

Fort Loudoun Reservoir

Annual Report 2005

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Fort Loudoun Reservoir - 2005

Largemouth Bass

| Population Parameter | Annual Rating | Measure | Gear | Value |
|----------------------|---------------|---|----------------|-----------|
| Recruitment | Excellent | Substock CPUE | Electrofishing | 25.0/hr |
| Structure | Good | PSD | Electrofishing | 72 |
| Density | Excellent | CPUE \geq Stock Size (203 mm) | Electrofishing | 89.3/hr |
| | Excellent | CPUE \geq Minimum Size Limit (356 mm) | Electrofishing | 32.3/hr |
| Number Caught | Good | Angler Catch | Creel Survey | 90,839 |
| Quality | Excellent | Average Weight | Creel Survey | 2.6 lb |
| Value of Fishery | Excellent | Trip Expenditures (\$) | Creel Survey | \$313,540 |

Fishery Forecast: Low harvest due to contaminant problems, good recruitment, and adequate forage should maintain the quality fishery in the future.

Management Recommendations: No change in the creel limit is planned for the future.

Smallmouth Bass

| Population Parameter | Annual Rating | Measure | Gear | Value |
|----------------------|---------------|---|----------------|----------|
| Recruitment | Poor | Substock CPUE | Electrofishing | 0.3/hr |
| Structure | Good | PSD | Electrofishing | 75 |
| Density | Fair | CPUE \geq Stock Size (178 mm) | Electrofishing | 6.7/hr |
| | Poor | CPUE \geq Minimum Size Limit (457 mm) | Electrofishing | 0.0/hr |
| Number Caught | Fair | Angler Catch | Creel Survey | 15,136 |
| Quality | Good | Average Weight | Creel Survey | 3.1 lb |
| Value of Fishery | Good | Trip Expenditures (\$) | Creel Survey | \$24,430 |

Fishery Forecast: Low harvest due to contaminant problems and adequate forage should maintain the quality fishery in the future. The new minimum size limit that went into effect in 2003 should help increase the density and improve the size structure of this important game fish.

Management Recommendations: No change in the creel limit is planned for the future.

White Crappie

| Population Parameter | Annual Rating | Measure | Gear | Value |
|----------------------|---------------|------------------------------------|----------------|----------|
| Structure | Good | PSD | Electrofishing | 98 |
| Density | Good | CPUE > Stock Size (127 mm) | Electrofishing | 15.0/hr |
| | Good | CPUE > Minimum Size Limit (254 mm) | Electrofishing | 8.3/hr |
| Number Caught | Good | Angler Catch | Creel Survey | 70,311 |
| Quality | Fair | Average Weight | Creel Survey | 0.7 lb |
| Value of Fishery | Fair | Trip Expenditures (\$) | Creel Survey | \$79,320 |

Fishery Forecast: The population appears stable. Future creel surveys planned for this reservoir will improve our ability to monitor changes and status of this and other important game fish.

Management Recommendations: No change in the creel limit is planned for the future.

Habitat Enhancement and Monitoring

| | | |
|---------------|-------------|-------------------------------|
| Water Quality | Temperature | July-September (Satisfactory) |
| | D.O. | July-September (Satisfactory) |

Tables

Table 1. Fort Loudoun Reservoir physical and chemical characteristics.

| | | |
|---------------------------------------|---------------|----------------|
| Surface Area | 14,600 acres | 5,909 hectares |
| Drainage Area | 9,550 sq. mi. | 24,754 sq. km |
| Full Pool Elevation | 813 feet-msl | 248 m-msl |
| Mean Annual Fluctuation | 6 feet | 1.8 m |
| Shoreline Distance | 378 miles | 608 km |
| Total Developed Shoreline | 53% | |
| Maximum Depth | 78 feet | 23.8 m |
| Thermocline Depth | 9 feet | 2.7 m |
| Trophic Status (Forebay) | Eutrophic | |
| Mean Chlorophyll (Forebay) | 11.7 mg/L | |
| Trophic Index Value Carlson (1977) | 54.7 | |
| Hydraulic Retention Time | 10 days | |
| Reservoir Age | 62 years | |

Table 2. Relative stock density, mean relative weight, and catch per unit effort by RSD category for target species collected in Fort Loudoun Reservoir 1998-2005.

| Species | Year | Gear | Samples | Substock | | | RSD-stock | | | | RSD-quality | | | | RSD-preferred | | | | RSD-memorable | | | | RSD-trophy | | | | Total | | PSD |
|-----------------|------|---------|---------|----------|------|------|-----------|------|------|-------|-------------|------|------|------|---------------|------|-------|------|---------------|-----|------|-------|------------|-----|------|------|-------|-------|------|
| | | | | No. | CPE | Pct. | No. | CPE | Pct. | Wr | No. | CPE | Pct. | Wr | No. | CPE | Pct. | Wr | No. | CPE | Pct. | Wr | No. | CPE | Pct. | Wr | No. | CPE | Pct. |
| Largemouth Bass | 1998 | Electro | 20 | 23 | 4.6 | 13.0 | 45 | 9.0 | 25.4 | 90.0 | 49 | 9.8 | 27.7 | 93.0 | 48 | 9.6 | 27.1 | 94.5 | 12 | 2.4 | 6.8 | 94.8 | 0 | 0.0 | 0.0 | 0.0 | 177 | 35.4 | 71 |
| | 1999 | Electro | 20 | 48 | 9.6 | 22.9 | 55 | 11.0 | 26.2 | 95.9 | 60 | 12.0 | 28.6 | 92.1 | 32 | 6.4 | 15.2 | 92.1 | 15 | 3.0 | 7.1 | 97.4 | 0 | 0.0 | 0.0 | 0.0 | 210 | 42.0 | 66 |
| | 2000 | Electro | 18 | 42 | 8.8 | 20.9 | 53 | 11.2 | 26.4 | 90.2 | 63 | 13.3 | 31.3 | 94.7 | 33 | 6.9 | 16.4 | 98.7 | 10 | 2.1 | 5.0 | 95.1 | 0 | 0.0 | 0.0 | 0.0 | 201 | 42.3 | 67 |
| | 2001 | Electro | 16 | 67 | 16.8 | 22.4 | 92 | 23.0 | 30.8 | 84.8 | 92 | 23.0 | 30.8 | 87.4 | 39 | 9.8 | 13.0 | 97.0 | 9 | 2.3 | 3.0 | 96.5 | 0 | 0.0 | 0.0 | 0.0 | 299 | 74.8 | 60 |
| | 2003 | Electro | 16 | 39 | 9.8 | 13.5 | 63 | 15.8 | 21.8 | 86.7 | 131 | 32.8 | 45.3 | 87.2 | 49 | 12.3 | 17.0 | 96.3 | 7 | 1.8 | 2.4 | 102.2 | 0 | 0.0 | 0.0 | 0.0 | 289 | 72.3 | 75 |
| | 2004 | Electro | 12 | 11 | 3.7 | 6.5 | 46 | 15.3 | 27.4 | 87.2 | 75 | 25.0 | 44.6 | 88.4 | 31 | 10.3 | 18.5 | 92.3 | 5 | 1.7 | 3.0 | 101.6 | 0 | 0.0 | 0.0 | 0.0 | 168 | 56.0 | 65 |
| | 2005 | Electro | 12 | 75 | 25.0 | 21.9 | 74 | 24.7 | 21.6 | 85.3 | 133 | 44.3 | 38.8 | 87.8 | 56 | 18.7 | 16.3 | 91.5 | 5 | 1.7 | 1.5 | 99.0 | 0 | 0.0 | 0.0 | 0.0 | 343 | 114.3 | 94 |
| Smallmouth Bass | 1998 | Electro | 20 | 3 | 0.6 | 8.1 | 15 | 3.0 | 40.5 | 77.4 | 5 | 1.0 | 13.5 | 86.0 | 4 | 0.8 | 10.8 | 86.7 | 6 | 1.2 | 16.2 | 100.3 | 4 | 0.8 | 10.8 | 99.6 | 37 | 7.4 | 56 |
| | 1999 | Electro | 20 | 7 | 1.4 | 13.5 | 11 | 2.2 | 21.2 | 88.0 | 15 | 3.0 | 28.9 | 85.0 | 3 | 0.6 | 5.8 | 91.6 | 11 | 2.2 | 21.2 | 88.7 | 5 | 1.0 | 9.6 | 0.0 | 52 | 10.4 | 76 |
| | 2000 | Electro | 18 | 6 | 1.3 | 22.2 | 9 | 1.9 | 33.3 | 87.1 | 2 | 0.4 | 7.4 | 85.5 | 7 | 1.5 | 25.9 | 87.5 | 2 | 0.4 | 7.4 | 92.4 | 0 | 0.0 | 0.0 | 0.0 | 27 | 5.7 | 57 |
| | 2001 | Electro | 16 | 4 | 1.0 | 13.8 | 13 | 3.3 | 44.8 | 84.6 | 2 | 0.5 | 6.9 | 77.1 | 5 | 1.3 | 17.2 | 85.9 | 4 | 1.0 | 13.8 | 88.7 | 1 | 0.3 | 3.4 | 0.0 | 29 | 7.3 | 48 |
| | 2003 | Electro | 16 | 3 | 0.8 | 12.5 | 4 | 1.0 | 16.7 | 80.8 | 6 | 1.5 | 25.0 | 80.3 | 7 | 1.8 | 29.2 | 82.5 | 4 | 1.0 | 16.7 | 87.2 | 0 | 0.0 | 0.0 | 0.0 | 24 | 6.0 | 81 |
| | 2004 | Electro | 12 | 3 | 1.0 | 15.8 | 3 | 1.0 | 15.8 | 77.4 | 9 | 3.0 | 47.4 | 75.3 | 1 | 0.3 | 5.3 | 62.7 | 3 | 1.0 | 15.8 | 77.2 | 0 | 0.0 | 0.0 | 0.0 | 19 | 6.3 | 64 |
| | 2005 | Electro | 12 | 1 | 0.3 | 4.8 | 5 | 1.7 | 23.8 | 87.4 | 10 | 3.3 | 47.6 | 82.5 | 5 | 1.7 | 23.8 | 78.3 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 21 | 7.0 | 72 |
| White Crappie | 1998 | Electro | 20 | 0 | 0.0 | 0.0 | 2 | 0.4 | 4.8 | 81.5 | 9 | 1.8 | 21.4 | 88.8 | 24 | 4.8 | 57.1 | 89.5 | 6 | 1.2 | 14.3 | 91.4 | 1 | 0.2 | 2.4 | 40.1 | 42 | 8.4 | 95 |
| | 1999 | Electro | 20 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 1 | 0.2 | 9.0 | 88.1 | 5 | 1.0 | 45.5 | 89.6 | 5 | 1.0 | 45.5 | 87.6 | 0 | 0.0 | 0.0 | 0.0 | 11 | 2.2 | 100 |
| | 2000 | Electro | 18 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 2 | 0.4 | 11.1 | 91.3 | 12 | 2.5 | 66.6 | 94.5 | 4 | 0.8 | 22.2 | 92.8 | 0 | 0.0 | 0.0 | 0.0 | 18 | 3.8 | 100 |
| | 2001 | Electro | 16 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 7 | 1.8 | 43.8 | 84.7 | 5 | 1.3 | 31.3 | 91.4 | 4 | 1.0 | 25.0 | 85.0 | 0 | 0.0 | 0.0 | 0.0 | 16 | 4.0 | 100 |
| | 2003 | Electro | 16 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 29 | 7.3 | 43.9 | 95.9 | 21 | 5.3 | 31.9 | 93.8 | 16 | 4.0 | 24.2 | 89.7 | 0 | 0.0 | 0.0 | 0.0 | 66 | 16.5 | 100 |
| | 2004 | Electro | 12 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 2 | 0.7 | 5.9 | 95.7 | 25 | 8.3 | 73.5 | 99.3 | 7 | 2.3 | 20.6 | 97.8 | 0 | 0.0 | 0.0 | 0.0 | 34 | 11.3 | 100 |
| | 2005 | Electro | 12 | 0 | 0.0 | 0.0 | 1 | 0.3 | 2.2 | 117.6 | 17 | 5.7 | 37.8 | 79.7 | 23 | 7.7 | 51.1 | 85.3 | 4 | 1.3 | 8.9 | 84.9 | 0 | 0.0 | 0.0 | 0.0 | 45 | 15.0 | 98 |
| Black Crappie | 1998 | Electro | 20 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 4 | 0.8 | 100.0 | 82.3 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 4 | 0.8 | |
| | 1999 | Electro | 20 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 2 | 0.4 | 40.0 | 88.0 | 3 | 0.6 | 60.0 | 81.5 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 5 | 1.0 | |
| | 2000 | Electro | 18 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 3 | 0.6 | 21.4 | 95.6 | 8 | 1.7 | 57.1 | 88.5 | 3 | 0.6 | 21.4 | 90.2 | 0 | 0.0 | 0.0 | 0.0 | 14 | 2.9 | 100 |
| | 2001 | Electro | 16 | 0 | 0.0 | 0.0 | 1 | 0.3 | 5.6 | 86.7 | 5 | 1.3 | 27.8 | 83.1 | 4 | 1.0 | 22.2 | 89.3 | 8 | 2.0 | 44.4 | 83.7 | 0 | 0.0 | 0.0 | 0.0 | 18 | 4.5 | 94 |
| | 2003 | Electro | 16 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 10 | 2.5 | 58.8 | 94.9 | 7 | 1.8 | 41.2 | 91.4 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 17 | 4.2 | 100 |
| | 2004 | Electro | 12 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 2 | 0.7 | 40.0 | 93.3 | 3 | 1.0 | 60.0 | 92.5 | 0 | 0.0 | 0.0 | 0.0 | 5 | 1.7 | 100 |
| | 2005 | Electro | 12 | 0 | 0.0 | 0.0 | 2 | 0.7 | 5.6 | 68.9 | 16 | 5.3 | 44.4 | 82.4 | 15 | 5.0 | 41.7 | 83.0 | 3 | 1.0 | 8.3 | 81.2 | 0 | 0.0 | 0.0 | 0.0 | 36 | 12.0 | 94 |

