

**Boone Reservoir**  
**Annual Report 2006**

Prepared By:

John Hammonds  
and  
Douglas C. Peterson

Tennessee Wildlife Resources Agency  
Region IV  
3030 Wildlife Way  
Morristown, TN 37814

All activities covered in this report were conducted under the following TWRA cost centers: 4311, 4312, and 4313. Development of this report was financed in part by funds from Federal Aid in Fish and Wildlife Restoration (Public Law 91-503) as documented in Federal Aid Project FW-6.

This program receives Federal Aid in Fish and Wildlife Restoration. Under Title VI of the Civil Rights Act of 1964 and Section 504 of the Rehabilitation Act of 1973, the United States Department of the Interior prohibits discrimination on the basis of race, color, national origin, or disability. If you believe you have been discriminated against in any program, activity, or facility as described above, or if you desire further information, please write to:

Office of Equal Opportunity  
United States Department of the Interior  
Washington, D.C. 20240

## Table of contents

	Page
<b>Species Summaries .....</b>	<b>3-7</b>
<b>Stocking .....</b>	<b>8</b>
<b>Habitat .....</b>	<b>8</b>
<b>Tables</b>	
1. Morphometric, physical, and chemical characteristics .....	10
2. Fish stocked in Boone Reservoir.....	11
3. Number of species collected by gear type .....	12
4. Black bass cpue and RSD by category .....	13
5. Striped bass and Cherokee bass cpue and RSD by category .....	14
6. Largemouth bass mean relative weights (Wr).....	15
7. Smallmouth bass mean relative weights (Wr) .....	15
8. Geometric means of clupeids from South Holston and Boone Reservoirs .....	16
9. Habitat enhancement summary. ....	16
<b>Figures</b>	
1. Sites sampled on Boone Reservoir in 2004 .....	18
2. Largemouth bass length frequency by percent .....	19
3. Largemouth bass mean relative weights (Wr).....	19
4. Largemouth bass traditional PSD and RSD-15 values .....	20
5. Smallmouth bass length frequency by percent .....	20
6. Smallmouth bass mean relative weights (Wr) .....	21
7. Smallmouth bass traditional PSD and RSD-14 values.....	21
8. Striped bass length frequency by percent.....	22
9. Striped bass mean length at age.....	22
10. Cherokee bass length frequency by percent.....	23
11. Cherokee bass mean length at age .....	23
12. Geometric mean density of clupeid catches.....	24
<b>Appendix A – Water Quality</b>	
Tables A1 – A11 Summer water quality sampling data.....	26 – 36
Figures A1 – A11 Summer water quality sampling data .....	37 – 47
<b>Appendix B – Reservoir Elevations</b>	
Table B1. Daily reservoir elevation data .....	49
Figure B1. Daily reservoir elevation data with guide curve .....	52
<b>Appendix C – Angler Creel Survey .....</b>	<b>53</b>

## Largemouth Bass

Population Parameter	Annual Rating	Measure	Gear	Value
Recruitment	Fair	Sub-stock CPUE	Electrofishing	3.7 fish/hr
Growth*	Good	Mean TL at Age-3	Electrofishing	334 mm
	Excellent	RSD-P (380 mm)	Electrofishing	64 %
Density	Fair	CPUE $\geq$ Stock Size (203 mm)	Electrofishing	34.7 fish/hr.
	Good	CPUE $\geq$ Minimum Size Limit	Electrofishing	20.4 fish/hr.
Mortality*	Low	Total Mortality (Z)	Electrofishing	31%
Angling Pressure	Good	Fishing Effort (hours)	Creel Survey	49,785**
Fishing Success	Fair	Angler Catch Rate (#fish/hour)	Creel Survey	0.30**
Value of Fishery	Good	Trip Expenditures	Creel Survey	\$106,360**

\* based on an age data set collected in 2005

\*\* any black bass species

### *Fishery Forecast:*

Densities of largemouth bass in Boone were good, with better than average numbers of fish in the population that were larger than 510 mm (20-inches). We also collected decent numbers of sub-stock sized fish which indicates a successful spawn in 2005. The fishery should remain stable.

### *Management Recommendations:*

Maintain the 15-inch (381 mm) minimum length limit.

## Smallmouth Bass

Population Parameter	Annual Rating	Measure	Gear	Value
Recruitment	Poor	Sub-stock CPUE	Electrofishing	0.9 fish/hr
Growth	Fair	Mean TL at Age-3	Electrofishing	296 mm*
	Fair	RSD-P (350 mm))	Electrofishing	39 %
Density	Good	CPUE $\geq$ Stock Size (178 mm)	Electrofishing	10.8 fish/hr.
	Fair	CPUE $\geq$ Minimum Size Limit	Electrofishing	3.1 fish/hr.
Mortality**		Total Mortality (Z)	Electrofishing	N/A
Angling Pressure	Good	Fishing Effort (hours)	Creel Survey	49,785**
Fishing Success	Fair	Angler Catch Rate (#fish/hour)	Creel Survey	0.30**
Value of Fishery	Good	Trip Expenditures	Creel Survey	\$106,360**

\* Based on an age data set collected in 1998

\*\* Data set did not meet criteria for calculating mortality

\*\*\* any black bass species

### *Fishery Forecast:*

Percentages of larger sized smallmouth bass increased in 2006. We were also able to sample good numbers of smaller sized fish, which will help maintain the quality of the smallmouth fishery on Boone. Just as in largemouth bass, recruitment was noted which indicates a successful 2005 spawn and will help insure the future of the fishery.

### *Management Recommendations:*

Maintain the current 15-inch (381 mm) minimum length limit. Continue to refine the smallmouth bass sampling strategy.

## Black Crappie

Population Parameter	Annual Rating	Measure	Gear	Value
Recruitment	N/A	Sub-stock CPUE	Electrofishing	N/A
Growth	N/A	Mean TL at Age-3	Electrofishing	N/A
	Excellent	RSD-P (254 mm)	Electrofishing	100%
Density	Poor	CPUE > Stock Size (127 mm)	Electrofishing	0.85 fish/hr.
	Poor	CPUE > Minimum size Limit	Electrofishing	0.85 fish/hr.
Mortality	N/A	Total Mortality (Z)	Electrofishing	N/A
Angling Pressure	Fair	Fishing Effort (hours)	Creel Survey	8748*
Fishing Success	Poor	Angler Catch Rate (#fish/hour)	Creel Survey	0.14*
Value of Fishery	Fair	Trip Expenditures	Creel Survey	\$12,820*

\* any crappie

### *Fishery Forecast:*

We only collected a total of 6 crappie (3 black and 3 blacknose) in our electrofishing effort for 2006. Most likely this does not indicate failure of the fishery only failure of the electrofishing gear to collect the fish because they were not present in the location and depths that we sampled. There were too few fish collected to make any other observations. Hopefully, we will see more crappie in our sample in 2007.

### *Management Recommendations:*

1. Continue to refine sampling strategy for black crappie.
2. Stock 45,000 black crappie in 2007 because the stocking program may have been more successful than data collection efforts indicated.

## Striped Bass

Population Parameter	Annual Rating	Measure	Gear	Value
Recruitment	Poor	Substock CPUE	Gill Net	0.0 fish/net night
Growth*	Good	Mean TL at Age-3	Gill Net	673 mm
	Poor	RSD-P (762 mm)	Gill Net	0%
Density	Fair	CPUE > Stock Size (305 mm)	Gill Net	0.5 fish/net night
	Fair	CPUE > Minimum size Limit	Gill Net	0.3 fish/net night
Mortality**		Total Mortality (Z)	Gill Net	N/A
Angling Pressure	Fair	Fishing Effort (hours)	Creel Survey	9069
Fishing Success	Poor	Angler Catch Rate (#fish/hour)	Creel Survey	0.06
Value of Fishery	Good	Trip Expenditures	Creel Survey	\$15,990

\* Only one fish

\*\* Data set did not meet criteria for calculating mortality

### *Fishery Forecast:*

Striped bass are difficult to sample within the reservoir. Therefore by-catch data from summer shad netting is used for *morone sp.* population analyses. These data show a decline in the striped bass CPUE for this method of collection.

We have set gillnets in the winter months in an attempt to collect a good sample (e.g. 100 fish) and so far have been unsuccessful. We will continue this strategy at least one more sample season. Due to stocking efforts, the fishery should remain stable within the reservoir.

### *Management Recommendations:*

1. Stock at a rate of 5 fish/acre if possible.
2. Maintain the current 2-fish, 15-inch (381 mm) minimum length limit.
3. Refine sampling strategies for collecting good numbers of striped bass.

## Cherokee Bass

Population Parameter	Annual Rating	Measure	Gear	Value
Recruitment	Poor	Sub-stock CPUE	Gill Net	0.0 fish/net night
Growth	Good	Mean TL at Age-3	Gill Net	584 mm
	Good	RSD-P (381 mm)	Gill Net	49 %
Density	Good	CPUE > Stock Size (305 mm)	Gill Net	2.75 fish/net night
	Fair	CPUE > Minimum size Limit	Gill Net	1.3 fish/net night
Mortality*		Total Mortality (Z)	Gill Net	N/A
Angling Pressure	Poor	Fishing Effort (hours)	Creel Survey	168
Fishing Success	Fair	Angler Catch Rate (#fish/hour)	Creel Survey	0.64
Value of Fishery	Poor	Trip Expenditures	Creel Survey	\$0

\* Data set did not meet criteria for calculating mortality

### *Fishery Forecast:*

As with striped bass, Cherokee bass are difficult to sample within the reservoir. Therefore by-catch data from summer shad netting is used for *morone sp.* population analyses. These data show consistency in the Cherokee bass population for this method of collection.

We have set gillnets in the winter months in an attempt to collect a good sample (e.g. 100 fish) and so far have been unsuccessful. We will continue this strategy at least one more sample season. Due to stocking efforts, the fishery should remain stable within the reservoir.

### *Management Recommendations:*

1. Maintain the current 2 fish, 15-inch (381 mm) minimum length limit.
2. Continue to evaluate the changes made in the stocking regime in 2001. Prior to 2001, Cherokee bass were stocked at a rate of 5/acre every other year. They are now stocked at a rate of 2.5/acre every year. Early indications are that this rate is sufficient to maintain a quality fishery
3. Refine sampling strategies for collecting good numbers of Cherokee bass.

## Stocking and Stocking Evaluations

Species	Number Stocked	Mark	Evaluation	# Fish / Net Night
Striped Bass	25,445	None	Gill Netting	Total CPUE = 0.5 fish/net night.
Cherokee Bass	12,376	None	Gill Netting	Total CPUE = 2.75 fish/net night

## Habitat Enhancement and Monitoring

Type of Work	Details	Date
Shoreline Stabilization		See table 9
Shoreline Seeding		"
Aquatic Plants		"
Fish Attractors (Shallow Water)		"
Fish Attractors (Deep Water)		"
Smallmouth Spawning Benches		None in 2006
Stake Beds		"
Water Quality Monitoring	Temperature, pH, Conductivity, and D.O.	July, August, September

## Tables

Table 1. The morphometric, physical, and chemical characteristics of Boone Reservoir.

<b>Parameter</b>	<b>Measurement</b>	
	<b><i>English</i></b>	<b><i>Metric</i></b>
Surface Area	4,520 ac	1,829 ha
Drainage Area	1,840 sq. mi	4,769 sq. km
Full Pool Elevation	1,384 ft msl	422 m msl
Mean Annual Fluctuation	54 feet	16.5 m
Shoreline Distance	127 mi	204.4 km
Maximum Depth	122 ft	37.2 m
Thermocline Depth	7 ft	2.1m
Mean Chlorophyll (Forebay)	10.8 ppm	10.8 mg/l
Shoreline Development		13%
Trophic Status (Forebay)		Mesotrophic
Trophic Index, Carlson (1977)		53.9
Hydraulic Retention Time		38 days
Reservoir Age		54 years

Table 2. Fish stocked in Boone Reservoir 1995-2006.

<b>Species</b>	<b>Date</b>	<b>Rate (per acre)</b>	<b>Mean Length</b>	<b>Number</b>
Cherokee Bass	July 1995	10	2.5	45,200
	July 1998	4.9	2.5	22,016
	July 2000	5.2	1.0-2.0	23,700
	July 2001	2.5	2.0-5.0	11,289
	July 2002	3.3	1.3 – 4.0	14,702
	July 2003	3.6	1.5 – 4.0	16,249
	June 2004	5.0	2.0 – 2.5	22,420
	June 2005	3.6	2.0 – 2.5	16,410
	June 2006	2.7	1.0 – 2.5	12,376
Striped Bass	July 1997	4.8	1.0	21,712
	July 1999	5.3	2.0-4.0	23,859
	July 2001	5.1	3.0-4.0	22,866
	July 2002	6.3	3.0 – 4.0	25,713
	July 2003	9.7	1.0 – 2.0	44,038
	July 2004	2.9	2.0 – 4.0	13,000
	July 2005	2.7	2.0 – 3.5	11,991
	July 2006	5.6	1.0 – 3.0	25,445
Blue Catfish	July 1995	3.1	4.0	14,000
	Nov 1998	2.4	5.0	10,850
Black-Nose	Dec 1996	20.7	2.5	93,583
Black Crappie	Nov 1997	18.5	2.0	83,587
	Nov–Dec 1998	15.5	2.5	69,994

Table 3. Number of species collected by gear type in Boone Reservoir, 2006. Effort is in hours for electrofishing and net nights for gill netting.

Species	Summer Shad Gill Netting			Spring Electrofishing		
	No.	CPUE (# fish / net night)	Total Effort	No.	CPUE (# fish / hour)	Total Effort
Largemouth Bass	X	X	X	135	38.4	3.5
Smallmouth Bass	X	X	X	41	11.6	3.5
Spotted Bass	X	X	X	0	0	3.5
Black Crappie	X	X	X	3	0.9	3.5
Black-Nose Crappie	X	X	X	3	0.9	3.5
White Crappie	X	X	X	2	0.6	3.5
Walleye	X	X	X	0	0	3.5
Sauger	X	X	X	X	X	X
White Bass	X	X	X	0	0	3.5
Channel Catfish	X	X	X	X	X	X
Gizzard Shad	619	31	20	X	X	X
Alewife	156	7.8	20	X	X	X
Striped Bass	10	0.5	20	X	X	X
Cherokee Bass	55	2.8	20	X	X	X
Bluegill	X	X	X	X	X	X

X = this type of data not collected with this method

Table 4. Black bass catch; mean catch per unit effort and relative stock density by RSD category for Boone Reservoir 1998 – 2006.

