV shad gill net catches in 2004.

	Alewife Geometric Mean	Threadfin Geometric Mean	Gizzard Geometric Mean
Norris	0.7	14.6	3.7
Cherokee	5.3	9.7	9.3
S Holston	1.8	4.0	2.2
Boone	3.0	1.5	42.3

Table 18. Geometric means of Region IV shad gill net catches in 2005.

	Alewife Geometric Mean	Threadfin Geometric Mean	Gizzard Geometric Mean
Norris	0.4	3.8	5.3
Cherokee	0.1	1.6	1.7
S Holston	0.2	3.9	3.1
Boone	2.4	15.9	26.1

Table 19. Summary of July 2005 Norris Reservoir water quality parameters at Clinch River Mile 80.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	28.2	245	8.7	8.3	C80	2.8	1300	7/6/2005
1	28.1	245	8.6	8.4				
2	28.1	245	8.5	8.3				
3	28.0	245	8.5	8.2				
4	26.5	265	8.6	12.6				
5	24.1	236	8.6	14.7				
6	22.4	235	8.6	15.1				
7	20.5	235	8.6	15.4				
8	18.0	242	8.4	10.6				
9	16.4	250	8.3	7.9				
10	15.2	256	8.1	6.4				
11	14.4	265	8.0	6.0				
12	13.9	269	7.9	5.1				
13	13.6	270	7.9	4.9				
14	13.3	272	7.9	4.7				
15	12.9	274	7.9	4.7				
16	12.6	274	7.9	4.7				
17	12.3	273	7.8	5.1				
18	11.8	273	7.8	6.0				
19	11.4	271	7.8	6.0				
20	11.0	266	7.8	6.4				
21	10.6	264	7.8	6.8				
22	10.4	264	7.8	7.2				
23	10.2	266	7.8	7.2				

Table 20. Summary of July 2005 Norris Reservoir water quality parameters at Clinch River Mile 88.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	28.6	245		8.0	C88	2.4	1200	7/6/2005
1	28.5	245		8.5				
2	28.5	245		8.7				
3	28.4	245		8.6				
4	28.3	245		8.7				
5	24.8	249		13.8				
6	21.9	250		15.4				
7	19.7	257		14.4				
8	17.9	264		14.2				
9	16.6	268		12.8				
10	15.5	270		6.1				
11	14.6	269		5.3				
12	14.1	269		4.5				
13	13.7	268		4.1				
14	13.2	268		3.9				
15	12.9	268		4.0				
16	12.6	270		4.2				
17	12.3	274		4.8				
18	12.0	282		5.3				
19	11.7	279		5.6				
20	11.4	278		5.8				
21	11.0	275		6.1				
22	10.8	274		6.3				
23	10.5	273		6.4				
24	10.1	273		6.5				
25	9.8	271		6.6				
26	9.5	271		6.4				
27	9.5	271		6.2				
28	9.4	271		5.9				
29	9.2	273		5.8				
30	9.1	274		5.7				

Table 21. Summary of July 2005 Norris Reservoir water quality parameters at Clinch River Mile 120.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	28.4	234	8.5	8.7	C120	2.0	0824	7/6/2005
1	28.4	235	8.4	8.5				
2	28.4	235	8.4	8.3				
3	28.4	235	8.4	8.1				
4	28.4	235	8.4	8.7				
5	28.2	237	8.4	7.9				
6	24.7	273	8.2	8.5				
7	21.7	285	8.0	6.4				
8	19.0	281	7.8	4.8				
9	16.9	275	7.8	3.0				
10	15.7	272	7.7	2.4				
11	14.9	270	7.7	2.4				
12	14.2	265	7.7	2.9				
13	13.9	264	7.6	3.0				
14	13.5	261	7.6	3.6				
15	13.1	259	7.6	3.8				
16	12.9	260	7.6	3.5				
17	12.7	262	7.6	3.5				
18	12.4	264	7.6	3.4				
19	11.7	269	7.6	3.2				
20	11.2	272	7.5	3.3				
21	10.9	274	7.5	3.2				
22	10.7	275	7.5	3.0				
23	10.5	278	7.5	2.3				
24	10.2	282	7.5	1.1				
25	10.1	283	7.4	0.7				
26	9.8	286	7.4	0.3				
27	9.6	290	7.4	0.2				
28	9.4	292	7.4	0.2				
29	9.3	294	7.4	0.2				

Table 22. Summary of July 2005 Norris Reservoir water quality parameters at Powell River Mile 19.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	28.9	261	8.5	8.4	P19	2.5	1035	7/6/2005
1	28.8	261	8.4	8.0				
2	28.8	261	8.4	8.4				
3	28.8	261	8.4	8.3				
4	28.7	261	8.4	8.5				
5	27.2	275	8.4	12.3				
6	24.2	319	8.4	11.6				
7	22.4	326	8.3	11.5				
8	19.6	326	8.2	9.7				
9	17.3	304	7.9	5.9				
10	16.0	297	7.9	4.1				
11	15.0	297	7.8	3.0				
12	14.5	295	7.7	2.8				
13	14.0	292	7.7	3.5				
14	13.7	285	7.7	4.1				
15	13.3	282	7.7	4.3				
16	12.9	287	7.7	4.2				
17	12.7	293	7.7	4.2				
18	12.5	297	7.6	4.1				
19	12.1	300	7.6	4.0				
20	12.0	300	7.6	4.6				
21	11.3	300	7.6	4.6				
22	11.0	301	7.6	4.8				
23	10.8	304	7.6	4.9				
24	10.6	305	7.5	5.1				
25	10.4	307	7.5	5.1				
26	10.1	307	7.5	5.1				
27	9.9	307	7.5	5.1				
28	9.6	308	7.5	5.2				
29	9.4	308	7.5	5.3				
30	9.3	309	7.5	5.2				

Table 23. Summary of August 2005 Norris Reservoir water quality parameters at Clinch River Mile 80.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	30.8	240		7.8	C80	5.0	1320	8/4/2005
1	30.6	239		7.4				
2	30.5	240		7.3				
3	30.3	239		7.5				
4	30.2	240		7.1				
5	29.6	238		8.2				
6	27.8	235		11.5				
7	25.5	238		12.6				
8	23.5	240		12.2				
9	21.2	242		10.8				
10	19.1	245		8.4				
11	17.1	251		5.9				
12	15.9	256		4.7				
13	14.9	263		4.1				
14	14.4	268		4.3				
15	13.9	270		3.7				
16	13.6	273		3.6				
17	13.2	274		3.7				
18	12.9	277		3.8				
19	12.8	279		3.9				
20	12.5	277		4.0				
21	12.3	274		4.6				
22	12.0	273		4.8				
23	11.7	272		5.3				
24	11.4	271		5.4				
25	11.1	271		5.4				
26	10.9	271		5.5				
27	10.8	273		5.4				
28	10.6	275		5.5				
29	10.3	278		5.6				
30	10.1	278		5.6				

Table 24. Summary of August 2005 Norris Reservoir water quality parameters at Clinch River Mile 88.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	30.8	237		7.8	C88	3.3	1216	8/2/2004
1	30.5	236		7.4				
2	30.4	236		7.3				
3	30.3	238		7.7				
4	30.2	239		7.9				
5	29.4	238		9.6				
6	27.5	235		11.9				
7	25.5	241		13.1				
8	23.6	253		14.6				
9	20.7	254		14.7				
10	18.4	256		14.1				
11	17.3	266		10.9				
12	15.6	277		4.8				
13	14.7	276		3.1				
14	14.1	273		2.7				
15	13.6	275		2.5				
16	13.3	272		2.6				
17	13.1	273		2.8				
18	12.9	273		2.9				
19	12.7	274		3.1				
20	12.3	276		3.7				
21	12.1	277		4.0				
22	11.7	278		4.4				
23	11.5	278		4.7				
24	11.2	276		5.1				
25	10.9	275		5.2				
26	10.7	274		5.2				
27	10.5	274		5.1				
28	10.2	274		4.8				
29	10.1	275		4.2				
30	9.9	275		3.9				

Table 25. Summary of August 2005 Norris Reservoir water quality parameters at Clinch River Mile 120.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	29.9	250		7.8	C120	2.8	0800	8/4/2005
1	29.9	250		7.8				
2	29.9	250		7.8				
3	29.9	250		7.8				
4	29.9	250		8.3				
5	28.7	257		9.3				
6	26.9	293		8.9				
7	25.6	304		7.2				
8	23.6	307		3.5				
9	21.5	310		3.1				
10	19.3	294		4.1				
11	17.3	285		3.1				
12	15.9	279		3.6				
13	15.1	277		3.8				
14	14.3	273		4.0				
15	13.9	269		3.8				
16	13.7	268		3.9				
17	13.2	267		4.2				
18	12.9	267		4.4				
19	12.6	268		4.1				
20	12.3	270		3.9				
21	12.0	271		4.1				
22	11.8	272		3.5				
23	11.4	276		2.5				
24	11.1	279		2.3				
25	10.9	284		2.2				
26	10.6	286		2.1				
27	10.4	290		2.1				
28	10.1	294		2.1				
29	9.9	299		2.0				

Table 26. Summary of August 2005 Norris Reservoir water quality parameters at Powell River Mile 19.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	30.3	272		7.8	P19	2.8	1045	8/4/2005
1	30.2	272		8.2				
2	30.1	273		8.0				
3	30.1	273		8.4				
4	29.9	274		7.8				
5	28.5	293		10.0				
6	27.0	364		9.5				
7	25.6	394		7.3				
8	24.1	408		4.6				
9	22.4	282		2.5				
10	19.5	329		3.4				
11	17.6	310		1.3				
12	16.0	301		0.9				
13	15.2	301		1.8				
14	14.5	295		2.2				
15	14.0	289		2.6				
16	13.6	285		2.9				
17	13.3	285		2.9				
18	13.1	288		2.9				
19	12.7	292		3.3				
20	12.5	296		3.1				
21	12.1	300		3.4				
22	11.8	301		3.5				
23	11.5	304		3.3				
24	11.3	307		3.3				
25	11.1	309		3.1				
26	10.9	310		2.9				
27	10.7	312		2.9				
28	10.5	312		3.2				
29	10.3	312		3.4				
30	10.0	313		3.4				

Table 27. Summary of September 2005 Norris Reservoir water quality parameters at Clinch River Mile 80.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	28.6	239	8.6	8.0	C80	4.0	1410	9/1/2005
1	28.1	238	8.5	8.0				
2	28.0	237	8.5	6.8				
3	27.9	237	8.4	6.9				
4	27.8	237	8.4	7.3				
5	27.8	237	8.4	7.1				
6	27.7	240	8.4	7.8				
7	27.1	245	8.3	9.5				
8	24.7	253	8.2	11.6				
9	22.5	251	8.1	10.2				
10	21.1	245	8.0	8.6				
11	19.6	247	7.9	6.7				
12	17.8	253	7.8	5.0				
13	16.6	257	7.7	4.1				
14	15.7	262	7.7	3.5				
15	14.9	267	7.6	3.2				
16	14.4	270	7.6	3.1				
17	14.1	273	7.6	2.8				
18	13.7	277	7.6	2.5				
19	13.4	278	7.6	2.6				
20	13.1	279	7.5	2.9				
21	12.8	279	7.5	3.2				
22	12.6	281	7.5	3.1				
23	12.5	281	7.5	3.0				
24	12.4	281	7.5	3.1				
25	12.1	281	7.5	3.2				
26	11.8	278	7.5	3.5				
27	11.7	276	7.5	3.6				
28	11.4	275	7.5	3.6				
29	11.3	276	7.5	3.6				
30	11.2	275	7.5	3.6				

Table 28. Summary of September 2005 Norris Reservoir water quality parameters at Clinch River Mile 88.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	28.3	247	8.5	8.2	C88	2.8	1150	9/1/2005
1	27.9	246	8.5	7.8				
2	27.9	246	8.5	7.8				
3	27.8	246	8.4	7.7				
4	27.8	245	8.4	7.5				
5	27.7	246	8.4	7.5				
6	27.4	253	8.3	7.8				
7	26.8	263	8.3	8.1				
8	24.5	310	8.1	9.3				
9	22.1	282	8.1	10.9				
10	20.4	268	8.1	11.1				
11	19.0	269	7.9	8.8				
12	17.8	270	7.9	6.4				
13	17.0	274	7.8	4.8				
14	16.0	277	7.7	2.8				
15	15.1	277	7.7	1.8				
16	14.5	275	7.6	1.4				
17	14.0	274	7.6	1.2				
18	13.6	272	7.6	1.2				
19	13.3	271	7.6	1.4				
20	13.0	272	7.6	1.6				
21	12.7	272	7.6	1.9				
22	12.5	272	7.5	1.9				
23	12.3	273	7.5	1.9				
24	12.2	274	7.5	1.8				
25	12.0	274	7.5	1.8				
26	11.8	274	7.5	1.8				
27	11.6	274	7.5	1.8				
28	11.5	274	7.4	1.9				
29	11.3	274	7.4	2.1				
30	11.1	274	7.4	2.2				

Table 29. Summary of September 2005 Norris Reservoir water quality parameters at Clinch River Mile 120.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	27.2	261	7.8	6.1	C120	2.5	0905	9/1/2005
1	27.2	260	7.9	5.8				
2	27.2	260	7.9	6.0				
3	27.3	260	7.9	5.7				
4	27.2	260	7.9	5.8				
5	27.2	260	7.9	5.6				
6	27.2	260	7.9	5.9				
7	27.2	260	7.9	5.8				
8	27.1	266	7.9	5.0				
9	25.7	293	7.7	1.2				
10	22.2	308	7.5	0.3				
11	20.0	299	7.5	0.3				
12	18.3	292	7.5	0.3				
13	16.7	284	7.5	0.2				
14	16.4	286	7.4	0.2				
15	15.8	283	7.4	0.2				
16	14.9	282	7.4	0.2				
17	14.3	277	7.4	0.2				
18	13.7	277	7.4	0.2				
19	13.5	276	7.3	0.2				
20	13.3	275	7.3	0.2				
21	13.0	276	7.3	0.2				
22	12.8	277	7.3	0.2				
23	12.6	277	7.3	0.2				
24	12.5	278	7.3	0.2				
25	12.3	279	7.2	0.2				
26	12.0	283	7.2	0.2				
27	11.7	286	7.2	0.2				
28	11.5	288	7.2	0.2				

Table 30. Summary of September 2005 Norris Reservoir water quality parameters at Powell River Mile 19.

Depth (m)	Temp ©	Cond	PH	DO	Site	Secchi (m)	Time	Date
0	28.7	275	8.4	7.3	P19	3.1	1302	9/1/2005
1	28.1	278	8.4	7.0				
2	27.9	278	8.4	7.0				
3	27.8	277	8.4	7.1				
4	27.8	277	8.3	7.0				
5	27.7	277	8.3	7.0				
6	27.7	277	8.3	6.9				
7	27.7	278	8.3	6.6				
8	27.4	292	8.2	4.8				
9	24.3	333	7.8	0.4				
10	22.3	362	7.7	0.3				
11	19.7	323	7.7	0.2				
12	18.1	313	7.7	0.2				
13	16.6	306	7.6	0.2				
14	15.6	302	7.6	0.3				
15	15.0	298	7.6	0.6				
16	14.3	294	7.6	1.0				
17	13.9	292	7.6	1.2				
18	13.6	291	7.6	1.5				
19	13.5	291	7.6	1.5				
20	13.3	291	7.5	1.6				
21	13.1	292	7.5	1.7				
22	12.9	292	7.5	1.7				
23	12.6	294	7.5	1.8				
24	12.4	297	7.5	1.9				
25	12.2	299	7.5	2.0				
26	11.9	302	7.5	2.0				
27	11.7	304	7.5	1.8				
28	11.7	305	7.5	1.7				
29	11.4	307	7.4	1.6				
30	11.2	307	7.4	1.2				

Table 31. Norris Reservoir fish habitat enhancement summary for 2005.

LOCATION	NEW SITES			RENOVATED SITES			EXPANDED SITES		
	NUMBER	UNITS	ACRES	NUMBER	UNITS	ACRES	NUMBER	UNITS	ACRES
CRM 85.25 R*							1	50	1.00
CRM 86.5 R*							1	50	1.00
CRM 86.75 L*							1	50	1.00
CRM 89.75 L*							1	50	1.00
CRM 89.75 R*							1	25	0.50
CRM 98.25 R*							1	50	1.00
CRM 98.2 R*							1	50	1.00
CRM 97.5 L*							1	50	1.00
CRM 98.75 R*							1	50	1.00
CRM 98.85 R*							1	50	1.00
CRM 98.25 R*							1	100	2.00
CRM 98.5 R*							1	50	1.00
CRM 98.5 L*							1	50	1.00
CRM 98.25 R*							1	50	1.00
CRM 98.25 R*							1	50	1.00
CRM 98.25 R*							1	175	3.50
CRM 98.25 R*							1	50	1.00
TOTAL							17	1000	20.00

*Christmas trees

Table 32. Norris Reservoir water levels for 2005. (TVA)

ELEVATION	MONTH	DAY	ELEVATION	MONTH	DAY	ELEVATION	MONTH	DAY
1003.66	JANUARY	1	1000.65	FEBRUARY	24	1015.48	APRIL	19
1003.23	JANUARY	2	1000.64	FEBRUARY	25	1015.69	APRIL	20
1002.79	JANUARY	3	1000.56	FEBRUARY	26	1015.85	APRIL	21
1002.35	JANUARY	4	1000.55	FEBRUARY	27	1016.15	APRIL	22
1001.91	JANUARY	5	1000.56	FEBRUARY	28	1016.37	APRIL	23
1001.47	JANUARY	6	1000.43	MARCH	1	1016.66	APRIL	24
1001.14	JANUARY	7	1000.41	MARCH	2	1016.95	APRIL	25
1001.11	JANUARY	8	1000.34	MARCH	3	1017.25	APRIL	26
1001.44	JANUARY	9	1000.23	MARCH	4	1017.46	APRIL	27
1001.38	JANUARY	10	1000.45	MARCH	5	1017.73	APRIL	28
1001.52	JANUARY	11	1000.74	MARCH	6	1018.54	APRIL	29
1001.98	JANUARY	12	1000.78	MARCH	7	1019.43	APRIL	30
1002.32	JANUARY	13	1000.77	MARCH	8	1020.23	MAY	1
1002.67	JANUARY	14	1000.90	MARCH	9	1020.67	MAY	2
1003.03	JANUARY	15	1001.05	MARCH	10	1020.80	MAY	3
1003.30	JANUARY	16	1001.13	MARCH	11	1020.77	MAY	4
1003.34	JANUARY	17	1001.55	MARCH	12	1020.64	MAY	5
1003.25	JANUARY	18	1001.92	MARCH	13	1020.44	MAY	6
1003.08	JANUARY	19	1002.10	MARCH	14	1020.46	MAY	7
1002.84	JANUARY	20	1002.12	MARCH	15	1020.45	MAY	8
1002.55	JANUARY	21	1001.99	MARCH	16	1020.46	MAY	9
1002.24	JANUARY	22	1001.76	MARCH	17	1020.47	MAY	10
1001.91	JANUARY	23	1001.82	MARCH	18	1020.26	MAY	11
1001.55	JANUARY	24	1002.16	MARCH	19	1020.25	MAY	12
1001.18	JANUARY	25	1002.47	MARCH	20	1020.13	MAY	13
1000.90	JANUARY	26	1002.67	MARCH	21	1020.21	MAY	14
1000.50	JANUARY	27	1002.96	MARCH	22	1020.26	MAY	15
1000.09	JANUARY	28	1003.25	MARCH	23	1020.36	MAY	16
999.76	JANUARY	29	1003.53	MARCH	24	1020.27	MAY	17
999.47	JANUARY	30	1003.80	MARCH	25	1020.21	MAY	18
999.33	JANUARY	31	1004.10	MARCH	26	1020.08	MAY	19
999.26	FEBRUARY	1	1004.42	MARCH	27	1020.38	MAY	20
999.17	FEBRUARY	2	1005.17	MARCH	28	1020.49	MAY	21
999.06	FEBRUARY	3	1005.68	MARCH	29	1020.59	MAY	22
998.93	FEBRUARY	4	1006.24	MARCH	30	1020.56	MAY	23
999.00	FEBRUARY	5	1006.80	MARCH	31	1020.35	MAY	24
999.11	FEBRUARY	6	1007.36	APRIL	1	1020.39	MAY	25
998.86	FEBRUARY	7	1008.38	APRIL	2	1020.26	MAY	26
998.57	FEBRUARY	8	1009.59	APRIL	3	1020.19	MAY	27
998.42	FEBRUARY	9	1010.71	APRIL	4	1020.17	MAY	28
998.28	FEBRUARY	10	1011.27	APRIL	5	1020.18	MAY	29
998.12	FEBRUARY	11	1011.63	APRIL	6	1020.16	MAY	30
998.21	FEBRUARY	12	1011.85	APRIL	7	1020.08	MAY	31
998.52	FEBRUARY	13	1012.01	APRIL	8	1020.10	JUNE	1
998.68	FEBRUARY	14	1012.25	APRIL	9	1020.15	JUNE	2
999.17	FEBRUARY	15	1012.48	APRIL	10	1020.16	JUNE	3
999.71	FEBRUARY	16	1012.57	APRIL	11	1020.10	JUNE	4
1000.02	FEBRUARY	17	1012.69	APRIL	12	1020.07	JUNE	5
1000.17	FEBRUARY	18	1013.08	APRIL	13	1020.03	JUNE	6
1000.10	FEBRUARY	19	1013.48	APRIL	14	1020.10	JUNE	7
1000.19	FEBRUARY	20	1014.02	APRIL	15	1020.13	JUNE	8
1000.30	FEBRUARY	21	1014.56	APRIL	16	1020.11	JUNE	9
1000.61	FEBRUARY	22	1014.92	APRIL	17	1020.12	JUNE	10
1000.67	FEBRUARY	23	1015.25	APRIL	18	1020.07	JUNE	11