Table 3. Mean relative weight and standard error values by size class for Loudoun Reservoir largemouth bass collected during the 2005 electrofishing sample.

| Size Class | Mean Wr | Std. Error | N |
|------------|---------|------------|----|
| 150 | 76.019 | 6.719 | 3 |
| 175 | 78.858 | 5.504 | 7 |
| 200 | 85.901 | 1.273 | 25 |
| 225 | 81.391 | 3.878 | 9 |
| 250 | 86.888 | 1.494 | 13 |
| 275 | 85.166 | 1.263 | 22 |
| 300 | 86.612 | 1.713 | 26 |
| 325 | 87.656 | 0.897 | 56 |
| 350 | 88.925 | 1.444 | 46 |
| 375 | 89.481 | 1.038 | 26 |
| 400 | 90.964 | 1.629 | 16 |
| 425 | 91.903 | 0.995 | 9 |
| 450 | 92.006 | 2.359 | 4 |
| 475 | 94.296 | 3.141 | 5 |
| 500 | 97.082 | 3.013 | 3 |
| 525 | 100.552 | 1.904 | 3 |

Total Catch 273

Table 4. Mean relative weight and standard error values by size class for Loudoun Reservoir smallmouth bass collected during the 2005 electrofishing samples.

| Size Class | Mean Wr | Std. Error | N |
|------------|---------|------------|---|
| 150 | 101.004 | | 1 |
| 175 | 81.967 | | 1 |
| 200 | 80.650 | 1.456 | 6 |
| 225 | 86.849 | 1.213 | 8 |
| 250 | 84.735 | 2.971 | 3 |
| 275 | 83.563 | 2.759 | 9 |
| 300 | 85.696 | 2.352 | 5 |
| 325 | 83.298 | 4.450 | 4 |
| 350 | 77.637 | 6.616 | 5 |
| 375 | 86.778 | | 1 |
| 400 | 77.325 | 4.815 | 2 |
| 425 | 87.467 | 3.540 | 3 |
| 450 | 89.063 | 2.693 | 5 |
| 475 | 82.503 | | 1 |
| 500 | 93.958 | | 1 |
| 525 | 77.962 | 6.191 | 2 |

Total Catch 57

Table 5. Mean relative weight and standard error values by size class for Loudoun Reservoir white crappie collected during the 2005 electrofishing sample.

| Size Class | Mean Wr | Std. Error | N |
|------------|---------|------------|----|
| 175 | 117.593 | | 1 |
| 200 | 77.921 | | 1 |
| 225 | 79.917 | 2.636 | 15 |
| 250 | 83.647 | 3.176 | 10 |
| 275 | 86.527 | 0.855 | 13 |
| 300 | 84.864 | 2.191 | 4 |

Total Catch 44

Table 6. Summary of July 2005 Fort Loudoun Reservoir water quality parameters at Tennessee River Mile 604.

| Depth (m) | Temp © | Cond | PH | DO | Site | Secchi (m) | Time | Date |
|-----------|--------|------|-----|-----|-------|------------|------|-----------|
| 0 | 24.7 | 181 | 7.9 | 8.3 | T 604 | 1.5 | 0900 | 7/12/2004 |
| 1 | 24.7 | 182 | 7.9 | 8.4 | | | | |
| 2 | 24.7 | 182 | 7.9 | 8.8 | | | | |
| 3 | 24.7 | 182 | 7.9 | 8.4 | | | | |
| 4 | 23.8 | 183 | 7.8 | 7.2 | | | | |
| 5 | 23.6 | 182 | 7.7 | 5.3 | | | | |
| 6 | 23.4 | 182 | 7.6 | 5.1 | | | | |
| 7 | 23.1 | 181 | 7.6 | 4.6 | | | | |
| 8 | 22.5 | 182 | 7.5 | 4.1 | | | | |
| 9 | 22.5 | 183 | 7.5 | 3.9 | | | | |
| 10 | 22.5 | 183 | 7.5 | 3.6 | | | | |
| 11 | 22.4 | 183 | 7.5 | 3.8 | | | | |
| 12 | 22.4 | 182 | 7.5 | 3.7 | | | | |
| 13 | 21.9 | 180 | 7.4 | 2.6 | | | | |
| 14 | 21.6 | 180 | 7.4 | 2.3 | | | | |
| 15 | 21.4 | 176 | 7.4 | 2.2 | | | | |
| 16 | 20.7 | 102 | 7.5 | 6.3 | | | | |
| 17 | 19.6 | 69 | 7.7 | 7.4 | | | | |
| 18 | 19.4 | 65 | 7.6 | 7.5 | | | | |
| 19 | 19.1 | 64 | 7.6 | 7.2 | | | | |
| 20 | 18.8 | 69 | 7.6 | 6.5 | | | | |
| 21 | 18.6 | 106 | 7.4 | 2.3 | | | | |

Table 7. Summary of July 2005 Fort Loudoun Reservoir water quality parameters at Tennessee River Mile 617.

| Depth (m) | Temp © | Cond | PH | DO | Site | Secchi (m) | Time | Date |
|-----------|--------|------|----|-----|-------|------------|------|-----------|
| 0 | 24.3 | | | 9.0 | T 617 | 1.0 | 1425 | 7/12/2004 |
| 1 | 23.5 | | | 8.2 | | | | |
| 2 | 23.1 | | | 8.0 | | | | |
| 3 | 22.6 | | | 6.6 | | | | |
| 4 | 22.3 | | | 6.4 | | | | |
| 5 | 22.2 | | | 6.1 | | | | |
| 6 | 22.1 | | | 6.2 | | | | |
| 7 | 22.1 | | | 6.0 | | | | |
| 8 | 22.1 | | | 6.1 | | | | |
| 9 | 22.0 | | | 5.9 | | | | |
| 10 | 22.0 | | | 5.8 | | | | |
| 11 | 22.0 | | | 5.7 | | | | |
| 12 | 21.9 | | | 5.7 | | | | |
| 13 | 21.9 | | | 5.6 | | | | |
| 14 | 21.9 | | | 5.5 | | | | |

Table 8. Summary of July 2005 Fort Loudoun Reservoir water quality parameters at Tennessee River Mile 634.

| Depth (m) | Temp © | Cond | PH | DO | Site | Secchi (m) | Time | Date |
|-----------|--------|------|-----|-----|-------|------------|------|----------|
| 0 | 23.5 | 146 | 8.8 | 7.8 | T 634 | 1.0 | 1535 | 7/7/2004 |
| 1 | 23.3 | 147 | 8.5 | 7.5 | | | | |
| 2 | 23.1 | 148 | 8.3 | 7.5 | | | | |
| 3 | 22.5 | 150 | 8.2 | 6.8 | | | | |
| 4 | 22.4 | 148 | 8.1 | 6.7 | | | | |
| 5 | 22.2 | 146 | 8.0 | 6.4 | | | | |
| 6 | 22.2 | 146 | 7.9 | 6.5 | | | | |
| 7 | 22.2 | 146 | 7.9 | 6.4 | | | | |
| 8 | 22.2 | 146 | 7.9 | 6.3 | | | | |
| 9 | 22.2 | 147 | 7.9 | 6.2 | | | | |

Table 9. Summary of August 2005 Fort Loudoun Reservoir water quality parameters at Tennessee River Mile 604.

| Depth (m) | Temp © | Cond | PH | DO | Site | Secchi (m) | Time | Date |
|-----------|--------|------|----|-----|-------|------------|------|----------|
| 0 | 29.1 | 168 | | 9.6 | T 604 | 1.5 | 0813 | 8/5/2004 |
| 1 | 29.1 | 168 | | 9.8 | | | | |
| 2 | 28.9 | 171 | | 9.9 | | | | |
| 3 | 28.1 | 173 | | 9.5 | | | | |
| 4 | 27.2 | 174 | | 7.7 | | | | |
| 5 | 26.6 | 177 | | 7.4 | | | | |
| 6 | 26.2 | 177 | | 7.6 | | | | |
| 7 | 24.6 | 179 | | 3.8 | | | | |
| 8 | 24.5 | 179 | | 3.6 | | | | |
| 9 | 24.4 | 180 | | 3.4 | | | | |
| 10 | 24.3 | 179 | | 3.3 | | | | |
| 11 | 24.1 | 177 | | 3.1 | | | | |
| 12 | 23.9 | 177 | | 2.7 | | | | |
| 13 | 23.9 | 176 | | 2.7 | | | | |
| 14 | 23.7 | 173 | | 2.8 | | | | |
| 15 | 23.5 | 169 | | 2.6 | | | | |
| 16 | 23.3 | 165 | | 2.7 | | | | |
| 17 | 22.9 | 150 | | 3.2 | | | | |
| 18 | 22.5 | 136 | | 3.5 | | | | |
| 19 | 21.5 | 101 | | 4.7 | | | | |
| 20 | 21.2 | 94 | | 4.9 | | | | |
| 21 | 20.8 | 84 | | 5.6 | | | | |

Table 10. Summary of August 2005 Fort Loudoun Reservoir water quality parameters at Tennessee River Mile 617.

| Depth (m) | Temp © | Cond | PH | DO | Site | Secchi (m) | Time | Date |
|-----------|--------|------|----|-----|-------|------------|------|----------|
| 0 | 27.7 | 165 | | 9.4 | T 617 | 1.3 | 1230 | 8/5/2004 |
| 1 | 27.3 | 166 | | 9.1 | | | | |
| 2 | 26.6 | 173 | | 8.6 | | | | |
| 3 | 26.3 | 175 | | 7.9 | | | | |
| 4 | 25.9 | 179 | | 8.1 | | | | |
| 5 | 25.7 | 179 | | 6.5 | | | | |
| 6 | 25.5 | 179 | | 6.3 | | | | |
| 7 | 25.4 | 179 | | 7.5 | | | | |
| 8 | 25.3 | 182 | | 7.5 | | | | |
| 9 | 25.1 | 191 | | 7.3 | | | | |
| 10 | 25.0 | 195 | | 7.7 | | | | |
| 11 | 24.9 | 200 | | 6.0 | | | | |
| 12 | 24.9 | 200 | | 5.6 | | | | |
| 13 | 24.8 | 202 | | 5.4 | | | | |
| 14 | 24.8 | 204 | | 4.9 | | | | |

Table 11. Summary of August 2005 Fort Loudoun Reservoir water quality parameters at Tennessee River Mile 634.

