

**Comparison of Fish Species Occurrence and Trends in Reservoir
Fish Assemblage Index Results in Chickamauga Reservoir before
and after Watts Bar Nuclear Plant Unit 1 Operation**

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Changes made from the previous version of this document:

The previous version of this report was drafted prior to collection of 2009 data. This updated version includes 2009 fish collection data from all TVA sampling sites in Chickamauga Reservoir and from Watts Bar Reservoir forebay, located upstream of Watts Bar Nuclear Plant.

Prior to the September 2009 version of this report, TVA reservoir fish data collected during 1993 to 1998 had not been entered into the current TVA database, which houses data collected from 1999 to 2009, due to computer software/hardware compatibility issues. Most data collected during the 1990's were hand-recorded on field datasheets and then entered into spreadsheets for analysis. Data collected from 1999 to present were recorded on a digital field data-logger, which were then directly uploaded to the database for analysis and scoring. Any revisions to scoring criteria used to rate the ecological integrity of a site using the Reservoir Fish Assemblage Index (RFAI) were not reflected in 1993 to 1998 datasets because they were not incorporated into the database. During January 2010, raw data from 1993 to 1998 were hand-entered into data-loggers and uploaded into the database. This process provided an opportunity to thoroughly review the historical data and make corrections to any probable entry errors that may have occurred in these datasets when they were originally entered into spreadsheets for scoring and analysis. As a result, slight changes occurred in 1996 and 1997 Chickamauga Reservoir RFAI scores. The score for the 1996 sample conducted in the transition zone station (Tennessee River Mile 490.5) changed from a 43 to a 44; the score for the 1997 sample conducted in the inflow zone station (Tennessee River Mile 529) changed from a 46 to a 44; and the score for the 1997 sample conducted in the Hiwassee River embayment of Chickamauga Reservoir (Hiwassee River Mile 8.5) changed from a 38 to a 40. All scores shown in Table 4 of this document now reflect the current RFAI scoring criteria as shown in Table 1. All individual observed values, RFAI metric scores, and overall RFAI scores listed in Appendix 2 have also been updated.

Introduction

Section 316(a) of the Clean Water Act (CWA) is intended to regulate facilities with a thermal discharge from a point source to assure the protection of Balanced Indigenous Populations (BIP) of aquatic life. TVA uses its existing Vital Signs (VS) monitoring program, supplemented with additional fish community monitoring upstream and downstream of fossil and nuclear power plants, to evaluate effects of thermal discharges to aquatic communities in the receiving water body. The VS monitoring program began in 1990 in the Tennessee River System. This program was implemented to evaluate ecological health conditions in major reservoirs as part of TVA's stewardship role. One of the 5 indicators used in the VS program to evaluate reservoir health is the Reservoir Fish Assemblage Index (RFAI) methodology which was implemented beginning in 1993. RFAI has been thoroughly tested on TVA and other reservoirs and published in peer-reviewed literature (Jennings, et al., 1995; Hickman and McDonough, 1996; McDonough and Hickman, 1999). Fish communities are used to evaluate ecological conditions because of their importance in the aquatic food web and because fish life cycles are long enough to integrate conditions over time.

The purpose of this report is to: (1) provide a detailed explanation of the RFAI methodology and its application to fish community evaluation in relation to thermal discharges as specified by 316(a) of the Clean Water Act; (2) compare fish community structure of Chickamauga Reservoir before (1993-1995) and after (1996-2009) Watts Bar Nuclear Plant (WBN) Unit 1 became operational using existing TVA RFAI data; and (3) compare temporal differences in RFAI scores at the site within the WBN thermal discharge and at other monitoring sites within Chickamauga Reservoir from 1993 to 2009.

Plant Description

Watts Bar Nuclear Plant is located on the right descending (west) bank of upper Chickamauga Reservoir near Tennessee River Mile (TRM) 528, approximately two miles downstream of Watts Bar Dam (TRM 529.9) (Figure 1). This one-unit nuclear generating plant went into commercial operation on May 27, 1996.

In the original design, nearly all the waste heat created by the plant was dissipated in the atmosphere by the cooling towers. A small fraction of the waste heat was dissipated in the Tennessee River by the cooling tower blowdown. Blowdown from the cooling tower is discharged through multi-port diffusers located in the main river channel at TRM 527.9. Makeup water and other water supply requirements are obtained from an intake channel and pumping station at TRM 528. Intake pumping flow rate is 80 cfs, and maximum diffuser discharge is about 135 cfs.

The WBN Supplemental Condenser Cooling Water System (SCCW) system became operational in July, 1999. The SCCW system withdraws water from the intake structure located immediately upstream of Watts Bar Dam at TRM 529.9, which formerly served WBF. The temperature of the water in the SCCW system is usually lower than that provided by the Unit 1 cooling tower, so the SCCW flow reduces the temperature of the Unit 1 condenser flow and enhances the performance of the steam cycle. The SCCW is designed to provide a maximum of 365 cfs. Water from the SCCW system is discharged through the old Watts Bar Fossil Plant discharge structure located on the Tennessee River approximately 1.1 miles upstream of the nuclear plant intake (Figure 1).

The SCCW system was designed and constructed as a discretionary system. The SCCW system has no significant impact on the original blowdown system, allowing the plant to operate with or without the SCCW system in service. When the SCCW system is in service, the fraction of waste heat dissipated in the Tennessee River can be higher than that of the original full closed-mode operation.