Species	Year	Gear	Number of Samples	Substock			Stock - Quality			Quality - Preferred			Preferred-Memorable			Memorable-Trophy			Trophy			PSD	Total	
				#	CPUE	RSD	#	CPUE	RSD	#	CPUE	RSD	#	CPUE	RSD	#	CPUE	RSD	#	CPUE	RSD	%	#	CPUE
Largemouth Bass	1998	EL	12	5	1.7	<b>4.8</b>	21	7	<b>11</b>	87	29	<b>48</b>	71	24	<b>39</b>	2	0.7	<b>1</b>				<b>88</b>	186	62
	1999	EL	19	14	3	<b>7.1</b>	5	0.7	<b>2</b>	74	11	<b>40</b>	102	15	<b>56</b>	2	11	<b>1</b>				<b>97</b>	198	41.7
	2000	EL	12	9	2.9	<b>6</b>	23	7.5	<b>17</b>	31	10	<b>23</b>	78	25	<b>59</b>	1	0.3	<b>1</b>				<b>83</b>	142	46.3
	2001	EL	9	26	11	<b>17</b>	54	23	<b>52</b>	39	17	<b>30</b>	36	15	<b>28</b>	0	0	<b>0</b>				<b>75</b>	155	66.3
	2002	EL	15	42	11	<b>17</b>	75	19	<b>37</b>	69	18	<b>34</b>	57	15	<b>28</b>	1	0.6	<b>1</b>				<b>63</b>	244	63.2
	2003	EL	10	23	9	<b>12</b>	38	15	<b>23</b>	68	26	<b>42</b>	57	21	<b>35</b>	0	0	<b>0</b>				<b>77</b>	186	71
	2004	EL	14	0	0	<b>0</b>	13	39	<b>9</b>	48	13	<b>34</b>	79	22	<b>56</b>	1	0.3	<b>1</b>	0	0	<b>0</b>	<b>91</b>	141	39.1
	2005	EL	14	11	3.1	<b>5</b>	27	7.6	<b>14</b>	75	21	<b>38</b>	93	26	<b>47</b>	2	0.6	<b>1</b>	0	0	<b>0</b>	<b>86</b>	208	58.8
2006	EL	14	13	3.7	<b>10</b>	14	4	<b>11</b>	30	8.5	<b>25</b>	76	22	<b>62</b>	2	0.6	<b>2</b>	0	0	<b>0</b>	<b>89</b>	135	38.4	
Smallmouth Bass	1998	EL	12	6	1.7	<b>11</b>	16	5.3	<b>30</b>	15	5	<b>31</b>	15	5	<b>31</b>	2	0.6	<b>4</b>	0	0	<b>0</b>	<b>67</b>	53	17.7
	1999	EL	19	8	1.2	<b>5</b>	29	4.3	<b>18</b>	36	5.3	<b>23</b>	62	9.2	<b>41</b>	24	3.6	<b>16</b>	0.3	1		<b>81</b>	161	23.9
	2000	EL	12	4	1.3	<b>7</b>	8	2.6	<b>15</b>	14	4.6	<b>25</b>	26	8.5	<b>47</b>	7	2.3	<b>13</b>				<b>85</b>	59	19.9
	2001	EL	9	1	0.4	<b>4</b>	15	6.4	<b>56</b>	8	3.4	<b>30</b>	3	1.2	<b>11</b>		0.4					<b>44</b>	28	11.9
	2002	EL	17	3	0.8	<b>5</b>	15	3.8	<b>29</b>	8	2.1	<b>15</b>	14	3.6	<b>27</b>	14	3.5	<b>27</b>	0.3	2		<b>71</b>	55	14.1
	2003	EL	10	1	0.4	<b>5</b>	4	1.6	<b>19</b>	4	1.5	<b>19</b>	11	3.8	<b>52</b>	2	0.8	<b>10</b>				<b>81</b>	22	8.1
	2004	EL	14	0	0	<b>0</b>	14	3.8	<b>22</b>	11	3.1	<b>17</b>	27	7.5	<b>46</b>	10	2.8	<b>16</b>	1	0.3	<b>2</b>	<b>81</b>	63	17.5
	2005	EL	14	8	2.3	<b>11</b>	34	9.6	<b>51</b>	16	4.5	<b>24</b>	9	2.5	<b>13</b>	8	2.3	<b>12</b>	0	0	<b>0</b>	<b>49</b>	75	21.2
2006	EL	14	3	0.9	<b>7</b>	13	3.7	<b>34</b>	10	2.8	<b>26</b>	6	1.7	<b>16</b>	8	2.3	<b>21</b>	1	0	<b>3</b>	<b>66</b>	41	11.6	

Table 5. Striped bass and Cherokee bass catch; mean catch per unit effort and relative stock density by RSD category in Boone Reservoir 2006.

Species	Year	Gear	Number of Samples	RSD Substock			RSD Stock - Quality			RSD Quality - Preferred			RSD Preferred-Memorable			RSD Memorable-Trophy			RSD Trophy			PSD	Total	
				#	CPUE	RSD	#	CPUE	RSD	#	CPUE	RSD	#	CPUE	RSD	#	CPUE	RSD	#	CPUE	RSD	%	#	CPUE
				Striped Bass	2003	GN	20	6	0.3	<b>8</b>	62	3.1	<b>91</b>	5	0.3	<b>7</b>	0	0	<b>0</b>	1	0.1	<b>1</b>	0	0
Bass	2004	GN	20	4	0.2	<b>17</b>	9	0.5	<b>47</b>	7	0.4	<b>37</b>	1	0.1	<b>5</b>	2	0.1	<b>11</b>	0	0	<b>0</b>	<b>53</b>	23	1.15
	2005	GN	20	1	0.1	<b>8</b>	8	0.4	<b>67</b>	4	0.2	<b>33</b>	0	0	<b>0</b>	0	0	<b>0</b>	0	0	<b>0</b>	<b>33</b>	13	0.65
	2006	GN	20	0	0	<b>0</b>	6	0.3	<b>60</b>	4	0.2	<b>40</b>	0	0	<b>0</b>	0	0	<b>0</b>	0	0	<b>0</b>	<b>40</b>	10	0.5
Cherokee Bass	2003	GN	20	1	0.1	<b>1</b>	9	0.5	<b>10</b>	40	2.9	<b>44</b>	25	1.3	<b>27</b>	16	0.8	<b>18</b>	0	0	<b>0</b>	<b>89</b>	92	4.6
	2004	GN	20	0	0	<b>0</b>	1	0.1	<b>2</b>	15	0.8	<b>35</b>	15	0.8	<b>35</b>	12	0.6	<b>28</b>	0	0	<b>0</b>	<b>98</b>	43	2.15
	2005	GN	20	2	0.1	<b>4</b>	11	0.6	<b>23</b>	11	0.6	<b>23</b>	5	0.3	<b>11</b>	15	0.8	<b>32</b>	5	0.3	<b>11</b>	<b>77</b>	49	2.5
	2006	GN	20	0	0	<b>0</b>	12	0.6	<b>22</b>	16	0.8	<b>29</b>	19	1	<b>35</b>	7	0.4	<b>13</b>	1	0.1	<b>2</b>	<b>78</b>	55	2.75

Table 6. Largemouth bass mean relative weights (Wr) in Boone Reservoir, spring 2006.

<b>Length Group</b>	<b>Mean Wr</b>	<b>Std. Error</b>	<b>N</b>
150	95.9	7.8	7
175	81.3	4.7	3
200	94.2	8.3	3
225	90.9	3.4	2
250	89.1	3.3	2
275	87.3	1.8	7
300	91.9	1.8	3
325	93.9	1.9	10
350	85.8	2.5	16
375	90.1	2.8	13
400	94.5	2.0	21
425	94.9	1.8	14
450	97.8	2.1	15
475	101.1	2.9	10
500	97.7	0.7	6
525			0
<b>Total =</b>			<b>132</b>

Table 7. Smallmouth bass mean relative weights in Boone Reservoir, spring 2006.

<b>Length Group</b>	<b>Mean Wr</b>	<b>Std. Error</b>	<b>N</b>
150			0
175	87.7	5.1	4
200	90.6	4.4	3
225	88.7	0.5	2
250	88.7	4.9	4
275	91.7	1.7	3
300	79.9	2.6	6
325	81.1	4.5	2
350	93.8	11.1	2
375	84.1	1.8	2
400	85.4	0.9	2
425	78.1	3.2	2
450	81.0	2.8	4
475	74.4	1.7	2
500	75.1		1
525			0
550			0
<b>Total =</b>			<b>39</b>

Table 8. Geometric mean density of the clupeid catch in experimental gill nets from South Holston and Boone Reservoirs 2001 - 2006.

<b>Reservoir</b>	<b>Species</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
South Holston	Threadfin Shad	9.4	29.7	5.5	4	3.9	2.7
	Gizzard Shad	4.2	3.2	4	2.2	3.1	1.3
	Alewife	42.4	3.5	8.2	1.8	0.2	0.2
Boone	Threadfin Shad	2.5	22.2	0.03	1.5	15.9	11.2
	Gizzard Shad	46.1	32.7	14.4	42.3	26.1	25.9
	Alewife	52.3	4.6	107.3	2.9	2.4	2.4

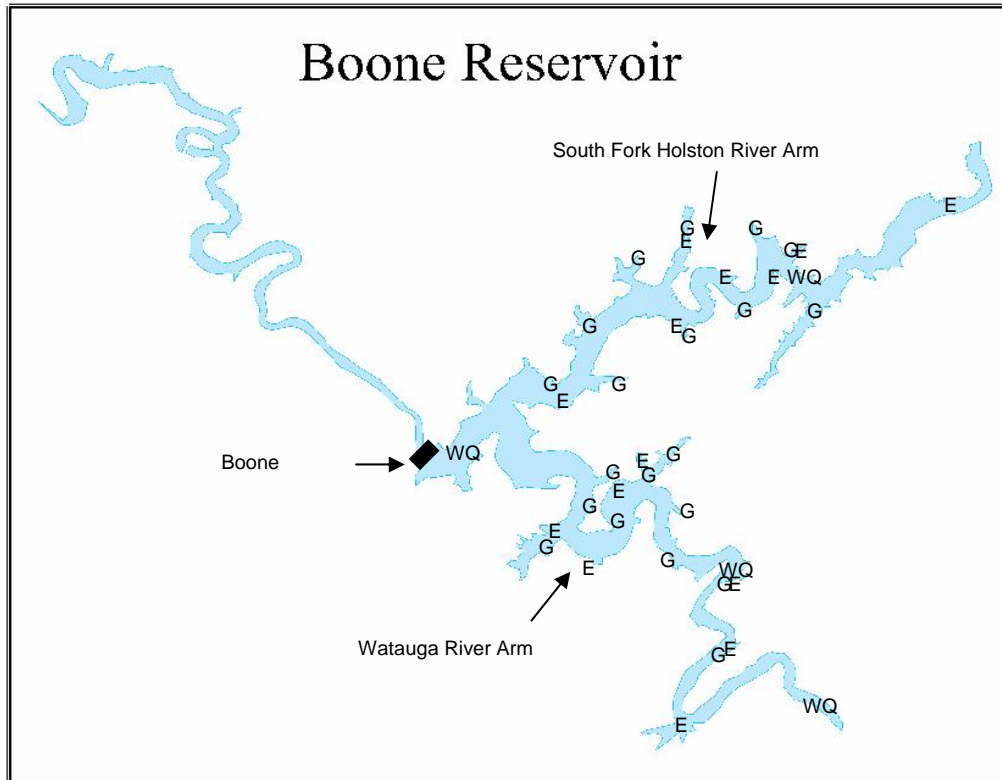
Table 9. Boone Reservoir fish habitat enhancement summary for 2006.

<b>Location</b>	<b>New Sites</b>			<b>Renovated Sites</b>			<b>Expanded Sites</b>		
	<b>Number</b>	<b>Units</b>	<b>Acres</b>	<b>Number</b>	<b>Units</b>	<b>Acres</b>	<b>Number</b>	<b>Units</b>	<b>Acres</b>
SFHRM 20.50 R*				1	45	0.90			
SFHRM 19.50 R*				1	198	3.96			
SFHRM 19.50 R*				1	42	0.84			
WRM 0.75 L*				1	40	0.80			
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>325</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>

\*Christmas Trees

## Figures

Figure 1. Sites sampled on Boone Reservoir in 2006.



E = Electrofishing  
G = Gill Netting  
WQ = Water Quality

## Largemouth Bass

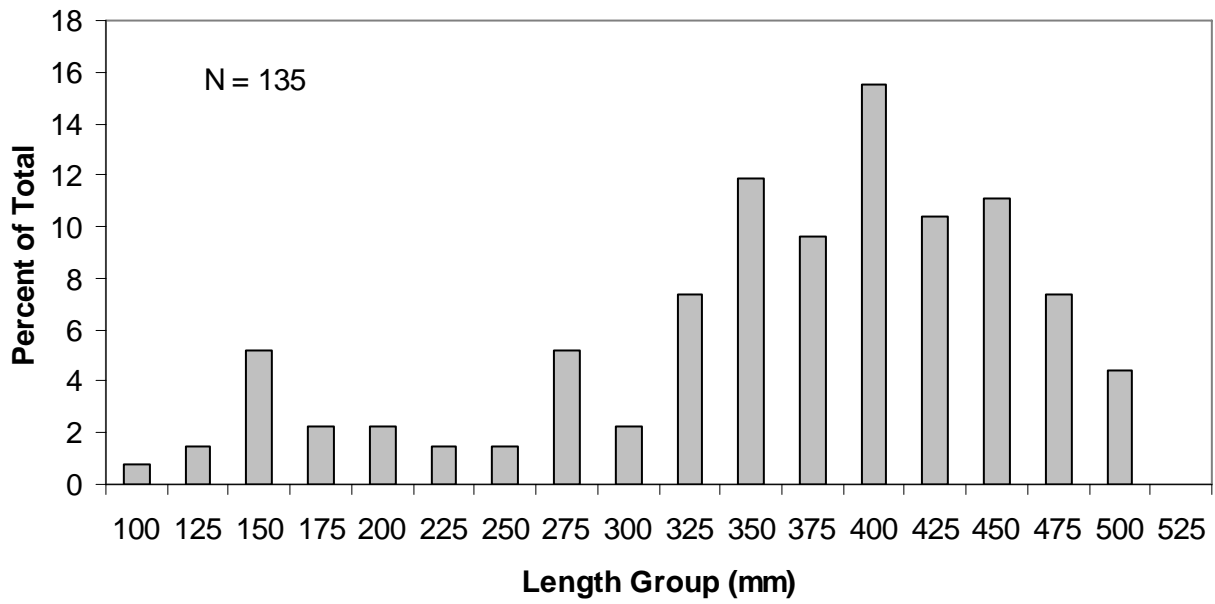


Figure 2. Largemouth bass length frequency by percent in Boone Reservoir, spring 2006.

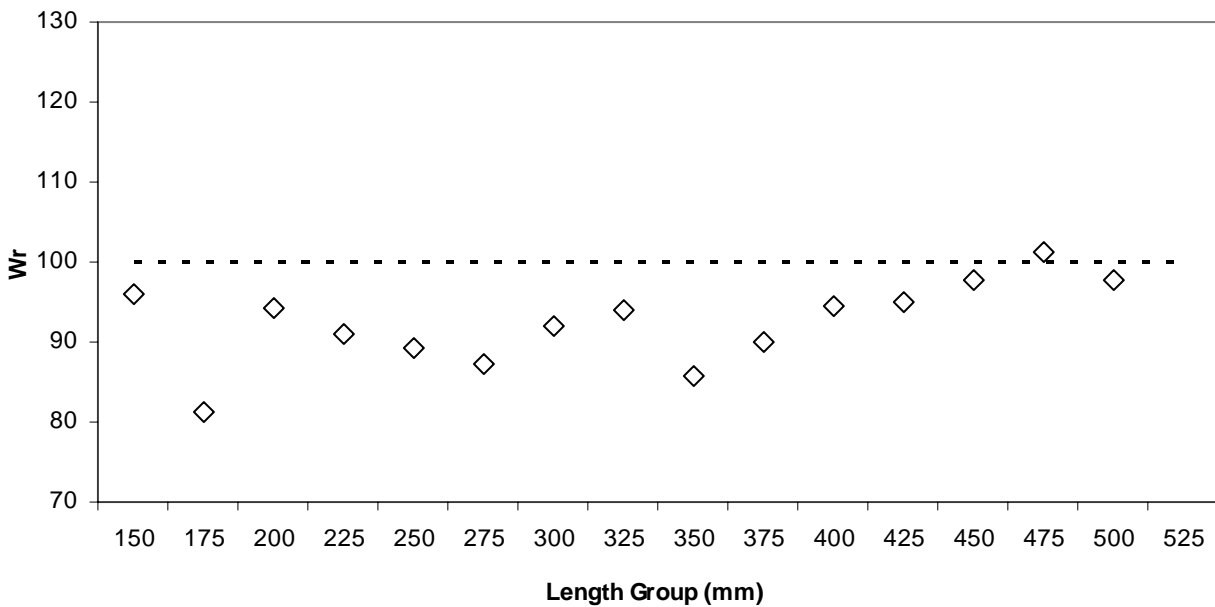


Figure 3. Largemouth bass mean relative weights ( $W_r$ ) in Boone Reservoir, spring 2006.