Table 33. Norris Reservoir water levels for 2005. (TVA)

ELEVATION	MONTH	DAY	ELEVATION	MONTH	DAY	ELEVATION	MONTH	DAY
1020.03	JUNE	12	1018.71	AUGUST	5	1007.42	SEPTEMBER	28
1020.04	JUNE	13	1018.62	AUGUST	6	1006.99	SEPTEMBER	29
1020.03	JUNE	14	1018.54	AUGUST	7	1006.82	SEPTEMBER	30
1020.02	JUNE	15	1018.33	AUGUST	8	1006.59	OCTOBER	1
1019.99	JUNE	16	1018.16	AUGUST	9	1006.25	OCTOBER	2
1019.97	JUNE	17	1017.96	AUGUST	10	1005.92	OCTOBER	3
1019.91	JUNE	18	1017.74	AUGUST	11	1005.69	OCTOBER	4
1019.85	JUNE	19	1017.64	AUGUST	12	1005.45	OCTOBER	5
1019.84	JUNE	20	1017.61	AUGUST	13	1005.23	OCTOBER	6
1019.79	JUNE	21	1017.53	AUGUST	14	1004.95	OCTOBER	7
1019.77	JUNE	22	1017.30	AUGUST	15	1004.79	OCTOBER	8
1019.73	JUNE	23	1017.09	AUGUST	16	1004.72	OCTOBER	9
1019.71	JUNE	24	1016.87	AUGUST	17	1004.35	OCTOBER	10
1019.62	JUNE	25	1016.82	AUGUST	18	1003.92	OCTOBER	11
1019.56	JUNE	26	1016.88	AUGUST	19	1003.52	OCTOBER	12
1019.50	JUNE	27	1016.82	AUGUST	20	1003.08	OCTOBER	13
1019.49	JUNE	28	1016.78	AUGUST	21	1002.86	OCTOBER	14
1019.47	JUNE	29	1016.57	AUGUST	22	1002.69	OCTOBER	15
1019.44	JUNE	30	1016.35	AUGUST	23	1002.54	OCTOBER	16
1019.44	JULY	1	1016.14	AUGUST	24	1002.24	OCTOBER	17
1019.38	JULY	2	1016.02	AUGUST	25	1001.90	OCTOBER	18
1019.35	JULY	3	1015.85	AUGUST	26	1001.53	OCTOBER	19
1019.32	JULY	4	1015.76	AUGUST	27	1001.15	OCTOBER	20
1019.33	JULY	5	1015.66	AUGUST	28	1001.04	OCTOBER	21
1019.28	JULY	6	1015.58	AUGUST	29	1000.91	OCTOBER	22
1019.31	JULY	7	1015.46	AUGUST	30	1000.77	OCTOBER	23
1019.40	JULY	8	1015.28	AUGUST	31	1000.26	OCTOBER	24
1019.56	JULY	9	1015.12	SEPTEMBER	1	999.94	OCTOBER	25
1019.63	JULY	10	1014.94	SEPTEMBER	2	999.74	OCTOBER	26
1019.65	JULY	11	1014.85	SEPTEMBER	3	999.47	OCTOBER	27
1019.63	JULY	12	1014.76	SEPTEMBER	4	999.37	OCTOBER	28
1019.68	JULY	13	1014.68	SEPTEMBER	5	999.25	OCTOBER	29
1019.82	JULY	14	1014.44	SEPTEMBER	6	999.10	OCTOBER	30
1019.85	JULY	15	1014.09	SEPTEMBER	7	998.99	OCTOBER	31
1019.86	JULY	16	1013.81	SEPTEMBER	8	998.90	NOVEMBER	1
1019.85	JULY	17	1013.41	SEPTEMBER	9	998.43	NOVEMBER	2
1019.88	JULY	18	1013.15	SEPTEMBER	10	998.38	NOVEMBER	3
1019.94	JULY	19	1012.88	SEPTEMBER	11	998.29	NOVEMBER	4
1019.99	JULY	20	1012.55	SEPTEMBER	12	998.25	NOVEMBER	5
1020.10	JULY	21	1012.22	SEPTEMBER	13	998.24	NOVEMBER	6
1020.15	JULY	22	1011.88	SEPTEMBER	14	998.11	NOVEMBER	7
1020.12	JULY	23	1011.53	SEPTEMBER	15	997.99	NOVEMBER	8
1020.01	JULY	24	1011.41	SEPTEMBER	16	997.69	NOVEMBER	9
1019.98	JULY	25	1011.19	SEPTEMBER	17	997.40	NOVEMBER	10
1019.91	JULY	26	1010.86	SEPTEMBER	18	997.31	NOVEMBER	11
1019.90	JULY	27	1010.40	SEPTEMBER	19	997.24	NOVEMBER	12
1019.95	JULY	28	1010.07	SEPTEMBER	20	997.16	NOVEMBER	13
1019.97	JULY	29	1009.69	SEPTEMBER	21	997.13	NOVEMBER	14
1020.04	JULY	30	1009.53	SEPTEMBER	22	997.09	NOVEMBER	15
1020.04	JULY	31	1009.03	SEPTEMBER	23	997.10	NOVEMBER	16
1019.76	AUGUST	1	1008.77	SEPTEMBER	24	996.63	NOVEMBER	17
1019.45	AUGUST	2	1008.53	SEPTEMBER	25	996.20	NOVEMBER	18
1019.20	AUGUST	3	1008.25	SEPTEMBER	26	996.13	NOVEMBER	19
1018.89	AUGUST	4	1007.88	SEPTEMBER	27	996.11	NOVEMBER	20

Table 34. Norris Reservoir water levels for 2005. (TVA)

ELEVATION	MONTH	DAY
995.80	NOVEMBER	21
995.46	NOVEMBER	22
995.16	NOVEMBER	23
995.17	NOVEMBER	24
995.12	NOVEMBER	25
995.13	NOVEMBER	26
995.09	NOVEMBER	27
995.17	NOVEMBER	28
995.22	NOVEMBER	29
995.21	NOVEMBER	30
994.89	DECEMBER	1
994.54	DECEMBER	2
994.54	DECEMBER	3
994.69	DECEMBER	4
994.71	DECEMBER	5
994.62	DECEMBER	6
994.40	DECEMBER	7
994.10	DECEMBER	8
993.68	DECEMBER	9
993.67	DECEMBER	10
993.71	DECEMBER	11
993.76	DECEMBER	12
993.75	DECEMBER	13
993.41	DECEMBER	14
993.19	DECEMBER	15
992.90	DECEMBER	16
992.93	DECEMBER	17
993.05	DECEMBER	18
992.96	DECEMBER	19
992.48	DECEMBER	20
991.97	DECEMBER	21
991.73	DECEMBER	22
991.77	DECEMBER	23
991.78	DECEMBER	24
991.82	DECEMBER	25
991.87	DECEMBER	26
991.80	DECEMBER	27
991.86	DECEMBER	28
991.94	DECEMBER	29
992.03	DECEMBER	30
992.13	DECEMBER	31

Table 35. Length range and weighted mean length by age of walleye from Norris Reservoir
2005 winter gill net sample.

AGE	Minimum length at capture	Weighted mean length at capture	Maximum length at capture	N
1	245	298	329	9
2	370	426	481	74
3	412	459	507	14
4	459	506	553	23
5	459	543	614	7
6				
7	507	534	575	4

Figures

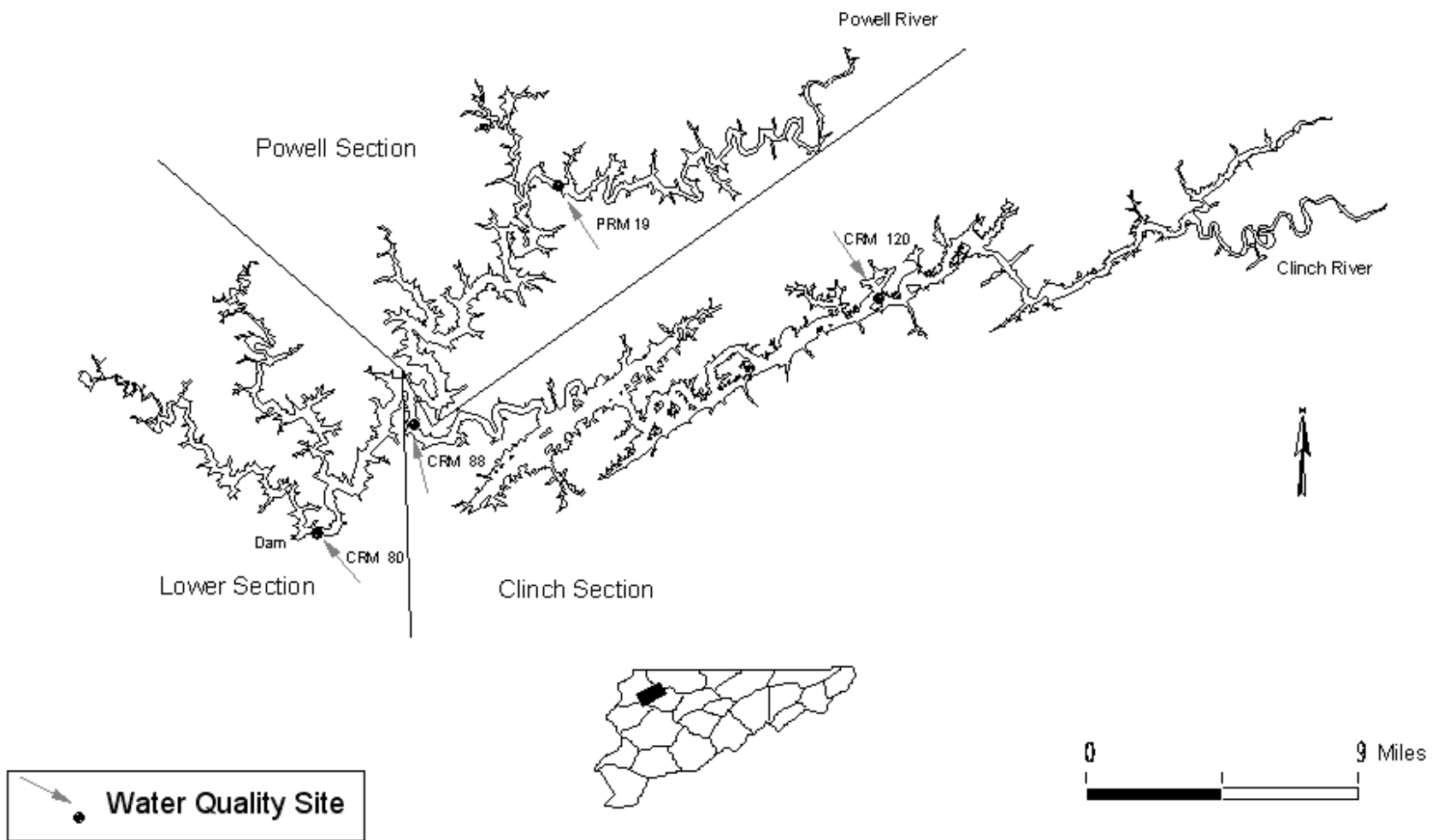


Figure 1. Water quality sites and the Clinch, Powell and lower section boundaries of Norris Reservoir in 2005.

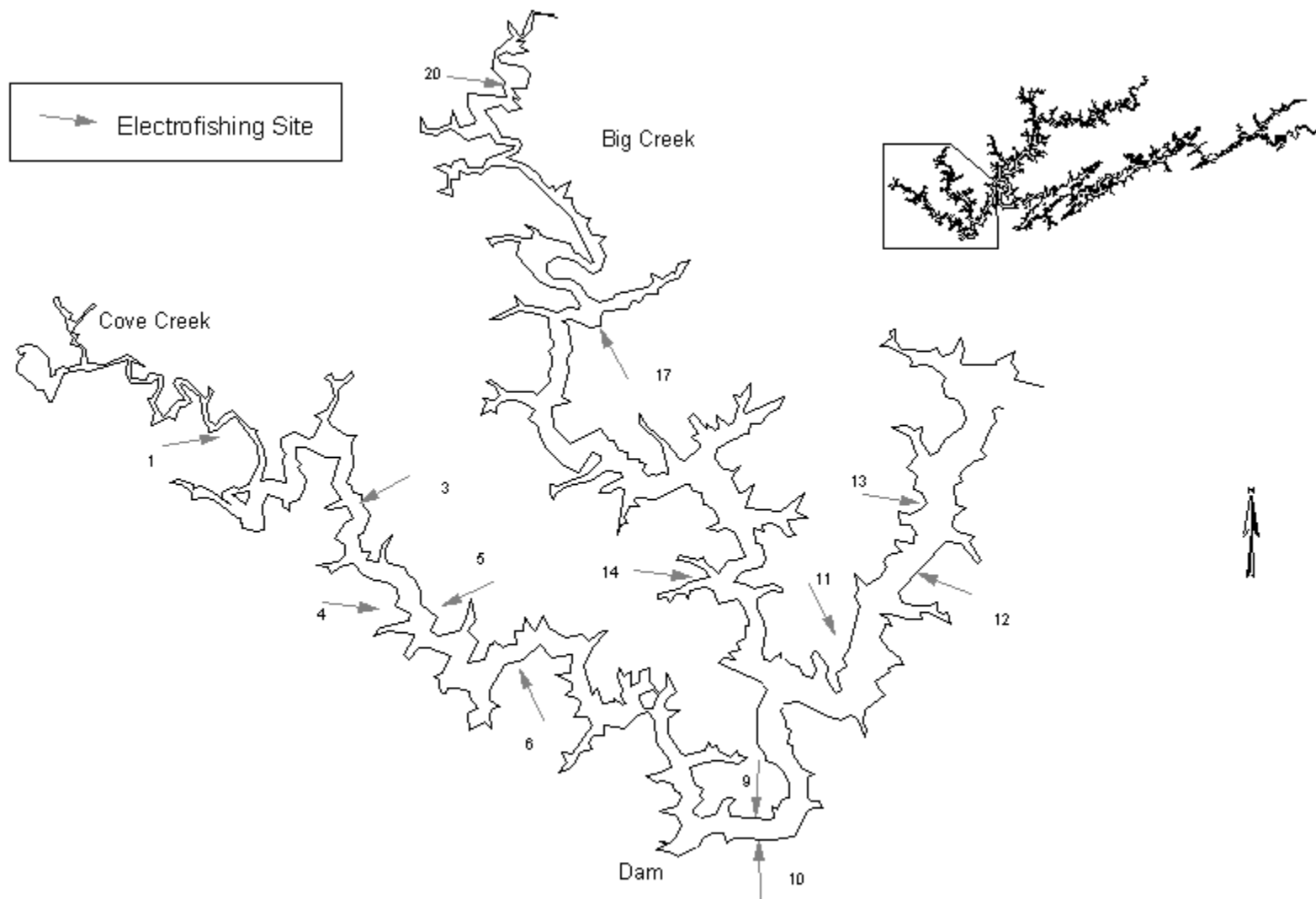


Figure 2. Electrofishing sites in the lower section of Norris Reservoir in 2005

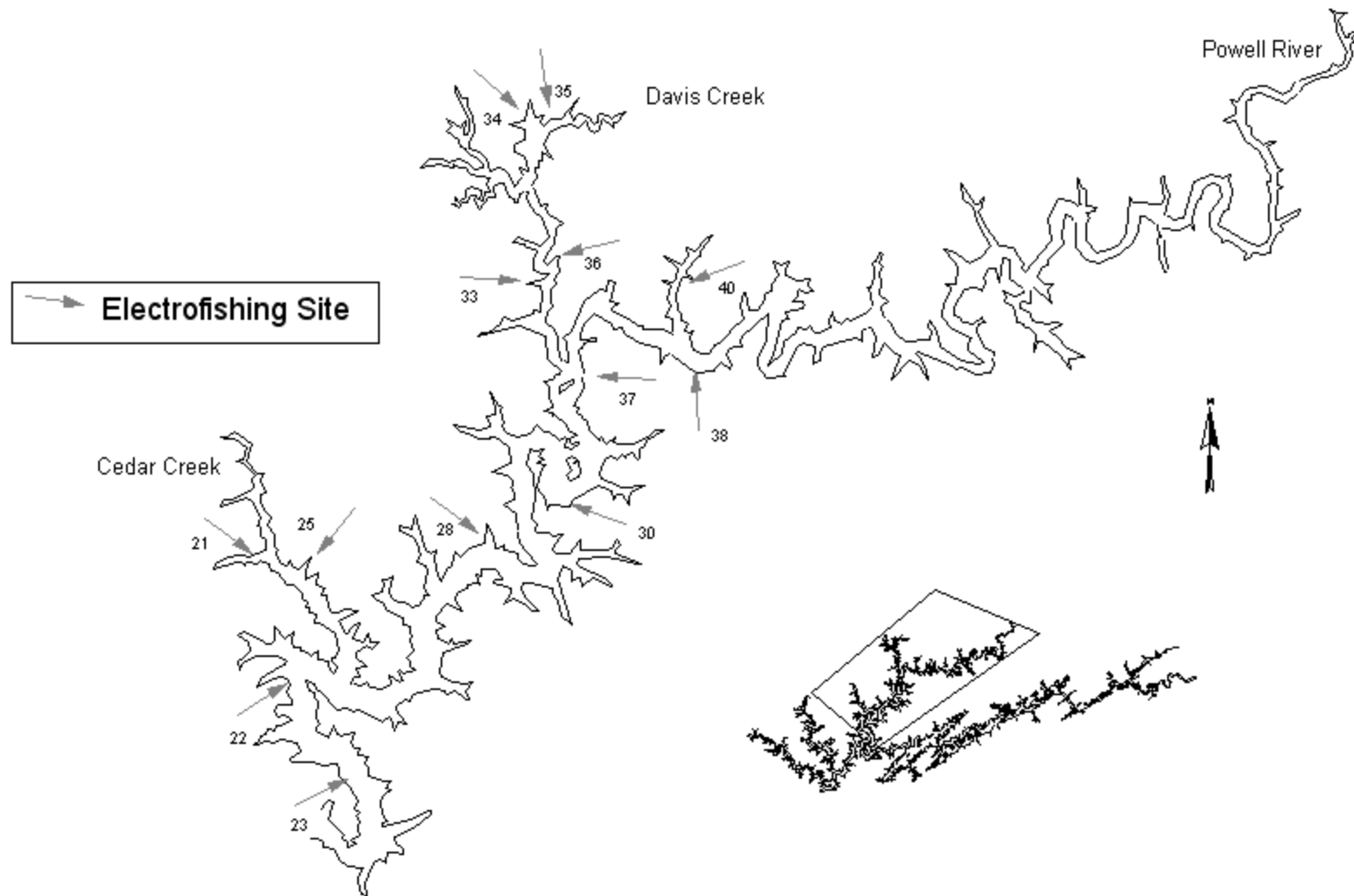


Figure 3. Electrofishing sites in the Powell section of Norris Reservoir in 2005.