| Depth (m) | Temp © | Cond | PH | DO | Site | Secchi (m) | Time | Date |
|-----------|--------|------|----|-----|-------|------------|------|----------|
| 0 | 26.9 | 184 | | 9.1 | T 634 | 1.1 | 1350 | 8/5/2004 |
| 1 | 24.3 | 195 | | 7.5 | | | | |
| 2 | 21.7 | 217 | | 6.6 | | | | |
| 3 | 21.2 | 226 | | 6.4 | | | | |
| 4 | 20.9 | 234 | | 6.2 | | | | |
| 5 | 20.7 | 236 | | 6.2 | | | | |
| 6 | 20.7 | 236 | | 6.2 | | | | |
| 7 | 20.7 | 236 | | 6.2 | | | | |
| 8 | 20.7 | 235 | | 6.1 | | | | |
| 9 | 20.7 | 236 | | 5.9 | | | | |

Table 12. Fort Loudoun Reservoir water levels for 2005. (TVA)

| ELEVATION | MONTH | DAY | ELEVATION | MONTH | DAY | ELEVATION | MONTH | DAY |
|-----------|----------|-----|-----------|----------|-----|-----------|-------|-----|
| 810.12 | JANUARY | 1 | 809.00 | FEBRUARY | 24 | 811.62 | APRIL | 19 |
| 809.56 | JANUARY | 2 | 809.05 | FEBRUARY | 25 | 811.20 | APRIL | 20 |
| 809.56 | JANUARY | 3 | 808.92 | FEBRUARY | 26 | 811.47 | APRIL | 21 |
| 810.23 | JANUARY | 4 | 808.62 | FEBRUARY | 27 | 811.42 | APRIL | 22 |
| 810.38 | JANUARY | 5 | 807.93 | FEBRUARY | 28 | 811.62 | APRIL | 23 |
| 810.44 | JANUARY | 6 | 808.10 | MARCH | 1 | 811.78 | APRIL | 24 |
| 810.66 | JANUARY | 7 | 808.67 | MARCH | 2 | 811.76 | APRIL | 25 |
| 810.26 | JANUARY | 8 | 809.06 | MARCH | 3 | 812.05 | APRIL | 26 |
| 809.50 | JANUARY | 9 | 808.99 | MARCH | 4 | 812.19 | APRIL | 27 |
| 809.02 | JANUARY | 10 | 808.86 | MARCH | 5 | 812.06 | APRIL | 28 |
| 809.09 | JANUARY | 11 | 808.83 | MARCH | 6 | 812.16 | APRIL | 29 |
| 808.72 | JANUARY | 12 | 808.30 | MARCH | 7 | 812.24 | APRIL | 30 |
| 808.67 | JANUARY | 13 | 808.83 | MARCH | 8 | 812.38 | MAY | 1 |
| 809.16 | JANUARY | 14 | 809.12 | MARCH | 9 | 812.47 | MAY | 2 |
| 809.18 | JANUARY | 15 | 809.39 | MARCH | 10 | 812.79 | MAY | 3 |
| 808.53 | JANUARY | 16 | 809.51 | MARCH | 11 | 812.67 | MAY | 4 |
| 808.46 | JANUARY | 17 | 809.18 | MARCH | 12 | 812.64 | MAY | 5 |
| 808.42 | JANUARY | 18 | 808.90 | MARCH | 13 | 812.61 | MAY | 6 |
| 808.31 | JANUARY | 19 | 808.28 | MARCH | 14 | 812.27 | MAY | 7 |
| 808.17 | JANUARY | 20 | 808.12 | MARCH | 15 | 812.29 | MAY | 8 |
| 807.97 | JANUARY | 21 | 808.05 | MARCH | 16 | 811.95 | MAY | 9 |
| 807.29 | JANUARY | 22 | 808.45 | MARCH | 17 | 812.20 | MAY | 10 |
| 807.32 | JANUARY | 23 | 808.43 | MARCH | 18 | 812.25 | MAY | 11 |
| 809.04 | JANUARY | 24 | 808.79 | MARCH | 19 | 812.09 | MAY | 12 |
| 809.82 | JANUARY | 25 | 808.92 | MARCH | 20 | 812.19 | MAY | 13 |
| 809.86 | JANUARY | 26 | 808.94 | MARCH | 21 | 812.54 | MAY | 14 |
| 809.66 | JANUARY | 27 | 808.90 | MARCH | 22 | 812.67 | MAY | 15 |
| 809.22 | JANUARY | 28 | 809.12 | MARCH | 23 | 812.85 | MAY | 16 |
| 809.41 | JANUARY | 29 | 809.15 | MARCH | 24 | 812.50 | MAY | 17 |
| 809.40 | JANUARY | 30 | 809.21 | MARCH | 25 | 812.34 | MAY | 18 |
| 809.40 | JANUARY | 31 | 809.34 | MARCH | 26 | 812.57 | MAY | 19 |
| 809.64 | FEBRUARY | 1 | 809.81 | MARCH | 27 | 813.12 | MAY | 20 |
| 809.56 | FEBRUARY | 2 | 809.99 | MARCH | 28 | 812.93 | MAY | 21 |
| 809.58 | FEBRUARY | 3 | 809.76 | MARCH | 29 | 812.91 | MAY | 22 |
| 810.03 | FEBRUARY | 4 | 809.50 | MARCH | 30 | 812.62 | MAY | 23 |
| 809.55 | FEBRUARY | 5 | 809.27 | MARCH | 31 | 812.48 | MAY | 24 |
| 808.96 | FEBRUARY | 6 | 809.68 | APRIL | 1 | 812.61 | MAY | 25 |
| 808.71 | FEBRUARY | 7 | 811.09 | APRIL | 2 | 812.57 | MAY | 26 |
| 808.76 | FEBRUARY | 8 | 811.85 | APRIL | 3 | 812.52 | MAY | 27 |
| 808.73 | FEBRUARY | 9 | 811.87 | APRIL | 4 | 812.81 | MAY | 28 |
| 808.85 | FEBRUARY | 10 | 811.19 | APRIL | 5 | 812.62 | MAY | 29 |
| 809.43 | FEBRUARY | 11 | 810.53 | APRIL | 6 | 812.42 | MAY | 30 |
| 809.71 | FEBRUARY | 12 | 810.08 | APRIL | 7 | 812.46 | MAY | 31 |
| 809.36 | FEBRUARY | 13 | 809.60 | APRIL | 8 | 812.53 | JUNE | 1 |
| 809.51 | FEBRUARY | 14 | 809.59 | APRIL | 9 | 812.65 | JUNE | 2 |
| 809.52 | FEBRUARY | 15 | 810.01 | APRIL | 10 | 812.56 | JUNE | 3 |
| 808.66 | FEBRUARY | 16 | 810.11 | APRIL | 11 | 812.64 | JUNE | 4 |
| 808.70 | FEBRUARY | 17 | 810.28 | APRIL | 12 | 812.61 | JUNE | 5 |
| 808.67 | FEBRUARY | 18 | 810.83 | APRIL | 13 | 812.61 | JUNE | 6 |
| 808.33 | FEBRUARY | 19 | 810.91 | APRIL | 14 | 812.26 | JUNE | 7 |
| 808.33 | FEBRUARY | 20 | 810.99 | APRIL | 15 | 812.42 | JUNE | 8 |
| 809.09 | FEBRUARY | 21 | 811.15 | APRIL | 16 | 812.32 | JUNE | 9 |
| 809.85 | FEBRUARY | 22 | 811.34 | APRIL | 17 | 812.39 | JUNE | 10 |
| 809.63 | FEBRUARY | 23 | 811.62 | APRIL | 18 | 812.92 | JUNE | 11 |

Table 13. Fort Loudoun Reservoir water levels for 2005. (TVA)

| ELEVATION | MONTH | DAY | ELEVATION | MONTH | DAY | ELEVATION | MONTH | DAY |
|-----------|--------|-----|-----------|-----------|-----|-----------|-----------|-----|
| 813.00 | JUNE | 12 | 812.78 | AUGUST | 5 | 812.24 | SEPTEMBER | 28 |
| 812.70 | JUNE | 13 | 813.01 | AUGUST | 6 | 812.47 | SEPTEMBER | 29 |
| 812.42 | JUNE | 14 | 812.87 | AUGUST | 7 | 812.68 | SEPTEMBER | 30 |
| 812.60 | JUNE | 15 | 812.47 | AUGUST | 8 | 812.31 | OCTOBER | 1 |
| 812.73 | JUNE | 16 | 812.60 | AUGUST | 9 | 812.47 | OCTOBER | 2 |
| 812.68 | JUNE | 17 | 812.45 | AUGUST | 10 | 812.22 | OCTOBER | 3 |
| 812.78 | JUNE | 18 | 812.75 | AUGUST | 11 | 812.26 | OCTOBER | 4 |
| 812.87 | JUNE | 19 | 812.57 | AUGUST | 12 | 812.40 | OCTOBER | 5 |
| 812.66 | JUNE | 20 | 812.54 | AUGUST | 13 | 812.64 | OCTOBER | 6 |
| 812.63 | JUNE | 21 | 812.88 | AUGUST | 14 | 812.78 | OCTOBER | 7 |
| 812.83 | JUNE | 22 | 812.76 | AUGUST | 15 | 812.85 | OCTOBER | 8 |
| 812.78 | JUNE | 23 | 812.77 | AUGUST | 16 | 812.68 | OCTOBER | 9 |
| 812.56 | JUNE | 24 | 812.76 | AUGUST | 17 | 812.00 | OCTOBER | 10 |
| 812.87 | JUNE | 25 | 812.99 | AUGUST | 18 | 812.06 | OCTOBER | 11 |
| 812.43 | JUNE | 26 | 812.98 | AUGUST | 19 | 811.78 | OCTOBER | 12 |
| 812.82 | JUNE | 27 | 812.63 | AUGUST | 20 | 812.13 | OCTOBER | 13 |
| 812.63 | JUNE | 28 | 813.11 | AUGUST | 21 | 812.38 | OCTOBER | 14 |
| 812.59 | JUNE | 29 | 812.72 | AUGUST | 22 | 812.72 | OCTOBER | 15 |
| 812.56 | JUNE | 30 | 812.57 | AUGUST | 23 | 812.71 | OCTOBER | 16 |
| 812.96 | JULY | 1 | 812.20 | AUGUST | 24 | 812.34 | OCTOBER | 17 |
| 813.06 | JULY | 2 | 812.09 | AUGUST | 25 | 812.29 | OCTOBER | 18 |
| 812.78 | JULY | 3 | 812.34 | AUGUST | 26 | 812.21 | OCTOBER | 19 |
| 812.58 | JULY | 4 | 812.50 | AUGUST | 27 | 812.10 | OCTOBER | 20 |
| 812.44 | JULY | 5 | 812.67 | AUGUST | 28 | 812.10 | OCTOBER | 21 |
| 812.66 | JULY | 6 | 812.16 | AUGUST | 29 | 812.63 | OCTOBER | 22 |
| 812.80 | JULY | 7 | 812.05 | AUGUST | 30 | 812.83 | OCTOBER | 23 |
| 812.47 | JULY | 8 | 812.30 | AUGUST | 31 | 812.30 | OCTOBER | 24 |
| 812.21 | JULY | 9 | 812.49 | SEPTEMBER | 1 | 812.29 | OCTOBER | 25 |
| 811.95 | JULY | 10 | 812.62 | SEPTEMBER | 2 | 812.58 | OCTOBER | 26 |
| 811.90 | JULY | 11 | 812.94 | SEPTEMBER | 3 | 812.24 | OCTOBER | 27 |
| 812.07 | JULY | 12 | 812.87 | SEPTEMBER | 4 | 812.45 | OCTOBER | 28 |
| 812.29 | JULY | 13 | 812.75 | SEPTEMBER | 5 | 812.35 | OCTOBER | 29 |
| 812.25 | JULY | 14 | 812.50 | SEPTEMBER | 6 | 812.81 | OCTOBER | 30 |
| 812.47 | JULY | 15 | 812.37 | SEPTEMBER | 7 | 812.38 | OCTOBER | 31 |
| 812.43 | JULY | 16 | 812.63 | SEPTEMBER | 8 | 812.18 | NOVEMBER | 1 |
| 812.37 | JULY | 17 | 812.64 | SEPTEMBER | 9 | 811.94 | NOVEMBER | 2 |
| 812.25 | JULY | 18 | 812.59 | SEPTEMBER | 10 | 811.94 | NOVEMBER | 3 |
| 812.34 | JULY | 19 | 812.61 | SEPTEMBER | 11 | 811.65 | NOVEMBER | 4 |
| 812.44 | JULY | 20 | 812.52 | SEPTEMBER | 12 | 811.64 | NOVEMBER | 5 |
| 812.25 | JULY | 21 | 812.54 | SEPTEMBER | 13 | 811.35 | NOVEMBER | 6 |
| 812.51 | JULY | 22 | 812.44 | SEPTEMBER | 14 | 811.13 | NOVEMBER | 7 |
| 812.60 | JULY | 23 | 812.47 | SEPTEMBER | 15 | 811.24 | NOVEMBER | 8 |
| 812.98 | JULY | 24 | 812.79 | SEPTEMBER | 16 | 811.10 | NOVEMBER | 9 |
| 812.84 | JULY | 25 | 812.55 | SEPTEMBER | 17 | 811.28 | NOVEMBER | 10 |
| 812.56 | JULY | 26 | 812.15 | SEPTEMBER | 18 | 811.37 | NOVEMBER | 11 |
| 812.91 | JULY | 27 | 812.32 | SEPTEMBER | 19 | 811.49 | NOVEMBER | 12 |
| 812.71 | JULY | 28 | 812.45 | SEPTEMBER | 20 | 811.24 | NOVEMBER | 13 |
| 812.76 | JULY | 29 | 812.43 | SEPTEMBER | 21 | 810.82 | NOVEMBER | 14 |
| 812.81 | JULY | 30 | 812.48 | SEPTEMBER | 22 | 810.83 | NOVEMBER | 15 |
| 812.79 | JULY | 31 | 812.25 | SEPTEMBER | 23 | 810.83 | NOVEMBER | 16 |
| 812.00 | AUGUST | 1 | 812.20 | SEPTEMBER | 24 | 810.82 | NOVEMBER | 17 |
| 812.32 | AUGUST | 2 | 812.09 | SEPTEMBER | 25 | 810.69 | NOVEMBER | 18 |
| 812.67 | AUGUST | 3 | 812.14 | SEPTEMBER | 26 | 809.95 | NOVEMBER | 19 |
| 812.67 | AUGUST | 4 | 812.15 | SEPTEMBER | 27 | 809.81 | NOVEMBER | 20 |