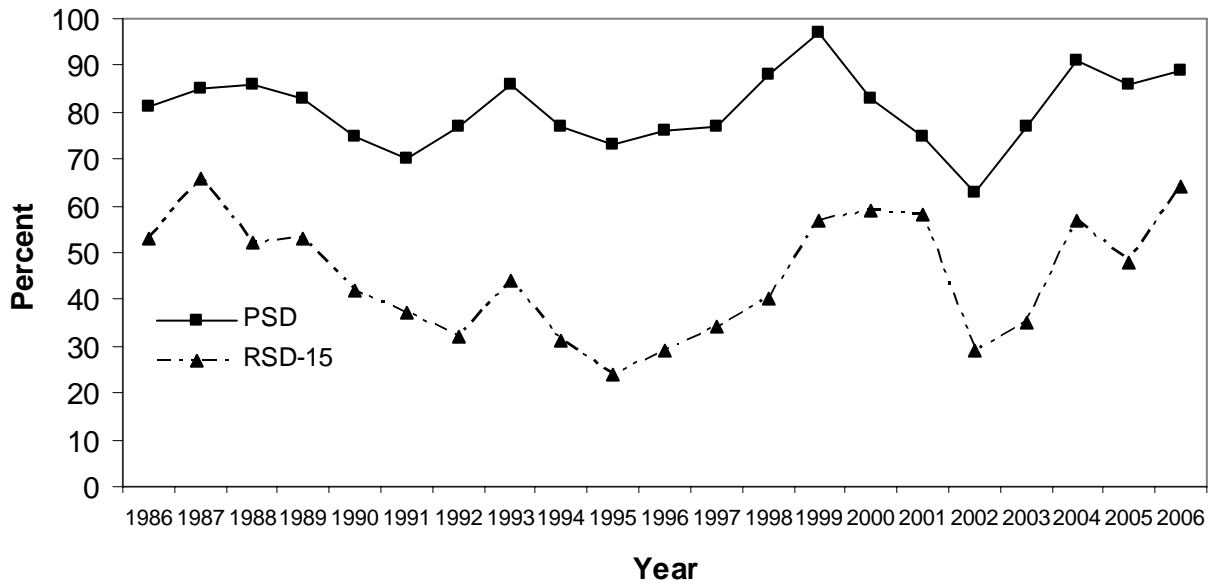


Figure 4. Largemouth bass traditional PSD and RSD-15 values in Boone Reservoir 1986 – 2006.

### ***Smallmouth Bass***

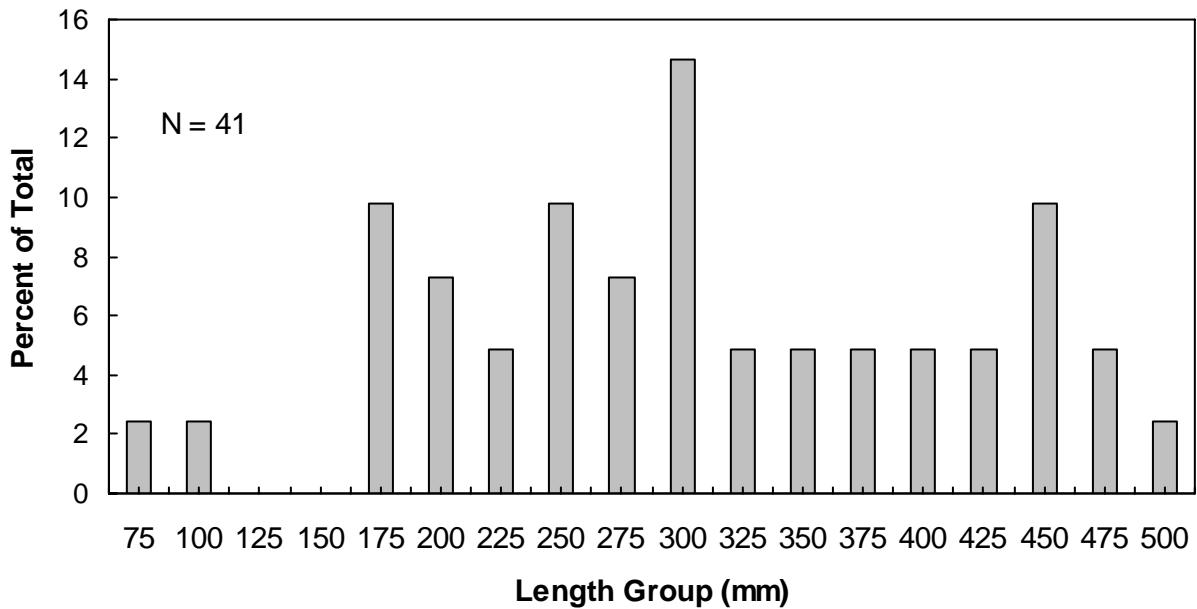


Figure 5. Smallmouth bass length frequency by percent in Boone Reservoir, spring 2006.

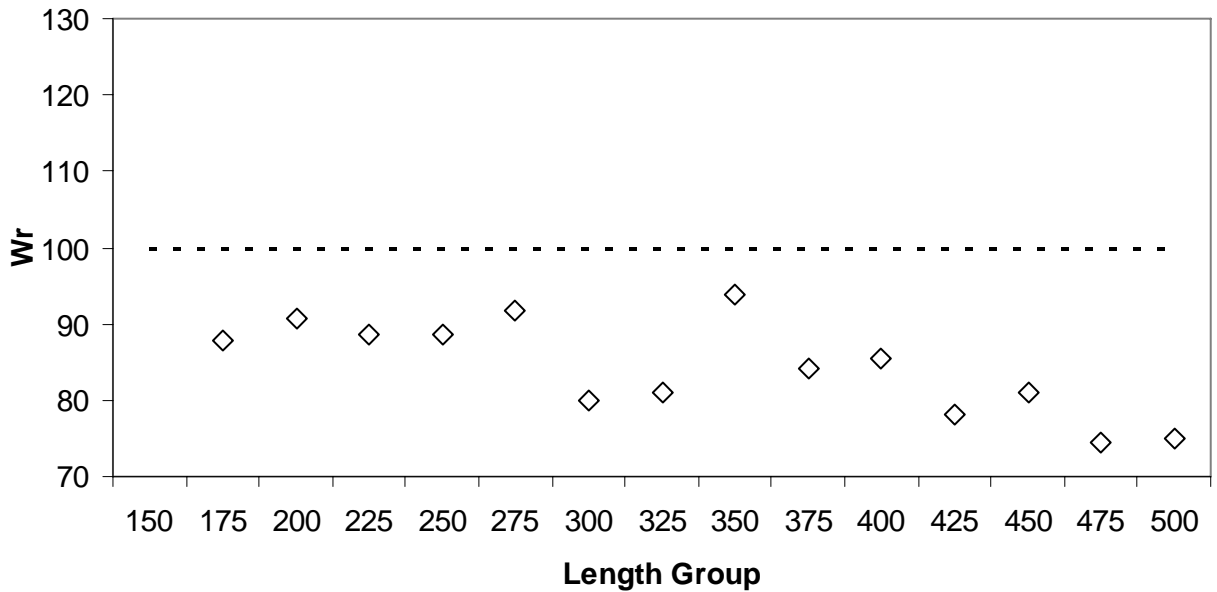


Figure 6. Smallmouth bass mean relative weights (Wr) in Boone Reservoir, spring 2006.

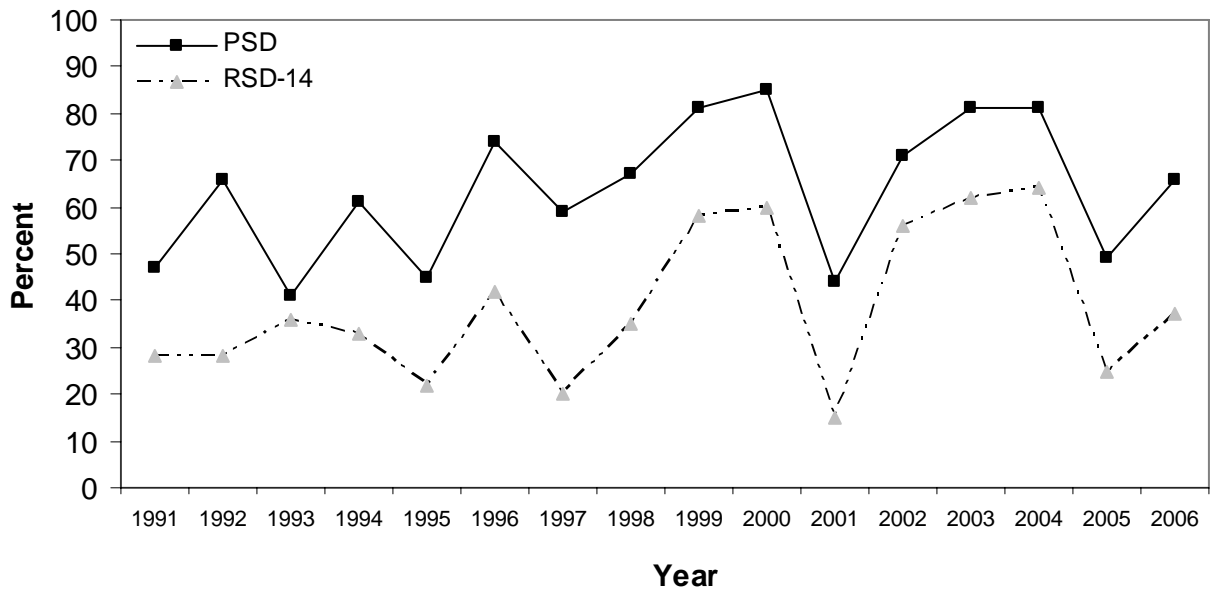


Figure 7. Smallmouth bass traditional PSD and RSD-14 values in Boone Reservoir 1991 – 2006.

**Striped Bass**

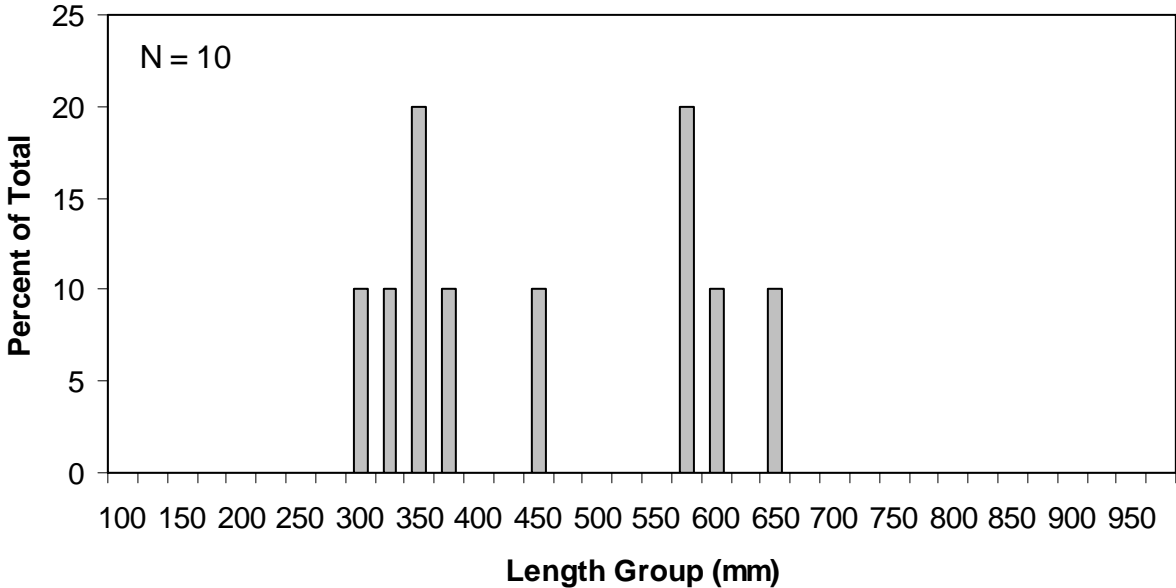


Figure 8. Striped bass length frequency in Boone Reservoir, summer 2006.



Figure 9. Striped Bass mean length at age in Boone Reservoir, September 2006.

## Cherokee Bass

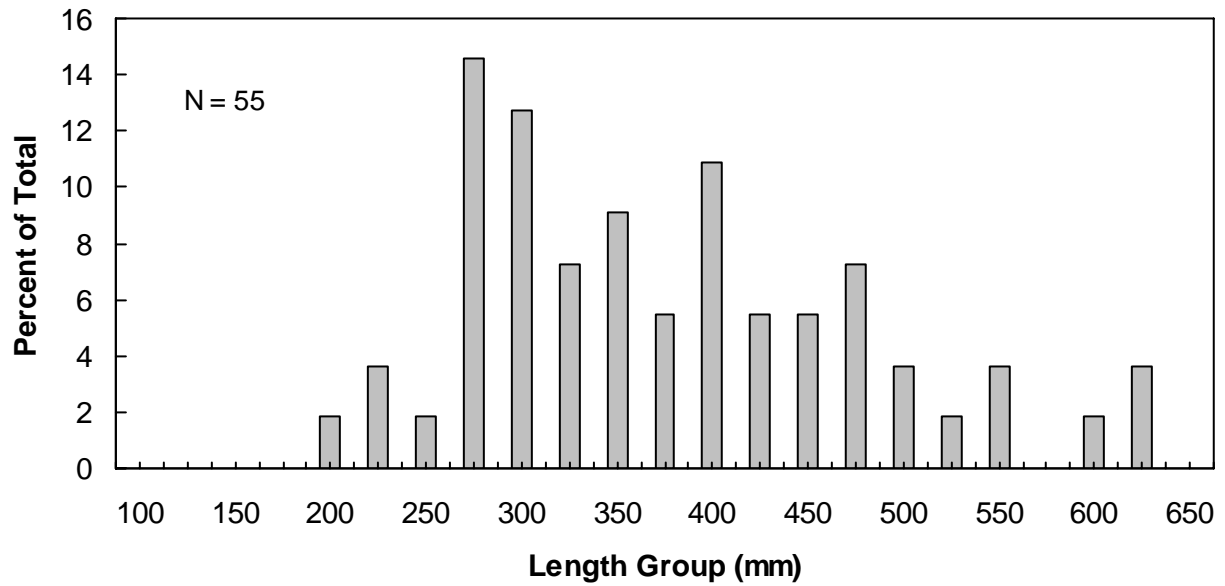


Figure 10. Cherokee bass length frequency by percent in Boone Reservoir, Summer 2006.



Figure 11. Cherokee Bass mean length at age in Boone Reservoir, September 2006.