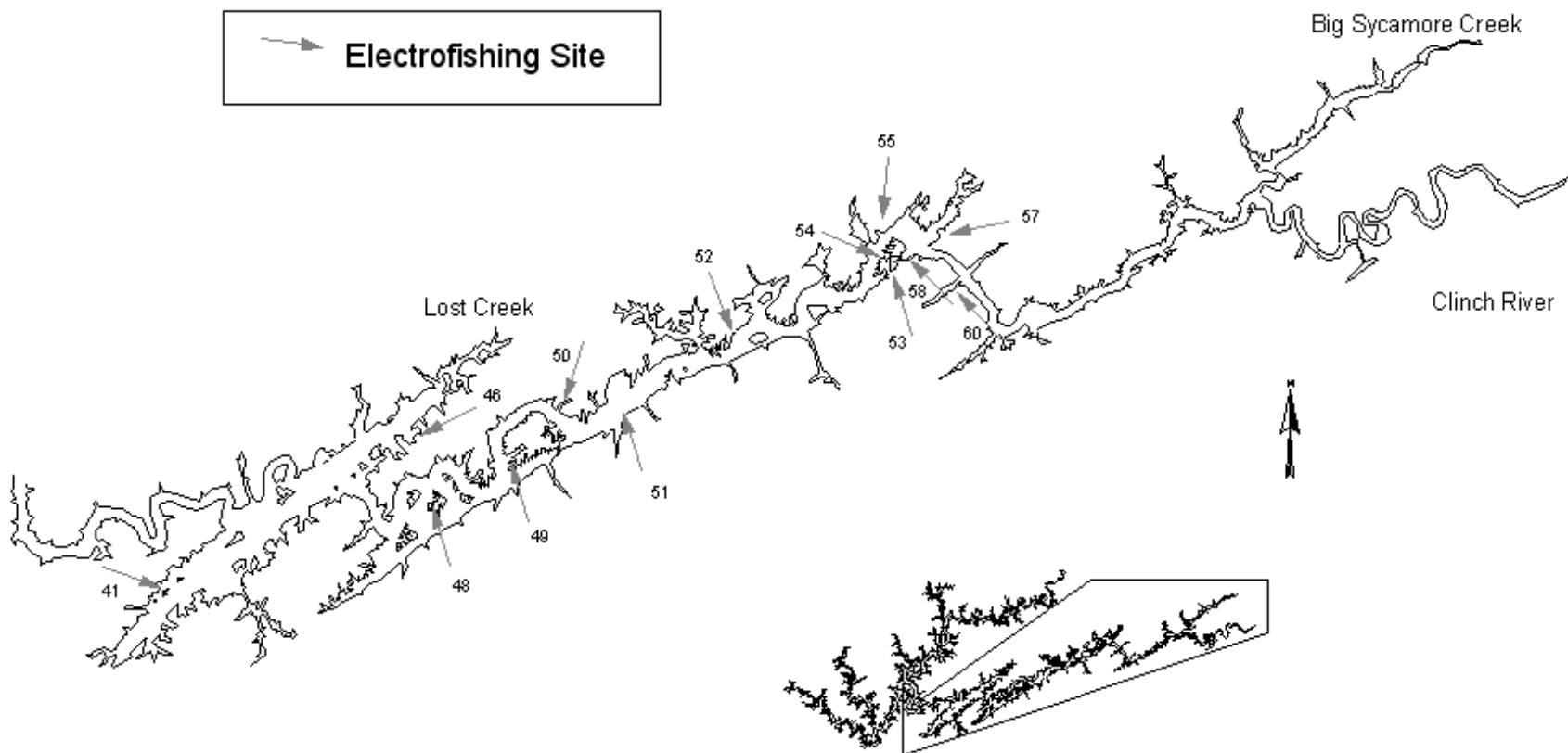


Figure 4. Electrofishing sites in the Clinch section of Norris Reservoir in 2005.



Figure 5. Winter gill net sites in the Big Creek area of Norris Reservoir in 2005.

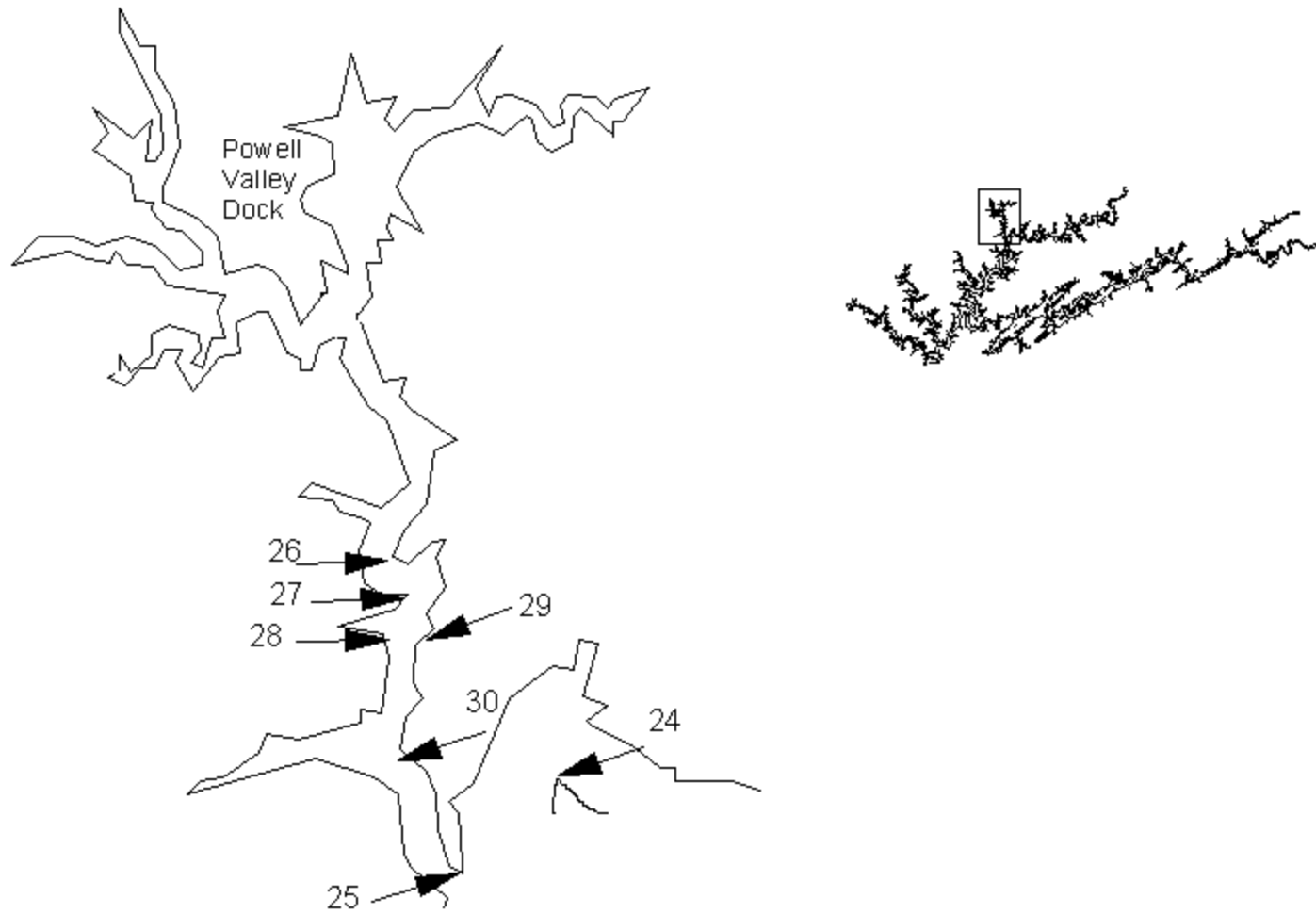


Figure 6. Winter gill net sites in the Davis Creek area of Norris Reservoir in 2005.

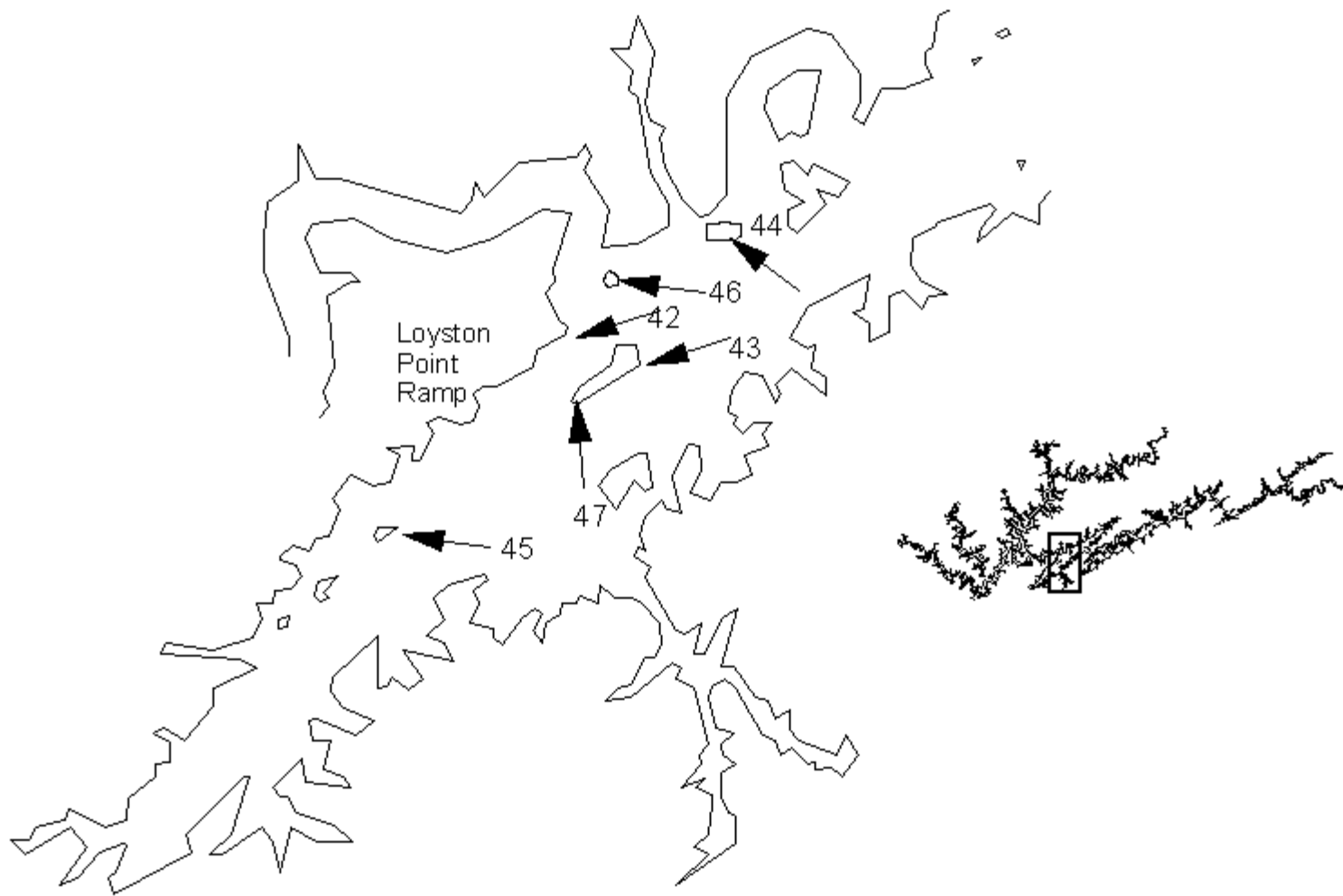


Figure 7. Winter gill net sites in the Loyston Sea area of Norris Reservoir in 2005.



Figure 8. Winter gill net sites in the upper Clinch area of Norris Reservoir in 2005.

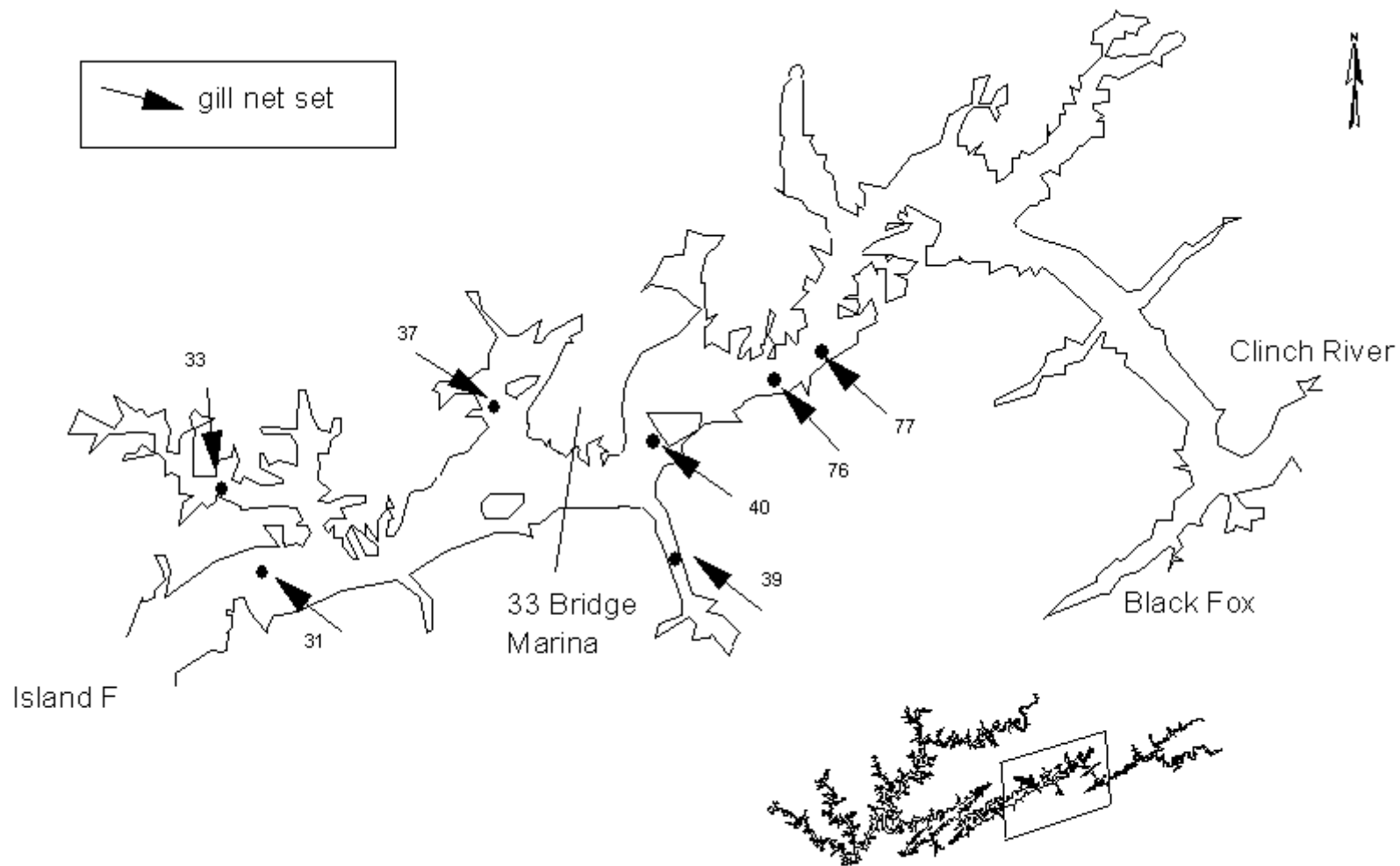


Figure 9. Summer shad gill net sites in the Clinch section of Norris Reservoir in 2005.

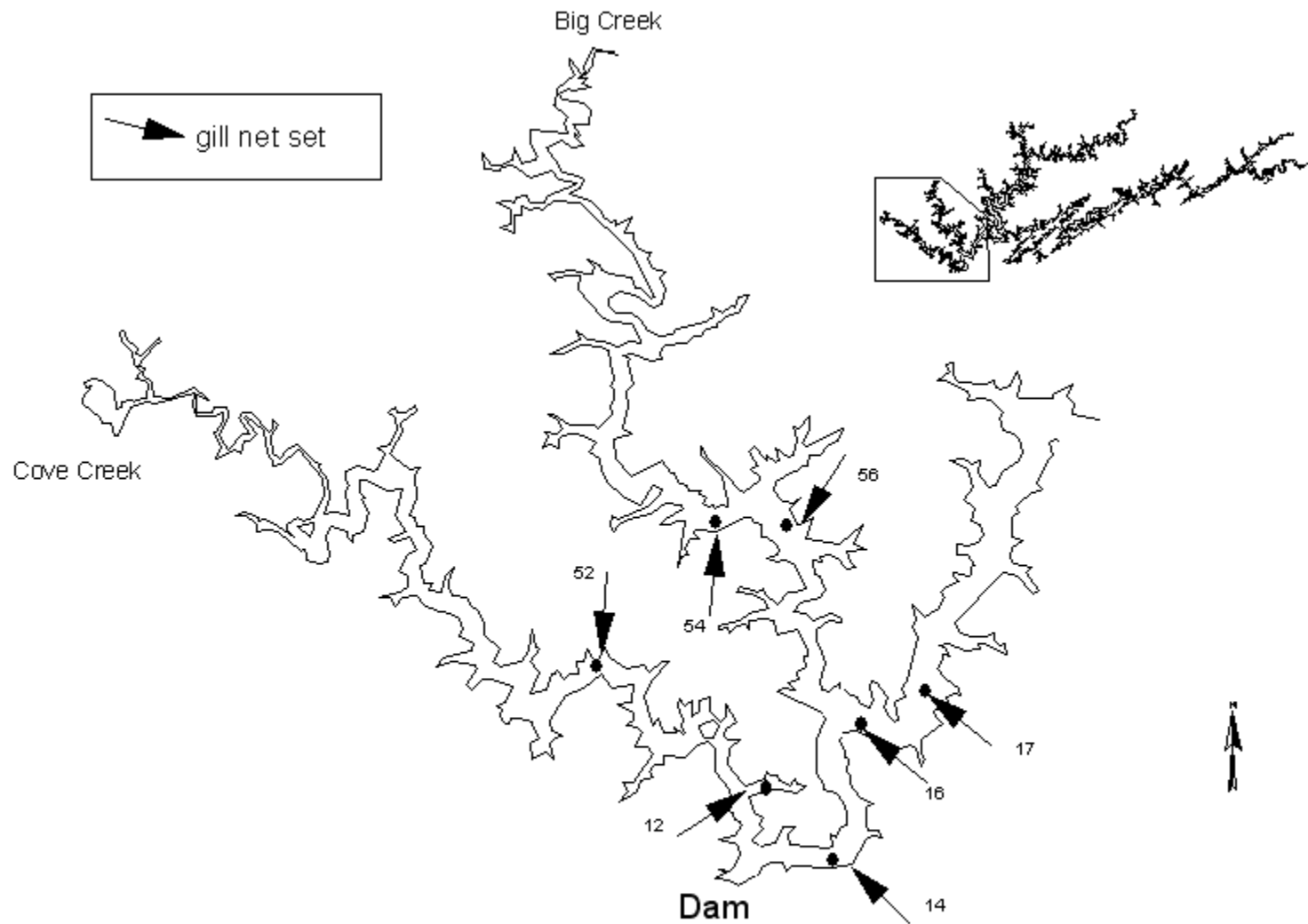


Figure 10. Summer shad gill net sites in the lower section of Norris Reservoir in 2005.

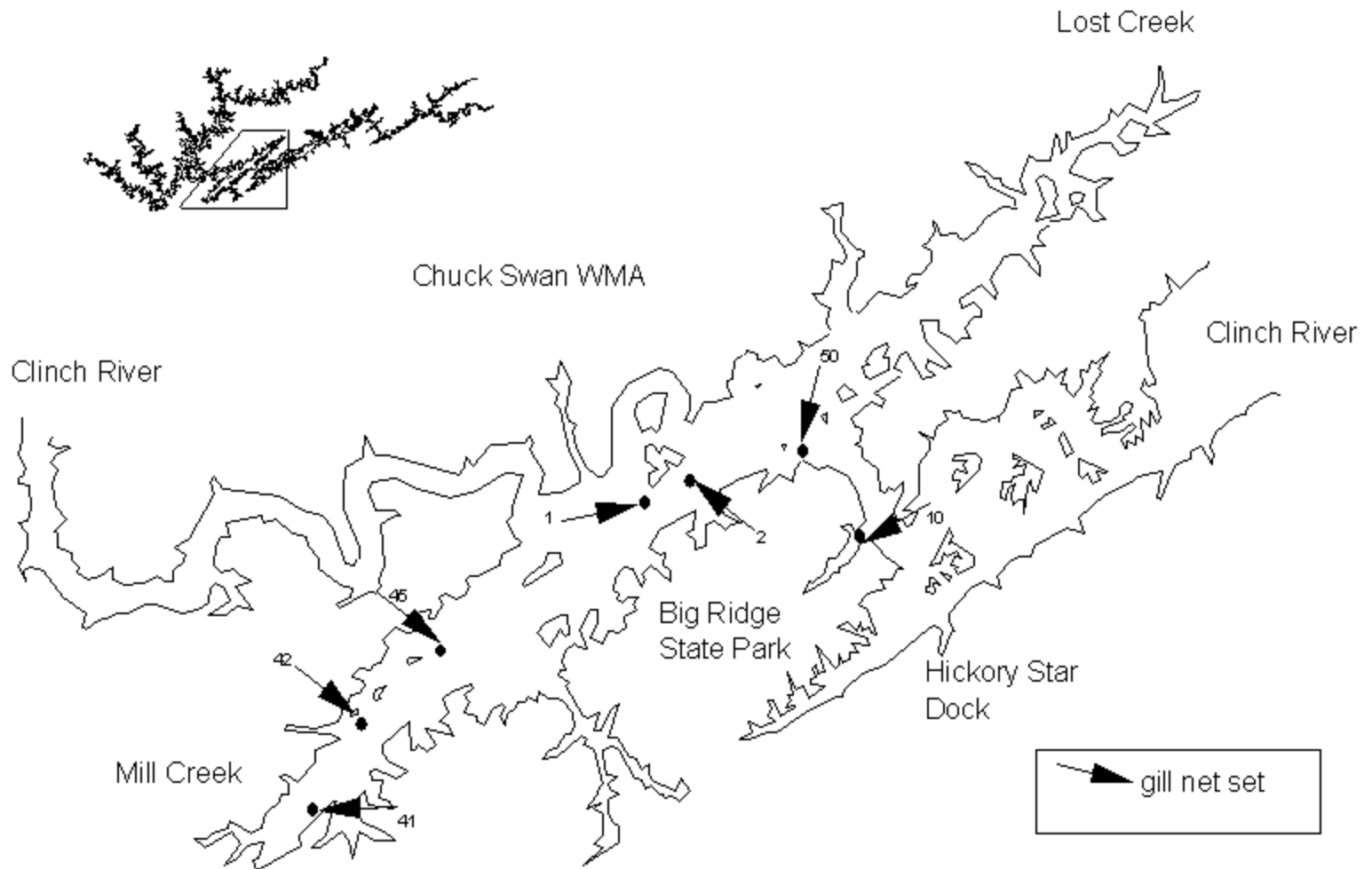


Figure 11. Summer shad gill net sites in the Loyston Sea area of Norris Reservoir in 2005.