Table 14. Fort Loudoun Reservoir water levels for 2005. (TVA)

| ELEVATION | MONTH | DAY |
|-----------|----------|-----|
| 809.32 | NOVEMBER | 21 |
| 808.87 | NOVEMBER | 22 |
| 808.45 | NOVEMBER | 23 |
| 808.42 | NOVEMBER | 24 |
| 808.54 | NOVEMBER | 25 |
| 808.71 | NOVEMBER | 26 |
| 808.78 | NOVEMBER | 27 |
| 808.72 | NOVEMBER | 28 |
| 808.38 | NOVEMBER | 29 |
| 808.75 | NOVEMBER | 30 |
| 808.48 | DECEMBER | 1 |
| 808.49 | DECEMBER | 2 |
| 808.86 | DECEMBER | 3 |
| 809.02 | DECEMBER | 4 |
| 808.54 | DECEMBER | 5 |
| 807.87 | DECEMBER | 6 |
| 807.78 | DECEMBER | 7 |
| 807.78 | DECEMBER | 8 |
| 807.99 | DECEMBER | 9 |
| 807.68 | DECEMBER | 10 |
| 808.30 | DECEMBER | 11 |
| 807.72 | DECEMBER | 12 |
| 807.74 | DECEMBER | 13 |
| 807.68 | DECEMBER | 14 |
| 808.84 | DECEMBER | 15 |
| 809.53 | DECEMBER | 16 |
| 809.46 | DECEMBER | 17 |
| 809.00 | DECEMBER | 18 |
| 808.60 | DECEMBER | 19 |
| 808.70 | DECEMBER | 20 |
| 808.78 | DECEMBER | 21 |
| 808.45 | DECEMBER | 22 |
| 808.77 | DECEMBER | 23 |
| 809.03 | DECEMBER | 24 |
| 809.18 | DECEMBER | 25 |
| 808.92 | DECEMBER | 26 |
| 809.12 | DECEMBER | 27 |
| 809.29 | DECEMBER | 28 |
| 809.02 | DECEMBER | 29 |
| 808.83 | DECEMBER | 30 |
| 808.91 | DECEMBER | 31 |

Figures

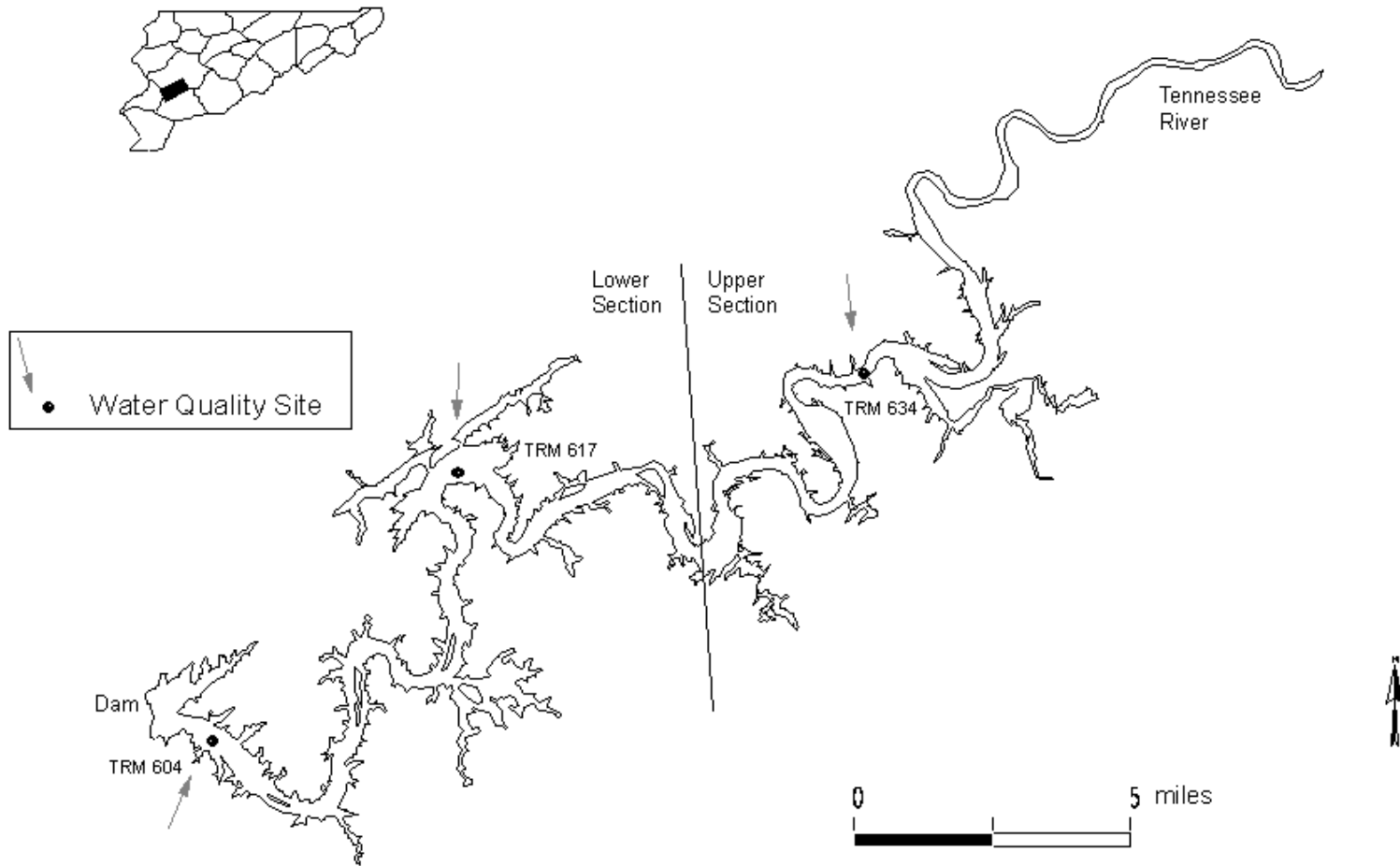


Figure 1. Water quality sites and upper and lower section boundaries of Fort Loudoun Reservoir in 2005.

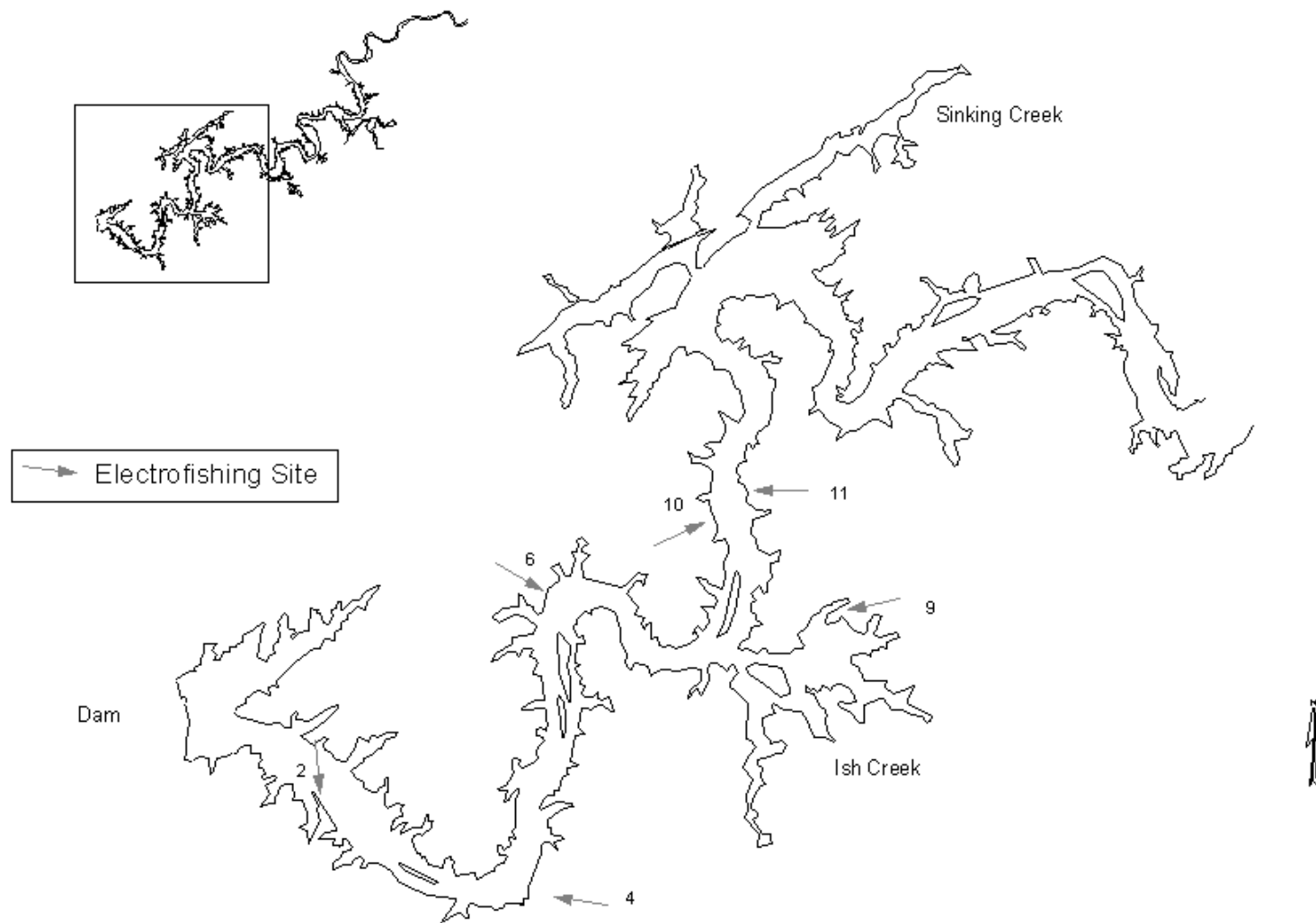


Figure 2. Electrofishing sites in the lower section of Fort Loudoun Reservoir in 2005.