**Clupeid Species**

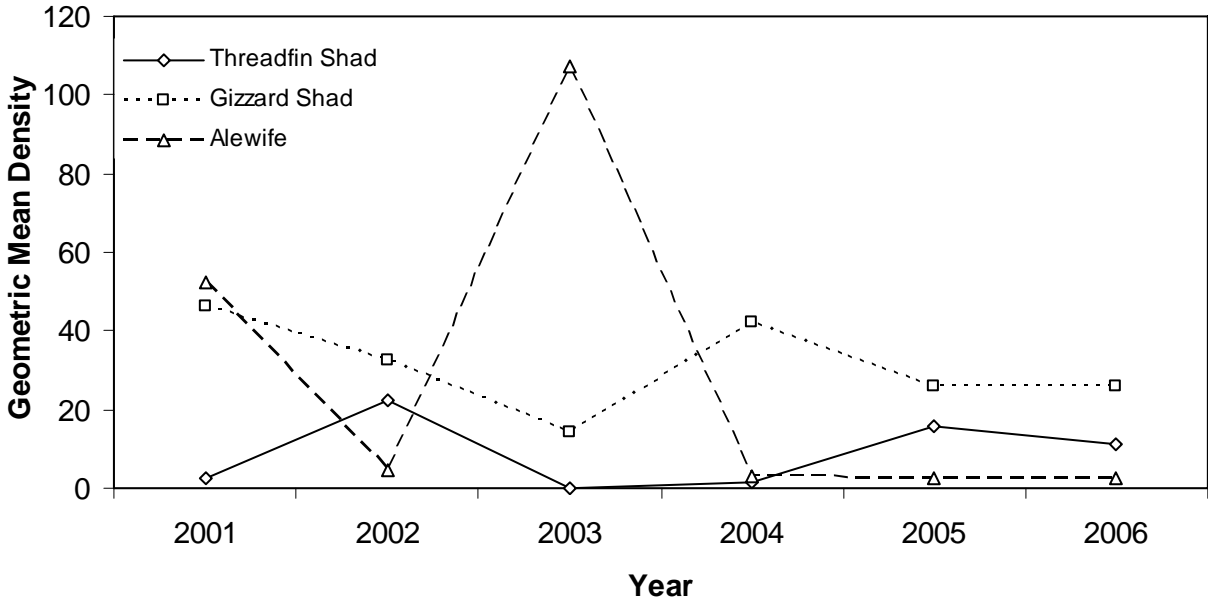


Figure 12. Geometric mean density of the clupeid catches in experimental gill nets from Boone Reservoir 2001 - 2006

Appendix A  
Water Quality

Table A1. Boone Reservoir, water quality data at SFHRM 19, July 10, 2006.

<b>Depth (m)</b>	<b>Temp (C)</b>	<b>Cond</b>	<b>DO</b>	<b>Site</b>	<b>Secchi (m)</b>	<b>Time</b>
0	25.9	346	11.3	SFHRM19	1.5	9:39
1	25.9	347	11.4			
2	25.9	347	11.4			
3	25.1	354	11.4			
4	22.3	367	9.6			
5	20.5	370	5.0			
6	19.3	364	3.3			
7	18.6	354	3.5			
8	18.1	347	3.4			
9	17.7	341	3.5			
10	17.4	337	3.7			
11	17.2	331	4.2			
12	16.9	327	4.5			
13	16.8	324	4.6			
14	16.4	327	4.3			
15	16.3	337	3.1			
16	16.2	340	3.0			
17	16.0	342	3.0			
18	15.7	329	3.8			
19	15.5	332	4.2			
20	15.4	314	4.3			
21	15.3	311	4.4			
22	15.1	308	4.4			
23	14.9	306	4.4			
24	14.8	305	4.3			
25	14.6	305	4.1			
26	14.3	296	3.0			
27	14.2	309	2.9			
28	14.1	311	2.9			
29	13.9	326	3.0			
30	13.9	346	6.9			

Table A2. Boone Reservoir, water quality data at SFHRM 26, July 10, 2006.

Depth (m)	Temp (C)	Cond	DO	Site	Secchi (m)	Time
0	26.3	347	10.8	SFHRM26	1.1	10:30
1	26.0	349	10.9			
2	26.0	348	10.9			
3	25.8	352	10.6			
4	23.3	398	6.1			
5	21.5	398	1.4			
6	19.9	382	0.4			
7	19.0	351	0.3			
8	18.4	345	0.2			
9	17.9	352	0.1			
10	17.7	358	0.1			
11	17.2	369	1.2			
12	16.9	369	3.3			
13	16.7	365	4.6			
14	16.5	363	5.1			
15	16.3	359	6.2			
16	15.8	357	6.9			
17	15.0	351	9.1			
18	14.3	347	9.8			
19	13.9	346	10.1			
20	13.8	345	10.1			
21	13.6	344	10.0			
22	Bottom					
23						
24						
25						
26						
27						
28						
29						
30						

Table A3. Boone Reservoir, water quality data at WRM 6, July 10, 2006.

<b>Depth (m)</b>	<b>Temp (C)</b>	<b>Cond</b>	<b>DO</b>	<b>Site</b>	<b>Secchi (m)</b>	<b>Time</b>
0	26.8	319	11.2	WRM6	1.0	11:30
1	26.1	321	11.4			
2	26.0	319	11.5			
3	24.5	330	8.7			
4	21.5	322	7.3			
5	19.7	303	7.9			
6	18.9	297	7.8			
7	18.2	295	8.0			
8	17.9	292	8.0			
9	17.6	290	8.2			
10	17.2	286	8.4			
11	17.0	285	8.4			
12	16.8	284	8.4			
13	16.7	281	8.2			
14	16.5	281	8.2			
15	16.2	279	8.2			
16	16.0	278	8.2			
17	15.8	277	8.3			
18	15.6	275	7.9			
19	15.5	275	7.8			
20	15.3	275	6.8			
21	15.3	276	5.9			
22	Bottom					
23						
24						
25						
26						
27						
28						
29						
30						

Table A4. Boone Reservoir, water quality data at WRM 11, July 10, 2006.

Depth (m)	Temp (C)	Cond	DO	Site	Secchi (m)	Time
0	26.9	361	11.3	WRM11	1.0	12:40
1	26.6	357	11.3			
2	25.4	357	10.9			
3	22.3	352	11.3			
4	18.7	334	10.7			
5	17.2	334	11.0			
6	15.2	319	10.7			
7	14.7	310	10.6			
8	14.6	306	10.5			
9	14.2	302	10.5			
10	Bottom					
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

Table A5. Boone Reservoir, water quality data at SFHRM 19, August 3, 2006

<b>Depth (m)</b>	<b>Temp (C)</b>	<b>Cond</b>	<b>DO</b>	<b>Site</b>	<b>Secchi (m)</b>	<b>Time</b>
0	28.5	364	10.1	SFHRM19	1.6	8:40
1	28.5	367	10.0			
2	27.8	366	11.5			
3	24.1	380	11.0			
4	22.5	379	9.0			
5	20.9	378	3.6			
6	19.9	371	2.8			
7	18.6	361	2.8			
8	18.2	354	2.7			
9	17.9	344	3.9			
10	17.5	338	4.6			
11	17.2	334	5.2			
12	17.0	330	5.6			
13	16.7	329	5.7			
14	16.5	328	5.8			
15	16.3	325	6.0			
16	16.1	323	6.1			
17	15.8	321	6.2			
18	15.7	322	6.0			
19	15.4	320	5.6			
20	15.2	320	5.1			
21	15.0	331	4.7			
22	14.8	333	4.3			
23	14.7	369	5.0			
24	14.4	380	5.8			
25	14.2	389	7.3			
26	14.0	390	7.2			
27	13.9	389	7.7			
28	13.7	389	7.9			
29	13.6	389	8.0			
30	13.6	388	7.9			

Table A6. Boone Reservoir, water quality data at SFHRM 26, August 3, 2006.

Depth (m)	Temp (C)	Cond	DO	Site	Secchi (m)	Time
0	29.3	391	9.5	SFHRM26	1.7	11:20
1	28.9	392	9.8			
2	28.4	394	10.5			
3	25.8	420	9.9			
4	23.4	439	5.8			
5	21.4	430	2.0			
6	20.2	406	0.6			
7	18.8	388	0.2			
8	18.2	384	0.1			
9	17.9	384	0.1			
10	17.5	394	0.4			
11	17.2	399	3.2			
12	17.0	399	3.6			
13	16.7	400	5.5			
14	16.6	401	5.8			
15	16.4	401	6.1			
16	16.2	403	6.6			
17	16.0	402	7.2			
18	15.3	398	8.2			
19	15.1	397	8.4			
20	14.9	395	8.5			
21	14.8	399	6.5			
22	Bottom					
23						
24						
25						
26						
27						
28						
29						
30						

Table A7. Boone Reservoir, water quality data at WRM 6, August 3, 2006.

Depth (m)	Temp (C)	Cond	DO	Site	Secchi (m)	Time
0	28.9	352	11.5	WRM6	1.2	10:30
1	28.6	354	11.7			
2	27.4	356	12.3			
3	24.7	369	9.7			
4	22.8	368	7.5			
5	20.8	358	6.5			
6	19.6	349	7.1			
7	18.8	341	7.9			
8	18.3	338	8.1			
9	17.9	335	8.2			
10	17.5	333	8.2			
11	17.1	331	8.3			
12	16.7	330	8.3			
13	16.6	329	8.0			
14	16.3	327	8.1			
15	16.0	324	8.4			
16	15.7	322	8.6			
17	15.5	322	8.5			
18	15.3	321	8.3			
19	15.2	322	7.8			
20	15.0	322	7.1			
21	Bottom					
22						
23						
24						
25						
26						
27						
28						
29						
30						

Table A8. Boone Reservoir, water quality data at WRM 11, August 3, 2006.

Depth (m)	Temp (C)	Cond	DO	Site	Secchi (m)	Time
0	28.3	352	12.0	WRM11	0.9	10:00
1	28.1	352	12.2			
2	24.9	361	12.1			
3	23.5	356	11.7			
4	20.9	348	11.4			
5	19.2	341	10.5			
6	18.2	332	10.1			
7	17.4	330	10.1			
8	15.4	324	9.9			
9	15.1	320	9.6			
10	Bottom					
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

Table A9. Boone Reservoir, water quality data at SFHRM 19, September 7, 2006.

Depth (m)	Temp (C)	Cond	DO	Site	Secchi (m)	Time
0	25.8	309	10.8	SFHRM19	0.9	13:45
1	24.9	310	11.2			
2	24.5	310	11.5			
3	24.4	309	11.6			
4	23.7	320	11.0			
5	21.4	332	4.7			
6	20.5	329	1.7			
7	19.6	327	1.8			
8	18.7	318	2.1			
9	18.4	317	2.3			
10	18.1	313	2.6			
11	17.7	309	3.5			
12	17.5	305	3.7			
13	17.0	297	4.9			
14	16.8	294	5.2			
15	16.6	292	5.3			
16	16.2	289	5.6			
17	16.1	286	5.8			
18	15.9	284	5.9			
19	15.7	282	6.0			
20	15.5	280	6.0			
21	15.4	280	5.8			
22	15.3	282	5.4			
23	15.1	288	4.8			
24	14.9	293	4.3			
25	14.8	311	3.9			
26	14.4	344	4.1			
27	14.3	350	5.2			
28	14.1	352	5.3			
29	14.0	353	5.4			
30	13.9	353	5.5			

Table A10. Boone Reservoir, water quality data at SFHRM 26, September 7, 2006.

Depth (m)	Temp (C)	Cond	DO	Site	Secchi (m)	Time
0	26.3	330	10.4	SFHRM26	1.0	14:30
1	24.9	335	11.0			
2	24.5	335	11.2			
3	24.2	334	11.2			
4	22.8	365	4.9			
5	21.1	385	1.1			
6	20.2	378	1.2			
7	19.4	356	0.9			
8	18.9	350	0.5			
9	18.5	349	0.4			
10	18.1	346	0.3			
11	17.8	352	0.2			
12	17.5	359	0.3			
13	17.3	361	0.4			
14	17.0	364	1.7			
15	16.8	365	2.5			
16	16.7	365	3.3			
17	16.5	363	4.4			
18	16.3	362	4.8			
19	16.2	363	4.9			
20	15.8	366	4.8			
21	Bottom					
22						
23						
24						
25						
26						
27						
28						
29						
30						

Table A11. Boone Reservoir, water quality data at WRM 6, September 7, 2006.

Depth (m)	Temp (C)	Cond	DO	Site	Secchi (m)	Time
0	24.9	312	10.8	WRM 6	0.8	13:15
1	24.8	311	10.9			
2	24.3	312	9.5			
3	23.4	324	6.8			
4	22.1	326	6.0			
5	21.0	324	6.4			
6	20.2	317	7.1			
7	19.3	311	7.5			
8	18.6	306	7.6			
9	18.2	303	7.7			
10	17.8	294	7.7			
11	17.5	292	7.7			
12	17.3	290	7.7			
13	17.1	289	7.7			
14	16.9	289	7.7			
15	16.5	286	7.7			
16	16.4	285	7.5			
17	16.3	284	7.5			
18	16.0	286	7.4			
19	15.6	286	7.2			
20	15.2	285	6.3			
21	15.0	285	5.0			
22	Bottom					
23						
24						
25						
26						
27						
28						
29						
30						

Figure A1. Boone Reservoir water quality data at SFHRM 19, July 2006.

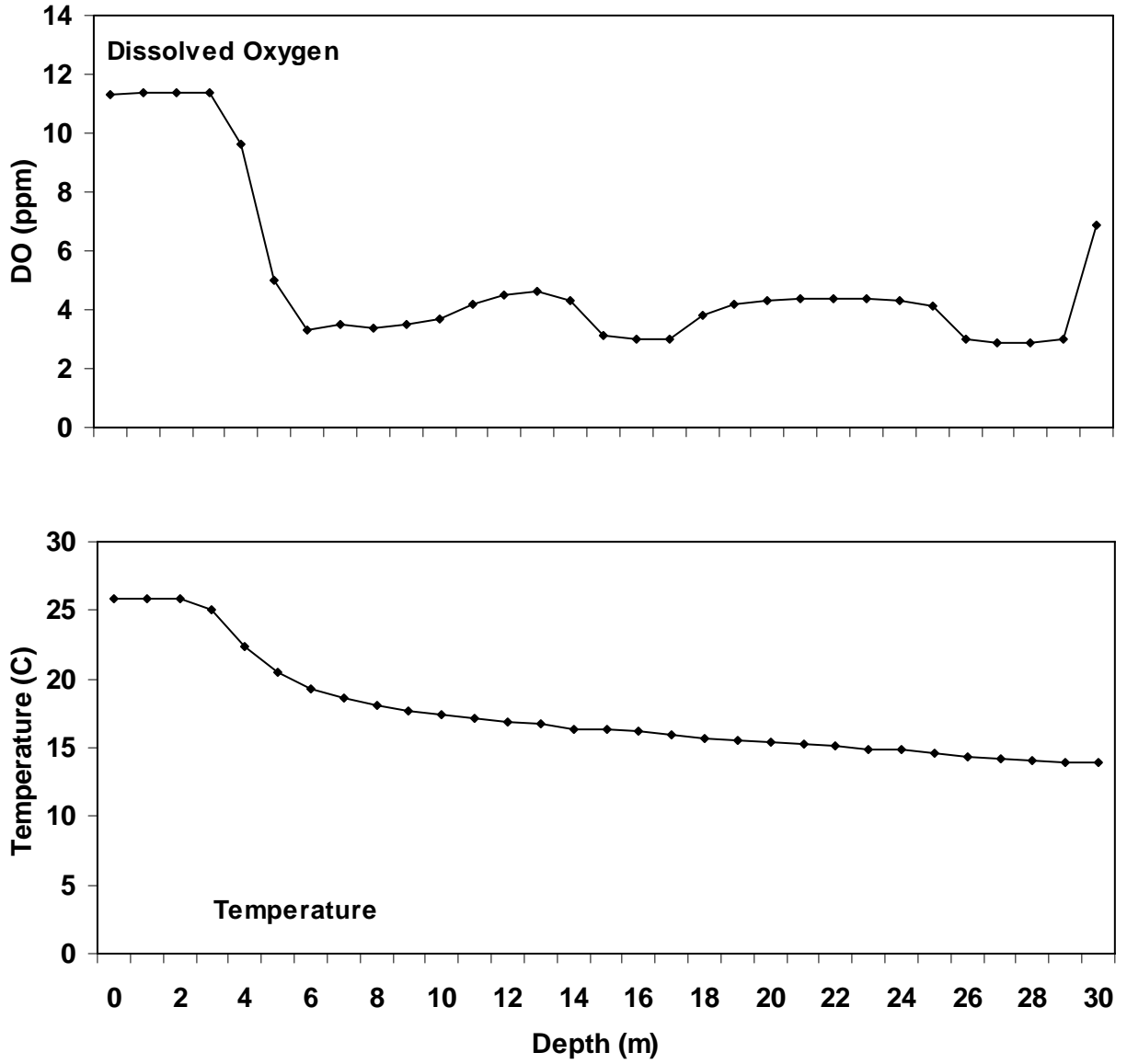


Figure A2. Boone Reservoir water quality data at SFHRM 26, July 2006.