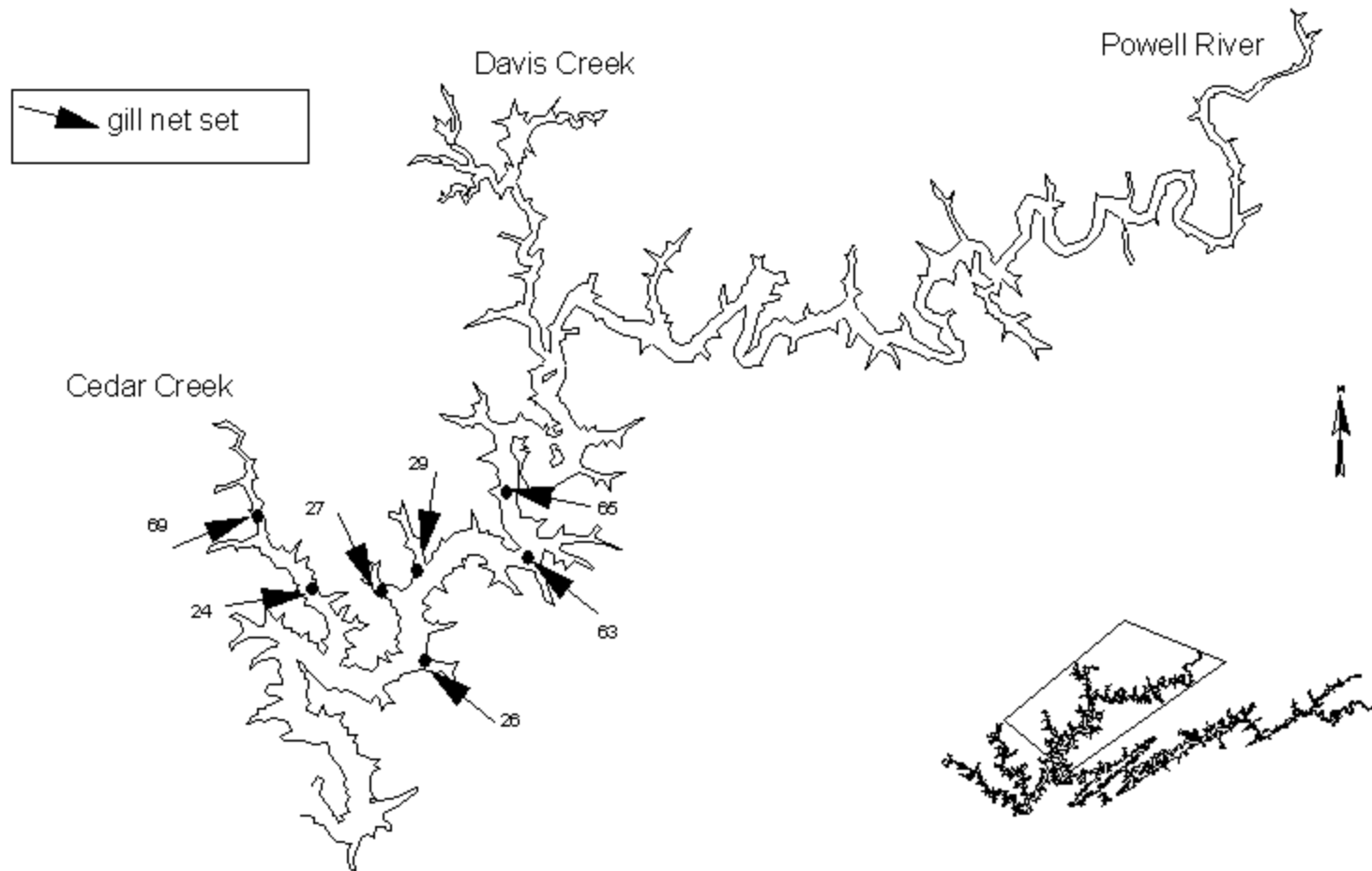


Figure 12. Summer shad gill net sites in the Powell arm of Norris Reservoir in 2005.



Figure 13. Trap net sites in the Loyston Sea area of Norris Reservoir in 2005.

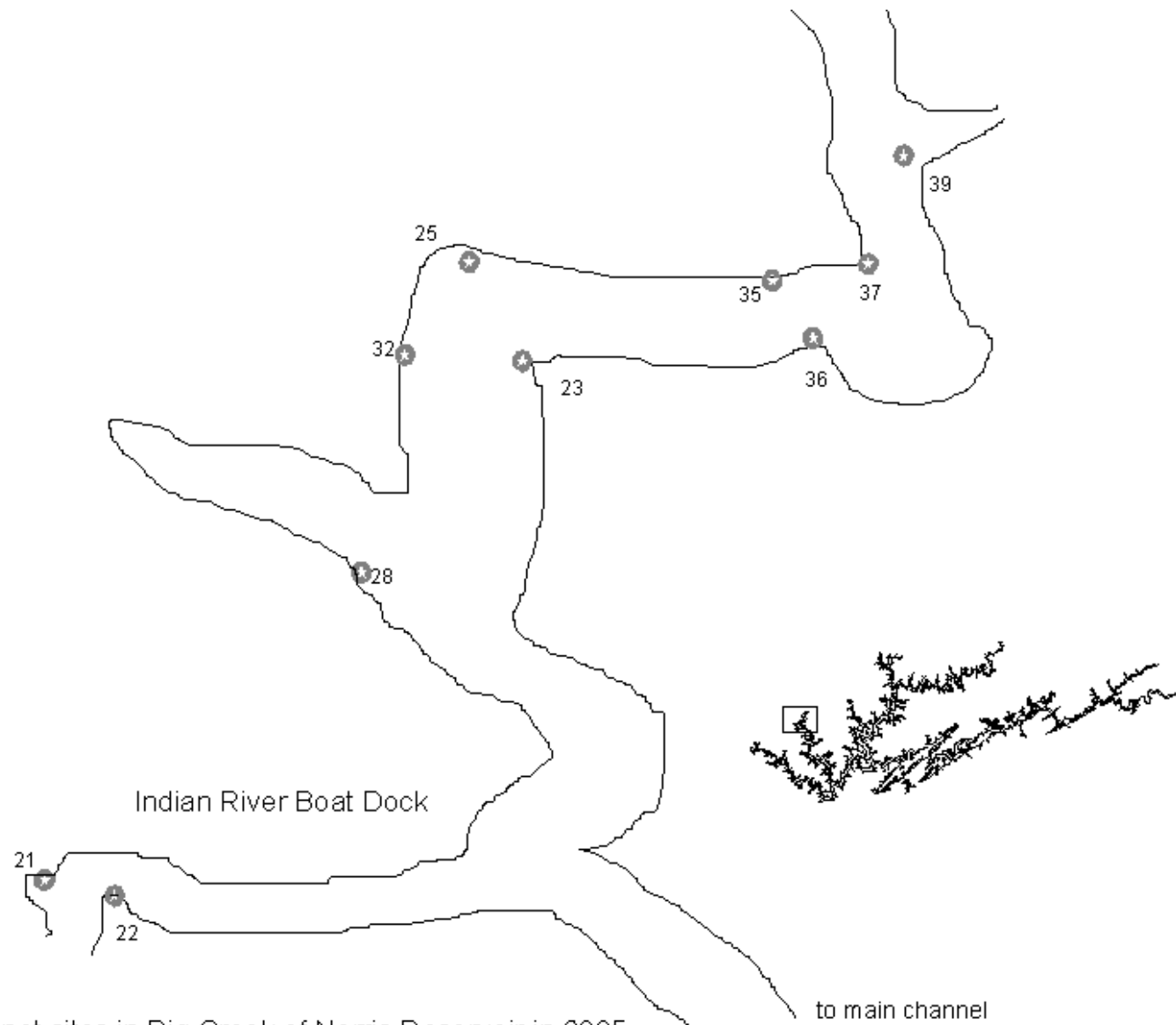


Figure 14. Trap net sites in Big Creek of Norris Reservoir in 2005



Figure 15. Trap net sites in the Big Sycamore Creek area of Norris Reservoir in 2005.

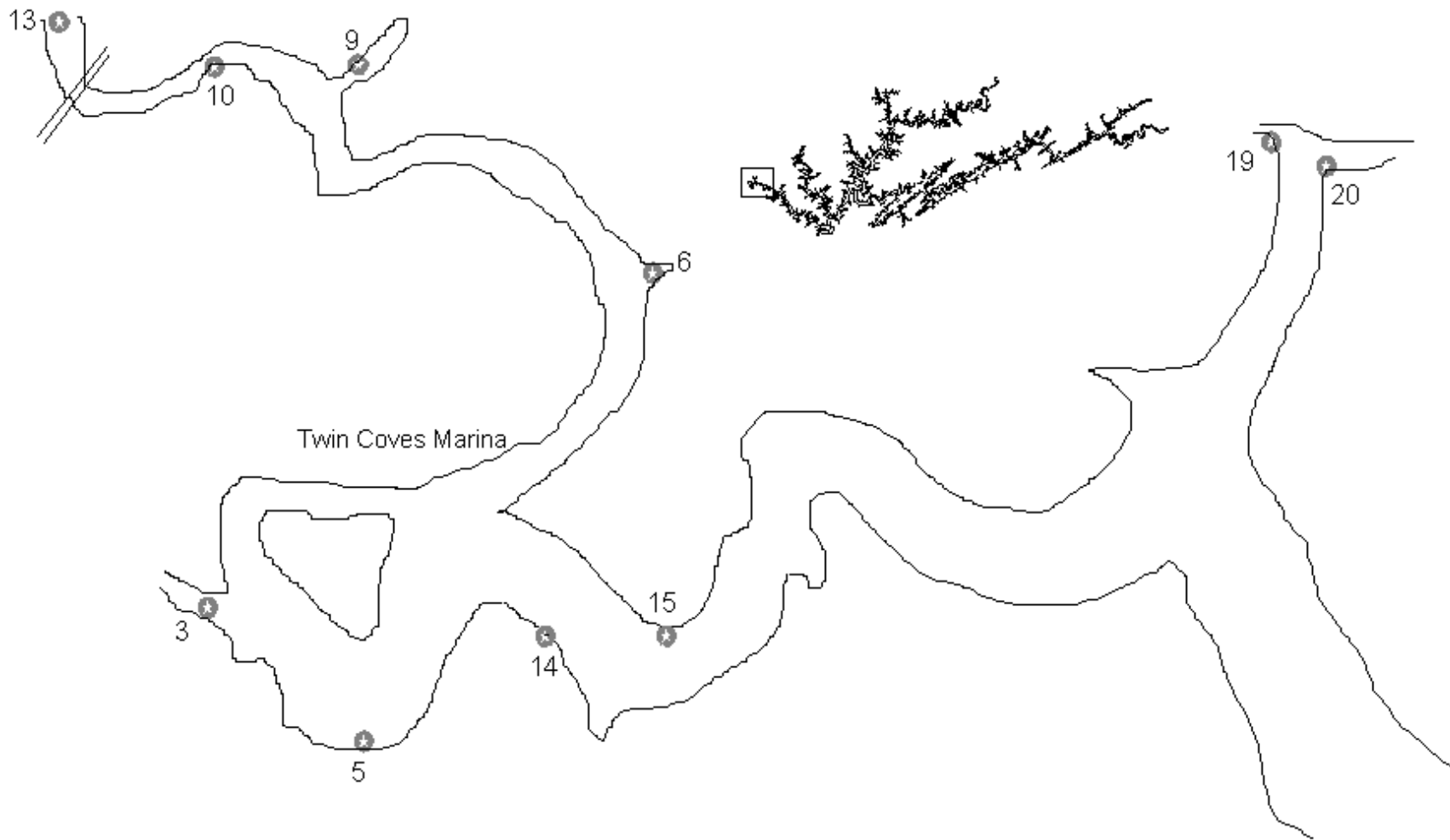


Figure 16. Trap net sites in the Cove Creek area of Norris Reservoir in 2005.

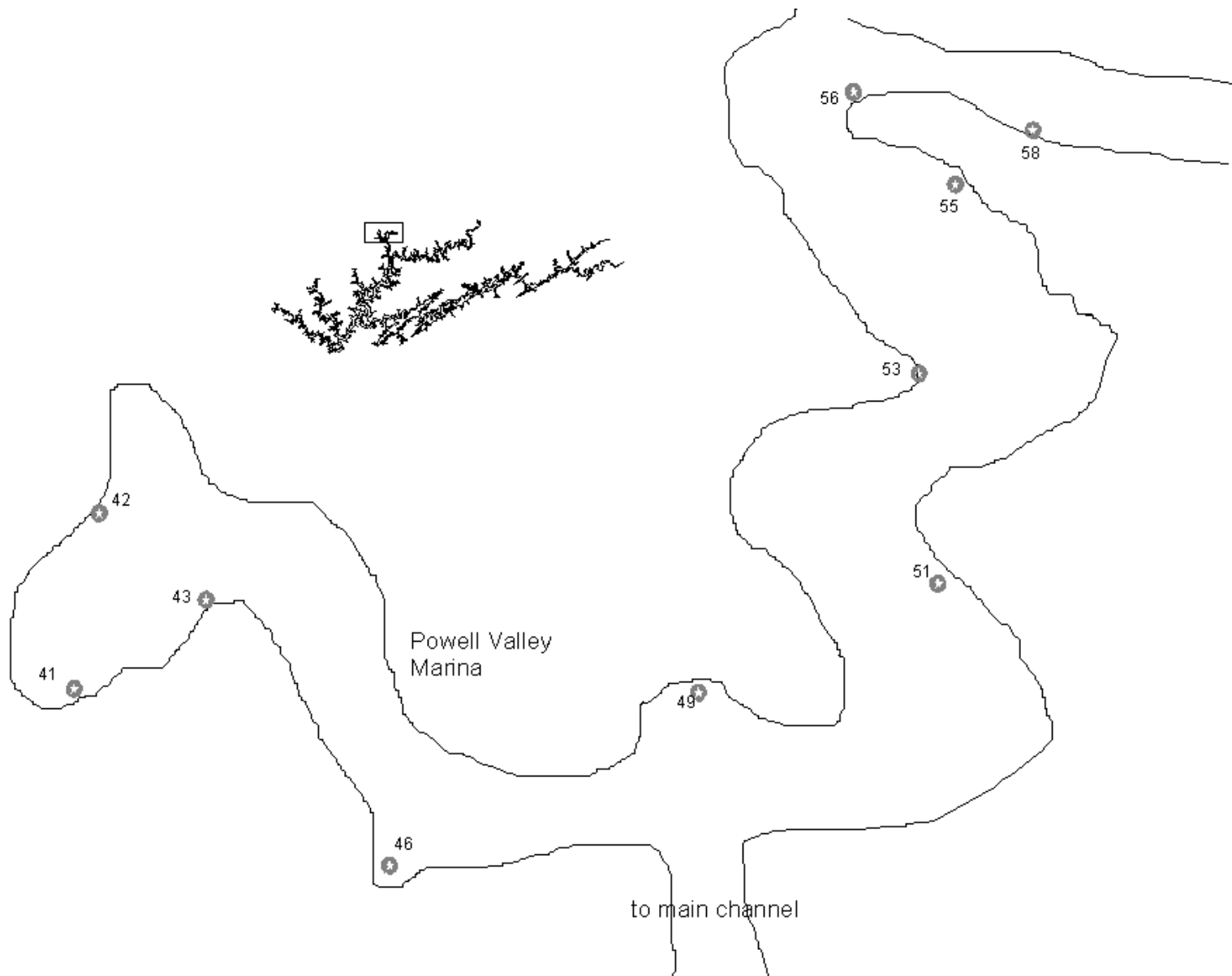


Figure 17. Trap net sites in the Davis Creek area of Norris Reservoir in 2005.

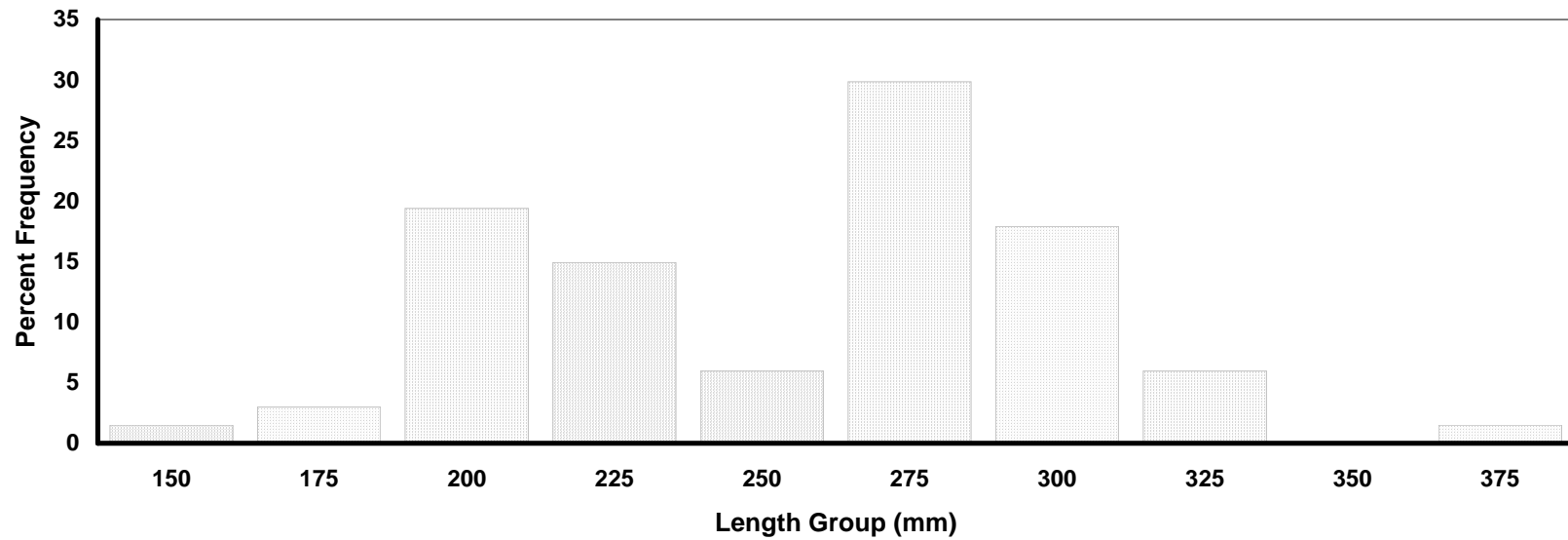


Figure 18. Norris Reservoir black crappie length frequency by percent for the 2005 electrofishing sample (n=67).

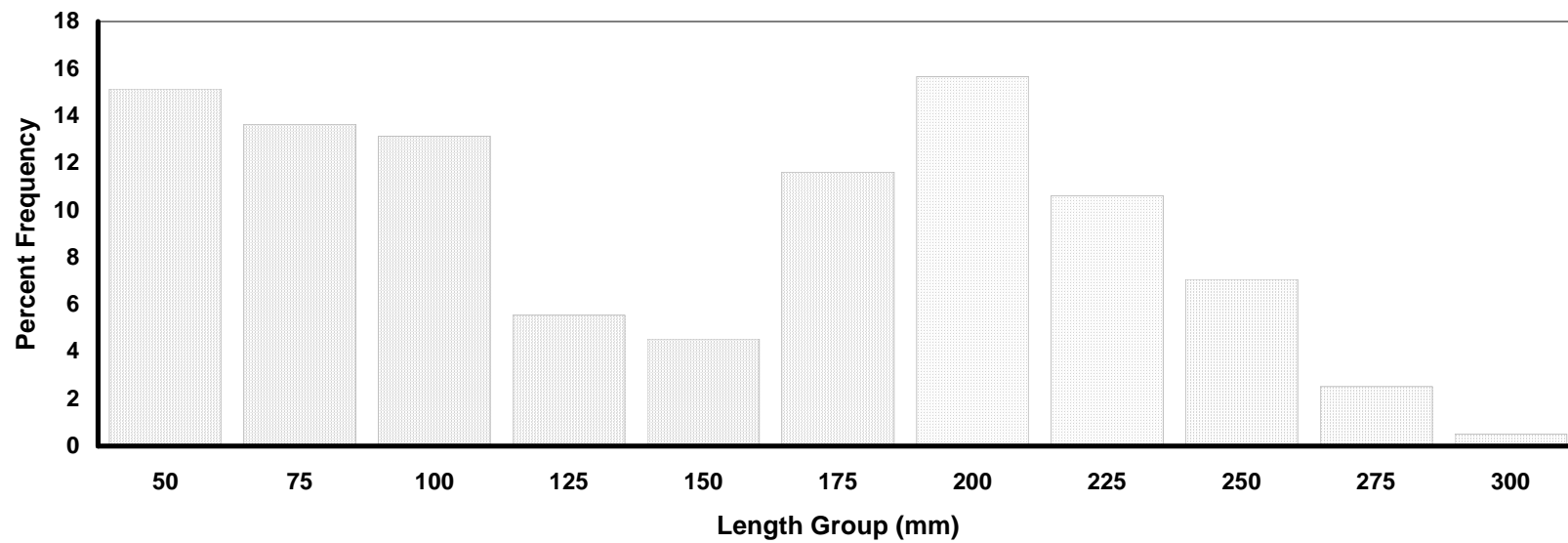


Figure 19. Norris Reservoir black crappie length frequency by percent for the 2005 trap net sample (n=198).