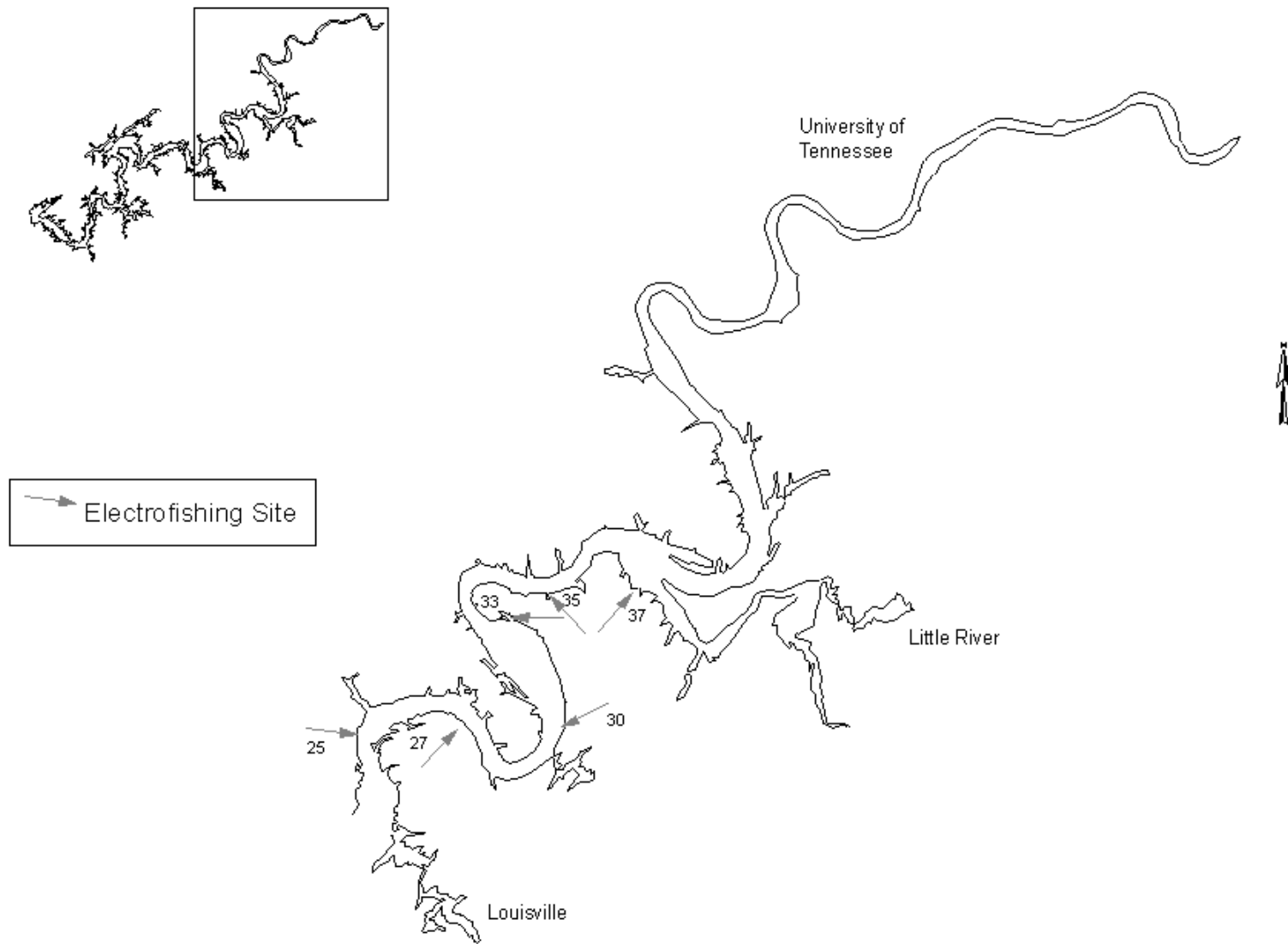


Figure 3. Electrofishing sites in the upper section of Fort Loudoun Reservoir in 2005.

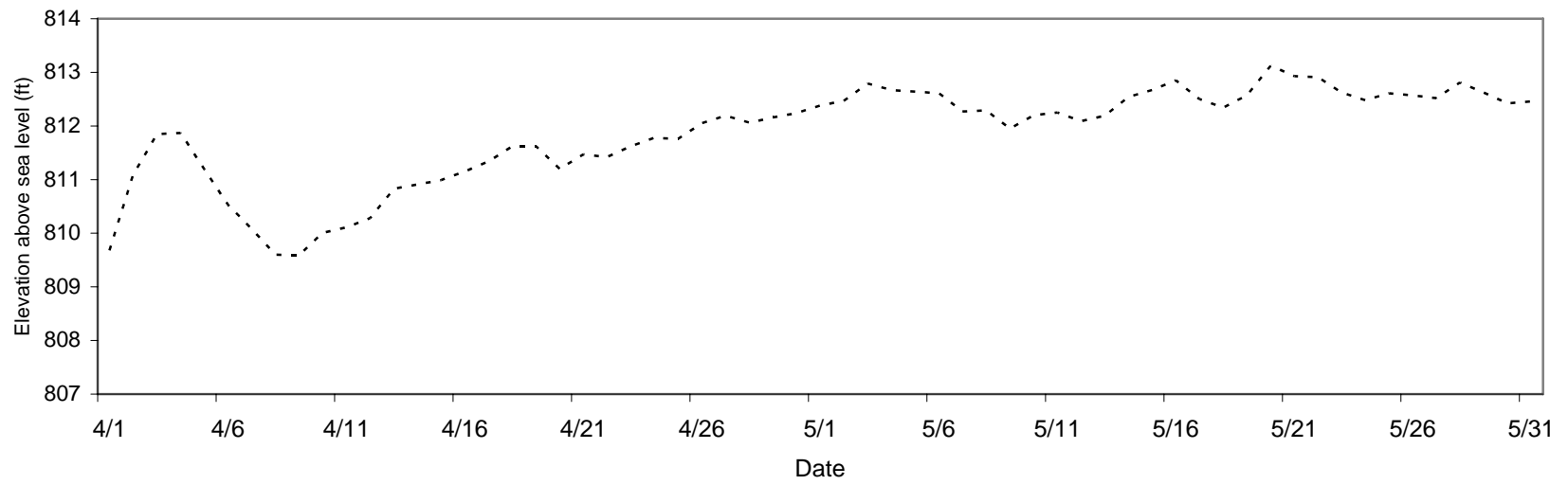


Figure 4. April and May water levels in Loudoun Reservoir in 2005 (TVA data).

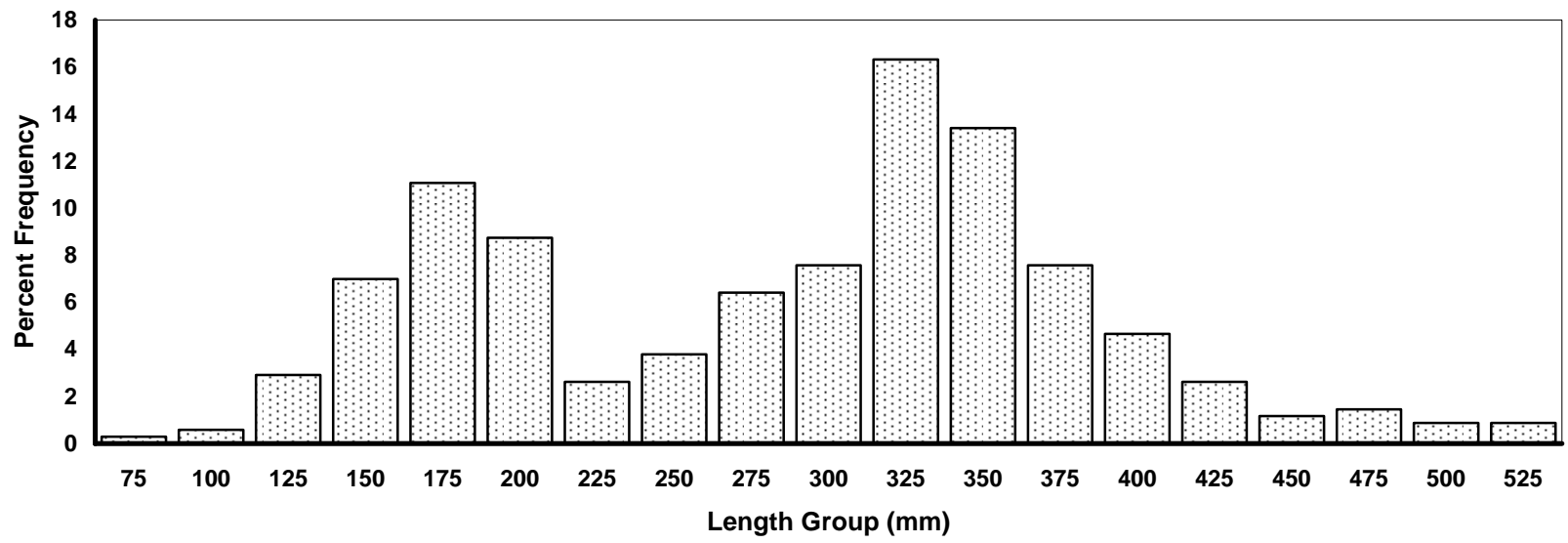


Figure 5. Fort Loudoun Reservoir largemouth bass length frequency by percent for 2005 electrofishing sample (n=343).

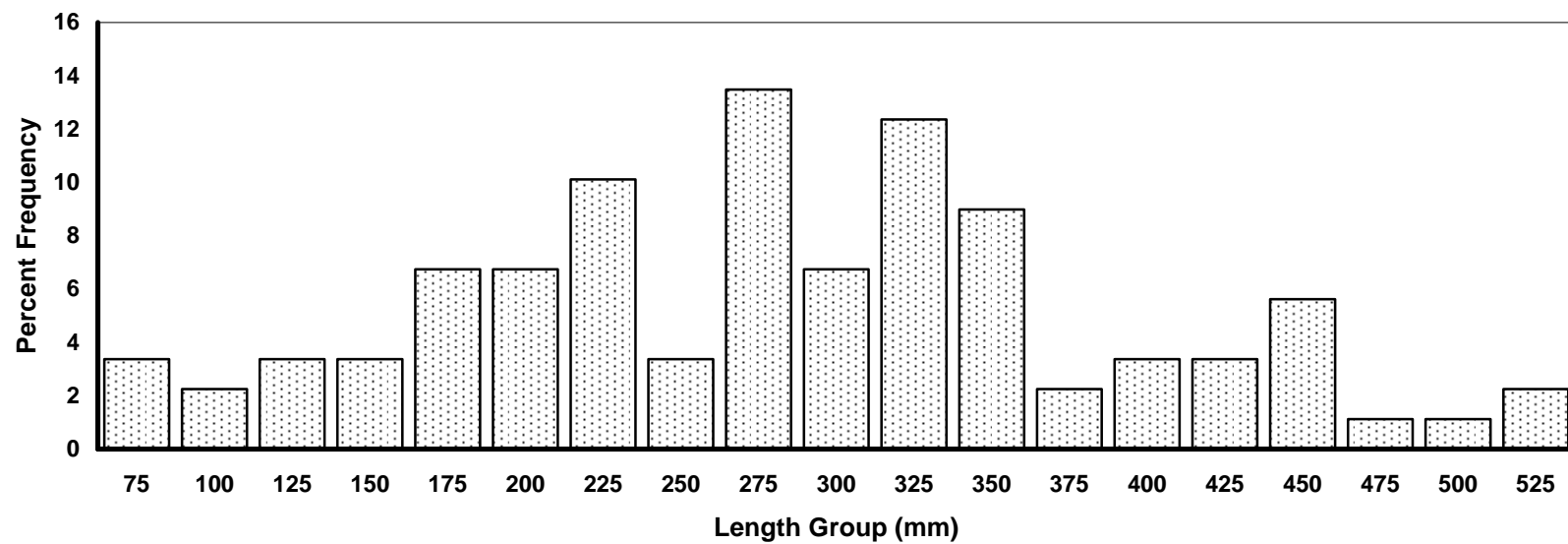


Figure 6. Fort Loudoun smallmouth bass length frequency by percent for 2005 targeted and standard electrofishing samples combined (n=89).