Methods

Fish Sample Locations Upstream and Downstream of WBN

Reservoirs are typically divided into three zones for VS monitoring – inflow, transition, and forebay. The inflow zone is generally in the upper reaches of the reservoir and is riverine in nature; the transition zone or mid-reservoir is the area where water velocity decreases due to increased cross-sectional area; and the forebay is the lacustrine area near the dam. The

Chickamauga Reservoir inflow RFAI sample site is located at TRM 529.0 below Watts Bar Dam and extends downstream to TRM 526.3 (Figure 2). This station is used to provide downstream fish community data in the vicinity of the WBN thermal discharge. Since the WBN discharge is located within Chickamauga Reservoir inflow zone, no upstream control site data are available for comparison. Watts Bar Reservoir RFAI forebay site (TRM 531) is used to document any notable changes in Tennessee River ecological conditions above the WBN discharge but is not used for upstream/downstream comparisons of RFAI scores (Figure 2).

TVA has four additional monitoring sites on Chickamauga Reservoir. A site in the transition zone is located at TRM 490.5, two sites in the forebay are located at TRM 482 and 472.3, and a site on the Hiwassee River embayment of Chickamauga Reservoir is located at Hiwassee River mile (HiRM) 8.5 (Figure 2).

Fish Community Sampling Methods and Data Analysis for Sites Upstream and Downstream of WBN

Fish sampling immediately downstream of WBN was conducted by boat electrofishing (Reynolds, 1996). Fish sampling in Watts Bar Reservoir forebay (upstream of WBN) and at all other Chickamauga Reservoir sites were conducted by boat electrofishing and gill netting (Hubert, 1996; Reynolds, 1996). Electrofishing methodology consisted of fifteen electrofishing boat runs near the shoreline, each 300 meters long, with a duration of approximately 10 minutes each. The total near-shore area sampled is approximately 4,500 meters (15,000 feet).

Experimental gill nets (so called because of their use for research as opposed to commercial fishing) are used as an additional gear type to collect fish from deeper habitats not effectively sampled by electrofishing. Each experimental gill net consists of five-6.1 meter panels for a total length of 30.5 meters (100.1 feet). The distinguishing characteristic of experimental gill nets is mesh size that varies between panels. For this application, each net has panels with mesh sizes of 2.5, 5.1, 7.6, 10.2, and 12.7 cm. Experimental gill nets are typically set perpendicular to river flow extending from near-shore to the main channel of the reservoir. Ten overnight experimental gill net sets were used at all sampling stations in Chickamauga Reservoir, with the exception of the inflow site downstream of the WBN discharge. Flows prevent effective use of

gill nets at the site located just downstream of WBN in the inflow zone of Chickamauga Reservoir (TRM 529).

Fish collected were identified by species, counted, and examined for anomalies (such as disease, deformations, or hybridization). The resulting data were analyzed using RFAI methodology.

The RFAI uses 12 fish community metrics from four general categories: Species Richness and Composition; Trophic Composition; Abundance; and Fish Health. Individual species can be utilized for more than one metric. Together, these 12 metrics provide a balanced evaluation of fish community integrity. The individual metrics are shown below, grouped by category:

Species Richness and Composition

1. **Total number of species** -- Greater numbers of species are considered representative of healthier aquatic ecosystems. As conditions degrade, numbers of species at an area decline.
2. **Number of centrarchid species** -- Sunfish species (excluding black basses) are invertivores and a high diversity of this group is indicative of reduced siltation and suitable sediment quality in littoral areas.
3. **Number of benthic invertivore species** -- Due to the special dietary requirements of this species group and the limitations of their food source in degraded environments, numbers of benthic invertivore species increase with better environmental quality.
4. **Number of intolerant species** -- This group is made up of species that are particularly intolerant of physical, chemical, and thermal habitat degradation. Higher numbers of intolerant species suggest the presence of fewer environmental stressors.
5. **Percentage of tolerant individuals** (excluding young-of-year) -- This metric signifies poorer water quality with increasing proportions of individuals tolerant of degraded conditions.
6. **Percentage dominance by one species** -- Ecological quality is considered reduced if one species inordinately dominates the resident fish community.

7. **Percentage of non-native species** -- Based on the assumption that non-native species reduce the quality of resident fish communities.
8. **Number of top carnivore species** -- Higher diversity of piscivores is indicative of the availability of diverse and plentiful forage species and the presence of suitable habitat.

Trophic Composition

9. **Percent of individuals as top carnivores** -- A measure of the functional aspect of top carnivores which feed on major planktivore populations.
10. **Percentage of individuals as omnivores** -- Omnivores are less sensitive to environmental stresses due to their ability to vary their diets. As trophic links are disrupted due to degraded conditions, specialist species such as insectivores decline while opportunistic omnivorous species increase in relative abundance.

Abundance

11. **Average number per run** -- (number of individuals) -- This metric is based upon the assumption that high quality fish assemblages support large numbers of individuals.

Fish Health

12. **Percentage individuals with anomalies** -- Incidence of diseases, lesions, tumors, external parasites, deformities, blindness, and natural hybridization are noted for all fish measured, with higher incidence indicating less favorable environmental conditions.