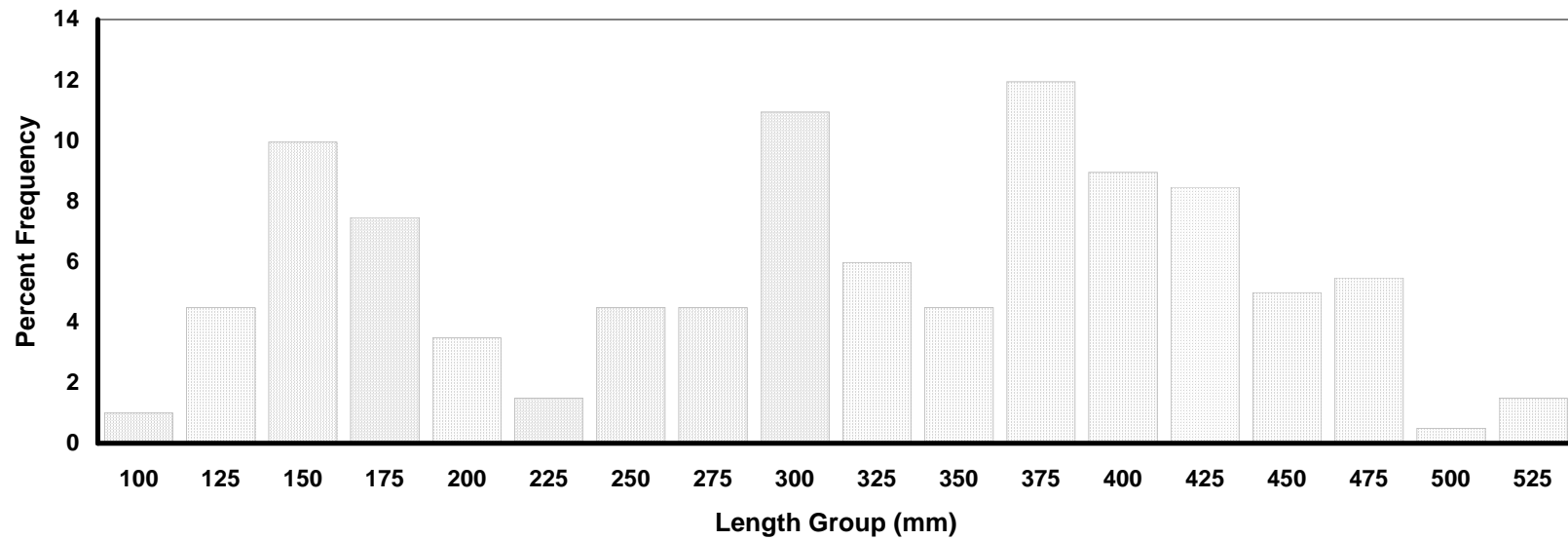


Figure 20. Norris Reservoir largemouth bass length frequency by percent for the 2005 electrofishing sample (n=201).

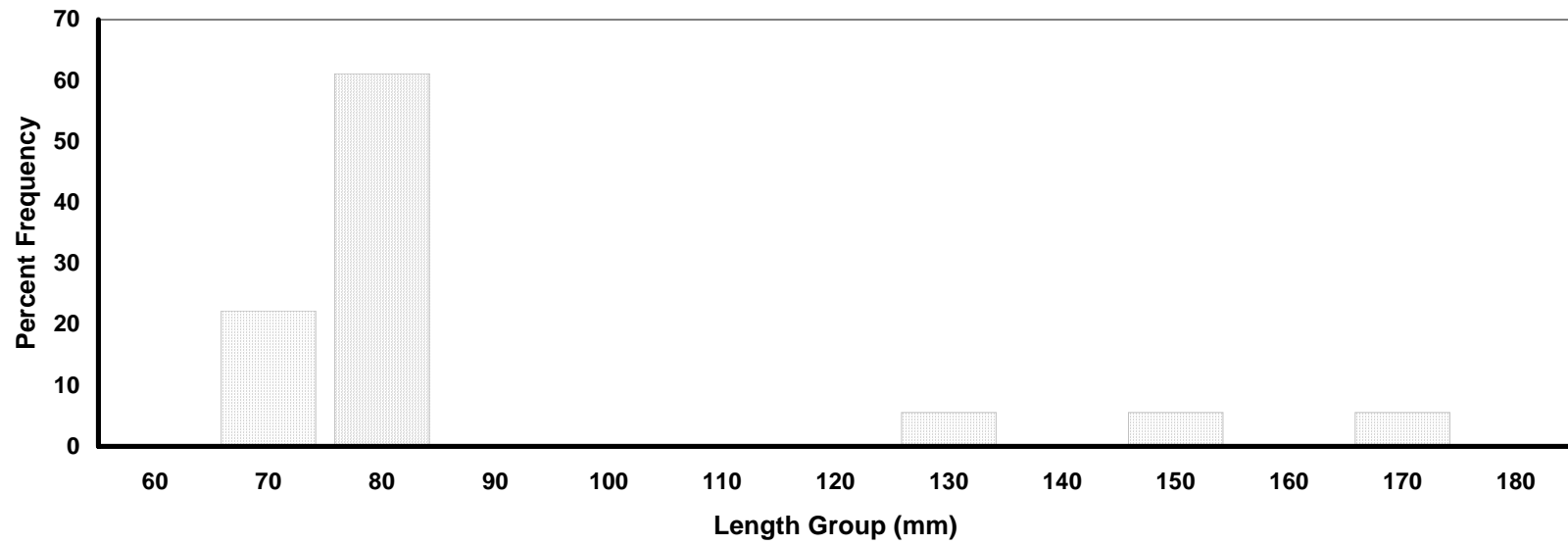


Figure 21. Norris Reservoir alwife length frequency by percent for 2005 shad gillnetting sample (n=18).

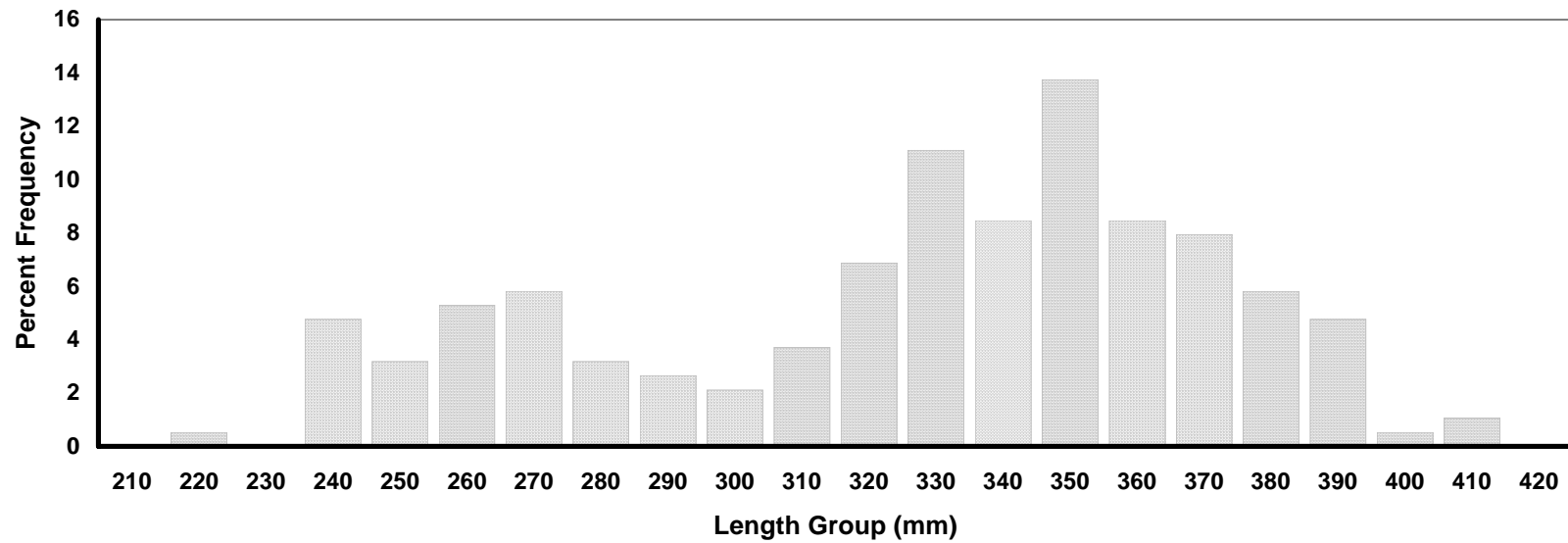


Figure 22. Norris Reservoir gizzard shad length frequency by percent for 2005 shad gillnetting sample (n=189).

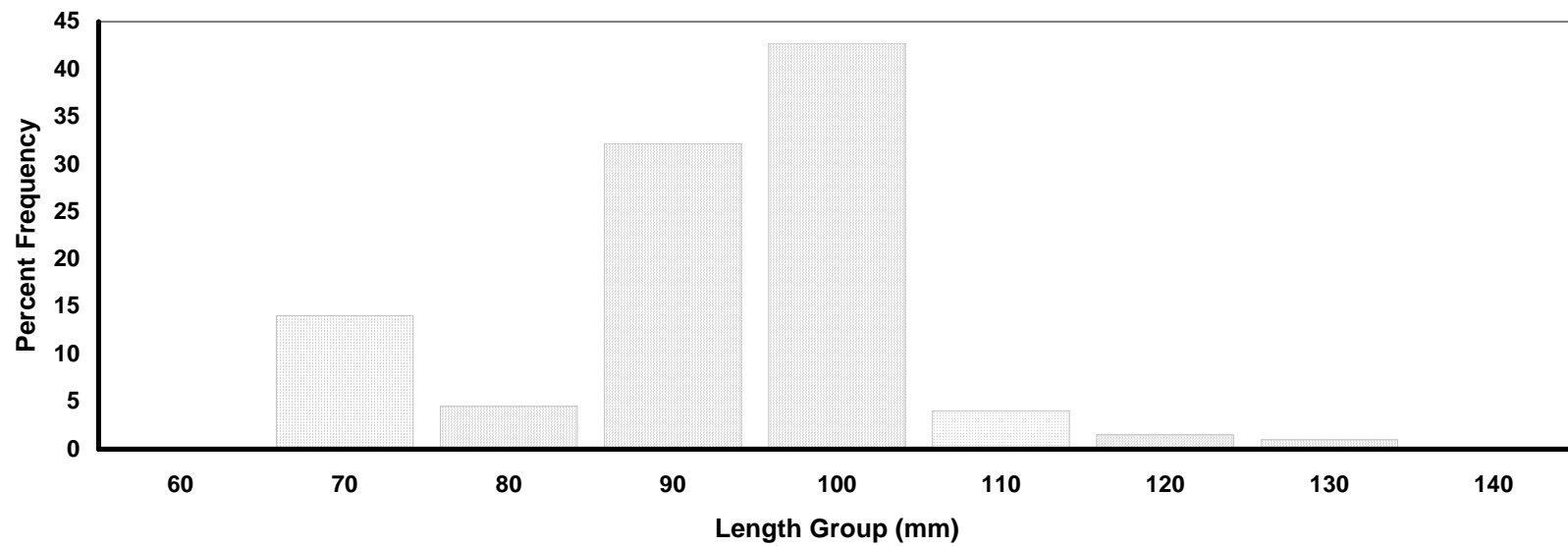


Figure 23. Norris Reservoir threadfin shad length frequency by percent for 2005 shad gillnetting sample (n=199).

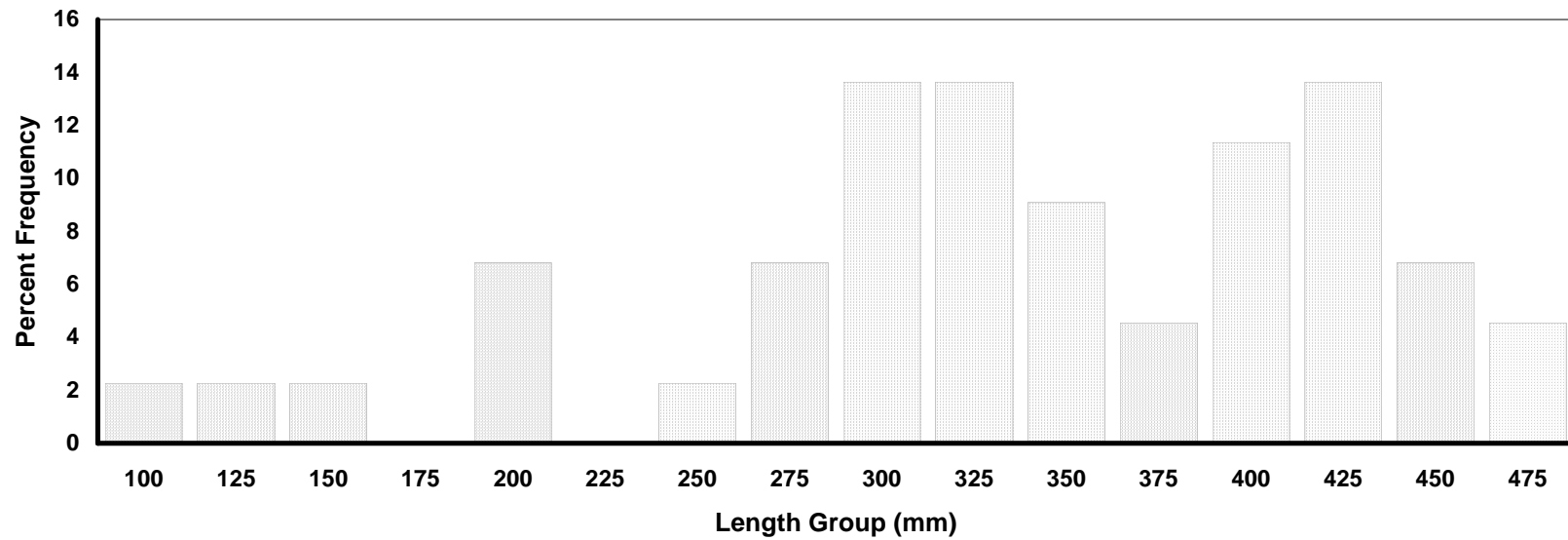


Figure 24. Norris Reservoir smallmouth bass length frequency by percent for the 2005 electrofishing sample (n=44).

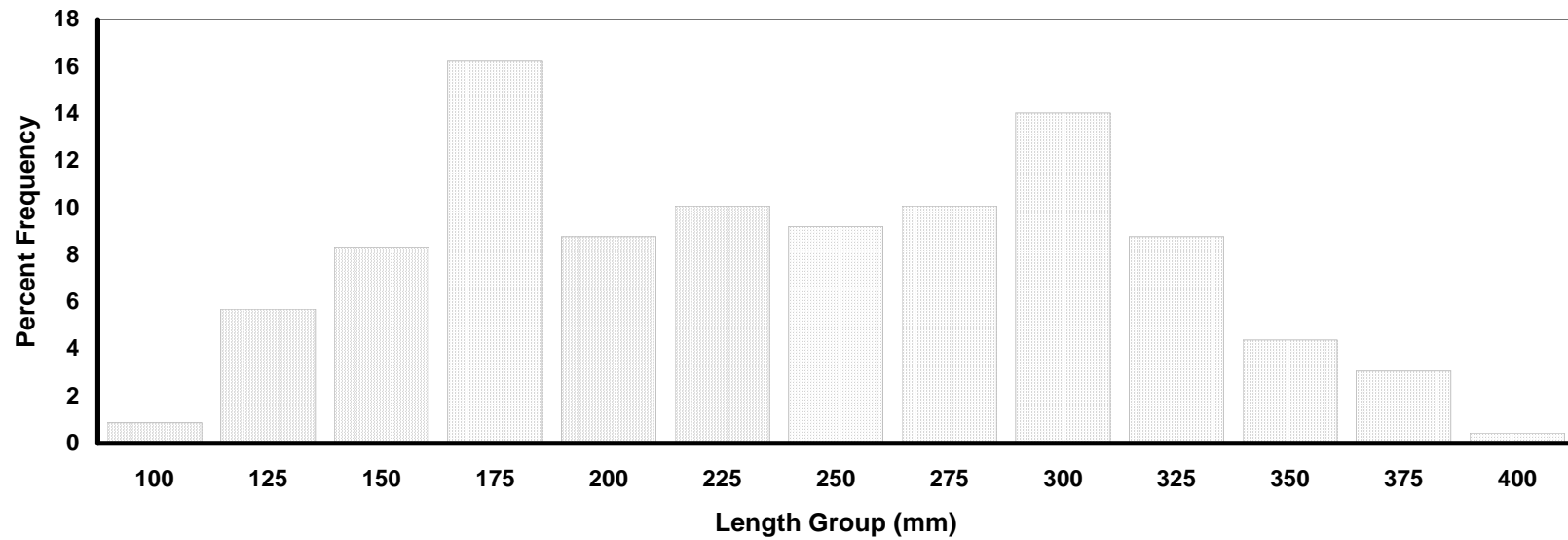


Figure 25. Norris Reservoir spotted bass length frequency by percent for the 2005 electrofishing sample (n=228).

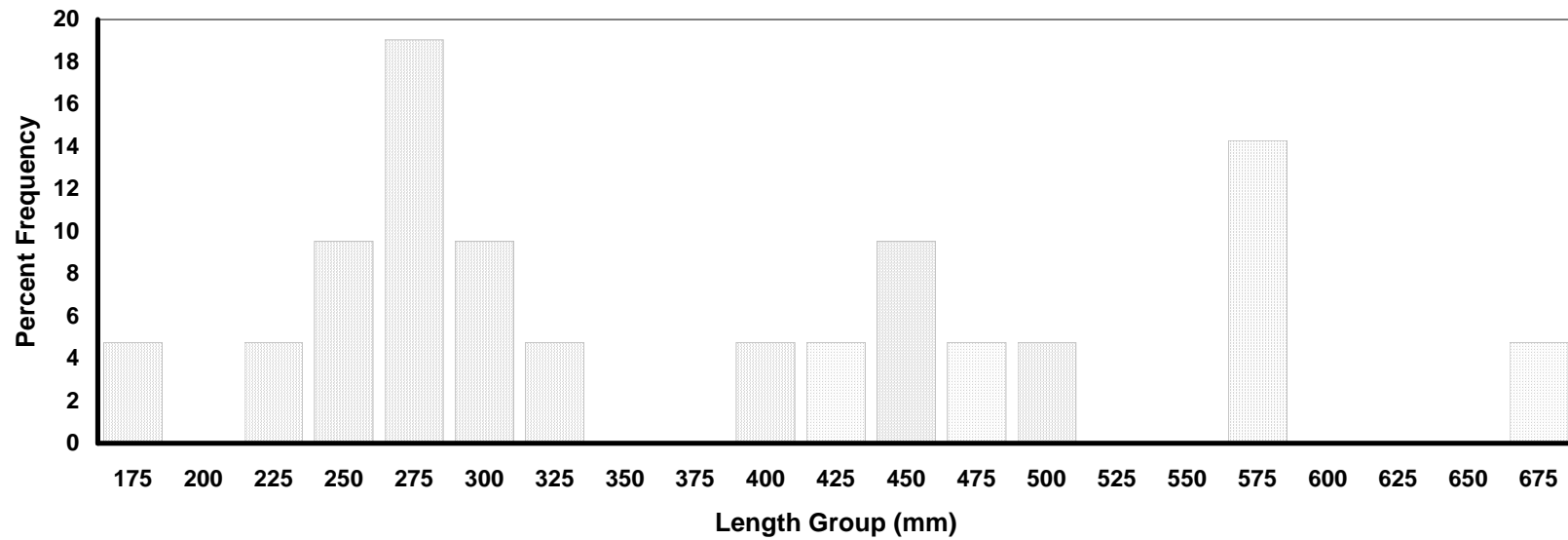


Figure 26. Norris Reservoir walleye length frequency by percent for the 2005 electrofishing sample (n=21).