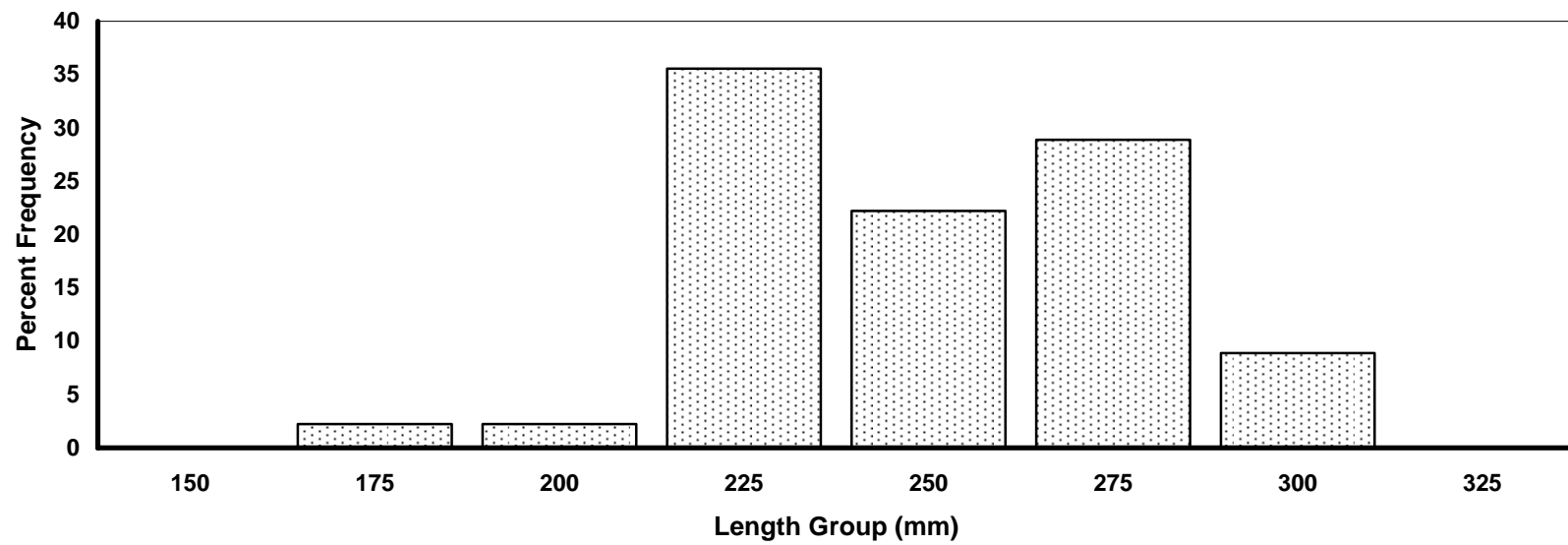


Figure 7. Fort Loudoun Reservoir white crappie length frequency by percent for 2005 electrofishing sample (n=45).

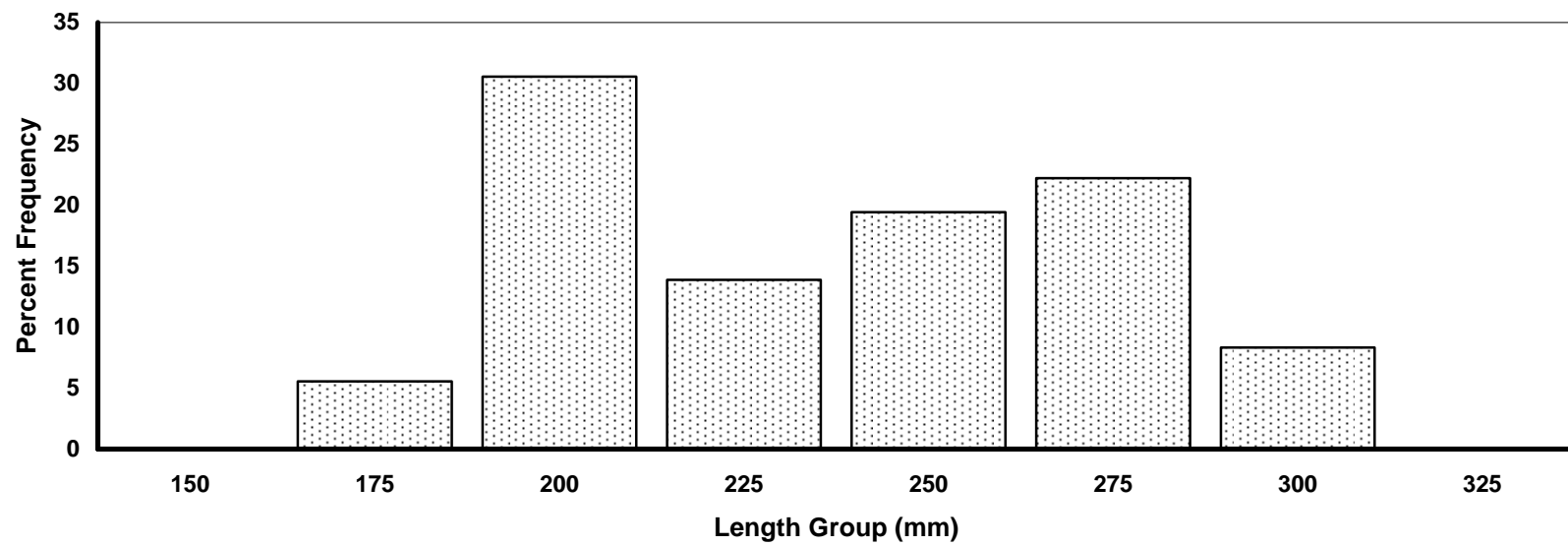


Figure 8. Fort Loudoun Reservoir black crappie length frequency by percent for 2005 electrofishing sample (n=36).

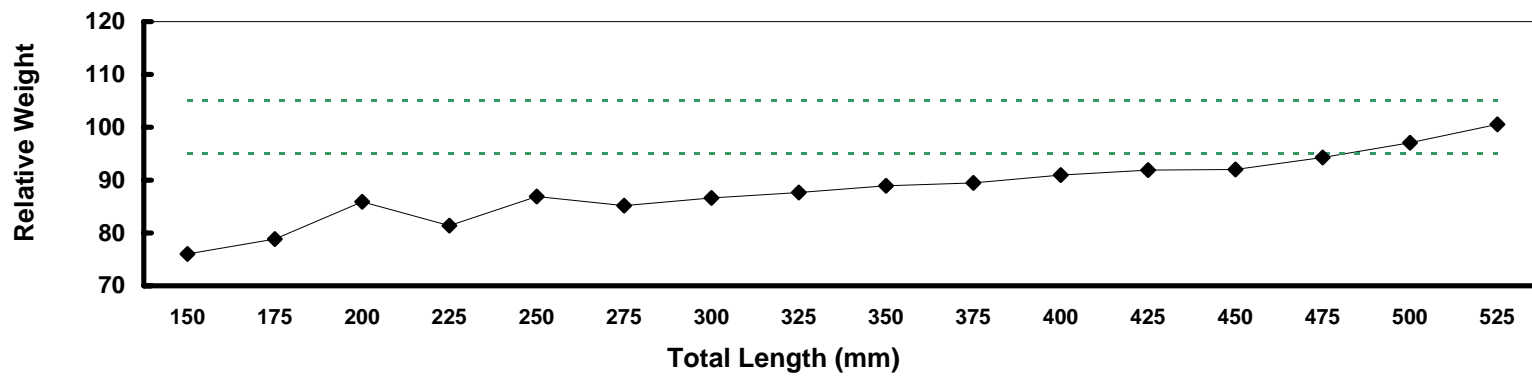


Figure 9. Fort Loudoun Reservoir largemouth bass mean relative weight values from the 2005 electrofishing sample (n=273).

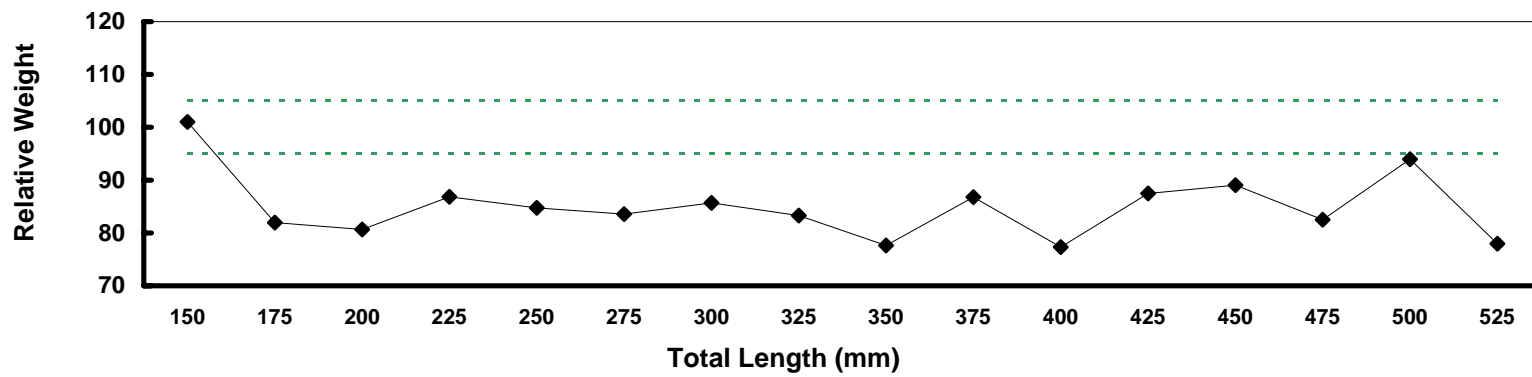


Figure 10. Fort Loudoun Reservoir smallmouth bass mean relative weight values from the 2005 electrofishing samples (n=57).

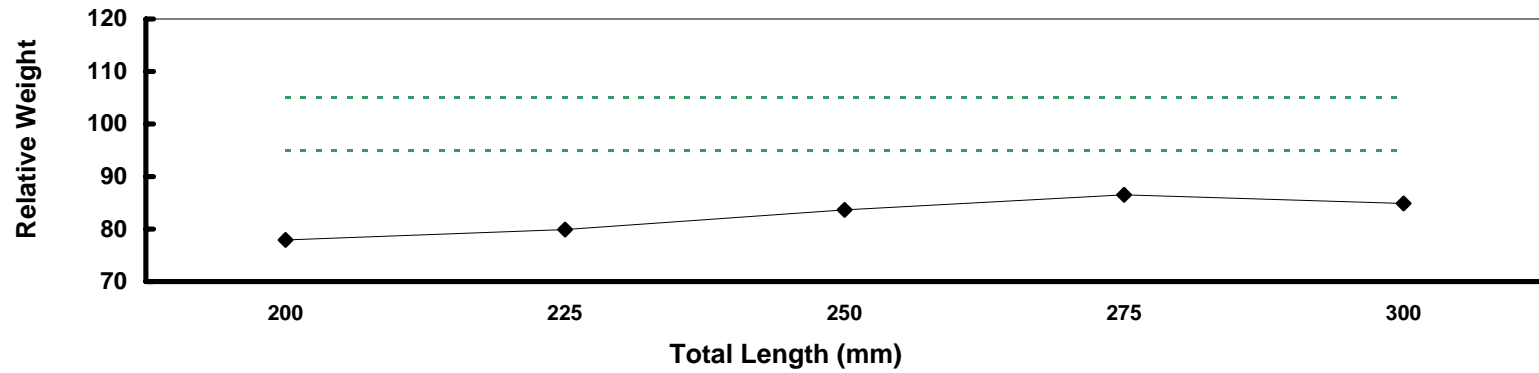


Figure 11. Fort Loudoun Reservoir white crappie mean relative weight values from the 2005 electrofishing samples (n=43).