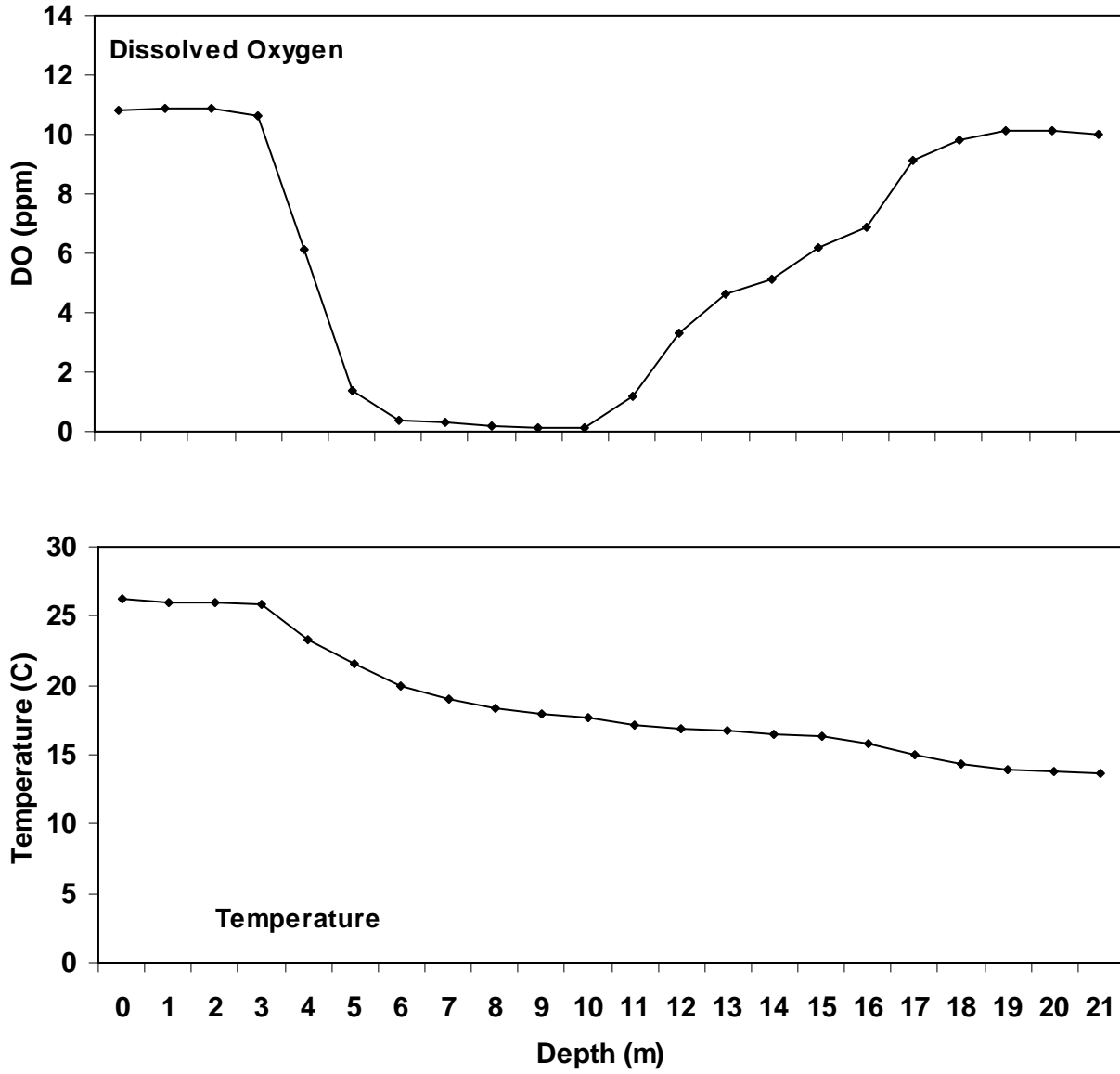


Figure A3. Boone Reservoir water quality data at WRM 6, July 2006.

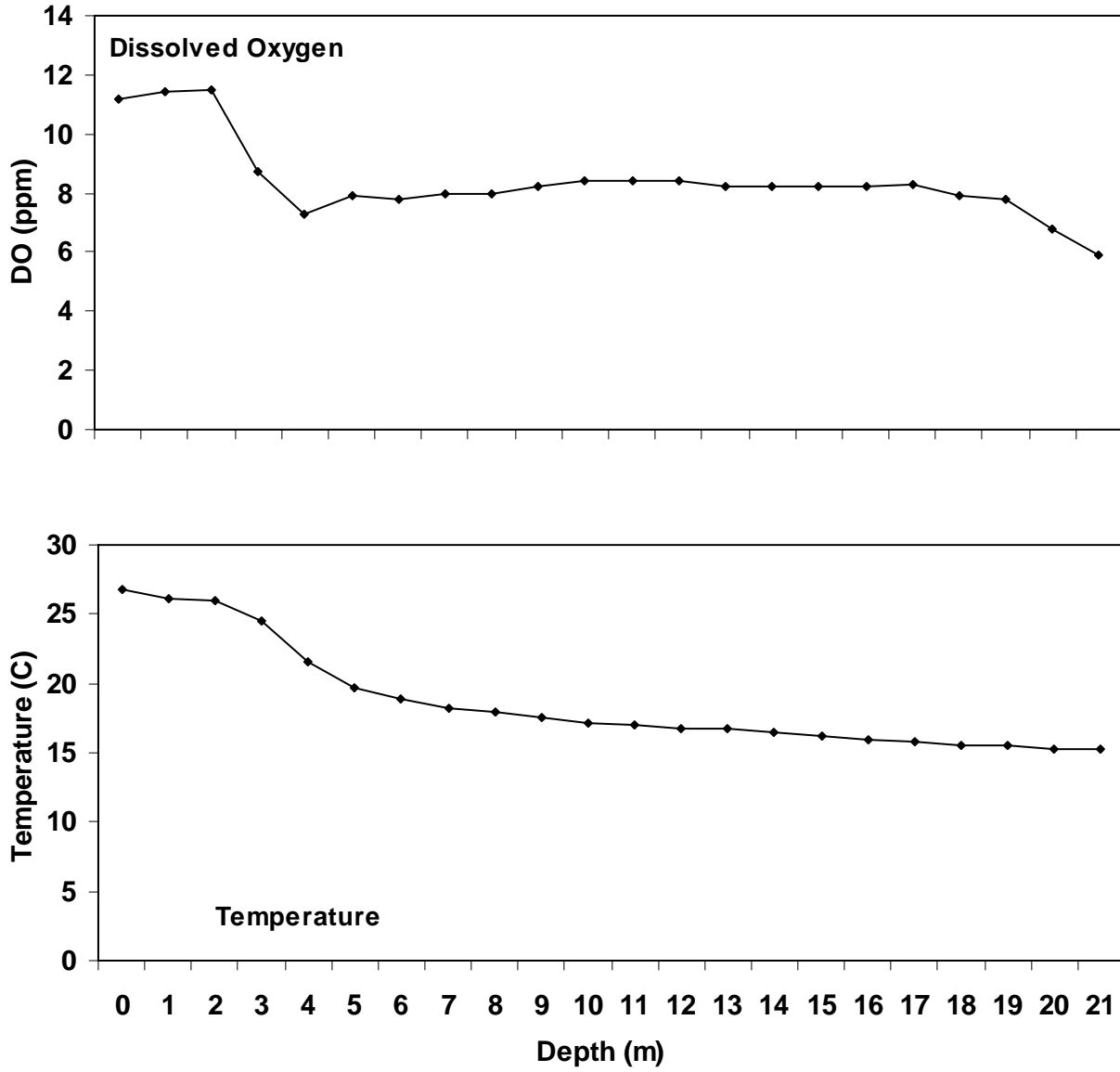


Figure A4. Boone Reservoir water quality data at WRM 11, July 2006.

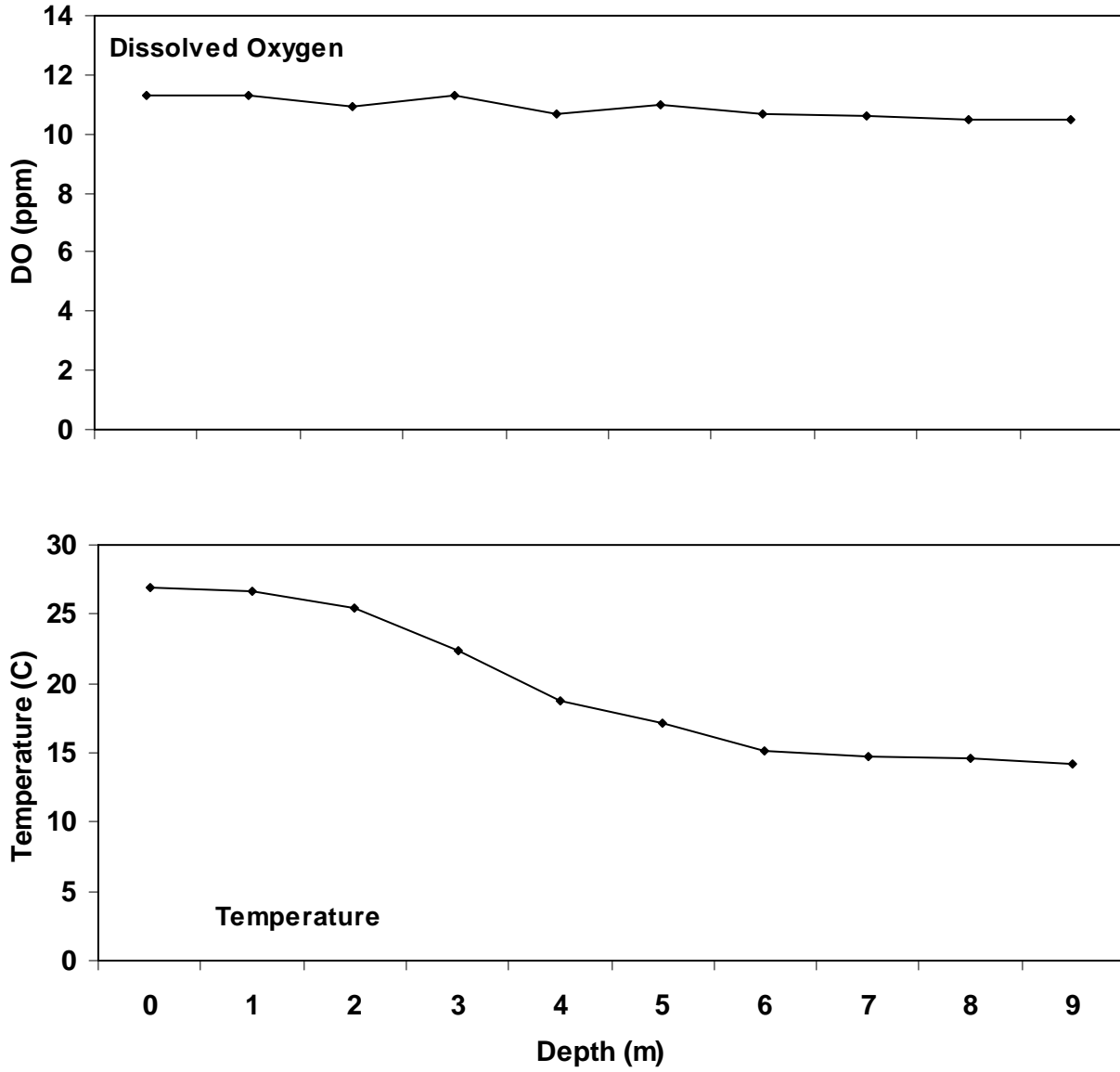


Figure A5. Boone Reservoir water quality data at SFHRM 19, August 2006.

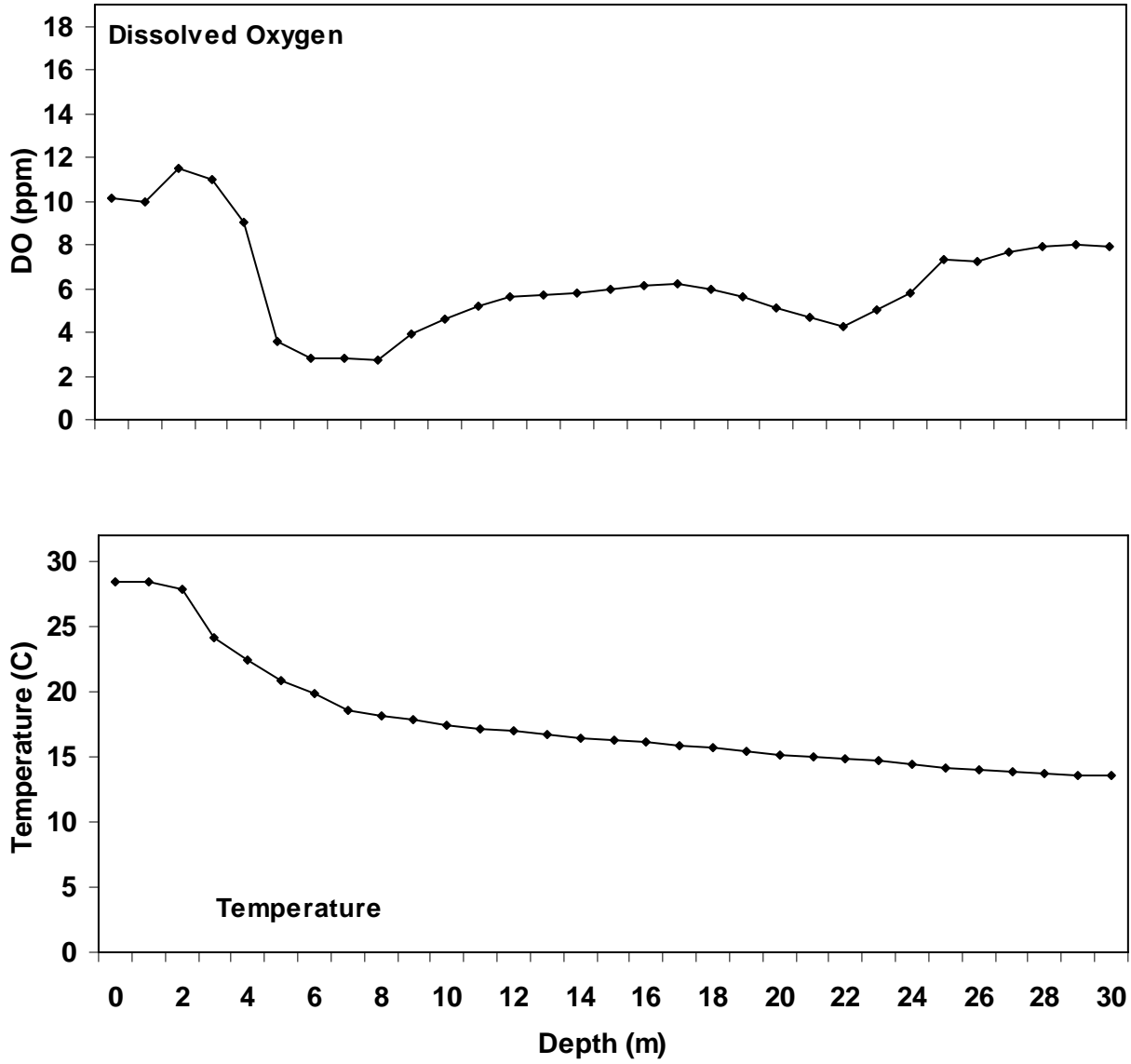


Figure A6. Boone Reservoir water quality data at SFHRM 26, August 2006.