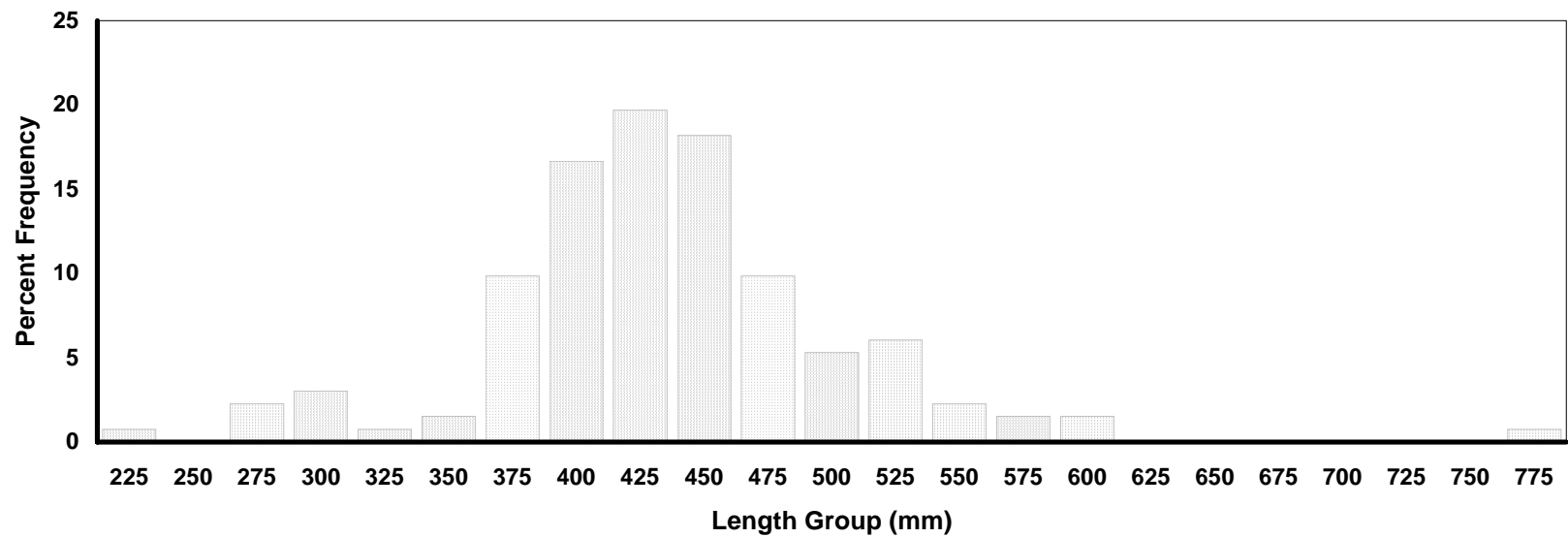


Figure 27. Norris Reservoir walleye length frequency by percent for the 2005 winter gill net sample (n=132).

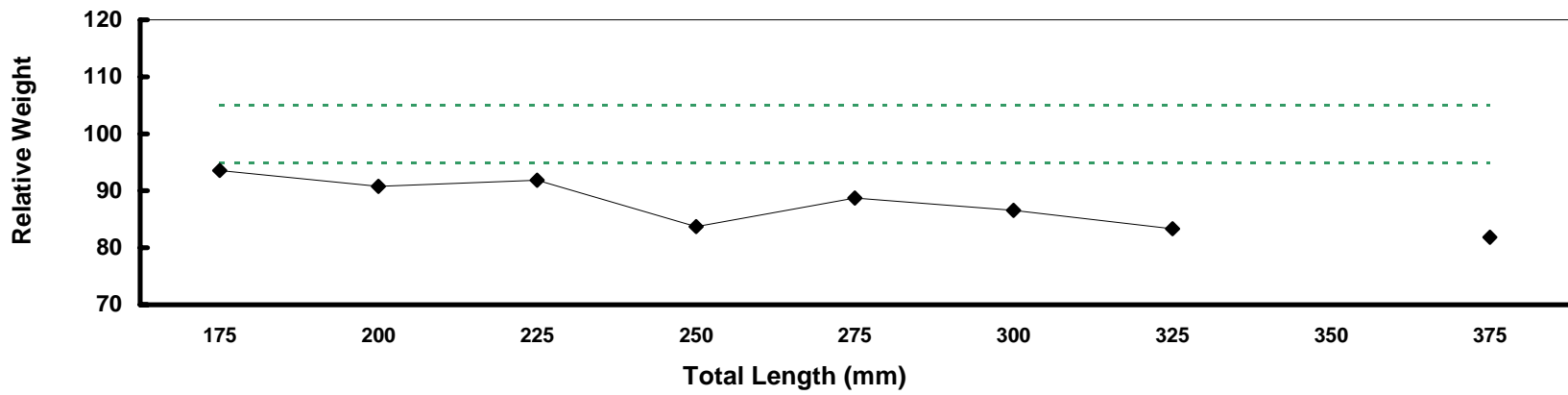


Figure 28. Norris Reservoir black crappie mean relative weight values from the 2005 electrofishing sample (n=66).

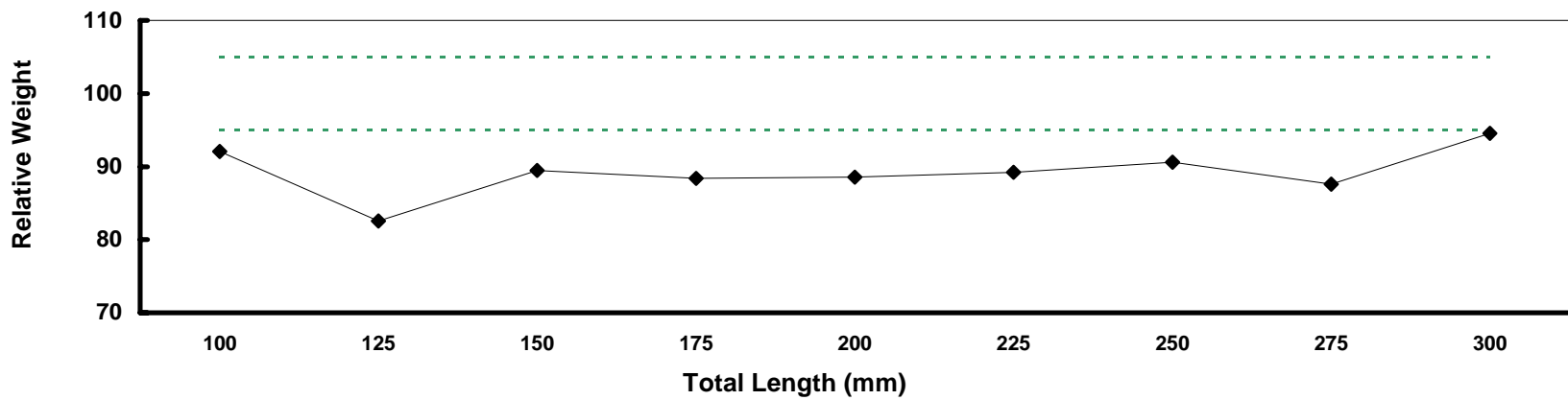


Figure 29. Norris Reservoir black crappie mean relative weight values from the 2005 trap net sample (n=111).

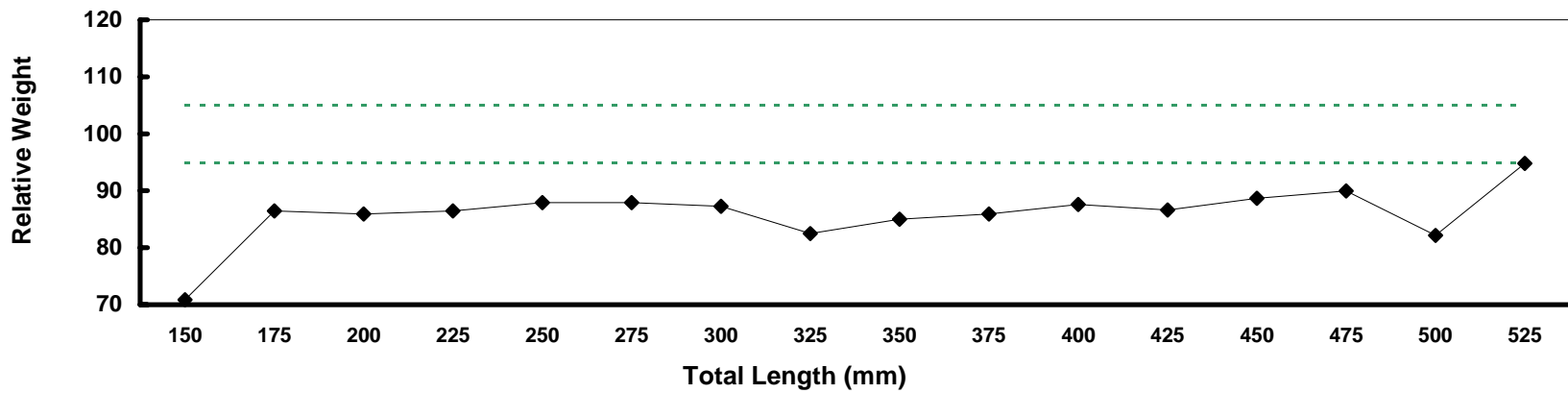


Figure 30. Norris Reservoir largemouth bass mean relative weight values from the 2005 electrofishing sample (n=165).

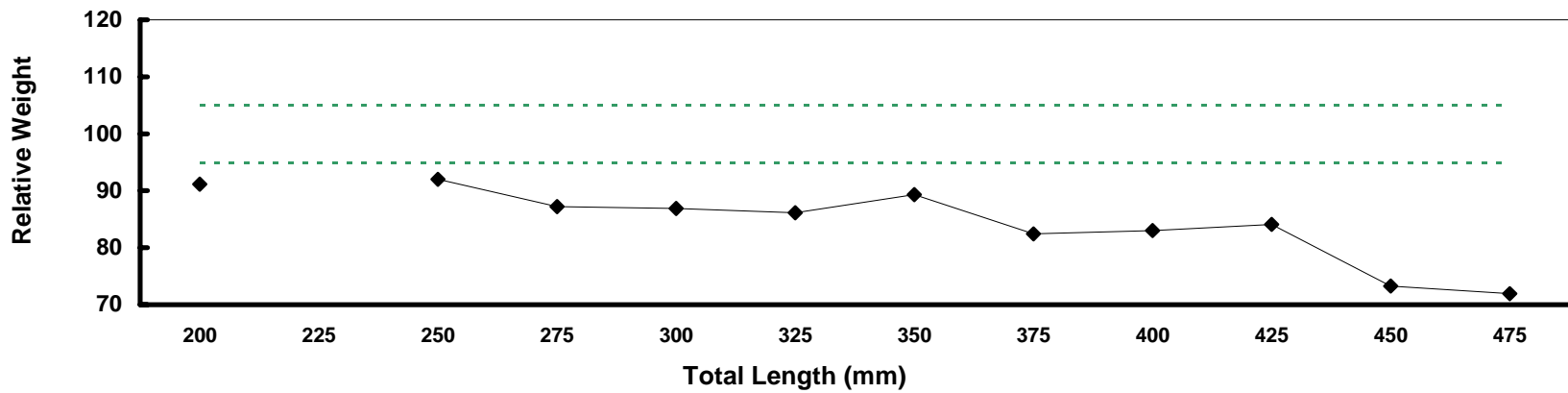


Figure 31. Norris Reservoir smallmouth bass mean relative weight values from the 2005 electrofishing sample (n=41).

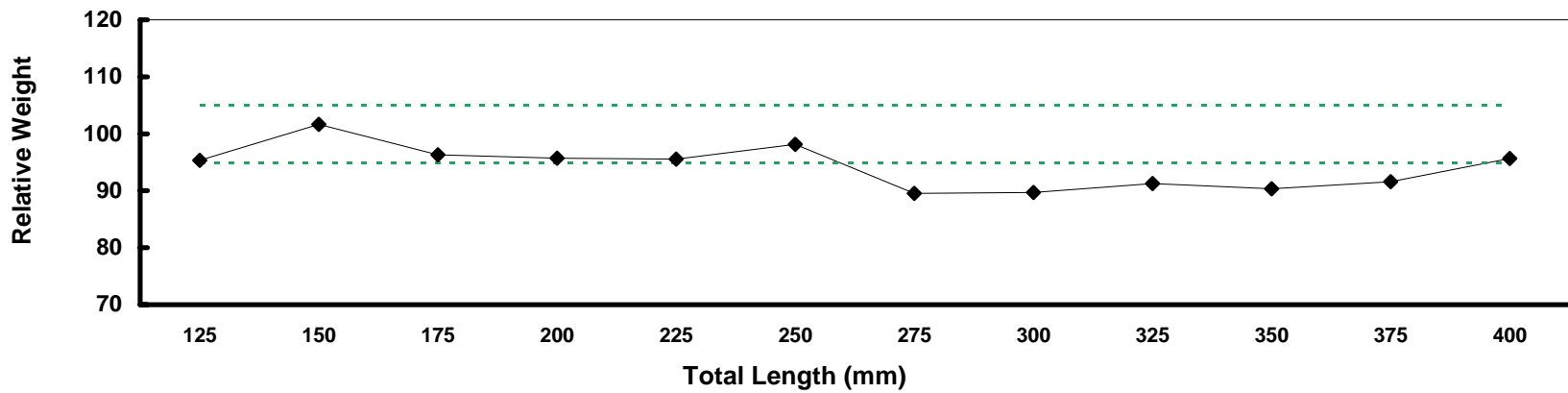


Figure 32. Norris Reservoir spotted bass mean relative weight values from the 2005 electrofishing sample (n=177).

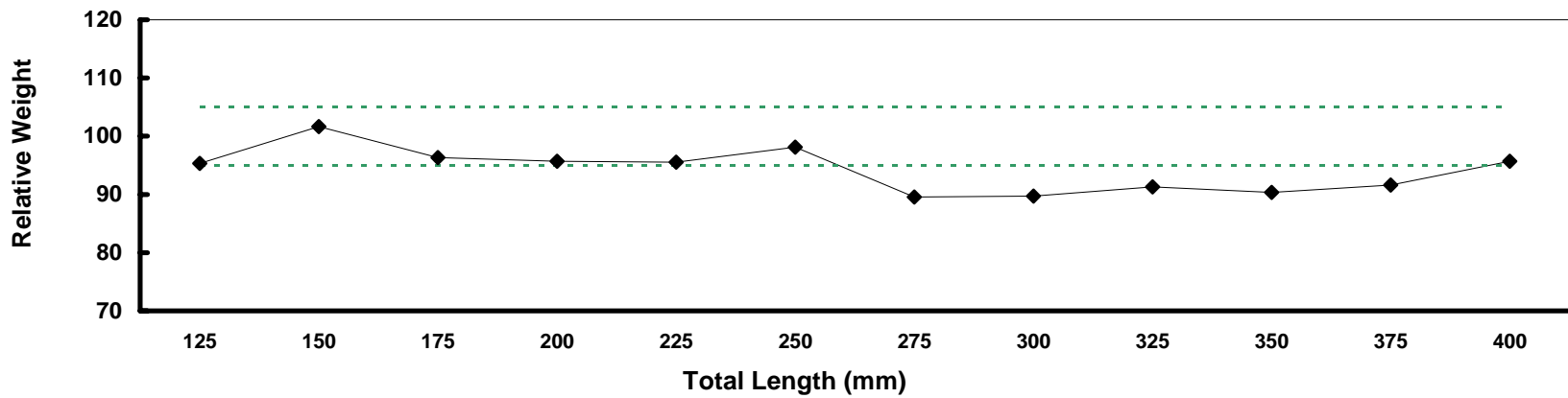


Figure 33. Norris Reservoir walleye mean relative weight values from the 2005 electrofishing sample (n=).

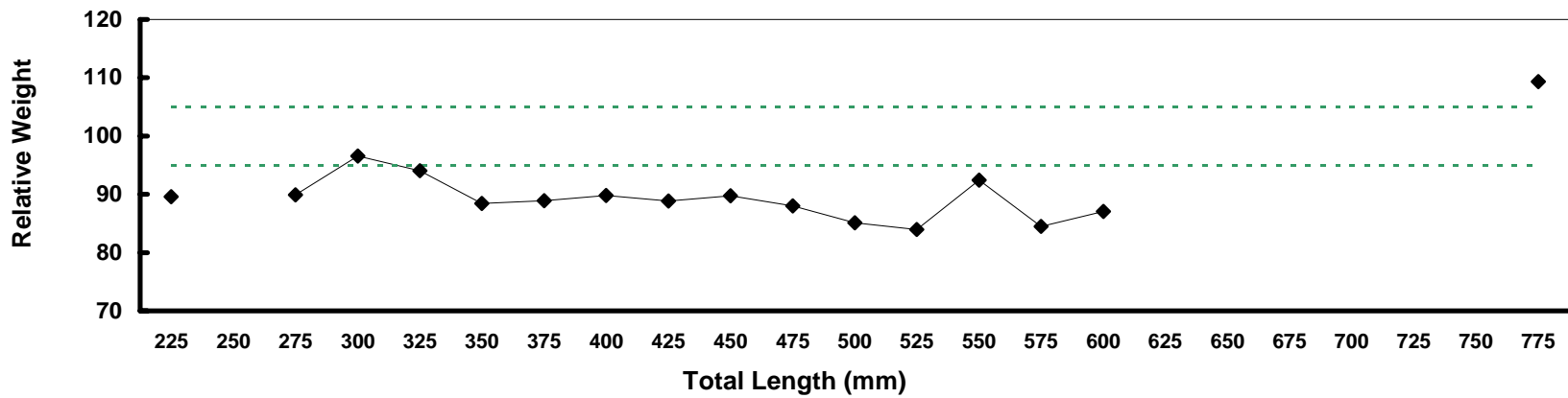


Figure 34. Norris Reservoir walleye mean relative weight values from the 2005 winter gill net sample (n=132).

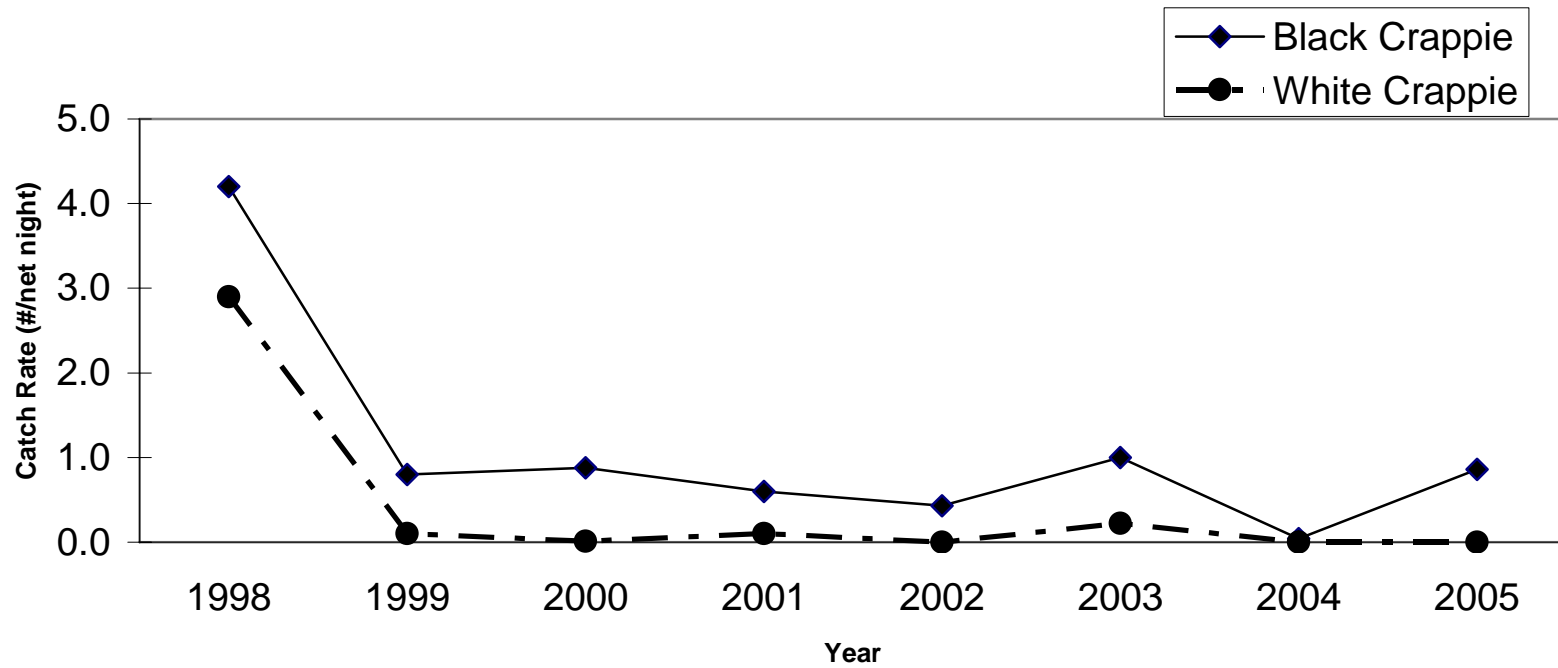


Figure 35. Catch rate of young-of-the-year crappie from Norris Reservoir trap netting 1998-2005