Figure 12. DO - Loudoun - RM 604 - July 12, 2005

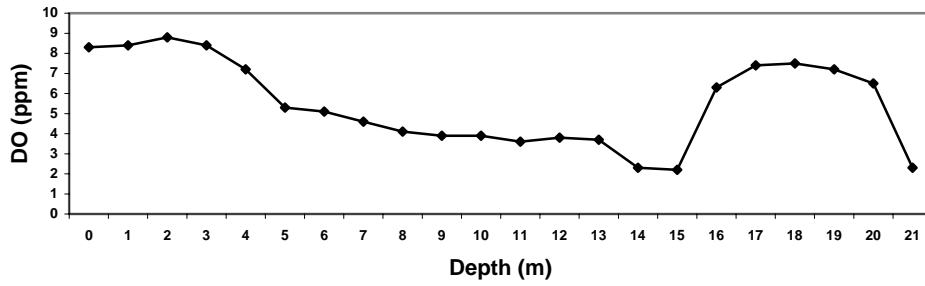


Figure 13. Temp - Loudoun - RM 604 - July 12, 2005

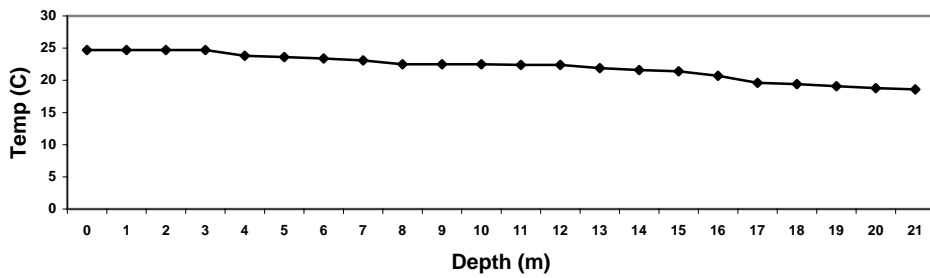


Figure 14. DO - Loudoun - RM 617 - July 12, 2005

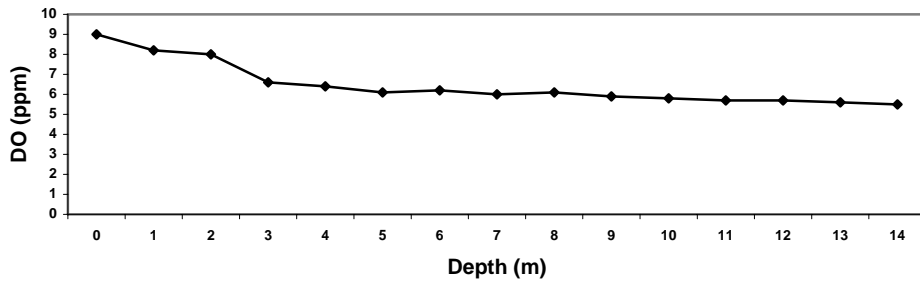


Figure 15. Temp - Loudoun - RM 617 - July 12, 2005

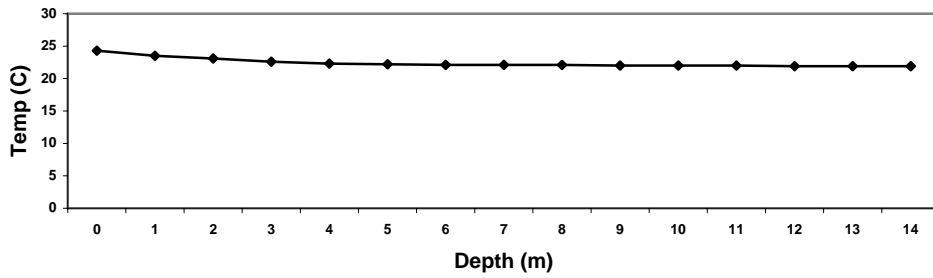


Figure 16. DO - Loudoun - RM 634 - July 12, 2005

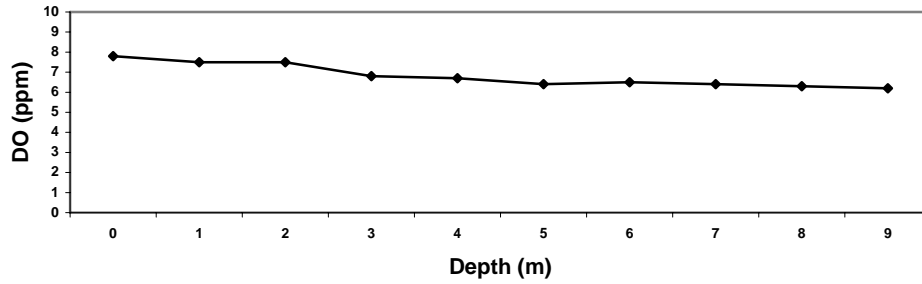


Figure 17. Temp - Loudoun - RM 634 - July 12, 2005

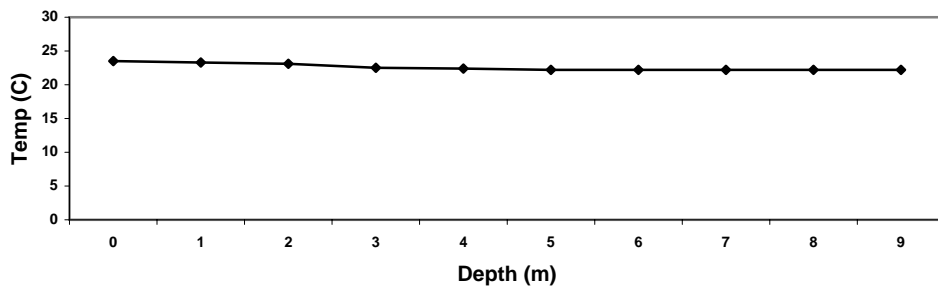


Figure 18. DO - Loudoun - RM 604 - Aug 5, 2005

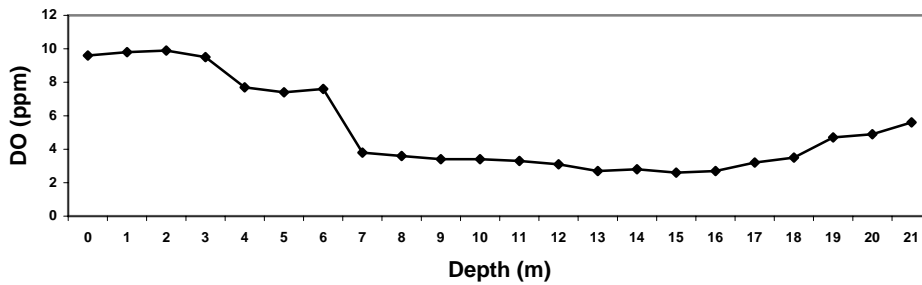


Figure 19. Temp - Loudoun - RM 604 - Aug 5, 2005

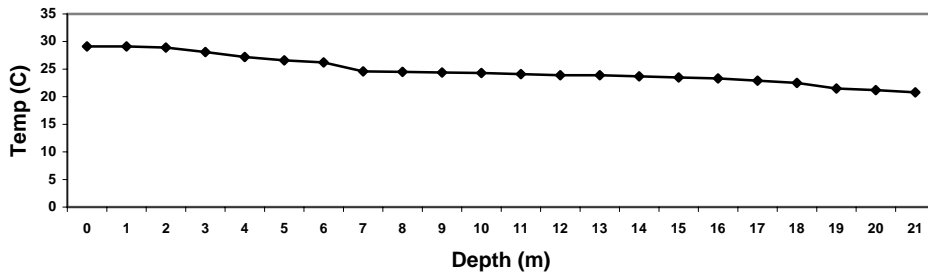


Figure 20. DO - Loudoun - RM 617 - Aug 5, 2005

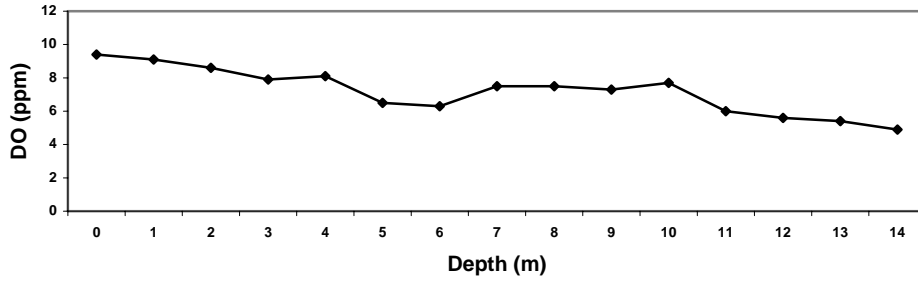


Figure 21. Temp - Loudoun - RM 617 - Aug 5, 2005

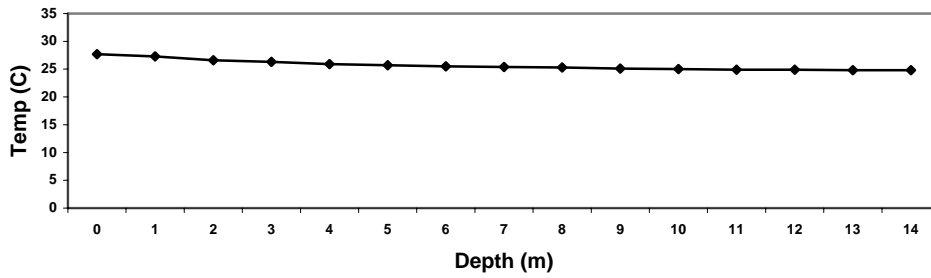


Figure 22. DO - Loudoun - RM 634 - Aug 5, 2005

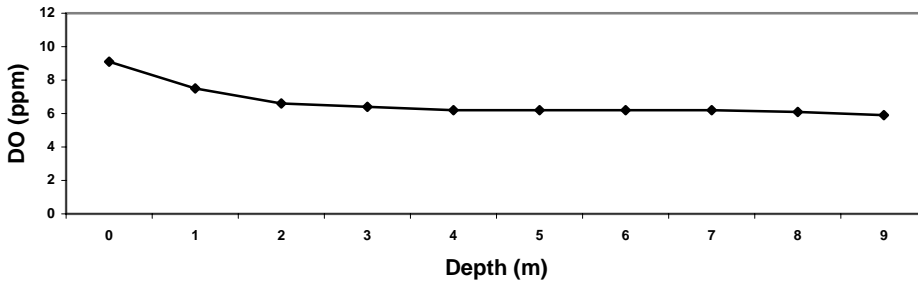
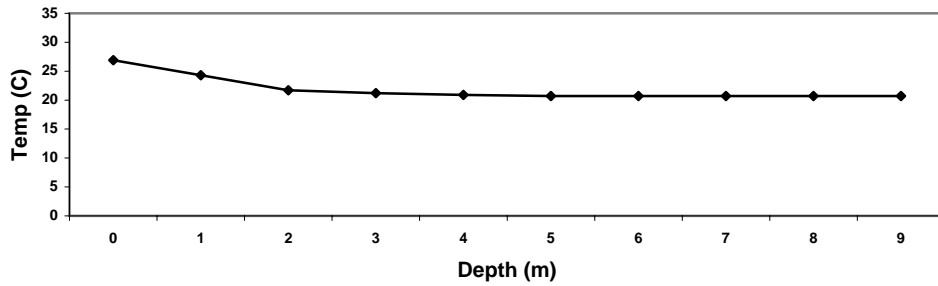


Figure 23. Temp - Loudoun - RM 634 - Aug 5, 2005



Appendix - Creel

MONTHLY ANGLING EFFORT FOR ALL ANGLERS - 2005

LAKE=FT. LOUDOUN

| MONTH | ANGLER HOURS | RELATIVE STANDARD ERROR | HOURS PER ACRE | ANGLER TRIPS | TRIPS PER ACRE | PERCENT EFFORT |
|--------------|-----------------|-------------------------------|----------------------|-----------------|----------------------|-------------------|
| 01 JANUARY | 6177 | 32.4 | 0.4 | 1507 | 0.1 | 3.3 |
| 02 FEBRUARY | 20162 | 53.8 | 1.4 | 3809 | 0.3 | 10.8 |
| 03 MARCH | 15997 | 17.9 | 1.1 | 3562 | 0.2 | 8.6 |
| 04 APRIL | 15681 | 17.3 | 1.1 | 3112 | 0.2 | 8.4 |
| 05 MAY | 21864 | 15.9 | 1.5 | 4514 | 0.3 | 11.7 |
| 06 JUNE | 22040 | 23.4 | 1.5 | 4217 | 0.3 | 11.8 |
| 07 JULY | 19494 | 17.9 | 1.3 | 3369 | 0.2 | 10.5 |
| 08 AUGUST | 12375 | 19.8 | 0.8 | 2367 | 0.2 | 6.6 |
| 09 SEPTEMBER | 17793 | 21.3 | 1.2 | 3686 | 0.3 | 9.5 |
| 10 OCTOBER | 22952 | 21.1 | 1.6 | 3653 | 0.3 | 12.3 |
| 11 NOVEMBER | 10711 | 30.3 | 0.7 | 2008 | 0.1 | 5.7 |
| 12 DECEMBER | 1170 | 100.0 | 0.1 | 161 | 0.0 | 0.6 |
| ----- | ----- | | | ----- | | |
| TOTAL | 186416 | | | 35965 | | |