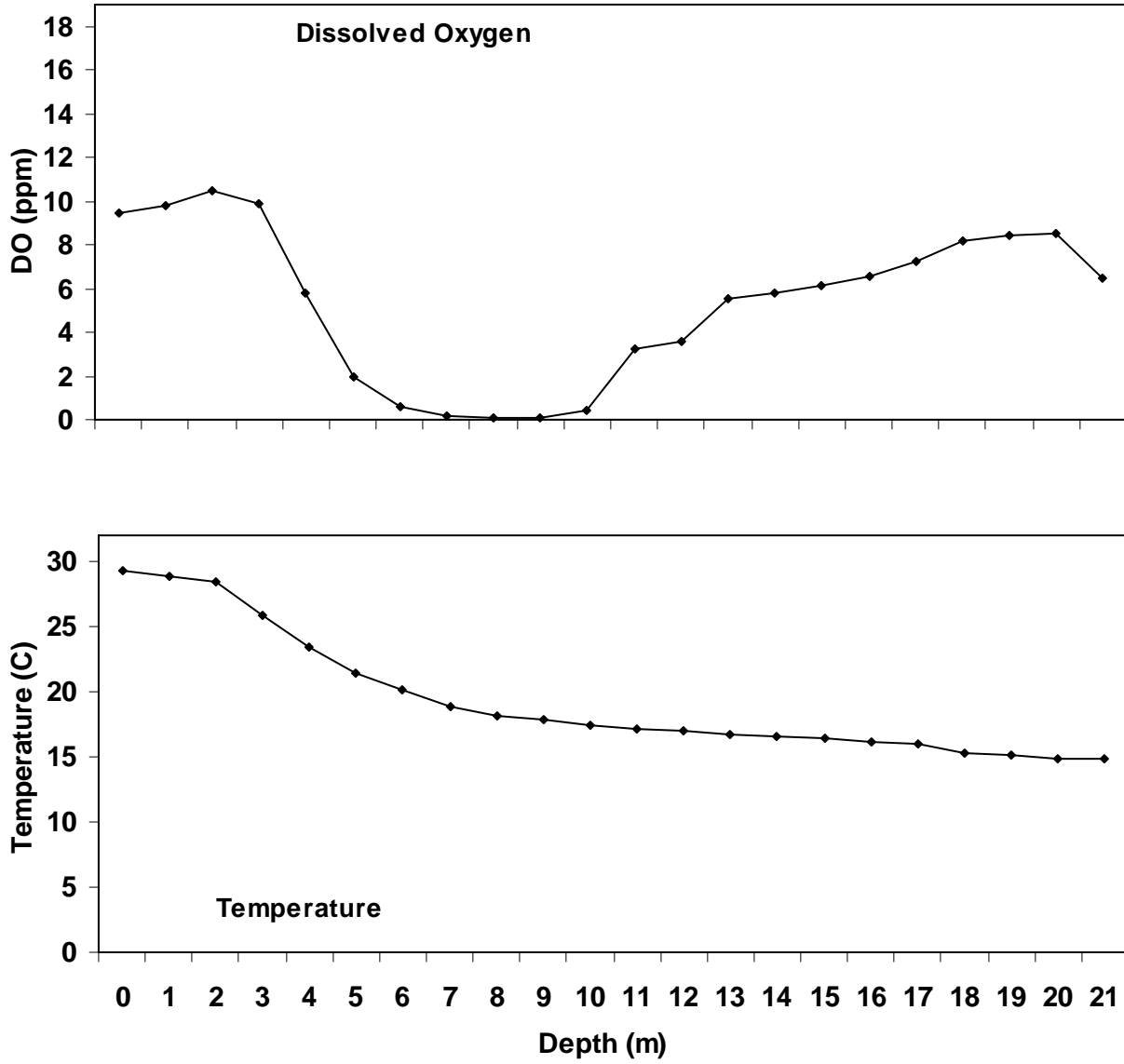


Figure A7. Boone Reservoir water quality data at WRM 6, August 2006.

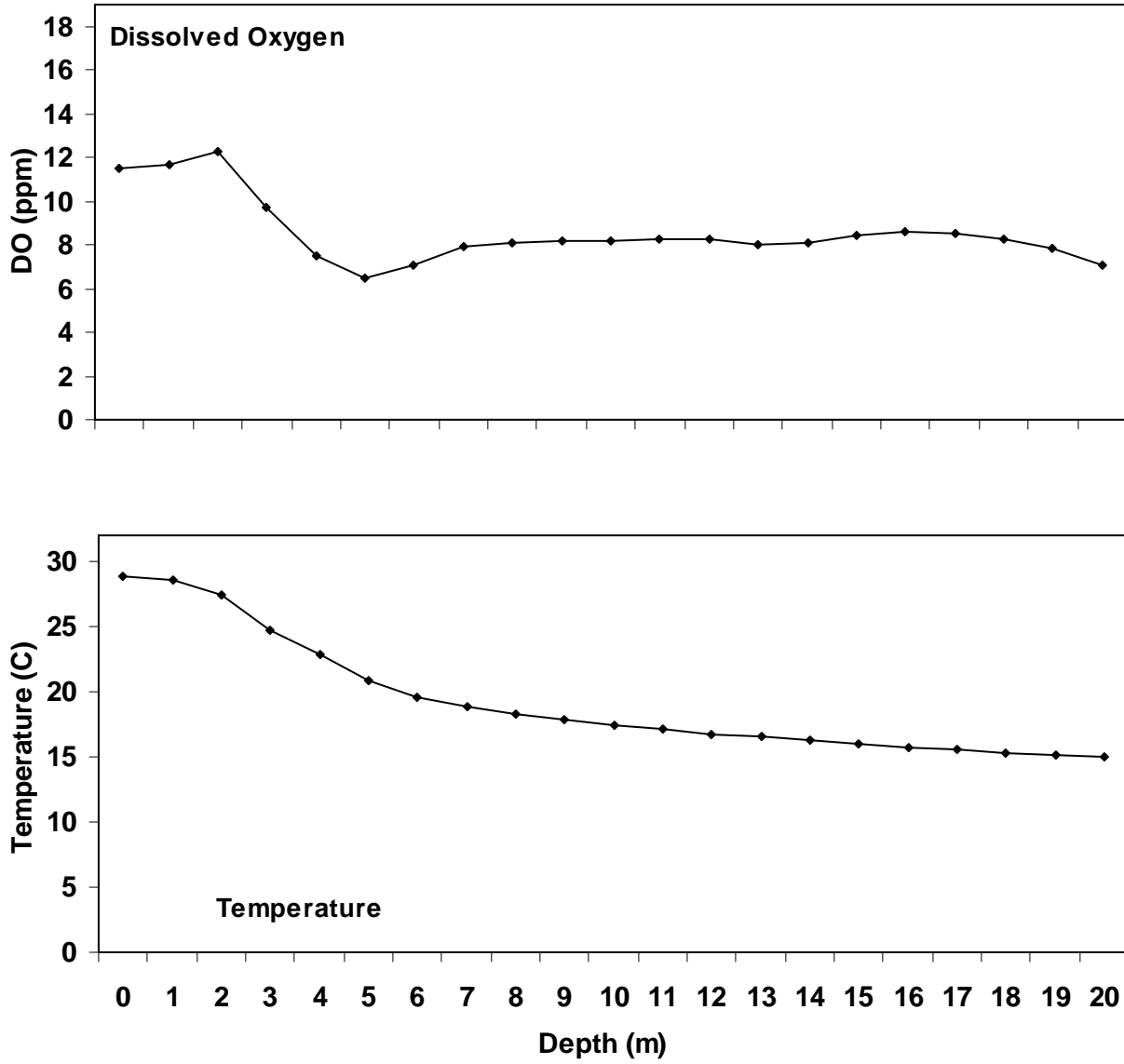


Figure A8. Boone Reservoir water quality data at WRM 11, August 2006.

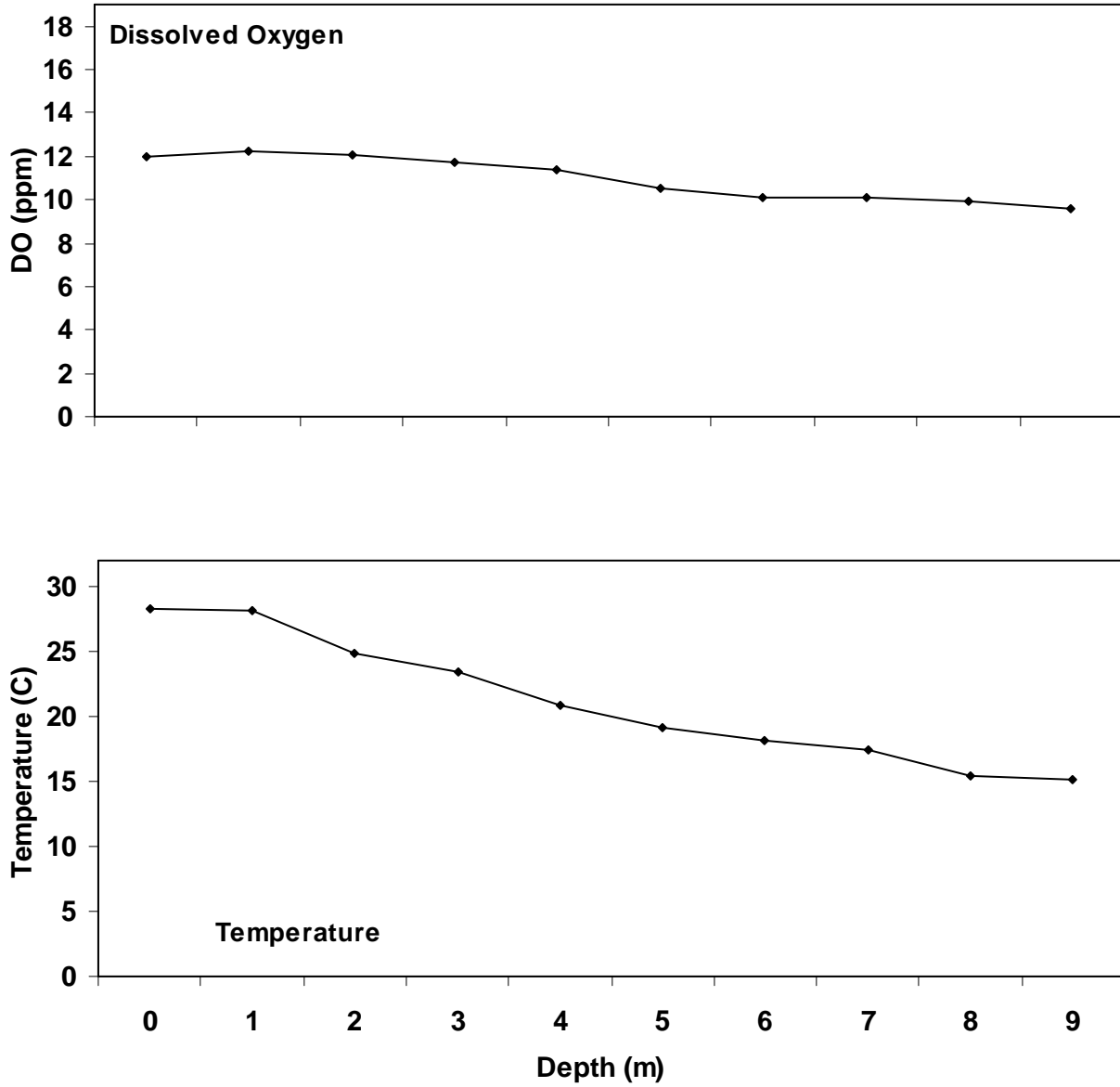


Figure A9. Boone Reservoir water quality data at SFHRM 19, September 2006.

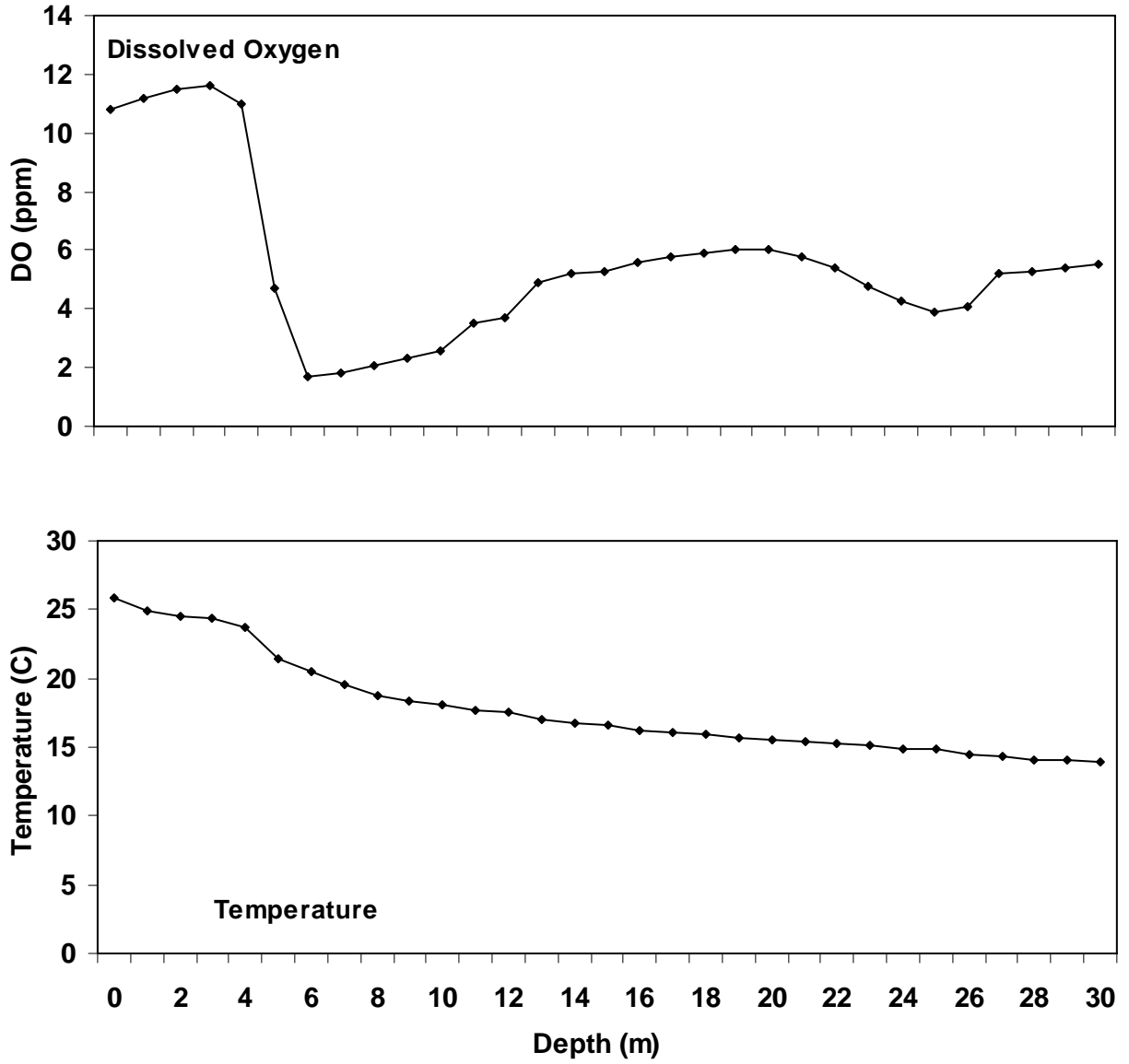


Figure A10. Boone Reservoir water quality data at SFHRM 26, September 2006.