RFAI methodology addresses all four attributes or characteristics of a “balanced indigenous population” defined by the CWA, as described below:

A biotic community characterized by diversity appropriate to the ecoregion: Diversity is addressed by the metrics in the Species Richness and Composition category, especially metric 1:

Total number of species. Determination of reference conditions based on the inflow zones of upper mainstem Tennessee River reservoirs (as described below) ensures appropriate species expectations for the ecoregion.

The capacity for the community to sustain itself through cyclic seasonal change: TVA uses an autumn data collection period for biological indicators, for both VS and upstream/downstream monitoring. Autumn monitoring is used to document condition or health after being subjected to the wide variety of stressors throughout the year.

One of the main benefits of using biological indicators is their ability to integrate stressors through time. Examining the condition or health of a community at the end of the “biological year” (i.e., autumn) provides insights into how well the community has dealt with the stresses through an annual seasonal cycle. Likewise, evaluation of the condition of individuals in the community (in this case, individual fish as reflected in Metric 12) provides insights into how well the community can be expected to withstand stressors through winter. Further, multiple sampling years during the permit renewal cycle adds to the evidence of whether or not the autumn monitoring approach has correctly demonstrated the ability of the community to sustain itself through repeated seasonal changes.

The presence of necessary food chain species: Integrity of the food chain is measured by the Trophic Composition metrics, with support from the Abundance metric and Species Richness and Composition metrics. Existence of a healthy fish community indicates presence of necessary food chain species because the fish community is comprised of species that utilize multiple feeding mechanisms that transcend various levels in the aquatic food web. Basing evaluations on a sound multi-metric system such as the RFAI enhances the ability to discern alterations in the aquatic food chain.

A lack of domination by pollution-tolerant species: Domination by pollution-tolerant species is measured by metrics 3 (Number of benthic invertivore species), 4 (Number of intolerant species), 5 (Percentage of tolerant individuals), 6 (Percentage dominance by one species), and 10 (Percentage of individuals as omnivores).

Scoring categories are based on “expected” fish community characteristics in the absence of human-induced impacts other than impoundment of the reservoir. These categories were developed from historical fish assemblage data representative of inflow, transition, and forebay zones from upper mainstem Tennessee River reservoirs (Hickman and McDonough, 1996; McDonough and Hickman, 1999). Attained values for each of the 12 metrics were compared to the scoring criteria and assigned scores to represent relative degrees of degradation: least degraded (5); intermediate degraded (3); and most degraded (1). Scoring criteria for upper mainstem Tennessee River reservoirs are shown in Table 1. The Hiwassee River embayment site is scored with RFAI transition zone scoring criteria.

If a metric was calculated as a percentage (e.g. Percent tolerant individuals), the data from electrofishing and gill netting were scored separately and allotted half the total score for that individual metric. Inflow areas are scored only using electrofishing data and scoring criteria were developed to account for the lack of gill net data. Individual metric scores for a sampling area are summed to obtain the RFAI score.

TVA uses RFAI results to determine maintenance of BIP using 2 approaches. One is “absolute” in that it compares the RFAI scores and individual metrics to predetermined values. The other is “relative” in that it compares RFAI scores attained downstream to the upstream control site. The “relative” approach does not apply to WBN since the upstream site is located upstream of Watts Bar Dam. The downstream site is compared to the previous year’s data at this site to examine if any changes had occurred throughout the year. The upstream site is used to evaluate water quality conditions upstream of WBN, but is not used for upstream comparison due to significant aquatic habitat differences (inflow versus forebay). The “absolute” approach is based on Jennings et al. (1995) who suggested that favorable comparisons of the attained RFAI score from the potential impact zone to a predetermined criterion can be used to identify the presence of normal community structure and function and hence existence of BIP.

RFAI scores range from 12 to 60. For multi-metric indices such as RFAI, TVA uses two criteria to ensure a conservative screening of BIP. First, if an RFAI score reaches 70% of the highest

attainable score of 60, and second, if fewer than half of RFAI metrics receive a low (1) or moderate (3) score, then normal community structure and function would be present indicating that BIP had been maintained, thus no further evaluation would be needed. Therefore, any location that attains an RFAI score of 42 or higher (70% of 60) would be considered to have BIP. The cutoff of $\geq 70\%$ to determine BIP was calculated by trisecting the reservoir data from which the RFAI was developed to set limits to determine fish population health, structure, and function, thus resulting in the current scoring criteria ranges used for individual RFAI metric scores. It must be stressed that scores below this threshold do not necessarily reflect an adversely impacted fish community. The threshold is used to serve as a conservative screening level; i.e., any fish community that meets these criteria is obviously not adversely impacted. RFAI scores below this level would require a more in-depth look to determine if BIP exists. An inspection of individual RFAI metric results and species of fish used in each metric would be an initial step to help identify if operation of WBN is a contributing factor. This approach is appropriate because a validated multi-metric index is being used and scoring criteria applicable to the zone of study are available.