MONTHLY CATCH STATISTICS FOR ALL ANGLERS - 2005

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 | 4509 | 54.0 | 0.73 | 41.4 | 618 | 73.7 | 0.10 | 65.5 |
| 02 FEBRUARY | 11291 | 62.7 | 0.56 | 28.2 | 3024 | 82.5 | 0.15 | 55.8 |
| 03 MARCH | 30234 | 36.7 | 1.89 | 31.5 | 16317 | 59.9 | 1.02 | 56.3 |
| 04 APRIL | 32930 | 31.1 | 2.10 | 25.4 | 6429 | 23.4 | 0.41 | 15.6 |
| 05 MAY | 30391 | 27.0 | 1.39 | 21.7 | 4373 | 45.7 | 0.20 | 42.5 |
| 06 JUNE | 25787 | 40.7 | 1.17 | 32.6 | 5510 | 65.6 | 0.25 | 60.7 |
| 07 JULY | 36259 | 30.0 | 1.86 | 23.7 | 3314 | 47.6 | 0.17 | 44.0 |
| 08 AUGUST | 16211 | 48.3 | 1.31 | 43.1 | 2351 | 93.5 | 0.19 | 89.6 |
| 09 SEPTEMBER | 8007 | 67.5 | 0.45 | 62.6 | 1779 | 67.6 | 0.10 | 59.9 |
| 10 OCTOBER | 36264 | 30.8 | 1.58 | 21.9 | 7115 | 44.0 | 0.31 | 37.9 |
| 11 NOVEMBER | 47985 | 75.4 | 4.48 | 66.2 | 13924 | 92.8 | 1.30 | 83.6 |
| 12 DECEMBER | 3136 | . | 2.68 | . | 211 | . | 0.18 | . |
| ----- | ----- | | | | ----- | | | |
| TOTAL | 283004 | | | | 64965 | | | |

SUMMARY OF SPECIES CATCH STATISTICS - 2005

LAKE=FT. LOUDOUN

| 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 BUFFALO | 87 | 1782.6 | 0.0 | 87 | 0 | . | 0.0 | 0 | 100.0 | . | 0 |
| CHANNEL CATFISH | 205 | 1323.2 | 0.1 | 0 | 0 | . | 0.0 | 0 | 100.0 | . | 0 |
| FLATHEAD CATFISH | 628 | 561.2 | 0.2 | 419 | 204 | 403.1 | 0.3 | 102 | 67.5 | 36.00 | 2 |
| WHITE BASS | 6654 | 123.5 | 2.4 | 4615 | 3194 | 170.9 | 4.9 | 2938 | 52.0 | 1.14 | 25 |
| YELLOW BASS | 772 | 325.1 | 0.3 | 483 | 583 | 203.5 | 0.9 | 292 | 24.5 | 1.33 | 6 |
| STRIPED BASS | 5999 | 120.9 | 2.1 | 1758 | 272 | 451.5 | 0.4 | 272 | 95.5 | 1.90 | 2 |
| GREEN SUNFISH | 102 | 1883.2 | 0.0 | 102 | 0 | . | 0.0 | 0 | 100.0 | . | 0 |
| BLUEGILL | 41034 | 34.1 | 14.5 | 32516 | 7773 | 56.9 | 12.0 | 6462 | 81.1 | 0.39 | 83 |
| SMALLMOUTH BASS | 15136 | 54.6 | 5.3 | 5107 | 1590 | 86.3 | 2.4 | 716 | 89.5 | 3.11 | 13 |
| SPOTTED BASS | 895 | 586.5 | 0.3 | 269 | 0 | . | 0.0 | 0 | 100.0 | . | 0 |
| LARGEMOUTH BASS | 90839 | 15.7 | 32.1 | 88617 | 11521 | 28.5 | 17.7 | 10817 | 87.3 | 2.64 | 100 |
| WHITE CRAPPIE | 70311 | 22.8 | 24.8 | 68704 | 18551 | 45.9 | 28.6 | 18329 | 73.6 | 0.69 | 165 |
| BLACK CRAPPIE | 15094 | 82.2 | 5.3 | 13976 | 6079 | 111.7 | 9.4 | 6079 | 59.7 | 0.69 | 20 |
| BLACKNOSE CRAPPIE | 262 | 662.6 | 0.1 | 262 | 194 | 512.8 | 0.3 | 194 | 26.0 | 0.87 | 2 |
| YELLOW PERCH | 814 | 494.7 | 0.3 | 362 | 97 | 518.7 | 0.1 | 0 | 88.1 | 0.68 | 1 |
| SAUGER | 10129 | 70.4 | 3.6 | 9788 | 6159 | 68.4 | 9.5 | 5902 | 39.2 | 1.71 | 46 |
| WALLEYE | 98 | 711.6 | 0.0 | 0 | 98 | 711.6 | 0.2 | 0 | 0.0 | 1.40 | 1 |
| FRESHWATER DRUM | 321 | 948.9 | 0.1 | 214 | 0 | . | 0.0 | 0 | 100.0 | . | 0 |

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

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 | 5995 | 25.6 | 1179 | 3.2 | 0.14 | 122.4 | 0.01 | 187.6 | 17 |
| WHITE BASS | 358 | 95.6 | 77 | 0.2 | 3.18 | | 2.02 | | 2 |
| STRIPED BASS | 424 | 100.5 | 86 | 0.2 | 0.54 | | 0.00 | | 2 |
| ANY SUNFISH | 1754 | 49.9 | 310 | 0.9 | 4.41 | 33.0 | 1.48 | 30.5 | 7 |
| ANY BLACK BASS | 18649 | 18.8 | 3269 | 10.0 | 0.80 | 18.8 | 0.06 | 46.8 | 58 |
| SMALLMOUTH BASS | 5283 | 27.5 | 1099 | 2.8 | 0.30 | 118.2 | 0.10 | 121.5 | 19 |
| LARGEMOUTH BASS | 79624 | 10.2 | 15535 | 42.7 | 0.64 | 18.4 | 0.09 | 41.6 | 245 |
| ANY CRAPPIE | 38005 | 13.4 | 7178 | 20.4 | 1.88 | 30.6 | 0.48 | 38.9 | 107 |
| SAUGER | 11266 | 26.5 | 2366 | 6.0 | 0.47 | 23.7 | 0.24 | 30.6 | 38 |
| ANY SPECIES | 23948 | 13.7 | 4668 | 12.8 | 1.75 | 39.4 | 0.31 | 104.8 | 74 |
| OTHER | 1112 | 59.5 | 204 | 0.6 | 0.00 | | 0.00 | | 5 |
| ----- | ----- | | ----- | | | | | | |
| TOTAL | 186418 | | 35971 | | | | | | |

SUMMARY OF RELATIVE SPECIES CATCH RATES
WITHIN TARGET GROUPS - 2005

LAKE=FT. LOUDOUN

| TARGET GROUP | SPECIES WITHIN TARGET GROUPS | RELATIVE CATCH RATE | RELATIVE HARVEST RATE |
|----------------|------------------------------|---------------------|-----------------------|
| ANY CATFISH | ANY CATFISH | 0.00 | 0.00 |
| | CHANNEL CATFISH | 0.00 | 0.00 |
| | FLATHEAD CATFISH | 0.14 | 0.01 |
| ANY SUNFISH | ANY SUNFISH | 0.00 | 0.00 |
| | GREEN SUNFISH | 0.01 | 0.00 |
| | BLUEGILL | 4.40 | 1.48 |
| ANY BLACK BASS | SMALLMOUTH BASS | 0.05 | 0.01 |
| | SPOTTED BASS | 0.00 | 0.00 |
| | LARGEMOUTH BASS | 0.86 | 0.10 |
| ANY CRAPPIE | ANY CRAPPIE | 0.00 | 0.00 |
| | WHITE CRAPPIE | 1.56 | 0.36 |
| | BLACK CRAPPIE | 0.32 | 0.12 |
| | BLACKNOSE CRAPPIE | 0.01 | 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 | 24 | 0.98 | 3 | 0.57 | 10 |
| 02 FEBRUARY | 66 | 0.73 | 11 | 0.70 | 10 |
| 03 MARCH | 41 | 0.48 | 9 | 0.92 | 12 |
| 04 APRIL | 66 | 0.63 | 16 | 0.75 | 13 |
| 05 MAY | 13 | 1.00 | 3 | 0.68 | 36 |
| 06 JUNE | 30 | 0.86 | 5 | 0.46 | 26 |
| 07 JULY | 30 | 0.42 | 8 | 0.64 | 40 |
| 08 AUGUST | 29 | 1.48 | 8 | 0.81 | 28 |
| 09 SEPTEMBER | 0 | | 0 | 0.16 | 32 |
| 10 OCTOBER | 40 | 0.63 | 6 | 1.17 | 19 |
| 11 NOVEMBER | 22 | 0.50 | 3 | 0.75 | 22 |

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

LAKE=FT. LOUDOUN

| INTENDED SPECIES | TOTAL TRIP EXPENDITURES | TOTAL CONSUMER SURPLUS | TOTAL VALUE BY ANGLERS | NUMBER OF INTERVIEWS |
|------------------|-------------------------|------------------------|------------------------|----------------------|
| ANY CATFISH | 14740 | 7690 | 16730 | 17 |
| WHITE BASS | 310 | | | 2 |
| STRIPED BASS | 2710 | | | 2 |
| ANY SUNFISH | 4610 | 2420 | 4670 | 7 |
| ANY BLACK BASS | 63990 | 35900 | 94750 | 58 |
| SMALLMOUTH BASS | 24430 | 0 | 2190 | 19 |
| LARGEMOUTH BASS | 313540 | 37330 | 267470 | 243 |
| ANY CRAPPIE | 79320 | 46170 | 106320 | 107 |
| SAUGER | 32150 | 0 | 21950 | 38 |
| ANY SPECIES | 33040 | 25010 | 58050 | 73 |
| OTHER | 5250 | 900 | 5080 | 5 |
| TOTAL | 574090 | 155420 | 577210 | 571 |

SUMMARY OF SOCIOLOGICAL QUESTIONS - 2005

LAKE=FT. LOUDOUN

DISTRIBUTION OF STATES OF RESIDENCE OF INTERVIEWED ANGLERS

| STATE | NUMBER ANGLERS INTERVIEWED | PERCENT CONTRIBUTION |
|--------------|---|---------------------------------|
| TN | 914 | 98.1 |
| OTHERS | 18 | 1.9 |

DISTRIBUTION OF COUNTIES OF RESIDENCE OF INTERVIEWED ANGLERS

| COUNTY | NUMBER ANGLERS INTERVIEWED | PERCENT CONTRIBUTION |
|---------------|---|---------------------------------|
| ANDERSON | 59 | 6.4 |
| BLOUNT | 183 | 20.0 |
| KNOX | 481 | 52.6 |
| OTHERS IN TN | 182 | 19.9 |
| OUT-OF-STATE | 10 | 1.1 |

DISTRIBUTION OF ONE-WAY MILEAGE OF ANGLERS INTERVIEWED

| ONE-WAY MILES TRAVELED | NUMBER ANGLERS INTERVIEWED | PERCENT CONTRIBUTION |
|---------------------------------------|---|---------------------------------|
| A) 0-25 | 616 | 65.7 |
| B) 26-100 | 305 | 32.6 |
| C) 101-250 | 13 | 1.4 |
| D) > 250 | 3 | 0.3 |

DISTRIBUTION OF REASONS WHY INTERVIEWED ANGLERS MADE THE TRIP

| REASON FOR TRIP | NUMBER ANGLERS INTERVIEWED | PERCENT CONTRIBUTION |
|--------------------------------|---|---------------------------------|
| A) FISHING | 548 | 95.8 |
| B) VACATION | 2 | 0.3 |
| C) BUSINESS | 3 | 0.5 |
| D) OTHER | 19 | 3.3 |

DISTRIBUTION OF NUMBER OF DAYS IN TRIPS OF INTERVIEWED ANGLERS

| NUMBER DAYS IN TRIP | NUMBER ANGLERS INTERVIEWED | PERCENT CONTRIBUTION |
|------------------------------------|---|---------------------------------|
| A) 1 | 561 | 98.4 |
| B) 2-5 | 7 | 1.2 |
| F) >20 | 2 | 0.4 |