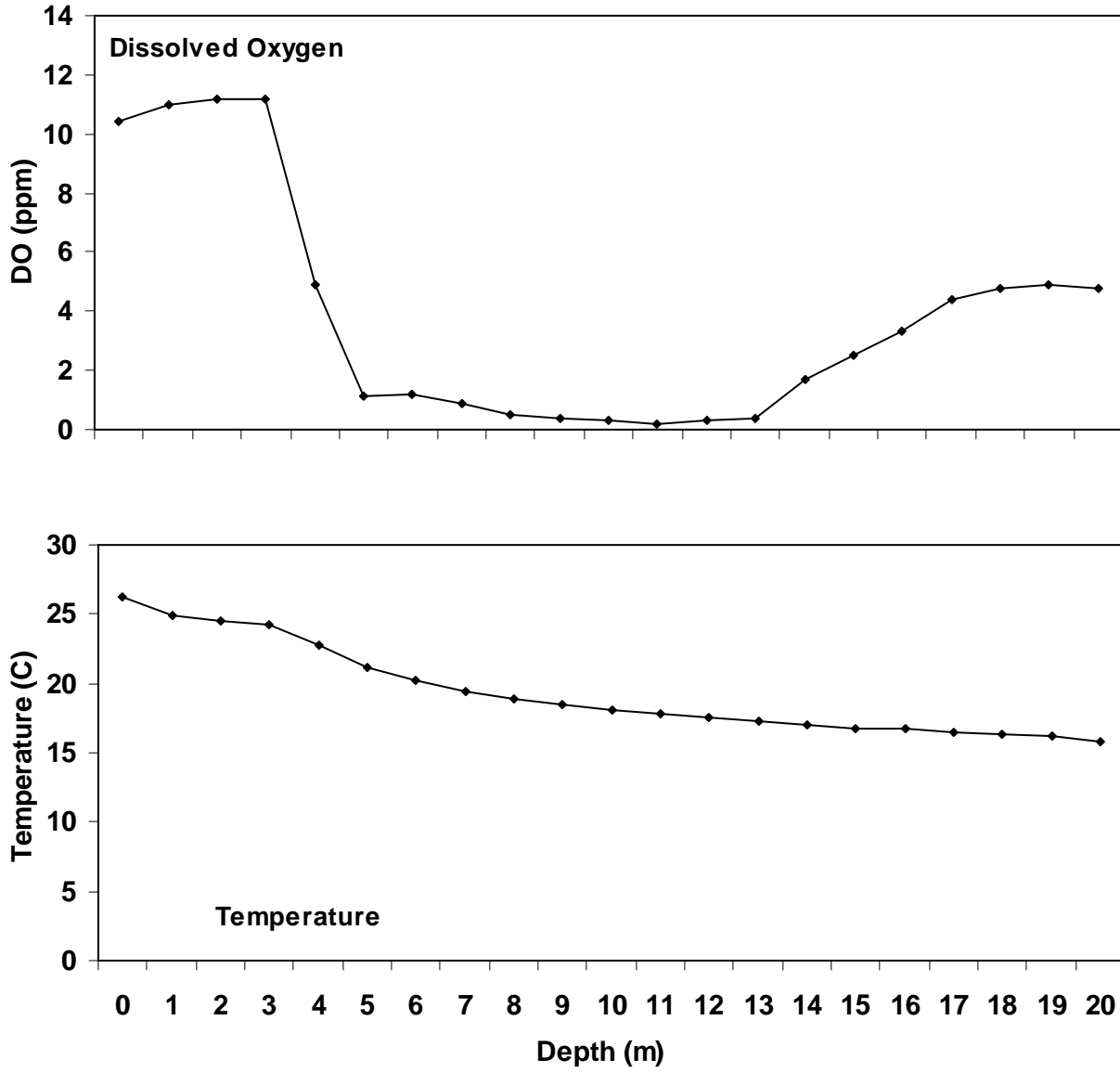
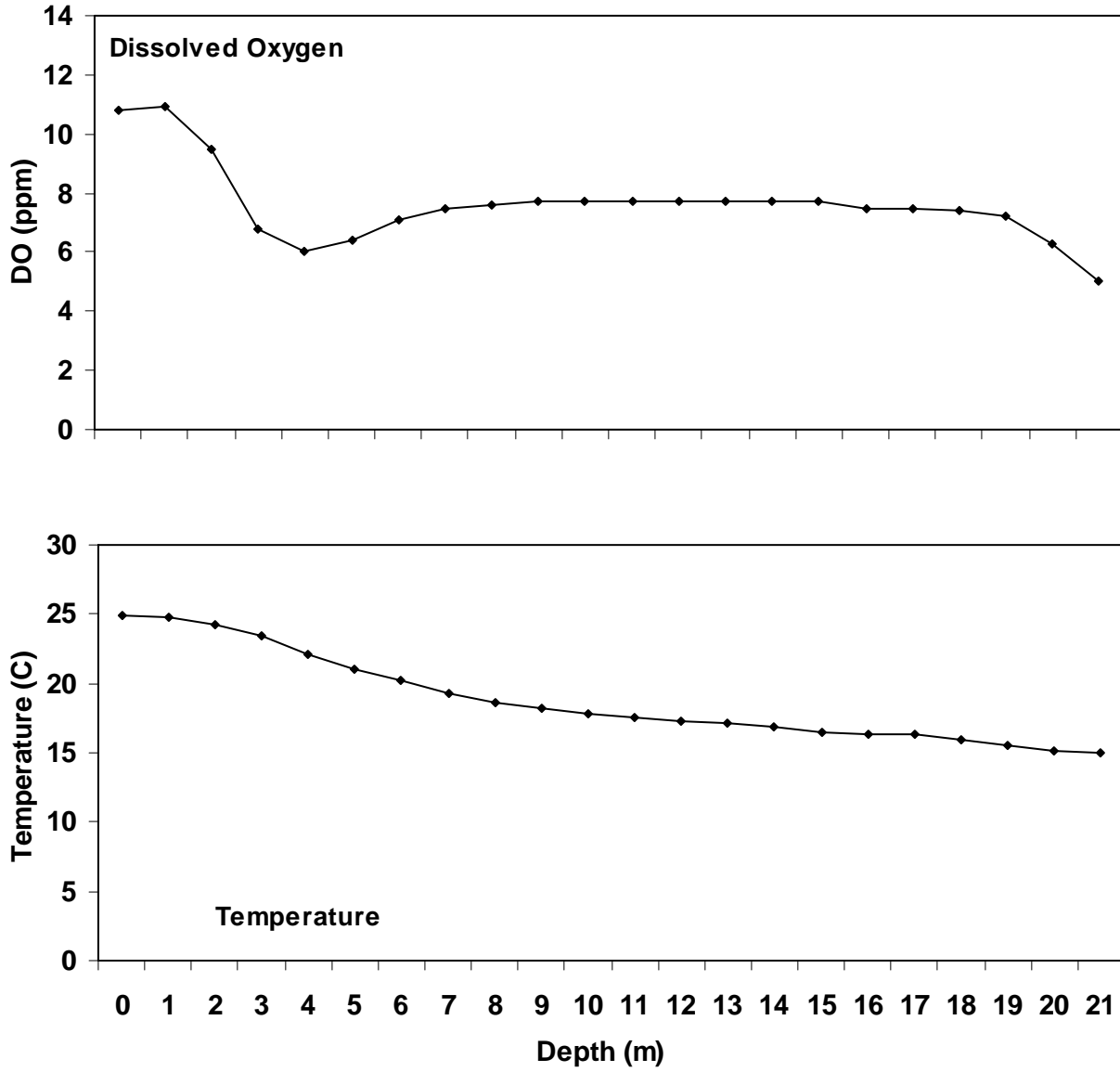


Figure A11. Boone Reservoir water quality data at WRM 6, September 2006.



Appendix B  
Reservoir Elevations

Table B1. Boone Reservoir elevation data for 2006. Data is courtesy of TVA.

Elevation	Month	Day	Elevation	Month	Day	Elevation	Month	Day
1362.35	January	1	1364.65	February	24	1379.33	April	19
1362.35	January	2	1364.86	February	25	1379.03	April	20
1362.46	January	3	1365.05	February	26	1379.40	April	21
1362.21	January	4	1364.67	February	27	1380.57	April	22
1362.00	January	5	1365.15	February	28	1381.18	April	23
1362.32	January	6	1365.21	March	1	1380.39	April	24
1362.36	January	7	1365.66	March	2	1380.38	April	25
1362.21	January	8	1365.85	March	3	1379.82	April	26
1362.03	January	9	1366.04	March	4	1381.44	April	27
1362.04	January	10	1365.82	March	5	1381.84	April	28
1362.10	January	11	1366.21	March	6	1380.99	April	29
1362.13	January	12	1366.97	March	7	1381.17	April	30
1362.20	January	13	1367.04	March	8	1381.20	May	1
1361.41	January	14	1367.23	March	9	1381.34	May	2
1361.55	January	15	1367.69	March	10	1381.45	May	3
1361.85	January	16	1367.59	March	11	1381.52	May	4
1361.44	January	17	1367.85	March	12	1381.43	May	5
1362.37	January	18	1368.40	March	13	1381.41	May	6
1361.95	January	19	1369.29	March	14	1381.49	May	7
1361.96	January	20	1369.68	March	15	1381.41	May	8
1361.85	January	21	1370.44	March	16	1381.51	May	9
1361.95	January	22	1370.61	March	17	1381.31	May	10
1360.18	January	23	1370.54	March	18	1381.24	May	11
1361.34	January	24	1370.51	March	19	1381.64	May	12
1361.59	January	25	1370.83	March	20	1381.63	May	13
1361.75	January	26	1371.82	March	21	1381.83	May	14
1362.06	January	27	1371.99	March	22	1381.77	May	15
1362.77	January	28	1372.28	March	23	1381.93	May	16
1362.74	January	29	1372.49	March	24	1382.02	May	17
1362.45	January	30	1372.83	March	25	1382.03	May	18
1362.33	January	31	1372.98	March	26	1382.31	May	19
1362.80	February	1	1373.53	March	27	1382.48	May	20
1362.29	February	2	1373.65	March	28	1382.79	May	21
1362.47	February	3	1373.85	March	29	1382.64	May	22
1362.95	February	4	1374.66	March	30	1382.35	May	23
1363.89	February	5	1374.78	March	31	1381.60	May	24
1361.72	February	6	1375.11	April	1	1381.76	May	25
1361.88	February	7	1375.21	April	2	1382.58	May	26
1361.62	February	8	1375.60	April	3	1382.91	May	27
1361.94	February	9	1376.24	April	4	1382.31	May	28
1362.00	February	10	1376.34	April	5	1382.31	May	29
1361.36	February	11	1376.43	April	6	1381.54	May	30
1361.84	February	12	1376.69	April	7	1381.74	May	31
1361.51	February	13	1377.28	April	8	1381.75	June	1
1362.23	February	14	1377.71	April	9	1382.13	June	2
1362.74	February	15	1378.05	April	10	1382.54	June	3
1362.60	February	16	1378.27	April	11	1382.28	June	4
1362.84	February	17	1378.46	April	12	1382.24	June	5
1362.57	February	18	1378.63	April	13	1382.31	June	6
1363.31	February	19	1378.74	April	14	1382.29	June	7
1363.83	February	20	1378.74	April	15	1382.19	June	8
1364.43	February	21	1378.90	April	16	1382.29	June	9
1363.91	February	22	1378.87	April	17	1382.24	June	10
1364.47	February	23	1378.88	April	18	1382.42	June	11

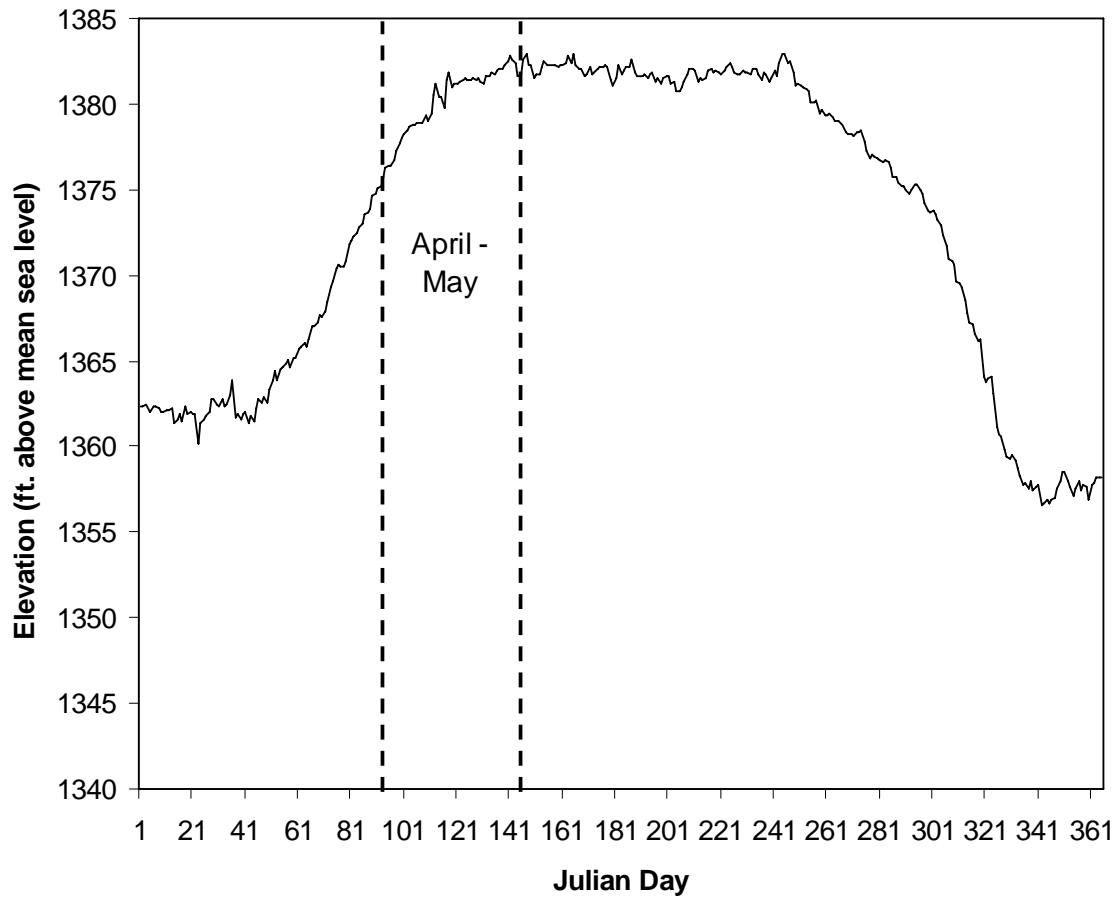
Table B1. Continued.