The Quality Assurance (QA) component of VS monitoring deals with how well the RFAI scores can be repeated and is accomplished by collecting a second set of samples at 15%-20% of the sites each year. Previous statistical analyses with the QA component of VS has shown that the comparison of RFAI index scores from 54 paired sample sets collected over a seven year period ranged from 0 to 18 points. Based on these findings, the 75th percentile was 6 and the 90th percentile was 12. The mean difference between these 54 paired scores was 4.6 points with 95 percent confidence limits of 3.4 and 5.8. Therefore, a difference of 6 points or less was the value selected for defining “similar” scores between years sampled at the downstream site. That is, if the downstream RFAI score is within 6 points compared to the prior year’s score then the fish communities will be considered similar (e.g. previous year’s score was 48 ± 3 and current sample’s score is 42 ± 3 ; these scores would be considered similar because they are within 6 points). It is important to bear in mind that differences greater than 6 points can be expected simply due to method variation (25% of the QA paired sample sets exceeded that value). When this occurs, a metric-by-metric examination will be conducted to determine what caused the difference in scores and the potential for the difference to be thermally related.

The average variation for RFAI scores in TVA reservoirs is 6 (\pm 3). This variability comes from various sources, including annual variations in air temperature and stream flow; variations in pollutant loadings from nonpoint sources; changes in habitat, such as extent and density of aquatic vegetation; natural population cycles and movements of the species being measured (TWRC, 2006). Another source of variability arises from the fact that nearly any practical measurement, lethal or non-lethal, of a biological community is a sample rather than a measurement of the entire population. As long as the score is within the 6-point range of variability from the previous year, there is no certainty that any real change has taken place beyond method variability

Results and Discussion

Fish Species Occurrence Analysis

During RFAI sampling from 1993 to 2009 at the Chickamauga Reservoir inflow station (TRM 529), located within the thermal discharge of WBN Plant, 48 fish species were collected (Table 2). Prior to WBN operation (1993 to 1995), 39 fish species were collected. During initial WBN operation (1996 to 1997), 34 fish species were encountered. Sampling during subsequent years (1999 to 2009) has resulted in 45 species at this site.

Skipjack herring is the only species that has not been encountered at this site that was encountered prior to operation of WBN (Table 2). This species was never collected in large numbers at this site; 25 individuals in 1993, 10 individuals in 1994, and 1 individual in 1995. It is commonly collected at other sites throughout Chickamauga Reservoir (Appendix 1).

In recent years (1999 to 2009), six native species (bullhead minnow, river redhorse, rock bass, smallmouth redhorse, spotted gar, and walleye) and one non-native species (inland silverside) have been collected at this site that were not encountered in WBN pre-operational samples (Table 2, Appendix 1).

Chestnut lamprey (1 individual) and mooneye (1 individual) were collected in samples at this site during monitoring during initial operation (1997) but were not collected in pre-operational samples or samples during subsequent years (Table 2; Appendix 1). Chestnut lamprey is a

parasitic fish that feeds on larger bodied fishes. It has been sporadically collected throughout Chickamauga Reservoir during 1993 to 2009 RFAI samples (Appendix 1). Only 7 mooneye, including the 1 individual collected at this site in 1997 have been collected in Chickamauga Reservoir during 1993 to 2009 (Appendix 1).

During RFAI sampling from 1993 to 2009 at all sampling sites in Chickamauga Reservoir, 60 fish species have been collected (Table 3). Prior to WBN operation (1993 to 1995), 47 fish species were collected. During initial WBN operation (1996 to 1997), 43 fish species were encountered. Sampling during subsequent years (1999 to 2009) has resulted in collection of 57 species in Chickamauga Reservoir.

Two native species (highfin carpsucker and river carpsucker) and one non-native species (grass carp) were collected in Chickamauga Reservoir prior to WBN operations that have not been collected post WBN operations (Table 3). Both of these native species were represented by 1 individual at the Chickamauga transition zone site (TRM 490.5) in 1994 (Appendix 1). This site is located ~38 river miles downstream of WBN which precludes any possible thermal impact from WBN to the known occurrence of these species in Chickamauga Reservoir.

Nine native species (black buffalo, brown bullhead, dusky darter, lake sturgeon, mooneye, river redhorse, rock bass, smallmouth redhorse, and western mosquitofish,) and three non-native species (alewife, Atlantic needlefish, and inland silverside) have been collected in recent RFAI samples (1999 to 2009) that were not collected before WBN operation in Chickamauga Reservoir (Table 3, Appendix 1).

In conclusion, there has not been a decline in the number of species or overall fish community composition at the site located within the thermal discharge of WBN or within Chickamauga Reservoir since WBN began operations.

RFAI Analysis

RFAI scores for the inflow site (TRM 529) downstream from the WBN thermal discharge have averaged a score of 45 during the 16 sample years from 1993 to 2009 (Table 4). Scores from

every sample year were $\geq 70\%$ of the highest attainable score of 60 indicating that BIP had been maintained. Individual metric scores and overall RFAI scores for all sites in Chickamauga Reservoir and the Watts Bar Reservoir forebay site upstream of WBN are listed in Appendix 2-A to Appendix 2-Q.

The greatest score difference between consecutive sample years at this site was six points, which has been observed twice throughout the duration of RFAI sampling at this site (Table 4). This site received a score of 48 in 1995 and dropped to a 42 the following year. An evaluation of individual metrics showed that the 1996 sample scored 2 points lower for 3 metrics (percent dominance by one species, percent top carnivores, and percent omnivores) (Appendices 2-N, 2-O). Collection of 3,577 gizzard shad during 1996, compared to 790 during 1995 was predominantly responsible for these score differences (Appendix 1). Species composition and abundance of top carnivore species was similar between years but collection of such a large number of gizzard shad reduced the overall percentage of top carnivores present in the sample and subsequently increased the percent dominance by one species and the percentage of omnivores in the overall sample. Metrics that indicate degradation such as “number of benthic invertivores” and “number of intolerant species” received the same score during both sample years.