Figure 36. DO - Norris - Dam - July 6, 2005

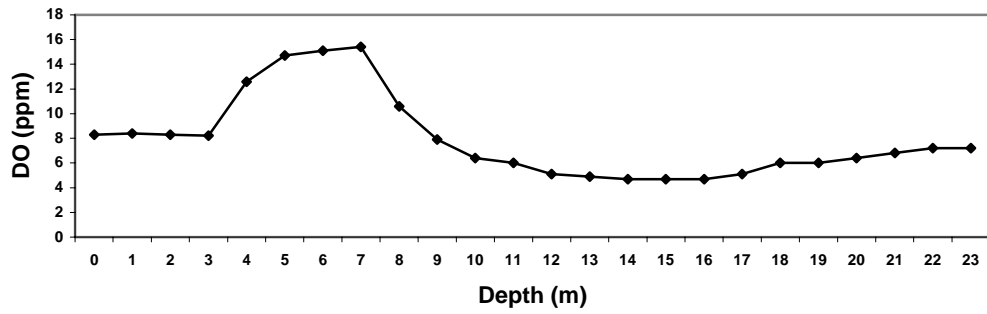


Figure 37. Temp - Norris - Dam - July 6, 2005

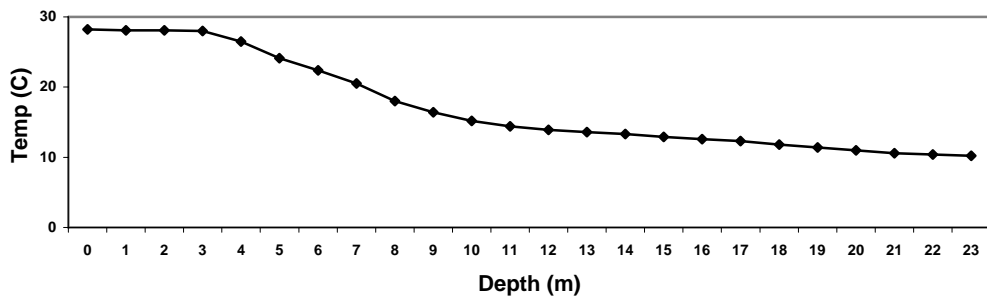


Figure 38. DO - Norris - Clinch RM 88 - July 6, 2005

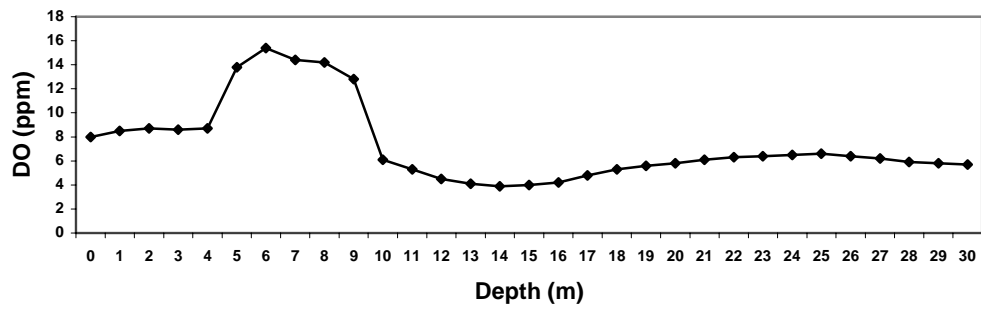


Figure 39. Temp - Norris - Clinch RM 88 - July 6, 2005

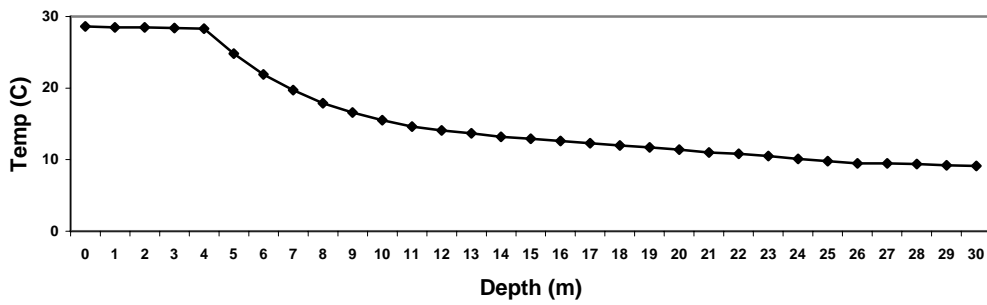


Figure 40. DO - Norris - Clinch RM 120 - July 6, 2005

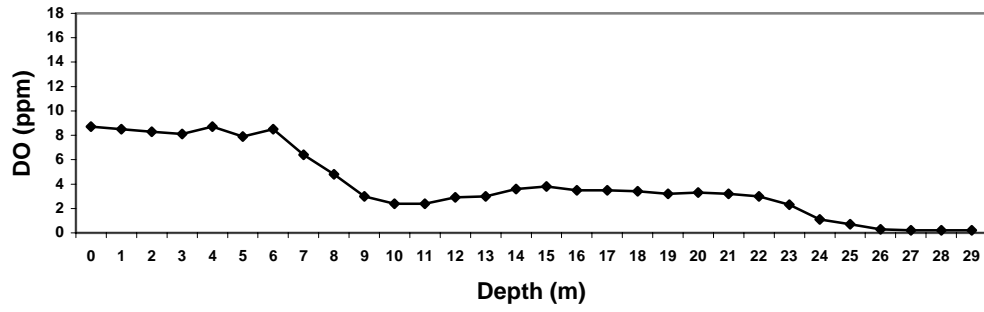


Figure 41. Temp - Norris - Clinch RM 120 - July 6, 2005

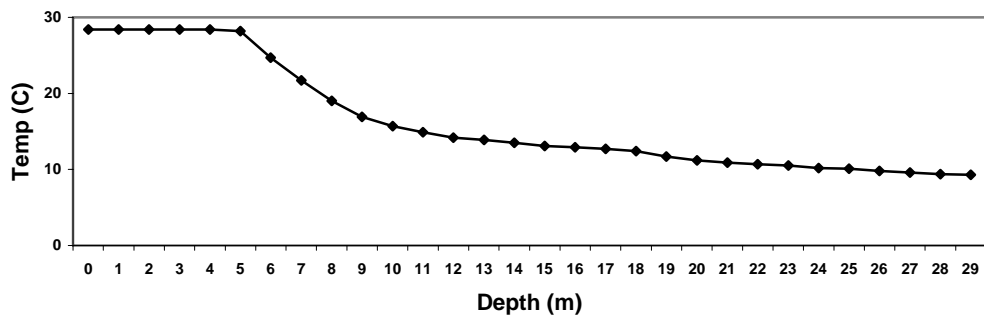


Figure 42. DO - Norris - Powell RM 19 - July 6, 2005

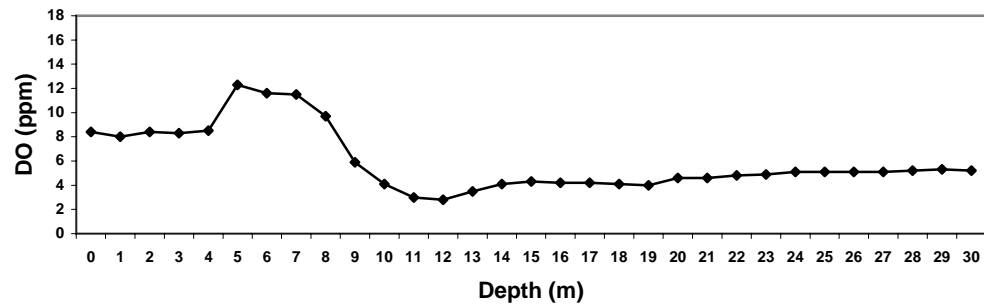


Figure 43. Temp - Norris - Powell RM 19 - July 6, 2005

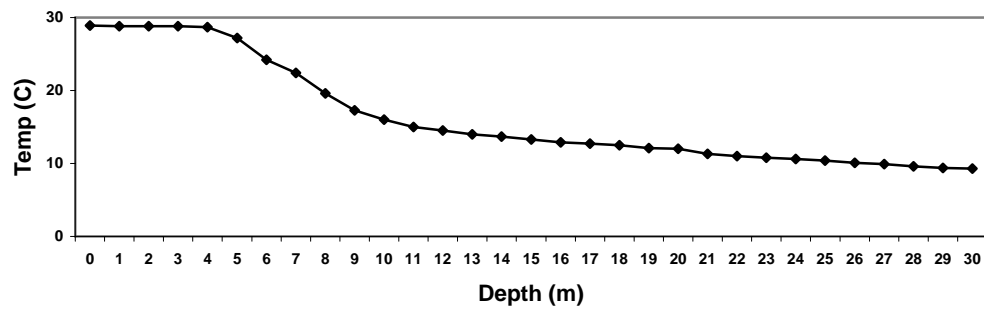


Figure 44. DO - Norris - Dam - Aug 4, 2005

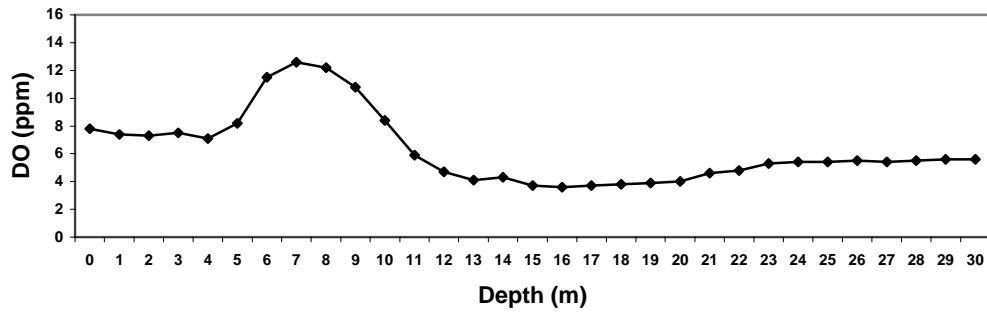


Figure 45. Temp - Norris - Dam - Aug 4, 2005

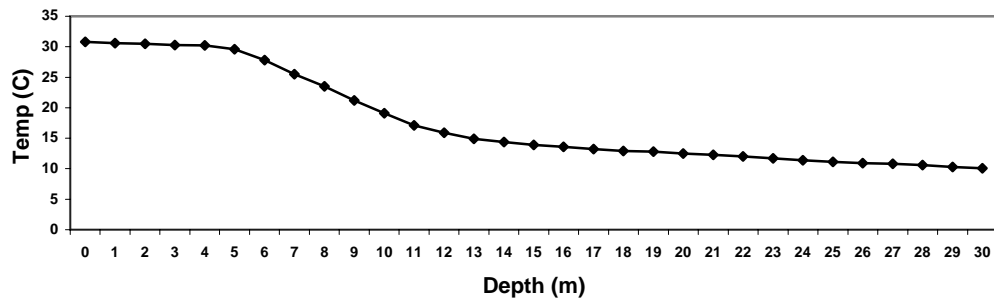


Figure 46. DO - Norris - Clinch RM 88 - Aug 4, 2005

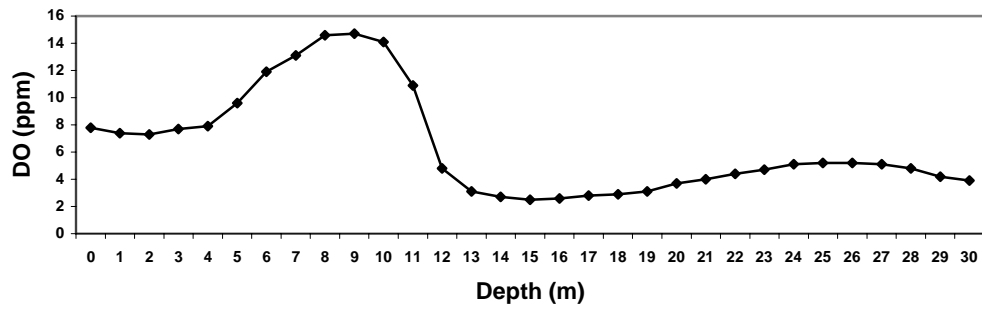


Figure 47. Temp - Norris - Clinch RM 88 - Aug 4, 2005

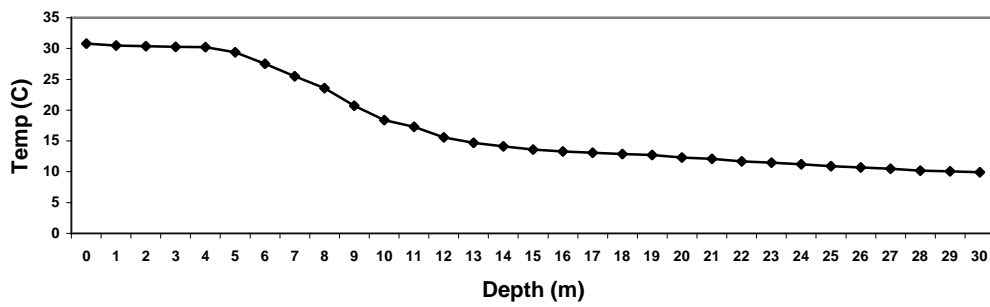


Figure 48. DO - Norris - Clinch RM 120 - Aug 4, 2005

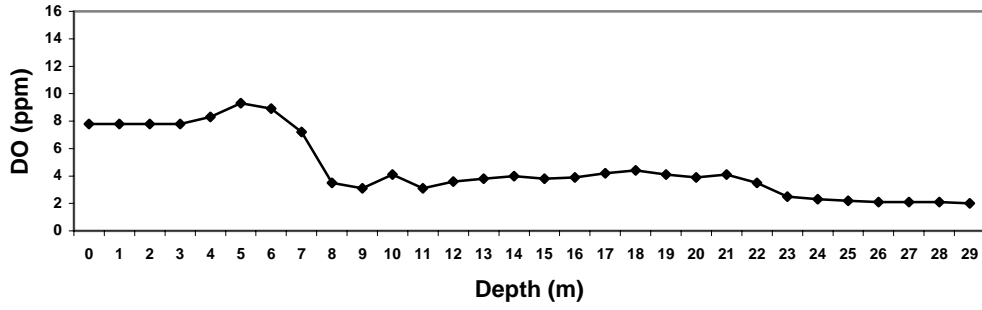


Figure 49. Temp - Norris - Clinch RM 120 - Aug 4, 2005

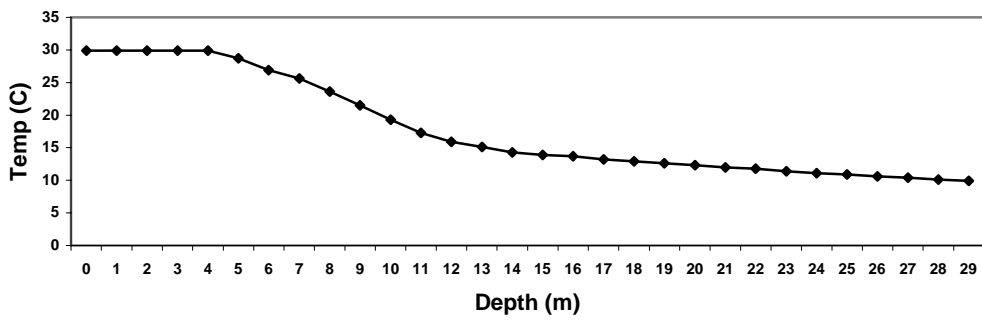


Figure 50. DO - Norris - Powell RM 19 - Aug 4, 2005

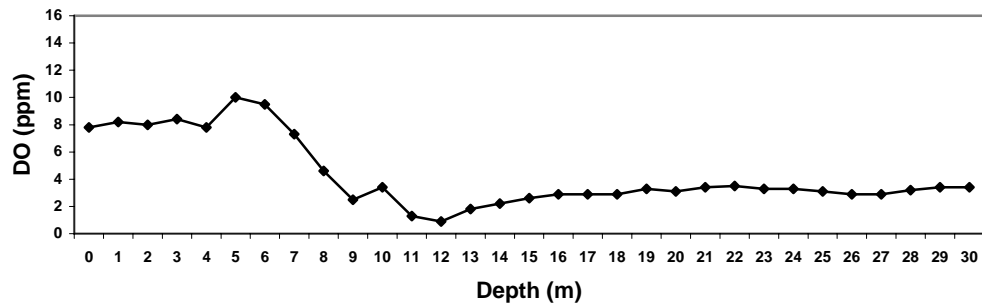


Figure 51. Temp - Norris - Powell RM 19 - Aug 4, 2005

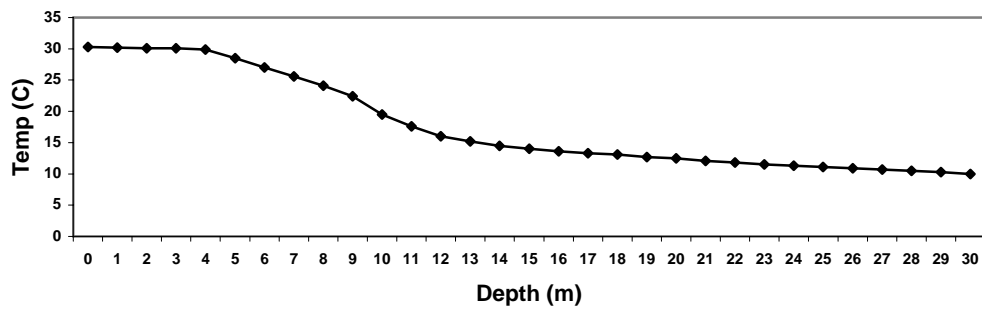


Figure 52. DO - Norris - Dam - Sept 1, 2005

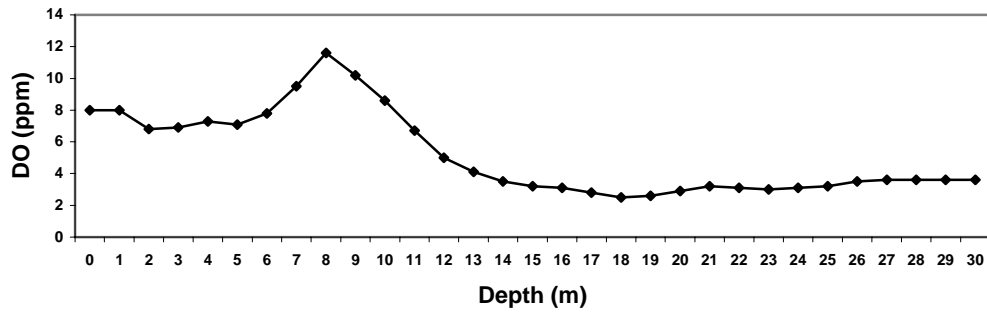


Figure 53. Temp - Norris - Dam - Sept 1, 2005

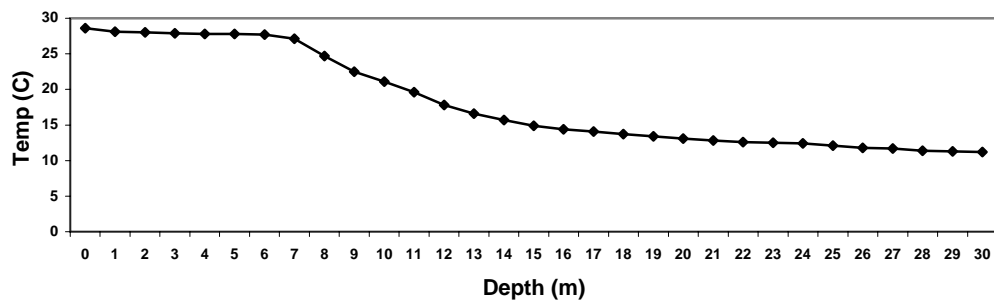


Figure 54. DO - Norris - Clinch RM 88 - Sept 1, 2005

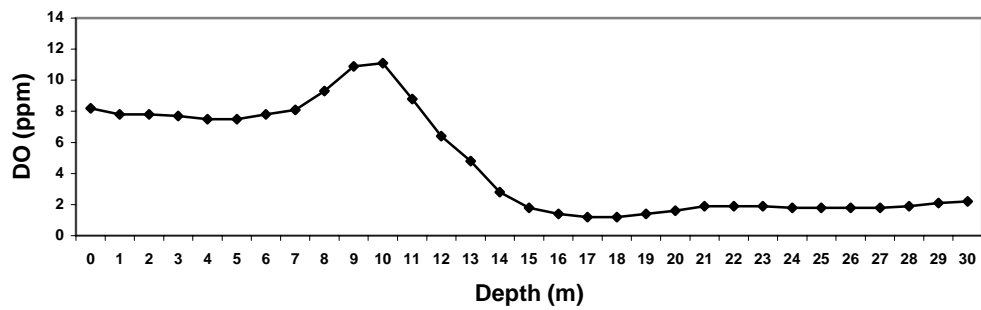


Figure 55. Temp - Norris - Clinch RM 88 - Sept 1, 2005

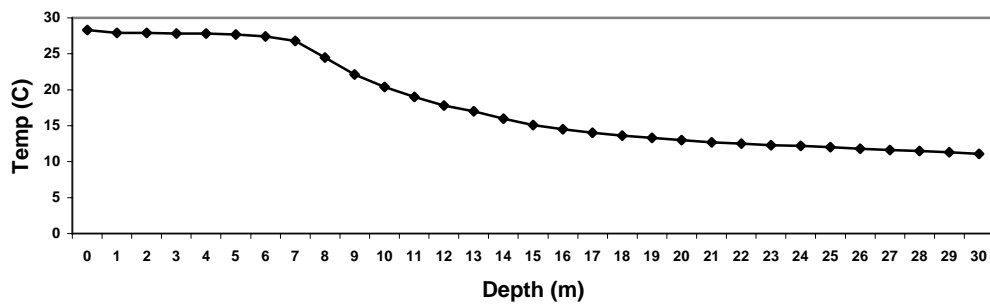


Figure 56. DO - Norris - Clinch RM 120 - Sept 1, 2005

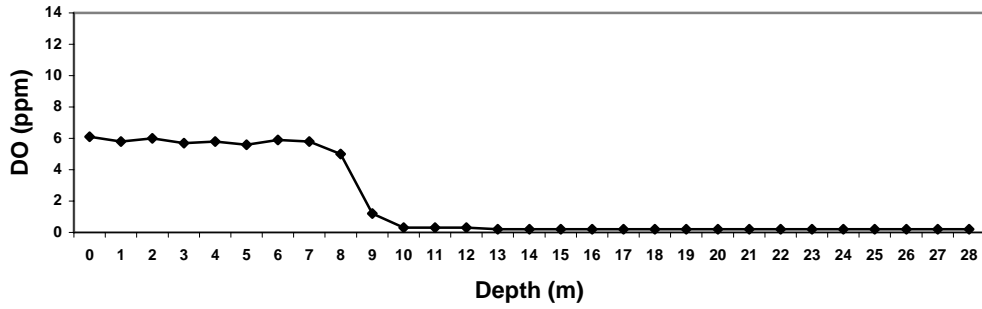


Figure 57. Temp - Norris - Clinch RM 120 - Sept 1, 2005

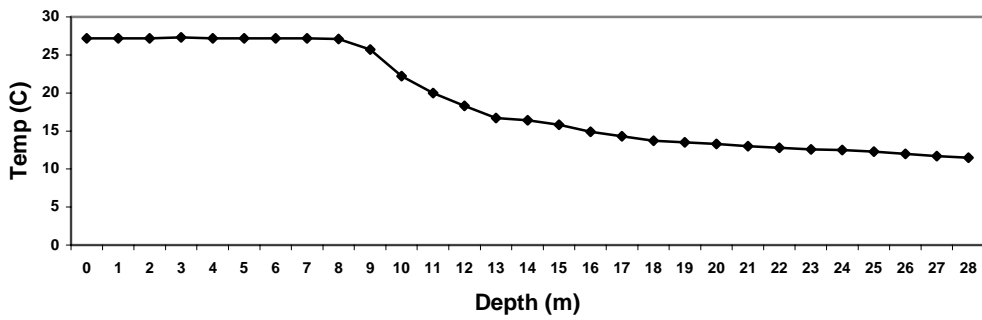


Figure 58. DO - Norris - Powell RM 19 - Sept 1, 2005

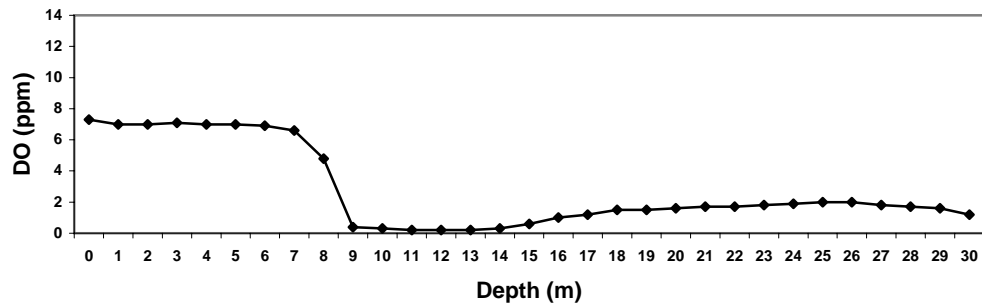
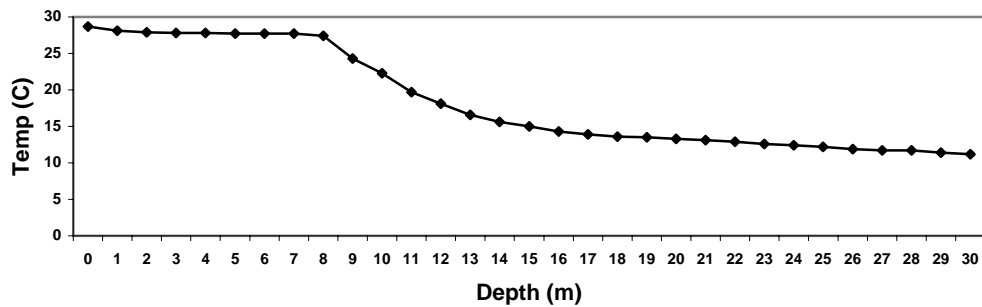


Figure 59. Temp - Norris - Powell RM 19 - Sept 1, 2005



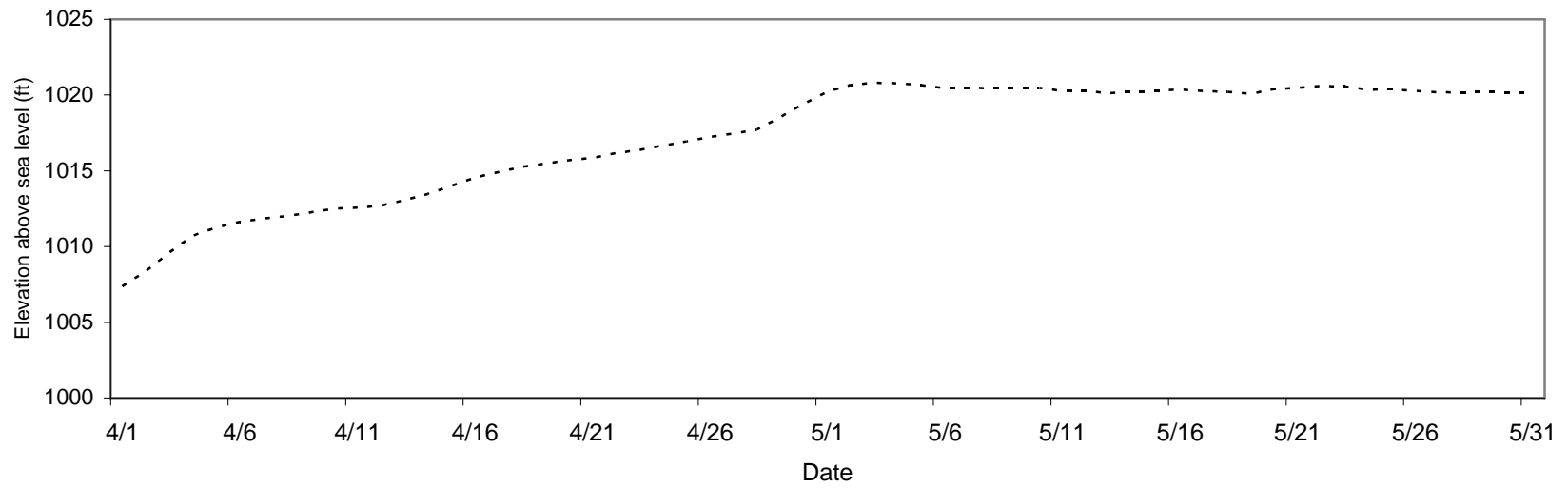


Figure 60. April and May water levels in Norris Reservoir in 2005 (TVA data).

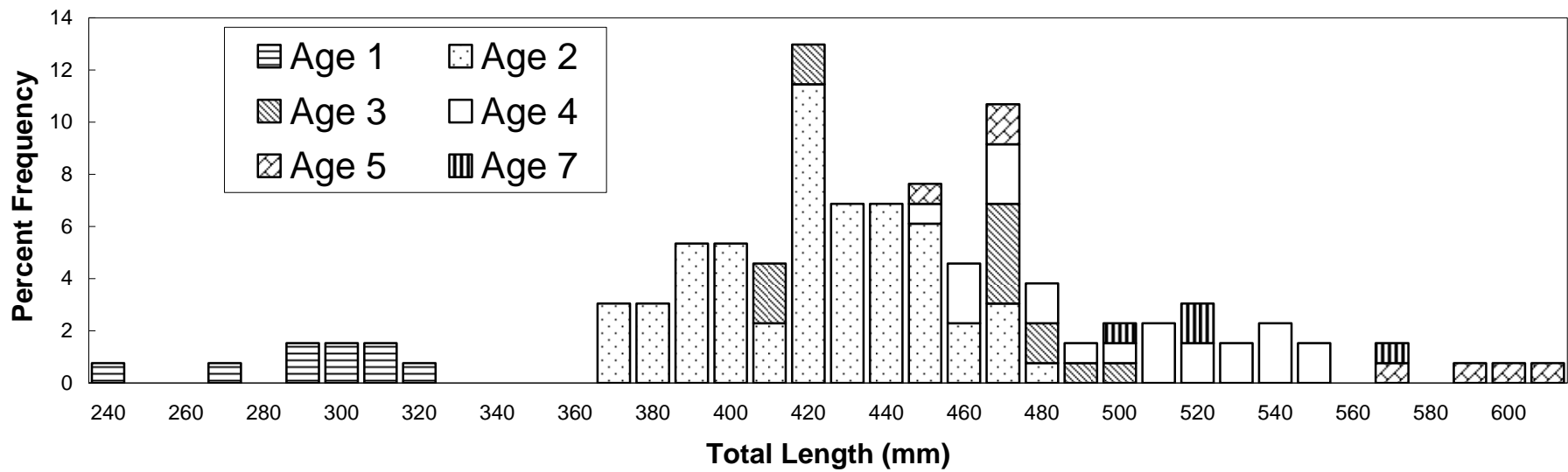


Figure 61. Length frequency at age of Norris Reservoir walleye from the 2005 winter gill net sample.

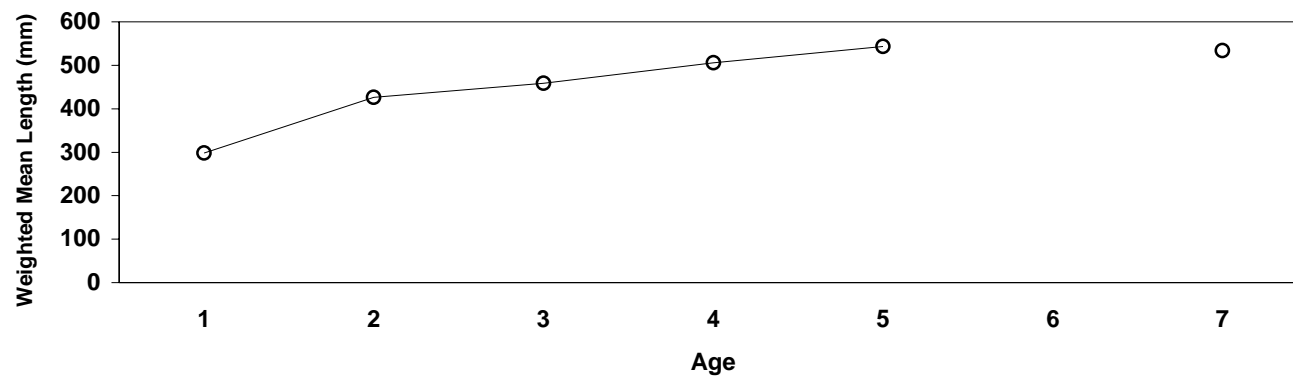


Figure 62. Weighted mean length at age of walleye from Norris 2005 winter gill net sample.

Appendix – Creel

MONTHLY ANGLING EFFORT FOR ALL ANGLERS - 2005

LAKE=NORRIS

MONTH	ANGLER HOURS	RELATIVE STANDARD ERROR	HOURS PER ACRE	ANGLER TRIPS	TRIPS PER ACRE	PERCENT EFFORT
01 JANUARY	13843	29.4	0.4	2962	0.1	3.9
02 FEBRUARY	33817	30.6	1.0	5356	0.2	9.5
03 MARCH	16986	30.3	0.5	3005	0.1	4.8
04 APRIL	51954	21.1	1.5	8008	0.2	14.6
05 MAY	76259	12.5	2.2	14568	0.4	21.5
06 JUNE	38667	24.1	1.1	6673	0.2	10.9
07 JULY	22904	17.6	0.7	4149	0.1	6.5
08 AUGUST	19155	18.7	0.6	3630	0.1	5.4
09 SEPTEMBER	15735	23.9	0.5	2535	0.1	4.4
10 OCTOBER	40481	22.8	1.2	6954	0.2	11.4
11 NOVEMBER	15350	24.9	0.4	2822	0.1	4.3
12 DECEMBER	9714	13.0	0.3	2187	0.1	2.7
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TOTAL	354865			62849		

MONTHLY CATCH STATISTICS FOR ALL ANGLERS - 2005

LAKE=NORRIS

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	7475	42.1	0.54	28.9	4568	55.3	0.33	45.5
02 FEBRUARY	17247	43.7	0.51	29.7	5073	58.8	0.15	47.1
03 MARCH	6115	38.1	0.36	22.3	340	76.1	0.02	56.5
04 APRIL	15586	32.2	0.30	23.6	2078	60.4	0.04	60.5
05 MAY	48806	49.6	0.64	47.3	17540	56.0	0.23	53.4
06 JUNE	108654	61.4	2.81	54.8	28614	65.7	0.74	59.7
07 JULY	10078	40.0	0.44	35.1	2978	46.1	0.13	40.7
08 AUGUST	17814	34.0	0.93	27.8	6321	40.8	0.33	35.3
09 SEPTEMBER	9441	51.8	0.60	45.1	4406	70.4	0.28	64.9
10 OCTOBER	37243	33.9	0.92	24.3	6072	49.0	0.15	43.0
11 NOVEMBER	11052	42.5	0.72	33.5	1075	83.0	0.07	74.5
12 DECEMBER	6897	16.7	0.71	10.5	291	95.4	0.03	100.0
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TOTAL	296408				79356			

SUMMARY OF SPECIES CATCH STATISTICS - 2005

LAKE=NORRIS

SPECIES	TOTAL NUMBER FISH CAUGHT	RSE FOR CATCH	SPECIES CATCH COMPOSITION (%)	INTENDED NUMBER CAUGHT	TOTAL NUMBER FISH HARVESTED	RSE FOR HARVEST	SPECIES HARVEST COMPOSITION (%)	INTENDED NUMBER HARVESTED	% OF CAUGHT FISH RELEASED	AVERAGE WEIGHT (LBS)	NUMBER FISH RECORDED
ANY GAR	309	1000.3	0.1	155	0	.	0.0	0	100.0	.	0
CARP	34	1379.7	0.0	0	0	.	0.0	0	100.0	.	0