Elevation	Month	Day	Elevation	Month	Day	Elevation	Month	Day
1382.86	June	12	1382.03	August	5	1378.13	September	28
1382.35	June	13	1381.87	August	6	1378.31	September	29
1382.96	June	14	1381.90	August	7	1378.40	September	30
1382.27	June	15	1381.82	August	8	1378.42	October	1
1382.06	June	16	1381.74	August	9	1377.76	October	2
1382.06	June	17	1381.96	August	10	1377.31	October	3
1381.61	June	18	1382.19	August	11	1376.88	October	4
1381.78	June	19	1382.39	August	12	1377.06	October	5
1382.13	June	20	1382.17	August	13	1376.97	October	6
1381.78	June	21	1381.85	August	14	1376.84	October	7
1381.79	June	22	1381.78	August	15	1376.74	October	8
1382.04	June	23	1381.78	August	16	1376.63	October	9
1382.19	June	24	1381.91	August	17	1376.73	October	10
1382.19	June	25	1381.82	August	18	1376.66	October	11
1382.25	June	26	1381.82	August	19	1376.33	October	12
1382.16	June	27	1381.76	August	20	1375.75	October	13
1381.39	June	28	1382.01	August	21	1375.69	October	14
1381.07	June	29	1382.04	August	22	1375.43	October	15
1381.51	June	30	1381.76	August	23	1375.21	October	16
1382.23	July	1	1381.37	August	24	1375.21	October	17
1381.78	July	2	1381.82	August	25	1374.97	October	18
1381.92	July	3	1381.75	August	26	1374.80	October	19
1382.19	July	4	1381.27	August	27	1375.01	October	20
1382.18	July	5	1381.47	August	28	1375.35	October	21
1382.64	July	6	1381.90	August	29	1375.29	October	22
1381.81	July	7	1381.58	August	30	1375.02	October	23
1381.61	July	8	1382.35	August	31	1374.74	October	24
1381.63	July	9	1382.94	September	1	1374.20	October	25
1381.65	July	10	1382.89	September	2	1373.75	October	26
1381.72	July	11	1382.37	September	3	1373.62	October	27
1381.47	July	12	1382.53	September	4	1373.78	October	28
1381.72	July	13	1381.84	September	5	1373.52	October	29
1381.79	July	14	1381.13	September	6	1373.18	October	30
1381.31	July	15	1381.16	September	7	1372.86	October	31
1381.46	July	16	1381.03	September	8	1372.38	November	1
1381.15	July	17	1380.96	September	9	1371.71	November	2
1381.55	July	18	1380.84	September	10	1370.97	November	3
1381.67	July	19	1380.78	September	11	1370.81	November	4
1381.58	July	20	1380.09	September	12	1370.59	November	5
1381.16	July	21	1380.08	September	13	1369.63	November	6
1381.26	July	22	1380.16	September	14	1369.53	November	7
1380.78	July	23	1379.43	September	15	1369.33	November	8
1380.75	July	24	1379.63	September	16	1368.50	November	9
1380.99	July	25	1379.34	September	17	1367.77	November	10
1381.32	July	26	1379.38	September	18	1367.25	November	11
1381.76	July	27	1379.49	September	19	1367.17	November	12
1382.11	July	28	1379.19	September	20	1366.55	November	13
1382.06	July	29	1379.06	September	21	1366.18	November	14
1381.93	July	30	1379.03	September	22	1366.21	November	15
1381.31	July	31	1378.94	September	23	1364.07	November	16
1381.49	August	1	1378.80	September	24	1363.71	November	17
1381.37	August	2	1378.37	September	25	1363.97	November	18
1381.47	August	3	1378.29	September	26	1364.06	November	19
1381.90	August	4	1378.22	September	27	1363.10	November	20

Table B1. Continued.

<b>Elevation</b>	<b>Month</b>	<b>Day</b>
1361.15	November	21
1360.75	November	22
1360.55	November	23
1359.78	November	24
1359.39	November	25
1359.29	November	26
1359.46	November	27
1359.17	November	28
1358.78	November	29
1358.35	November	30
1357.75	December	1
1357.89	December	2
1357.54	December	3
1357.93	December	4
1357.47	December	5
1357.67	December	6
1357.78	December	7
1356.54	December	8
1356.66	December	9
1356.90	December	10
1356.68	December	11
1356.92	December	12
1357.01	December	13
1357.58	December	14
1357.97	December	15
1358.48	December	16
1358.47	December	17
1357.95	December	18
1357.61	December	19
1357.12	December	20
1357.58	December	21
1358.03	December	22
1357.45	December	23
1357.71	December	24
1357.65	December	25
1356.92	December	26
1357.80	December	27
1357.87	December	28
1358.20	December	29
1358.21	December	30
1358.23	December	31

Figure B1. Boone Reservoir daily reservoir elevations for 2006 (TVA data).



Appendix C  
Angler Creel Survey

MONTHLY ANGLING EFFORT FOR ALL ANGLERS - 2006

LAKE=BOONE

MONTH	ANGLER HOURS	RELATIVE STANDARD ERROR	HOURS PER ACRE	ANGLER TRIPS	TRIPS PER ACRE	PERCENT EFFORT
01 JANUARY	8809	10.7	1.9	1389	0.3	10.3
02 FEBRUARY	4314	27.5	1.0	669	0.1	5.0
03 MARCH	4598	19.9	1.0	710	0.2	5.4
04 APRIL	9281	8.4	2.1	1428	0.3	10.8
05 MAY	8287	17.7	1.8	1329	0.3	9.6
06 JUNE	8409	12.2	1.9	1283	0.3	9.8
07 JULY	7028	17.9	1.6	1159	0.3	8.2
08 AUGUST	7249	11.7	1.6	1155	0.3	8.4
09 SEPTEMBER	7371	9.2	1.6	1163	0.3	8.6
10 OCTOBER	9774	19.7	2.2	1489	0.3	11.4
11 NOVEMBER	6093	10.2	1.3	975	0.2	7.1
12 DECEMBER	4692	12.1	1.0	749	0.2	5.5
----- <b>TOTAL</b>	<b>85905</b>			<b>13498</b>		

MONTHLY CATCH STATISTICS FOR ALL ANGLERS - 2006

LAKE=BOONE

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	1409	18.6	0.16	15.1	88	48.7	0.01	59.2
02 FEBRUARY	1035	31.4	0.24	14.7	43	65.6	0.01	49.2
03 MARCH	414	40.8	0.09	33.7	92	54.2	0.02	61.2
04 APRIL	1949	12.4	0.21	8.9	464	42.6	0.05	44.3
05 MAY	1740	37.3	0.21	32.3	166	50.9	0.02	39.8
06 JUNE	2186	17.1	0.26	11.9	252	35.8	0.03	36.5
07 JULY	984	31.8	0.14	26.3	141	60.6	0.02	61.2
08 AUGUST	1450	25.3	0.20	21.8	217	49.5	0.03	54.6
09 SEPTEMBER	1769	17.0	0.24	14.1	369	43.2	0.05	39.5
10 OCTOBER	3030	34.1	0.31	27.7	391	50.0	0.04	48.6
11 NOVEMBER	1523	23.6	0.25	21.6	61	77.7	0.01	55.0
12 DECEMBER	1173	29.0	0.25	26.1	94	18.6	0.02	14.7
----- <b>TOTAL</b>	<b>18662</b>				<b>2378</b>			

**SUMMARY OF SPECIES CATCH STATISTICS - 2006**

**LAKE=BOONE**

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
CARP	21	1178.1	0.1	0	0	.	0.0	0	100.0	.	0
CHANNEL CATFISH	550	75.3	2.9	383	361	49.6	15.2	344	34.4	3.14	21
FLATHEAD CATFISH	112	142.6	0.6	112	112	142.6	4.7	112	0.0	10.07	7
RAINBOW TROUT	38	682.5	0.2	0	0	.	0.0	0	100.0	.	0
BROWN TROUT	53	475.8	0.3	0	0	.	0.0	0	100.0	.	0
WHITE BASS	22	940.0	0.1	0	0	.	0.0	0	100.0	.	0
STRIPED BASS	444	130.3	2.4	362	106	140.6	4.5	106	76.1	9.96	5
CHEROKEE BASS	557	96.6	3.0	180	181	89.6	7.6	141	67.5	2.96	9
BLUEGILL	1945	50.6	10.4	607	79	95.5	3.3	79	95.9	0.26	6
SMALLMOUTH BASS	6887	12.2	36.8	6708	593	20.6	25.0	593	91.4	2.41	31
LARGEMOUTH BASS	7377	12.2	39.4	7190	383	27.9	16.1	383	94.8	2.99	18
WHITE CRAPPIE	66	250.6	0.4	66	66	250.6	2.8	66	0.0	1.07	3
BLACK CRAPPIE	487	97.5	2.6	412	337	70.5	14.2	337	30.8	0.88	17
BLACKNOSE CRAPPIE	166	124.1	0.9	166	157	115.5	6.6	157	5.4	1.02	7

SUMMARY OF FISHING EFFORT AND CATCH RATES FOR INTENDED SPECIES GROUPS - 2006

LAKE=BOONE

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	1901	26.3	298	2.2	0.21	37.1	0.21	37.1	13
ANY TEMPERATE BASS	5626	16.3	881	6.5	0.06	108.2	0.03	138.1	38
STRIPED BASS	9069	12.5	1429	10.6	0.06	86.1	0.02	179.5	71
CHEROKEE BASS	168	96.5	26	0.2	0.64		0.43		2
ANY SUNFISH	833	44.9	131	1.0	1.58	52.7	0.27	303.5	5
ANY BLACK BASS	49785	5.6	7815	58.0	0.30	14.8	0.01	75.8	355
SMALLMOUTH BASS	1485	29.0	234	1.7	0.24	39.2	0.24	39.2	17
LARGEMOUTH BASS	146	98.6	23	0.2	1.00		0.00		1
ANY CRAPPIE	8748	12.7	1378	10.2	0.14	90.9	0.12	90.3	83
ANY SPECIES	7875	13.5	1239	9.2	0.12	100.5	0.02	227.7	73
OTHER	270	64.3	43	0.3	0.00		0.00		2
-----	-----		-----						
<b>TOTAL</b>	<b>85906</b>		<b>13497</b>						

**SUMMARY OF RELATIVE SPECIES CATCH RATES  
WITHIN TARGET GROUPS - 2006**

**LAKE=BOONE**

<b>TARGET GROUP</b>	<b>SPECIES WITHIN TARGET GROUPS</b>	<b>RELATIVE CATCH RATE</b>	<b>RELATIVE HARVEST RATE</b>
ANY CATFISH	CHANNEL CATFISH	0.16	0.16
	FLATHEAD CATFISH	0.05	0.05
ANY TEMPERATE BASS	STRIPED BASS	0.04	0.01
	CHEROKEE BASS	0.02	0.02
ANY SUNFISH	BLUEGILL	1.58	0.27
ANY BLACK BASS			
ANY BLACK BASS			
ANY BLACK BASS			
	SMALLMOUTH BASS	0.13	0.01
	LARGEMOUTH BASS	0.14	0.01
	LARGEMOUTH BASS	0.14	0.01
ANY CRAPPIE			
	WHITE CRAPPIE	0.01	0.01
	BLACK CRAPPIE	0.09	0.07
	BLACKNOSE CRAPPIE	0.04	0.03

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=BOONE

MONTH	% BLACK BASS EFFORT BY TOURNAMENT ANGLERS	CATCH RATE FOR TOURNAMENT ANGLERS	# OF INTERVIEWS (TOURNAMENT)	CATCH RATE FOR NON-TOURNAMENT ANGLERS	# OF INTERVIEWS (NON-TOURNAMENT)
01 JANUARY	0		0	0.23	44
02 FEBRUARY	0		0	0.30	33
03 MARCH	39	0.30	6	0.17	15
04 APRIL	27	0.34	6	0.29	28
05 MAY	0		0	0.30	29
06 JUNE	30	0.32	6	0.34	20
07 JULY	0		0	0.28	27
08 AUGUST	19	0.29	4	0.25	28
09 SEPTEMBER	0		0	0.34	36
10 OCTOBER	20	0.37	7	0.38	24
11 NOVEMBER	0		0	0.32	30
12 DECEMBER	0		0	0.38	30

**SUMMARY OF TRIP EXPENDITURES AND CONSUMER SURPLUS  
FOR INTENDED SPECIES - 2006**

**LAKE=BOONE**

<b>INTENDED SPECIES</b>	<b>TOTAL TRIP EXPENDITURES</b>	<b>TOTAL CONSUMER SURPLUS</b>	<b>TOTAL VALUE BY ANGLERS</b>	<b>NUMBER OF INTERVIEWS</b>
ANY CATFISH	4040	1790	5830	13
ANY TEMPERATE BASS	9500	7130	16630	37
STRIPED BASS	15990	12630	28620	71
CHEROKEE BASS	0	470	470	2
ANY SUNFISH	610	550	1160	5
ANY BLACK BASS	106360	64170	170540	354
SMALLMOUTH BASS	2700	1640	4330	17
LARGEMOUTH BASS	620	60	680	1
ANY CRAPPIE	12820	14560	27380	83
ANY SPECIES	7040	11830	18870	73
OTHER	340	340	670	2
----- <b>TOTAL</b>	<b>160020</b>	<b>115170</b>	<b>275180</b>	<b>658</b>

**SUMMARY OF SOCIOLOGICAL QUESTIONS - 2006**

**LAKE=BOONE**

**DISTRIBUTION OF STATES OF RESIDENCE OF INTERVIEWED ANGLERS**

<b>STATE</b>	<b>NUMBER ANGLERS INTERVIEWED</b>	<b>PERCENT CONTRIBUTION</b>
TN	956	88.1
VA	91	8.4
OTHERS	38	3.5

**DISTRIBUTION OF COUNTIES OF RESIDENCE OF INTERVIEWED ANGLERS**

<b>COUNTY</b>	<b>NUMBER ANGLERS INTERVIEWED</b>	<b>PERCENT CONTRIBUTION</b>
CARTER	54	5.6
SULLIVAN	451	47.2
WASHINGTON	356	37.2
OTHERS IN TN	95	9.9

**DISTRIBUTION OF ONE-WAY MILEAGE OF ANGLERS INTERVIEWED**

<b>ONE-WAY MILES TRAVELED</b>	<b>NUMBER ANGLERS INTERVIEWED</b>	<b>PERCENT CONTRIBUTION</b>
A) 0-25	810	74.9
B) 26-100	249	23.0
C) 101-250	12	1.1
D) > 250	10	0.9

**DISTRIBUTION OF REASONS WHY INTERVIEWED ANGLERS MADE THE TRIP**

<b>REASON FOR TRIP</b>	<b>NUMBER ANGLERS INTERVIEWED</b>	<b>PERCENT CONTRIBUTION</b>
A) FISHING	658	99.5
B) VACATION	3	0.5

**DISTRIBUTION OF NUMBER OF DAYS IN TRIPS OF INTERVIEWED ANGLERS**

<b>NUMBER DAYS IN TRIP</b>	<b>NUMBER ANGLERS INTERVIEWED</b>	<b>PERCENT CONTRIBUTION</b>
A) 1	651	98.8
B) 2-5	8	1.2