The second occurrence of a score difference of six points was during 2003 (score of 48) and 2004 (score of 42). An evaluation of individual metrics showed that the 2004 sample scored 2 points lower for 4 metrics (percent tolerant individuals, percent dominance by one species, percent omnivores, and number of intolerant species), while the 2003 sample received a 2 point lower score for the metric “percent top carnivores” (Appendices 2-F, 2-G). Once again, collection of large numbers of gizzard shad during 2004 was the primary the reason for lower metric scores. During 2004, 750 gizzard shad were collected compared to 178 during 2003 (Appendix 1). This resulted in lower scores for “percent tolerant individuals”, “percent dominance by one species”, and “percent omnivores”. Although the 2003 sample received a higher score for the metric “percent tolerant individuals”, observed values were similar (57.7% in 2003 compared to 64.8% in 2004). The lower score for the metric “number of intolerant species” during 2004 was the result of collection of 1 less intolerant species. The same intolerant

species were collected during both sample years with the exception of 6 black redhorse during 2003 (Appendix 1). Although less intolerant species were collected during 2004, 69 intolerant individuals were collected compared to 25 individuals during 2003.

Long-term RFAI data from inflow stations throughout the entire length of the Tennessee River were compared to evaluate similarities in RFAI scores. Lower mainstem Tennessee River reservoir inflow stations (Kentucky, Pickwick, Wilson, Wheeler, and Guntersville reservoirs) were sampled using RFAI methodology during 1993 to 2009 (N = 49 samples). RFAI scores for these inflow sites have averaged a score of 40.6 ± 1.7 at the 95% confidence level. Upper mainstem Tennessee River reservoir inflow stations (Nickajack, Chickamauga, Watts Bar, and Fort Loudon reservoirs) were also sampled using RFAI methodology during 1993 to 2009. RFAI scores for these inflow sites (excluding Chickamauga Reservoir inflow) have averaged a score of 42.8 ± 2.2 at the 95% confidence level (N = 46 samples). The Chickamauga Reservoir inflow station has averaged a RFAI score of 45.1 ± 1.9 at the 95% confidence level (N = 16 sample years). These long-term data trends suggest that the ecological health of the fish community in Chickamauga Reservoir inflow has been maintained and has averaged a higher RFAI score than the combined long-term averages of other upper and lower mainstem Tennessee River reservoirs.

Other RFAI samples in Chickamauga Reservoir (transition, forebay {2 sites}, and embayment) have averaged scores ≥ 42 from 1993 to 2009 which are $\geq 70\%$ of the highest attainable score of 60 indicating that BIP had been maintained throughout Chickamauga Reservoir (Table 4). Lower scores at some sites have been observed in recent years, most notably during 2007 and 2008. This was a severe drought period which may have stressed fish communities at sites within the transition and forebay zones of the reservoir. This was also observed in Watts Bar Reservoir forebay which is upstream of the WBN thermal discharge (Table 4). RFAI scores at the Chickamauga Reservoir inflow site in the vicinity of WBN did not noticeably change during this drought period. Long-term trends in RFAI scores do not indicate that overall fish community health, diversity, or structure has declined at these sites within Chickamauga Reservoir.

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Table 1. Scoring criteria for forebay, transition, and inflow sections of upper mainstream Tennessee River reservoirs. Upper mainstream reservoirs include Chickamauga, Fort Loudoun, Melton Hill, Nickajack, Tellico, and Watts Bar.

Metric	Gear	Scoring Criteria								
		Forebay			Transition			Inflow		
		1	3	5	1	3	5	1	3	5
1. Total species	Combined	<14	14-27	>27	<15	15-29	>29	<14	14-27	>27
2. Total Centrarchid species	Combined	<2	2-4	>4	<2	2-4	>4	<3	3-4	>4
3. Total benthic invertivores	Combined	<4	4-7	>7	<4	4-7	>7	<3	3-6	>6
4. Total intolerant species	Combined	<2	2-4	>4	<2	2-4	>4	<2	2-4	>4
5. Percent tolerant individuals	Electrofishing	>62%	31-62%	<31%	>62%	31-62%	<31%	>58%	29-58%	<29%
	Gill netting	>28%	14-28%	<14%	>32%	16-32%	<16%	---	---	---
6. Percent dominance by 1 species	Electrofishing	>50%	25-50%	<25%	>40%	20-40%	<20%	>46%	23-46%	<23%
	Gill netting	>29%	15-29%	<15%	>28%	14-28%	<14%	---	---	---
7. Percent non-native species	Electrofishing	>4%	2-4%	<2%	>6%	3-6%	<3%	>17%	8-17%	<8%
	Gill netting	>16%	8-16%	<8%	>9%	5-9%	<5%	---	---	---
8. Total top carnivore species	Combined	<4	4-7	>7	<4	4-7	>7	<3	3-6	>6
9. Percent top carnivores	Electrofishing	<5%	5-10%	>10%	<6%	6-11%	>11%	<11%	11-22%	>22%
	Gill netting	<25%	25-50%	>50%	<26%	26-52%	>52%	---	---	---
10. Percent omnivores	Electrofishing	>49%	24-49%	<24%	>44%	22-44%	<22%	>55%	27-55%	<27%
	Gill netting	>34%	17-34%	<17%	>46%	23-46%	<23%	---	---	---
11. Average number per run	Electrofishing	<121	121-241	>241	<105	105-210	>210	<51	51-102	>102
	Gill netting	<12	12-24	>24	<12	12-24	>24	---	---	---
12. Percent anomalies	Electrofishing	>5%	2-5%	<2%	>5%	2-5%	<2%	>5%	2-5%	<2%
	Gill netting	>5%	2-5%	<2%	>5%	2-5%	<2%	---	---	---