CHANNEL CATFISH	9815	108.7	3.3	4569	2817	105.2	3.5	2295	71.3	2.41	27
FLATHEAD CATFISH	411	574.0	0.1	137	411	574.0	0.5	137	0.0	2.13	3
WHITE BASS	1745	478.7	0.6	109	49	228.4	0.1	0	97.2	1.60	2
YELLOW BASS	638	439.0	0.2	0	0	.	0.0	0	100.0	.	0
STRIPED BASS	10879	140.7	3.7	8258	1731	85.0	2.2	1465	84.1	9.27	13
ROCK BASS	510	465.9	0.2	0	0	.	0.0	0	100.0	.	0
GREEN SUNFISH	1218	571.3	0.4	1218	1218	571.3	1.5	1218	0.0	0.20	4
BLUEGILL	147552	30.3	49.6	132854	44083	34.9	55.6	42514	70.1	0.23	308
REDEAR SUNFISH	116	746.7	0.0	116	116	746.7	0.1	116	0.0	0.75	1
SMALLMOUTH BASS	30271	40.1	10.2	26166	1496	73.6	1.9	1097	95.1	3.87	12
SPOTTED BASS	20785	45.6	7.0	14390	2894	109.7	3.6	2291	86.1	1.21	24
LARGEMOUTH BASS	16346	77.3	5.5	12978	692	258.9	0.9	692	95.8	2.87	6
WHITE CRAPPIE	5672	216.2	1.9	5534	702	166.3	0.9	702	87.6	0.69	6
BLACK CRAPPIE	21681	78.0	7.3	21390	5608	78.9	7.1	5481	74.1	0.65	44
BLACKNOSE CRAPPIE	2315	323.7	0.8	2315	499	371.2	0.6	499	78.4	0.85	3
SAUGER	823	190.8	0.3	0	564	198.3	0.7	0	31.5	1.33	2
WALLEYE	19444	53.2	6.5	19287	15037	54.5	18.9	14884	22.7	2.20	94
FRESHWATER DRUM	1520	282.6	0.5	101	282	481.7	0.4	0	81.4	9.40	1

SUMMARY OF FISHING EFFORT AND CATCH RATES FOR INTENDED SPECIES GROUPS - 2005

LAKE=NORRIS

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	4534	54.8	794	1.3	0.40		0.40		3
WHITE BASS	502	145.7	87	0.1	0.33		0.00		1
STRIPED BASS	40493	14.3	7451	11.4	0.14	78.9	0.02	87.7	64
ANY SUNFISH	37585	19.1	6954	10.6	4.08	26.7	1.82	32.4	31
ANY BLACK BASS	83778	12.3	14452	23.6	0.38	37.1	0.02	110.8	134
SMALLMOUTH BASS	32058	19.3	5683	9.0	0.34	33.3	0.01	133.2	46
SPOTTED BASS	2029	93.5	385	0.6	0.19		0.09		2
LARGEMOUTH BASS	5007	56.3	923	1.4	0.24	52.7	0.00		4
ANY CRAPPIE	23367	19.8	4062	6.6	0.98	47.9	0.26	79.4	38
SAUGER	649	100.3	110	0.2	0.00		0.00		2
WALLEYE	57604	14.3	10028	16.2	0.20	48.2	0.16	55.1	83
ANY SPECIES	67259	13.2	11925	19.0	0.87	66.0	0.27	74.1	74
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TOTAL	354865		62854						

SUMMARY OF RELATIVE SPECIES CATCH RATES
WITHIN TARGET GROUPS - 2005

LAKE=NORRIS

TARGET GROUP	SPECIES WITHIN TARGET GROUPS	RELATIVE CATCH RATE	RELATIVE HARVEST RATE
ANY CATFISH	CHANNEL CATFISH	0.39	0.38
	FLATHEAD CATFISH	0.01	0.02
ANY SUNFISH	ANY SUNFISH	0.00	0.00
	GREEN SUNFISH	0.04	0.05
	BLUEGILL	4.04	1.76
	REDEAR SUNFISH	0.00	0.00
ANY BLACK BASS	ANY BLACK BASS	0.00	0.00
	SMALLMOUTH BASS	0.21	0.01
	SPOTTED BASS	0.12	0.02
	LARGEMOUTH BASS	0.11	0.01
ANY CRAPPIE	ANY CRAPPIE	0.00	0.00
	WHITE CRAPPIE	0.19	0.03
	BLACK CRAPPIE	0.72	0.21
	BLACKNOSE CRAPPIE	0.08	0.02

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=NORRIS

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	18	0.31	1	0.29	13
02 FEBRUARY	37	0.26	7	0.41	22
03 MARCH	3	0.00	1	0.55	34
04 APRIL	27	0.33	8	0.30	30
05 MAY	0		0	0.12	15
06 JUNE	4	0.00	1	0.33	5
07 JULY	7	0.28	2	1.19	11
08 AUGUST	0		0	0.40	6
09 SEPTEMBER	0		0	0.35	7
10 OCTOBER	16	0.58	1	0.57	9
11 NOVEMBER	2	0.00	1	0.35	8
12 DECEMBER	0		0	0.71	4

**SUMMARY OF TRIP EXPENDITURES AND CONSUMER SURPLUS
FOR INTENDED SPECIES - 2005**

LAKE=NORRIS

INTENDED SPECIES	TOTAL TRIP EXPENDITURES	TOTAL CONSUMER SURPLUS	TOTAL VALUE BY ANGLERS	NUMBER OF INTERVIEWS
ANY CATFISH	3510	1760	5270	1
WHITE BASS	2170	0	2170	1
STRIPED BASS	142730	120080	262810	38
ANY SUNFISH	71250	74890	143350	22
ANY BLACK BASS	297250	305570	602820	103
SMALLMOUTH BASS	87530	204850	292380	39
SPOTTED BASS	35100	0	35100	1
LARGEMOUTH BASS	21750	16800	38550	3
ANY CRAPPIE	42820	26810	69630	29
SAUGER	3400	4110	7500	2
WALLEYE	154570	79400	233970	44
ANY SPECIES	193330	180560	373890	42
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TOTAL	1055410	1014830	2067440	325

SUMMARY OF SOCIOLOGICAL QUESTIONS - 2005

LAKE=NORRIS

DISTRIBUTION OF STATES OF RESIDENCE OF INTERVIEWED ANGLERS

STATE	NUMBER ANGLERS INTERVIEWED	PERCENT CONTRIBUTION
KY	83	8.9
OH	73	7.9
TN	758	81.6
OTHERS	15	1.6

DISTRIBUTION OF COUNTIES OF RESIDENCE OF INTERVIEWED ANGLERS

COUNTY	NUMBER ANGLERS INTERVIEWED	PERCENT CONTRIBUTION
ANDERSON	163	21.6
CAMPBELL	97	12.9
CLAIBORNE	166	22.0
KNOX	129	17.1
UNION	119	15.8
OTHERS IN TN	79	10.5

DISTRIBUTION OF ONE-WAY MILEAGE OF ANGLERS INTERVIEWED

ONE-WAY MILES TRAVELED	NUMBER ANGLERS INTERVIEWED	PERCENT CONTRIBUTION
A) 0-25	648	69.5
B) 26-100	175	18.8
C) 101-250	29	3.1
D) > 250	80	8.6

DISTRIBUTION OF REASONS WHY INTERVIEWED ANGLERS MADE THE TRIP

REASON FOR TRIP	NUMBER ANGLERS INTERVIEWED	PERCENT CONTRIBUTION
A) FISHING	479	99.6
B) VACATION	2	0.4

DISTRIBUTION OF NUMBER OF DAYS IN TRIPS OF INTERVIEWED ANGLERS

NUMBER DAYS IN TRIP	NUMBER ANGLERS INTERVIEWED	PERCENT CONTRIBUTION
A) 1	436	90.3
B) 2-5	36	7.5
C) 6-10	8	1.7
D) 11-15	2	0.4
F) >20	1	0.2