Table 2. Comparison of fish species collected during autumn RFAI sampling at the Chickamauga Reservoir inflow site located within the WBN thermal discharge (TRM 529) pre-operation (1993-1995), during initial operation (1996-1997), and in subsequent years (1999-2009) during operation of WBN Unit 1. Species are listed in alphabetical order by common name.

	Common Name	Scientific Name	1993-1995	1996-1997	1999-2009
1	Black crappie	<i>Pomoxis nigromaculatus</i>	X	X	X
2	Black redhorse	<i>Moxostoma duquesnei</i>	X	X	X
3	Blue catfish	<i>Ictalurus furcatus</i>	X	---	X
4	Bluegill	<i>Lepomis macrochirus</i>	X	X	X
5	Bluntnose minnow	<i>Pimephales notatus</i>	X	X	X
6	Brook silverside	<i>Labidesthes sicculus</i>	X	---	X
7	Bullhead minnow	<i>Pimephales vigilax</i>	---	---	X
8	Channel catfish	<i>Ictalurus punctatus</i>	X	X	X
9	Chestnut lamprey	<i>Ichthyomyzon castaneus</i>	---	X	---
10	Common carp	<i>Cyprinus carpio</i>	X	X	X
11	Emerald shiner	<i>Notropis atherinoides</i>	X	X	X
12	Flathead catfish	<i>Pylodictis olivaris</i>	X	X	X
13	Freshwater drum	<i>Aplodinotus grunniens</i>	X	X	X
14	Gizzard shad	<i>Dorosoma cepedianum</i>	X	X	X
15	Golden redhorse	<i>Moxostoma erythrurum</i>	X	X	X
16	Golden shiner	<i>Notemigonus crysoleucas</i>	X	X	X
17	Green sunfish	<i>Lepomis cyanellus</i>	X	X	X
18	Inland silverside	<i>Menidia beryllina</i>	---	---	X
19	Largemouth bass	<i>Micropterus salmoides</i>	X	X	X
20	Largescale stoneroller	<i>Campostoma oligolepis</i>	X	---	X
21	Logperch	<i>Percina caprodes</i>	X	X	X
22	Longear sunfish	<i>Lepomis megalotis</i>	X	X	X
23	Longnose gar	<i>Lepisosteus osseus</i>	X	X	X
24	Mooneye	<i>Hiodon tergisus</i>	---	X	---
25	Northern hog sucker	<i>Hypentelium nigricans</i>	X	X	X
26	Redbreast sunfish	<i>Lepomis auritus</i>	X	X	X
27	Redear sunfish	<i>Lepomis microlophus</i>	X	X	X
28	River redhorse	<i>Moxostoma carinatum</i>	---	X	X
29	Rock bass	<i>Ambloplites rupestris</i>	---	---	X
30	Sauger	<i>Sander canadensis</i>	X	X	X
31	Skipjack herring	<i>Alosa chrysochloris</i>	X	---	---
32	Smallmouth bass	<i>Micropterus dolomieu</i>	X	X	X
33	Smallmouth buffalo	<i>Ictiobus bubalus</i>	X	---	X
34	Smallmouth redhorse	<i>Moxostoma breviceps</i>	---	---	X
35	Spotfin shiner	<i>Cyprinella spiloptera</i>	X	X	X
36	Spotted bass	<i>Micropterus punctulatus</i>	X	X	X
37	Spotted gar	<i>Lepisosteus oculatus</i>	---	---	X
38	Spotted sucker	<i>Minytrema melanops</i>	X	X	X
39	Steelcolor shiner	<i>Cyprinella whipplei</i>	X	---	X
40	Striped bass	<i>Morone saxatilis</i>	X	---	X
41	Striped shiner	<i>Luxilus chrysocephalus</i>	X	---	X
42	Threadfin shad	<i>Dorosoma petenense</i>	X	X	X
43	Walleye	<i>Sander vitreus</i>	---	---	X
44	Warmouth	<i>Lepomis gulosus</i>	X	X	X
45	White bass	<i>Morone chrysops</i>	X	X	X
46	White crappie	<i>Pomoxis annularis</i>	X	X	X
47	Yellow bass	<i>Morone mississippiensis</i>	X	X	X
48	Yellow perch	<i>Perca flavescens</i>	X	X	X
---	Hybrid stripped x white bass	<i>Morone saxatilis x chrysops</i>	---	X	---
---	Hybrid sunfish	<i>Lepomis sp.</i>	X	X	X
	Total number of species (excluding hybrids)		39	34	45

Table 3. Comparison of fish species collected during autumn RFAI sampling at all sites in Chickamauga Reservoir pre-operation (1993-1995), during initial operation (1996-1997), and in subsequent years (1999-2009) during operation of WBN Unit 1. Species are listed in alphabetical order by common name.

	Common Name	Scientific Name	1993-1995	1996-1997	1999-2009
1	Alewife	<i>Alosa pseudoharengus</i>	---	---	X
2	Atlantic needlefish	<i>Strongylura marina</i>	---	---	X
3	Black buffalo	<i>Ictiobus niger</i>	---	---	X
4	Black crappie	<i>Pomoxis nigromaculatus</i>	X	X	X
5	Black redhorse	<i>Moxostoma duquesnei</i>	X	X	X
6	Blue catfish	<i>Ictalurus furcatus</i>	X	X	X
7	Bluegill	<i>Lepomis macrochirus</i>	X	X	X
8	Bluntnose minnow	<i>Pimephales notatus</i>	X	X	X
9	Brook silverside	<i>Labidesthes sicculus</i>	X	X	X
10	Brown bullhead	<i>Ameiurus nebulosus</i>	---	---	X
11	Bullhead minnow	<i>Pimephales vigilax</i>	X	X	X
12	Channel catfish	<i>Ictalurus punctatus</i>	X	X	X
13	Chestnut lamprey	<i>Ichthyomyzon castaneus</i>	X	X	X
14	Common carp	<i>Cyprinus carpio</i>	X	X	X
15	Dusky darter	<i>Percina sciera</i>	---	---	X
16	Emerald shiner	<i>Notropis atherinoides</i>	X	X	X
17	Flathead catfish	<i>Pylodictis olivaris</i>	X	X	X
18	Freshwater drum	<i>Aplodinotus grunniens</i>	X	X	X
19	Gizzard shad	<i>Dorosoma cepedianum</i>	X	X	X
20	Golden redhorse	<i>Moxostoma erythrurum</i>	X	X	X
21	Golden shiner	<i>Notemigonus crysoleucas</i>	X	X	X
22	Grass carp	<i>Ctenopharyngodon idella</i>	X	---	---
23	Green sunfish	<i>Lepomis cyanellus</i>	X	X	X
24	Highfin Carpsucker	<i>Carpodes velifer</i>	X	---	---
25	Inland silverside	<i>Menidia beryllina</i>	---	---	X
26	Lake sturgeon	<i>Acipenser fulvescens</i>	---	---	X
27	Largemouth bass	<i>Micropterus salmoides</i>	X	X	X
28	Largescale stoneroller	<i>Campostoma oligolepis</i>	X	---	X
29	Logperch	<i>Percina caprodes</i>	X	X	X
30	Longear sunfish	<i>Lepomis megalotis</i>	X	X	X
31	Longnose gar	<i>Lepisosteus osseus</i>	X	X	X
32	Mooneye	<i>Hiodon tergisus</i>	---	X	X
33	Northern hog sucker	<i>Hypentelium nigricans</i>	X	X	X
34	Redbreast sunfish	<i>Lepomis auritus</i>	X	X	X
35	Redear sunfish	<i>Lepomis microlophus</i>	X	X	X
36	River carpsucker	<i>Carpodes carpio</i>	X	---	---
37	River redhorse	<i>Moxostoma carinatum</i>	---	X	X
38	Rock bass	<i>Ambloplites rupestris</i>	---	---	X
39	Sauger	<i>Sander canadensis</i>	X	X	X
40	Skipjack herring	<i>Alosa chrysochloris</i>	X	X	X
41	Silver redhorse	<i>Moxostoma anisurum</i>	X	---	X
42	Smallmouth bass	<i>Micropterus dolomieu</i>	X	X	X
43	Smallmouth buffalo	<i>Ictiobus bubalus</i>	X	X	X
44	Smallmouth redhorse	<i>Moxostoma breviceps</i>	---	---	X
45	Spotfin shiner	<i>Cyprinella spiloptera</i>	X	X	X
46	Spotted bass	<i>Micropterus punctulatus</i>	X	X	X

Table 3. (Continued)

	Common Name	Scientific Name	1993-1995	1996-1997	1999-2009
47	Spotted gar	<i>Lepisosteus oculatus</i>	X	X	X
48	Spotted sucker	<i>Minytrema melanops</i>	X	X	X
49	Steelcolor shiner	<i>Cyprinella whipplei</i>	X	---	X
50	Striped bass	<i>Morone saxatilis</i>	X	X	X
51	Striped shiner	<i>Luxilus chrysocephalus</i>	X	---	X
52	Threadfin shad	<i>Dorosoma petenense</i>	X	X	X
53	Walleye	<i>Sander vitreus</i>	X	X	X
54	Warmouth	<i>Lepomis gulosus</i>	X	X	X
55	Western mosquitofish	<i>Gambusia affinis</i>	---	---	X
56	White bass	<i>Morone chrysops</i>	X	X	X
57	White crappie	<i>Pomoxis annularis</i>	X	X	X
58	Yellow bass	<i>Morone mississippiensis</i>	X	X	X
59	Yellow bullhead	<i>Ameiurus natalis</i>	---	X	X
60	Yellow perch	<i>Perca flavescens</i>	X	X	X
---	Hybrid bass	<i>Micropterus</i> sp.	---	---	X
---	Hybrid shad	<i>Dorosoma</i> sp.	X	X	X
---	Hybrid striped x white bass	<i>Morone saxatilis x chrysops</i>	X	X	X
---	Hybrid sunfish	<i>Lepomis</i> sp.	X	X	X
---	Hybrid walleye x sauger	<i>Sander vitreus x canadensis</i>	---	---	X
	Total number of species (excluding hybrids):		47	43	57

Table 4. Summary of RFAI scores from sites located directly upstream and downstream of Watts Bar Nuclear Plant as well as scores from sampling conducted during 1993-2009 as part of the Vital Signs Monitoring Program in Chickamauga Reservoir.

Station	Location	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
WBN Upstream Forebay	TRM 531.0	44	48	---	43	---	41	36	44	39	39	45	43	46	42	36	36	45	42
WBN Downstream Inflow	TRM 529.0	52	52	48	42	44	---	42	44	46	48	48	42	42	42	42	44	44	45
Transition	TRM 490.5	51	40	48	44	39	---	45	46	45	51	42	49	46	47	44	34	41	45
Forebay	TRM 482.0	---	---	---	47	---	---	41	48	46	43	45	41	39	35	38	38	37	42
Forebay	TRM 472.3	43	44	47	---	40	---	45	45	48	46	43	43	46	43	41	41	42	44
Hiwassee River Embayment	HiRM 8.5	46	39	39	---	40	---	43	43	47	---	36	42	45	---	41	---	42	42

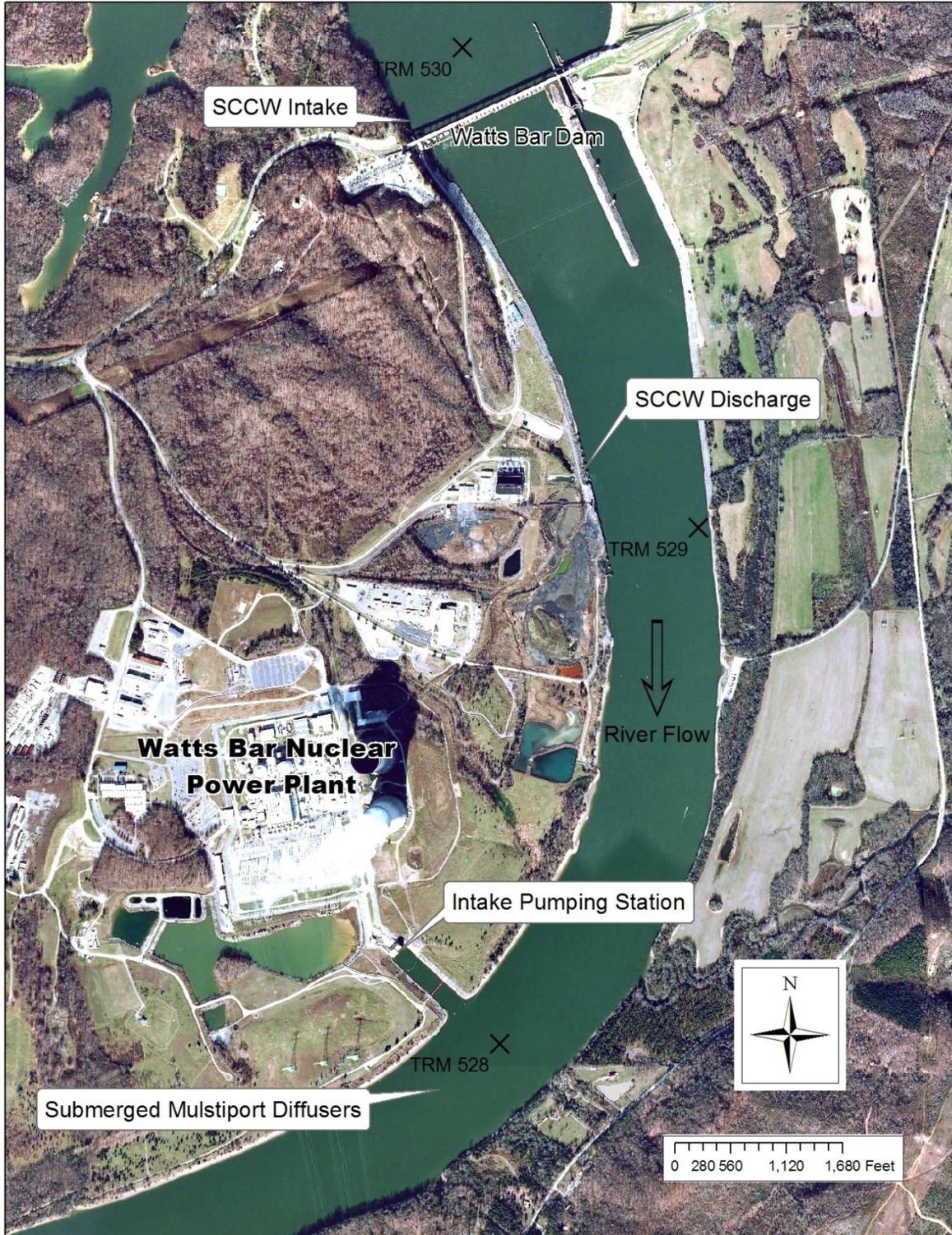


Figure 1. Map of WBN showing location of SCCW intake and discharge.

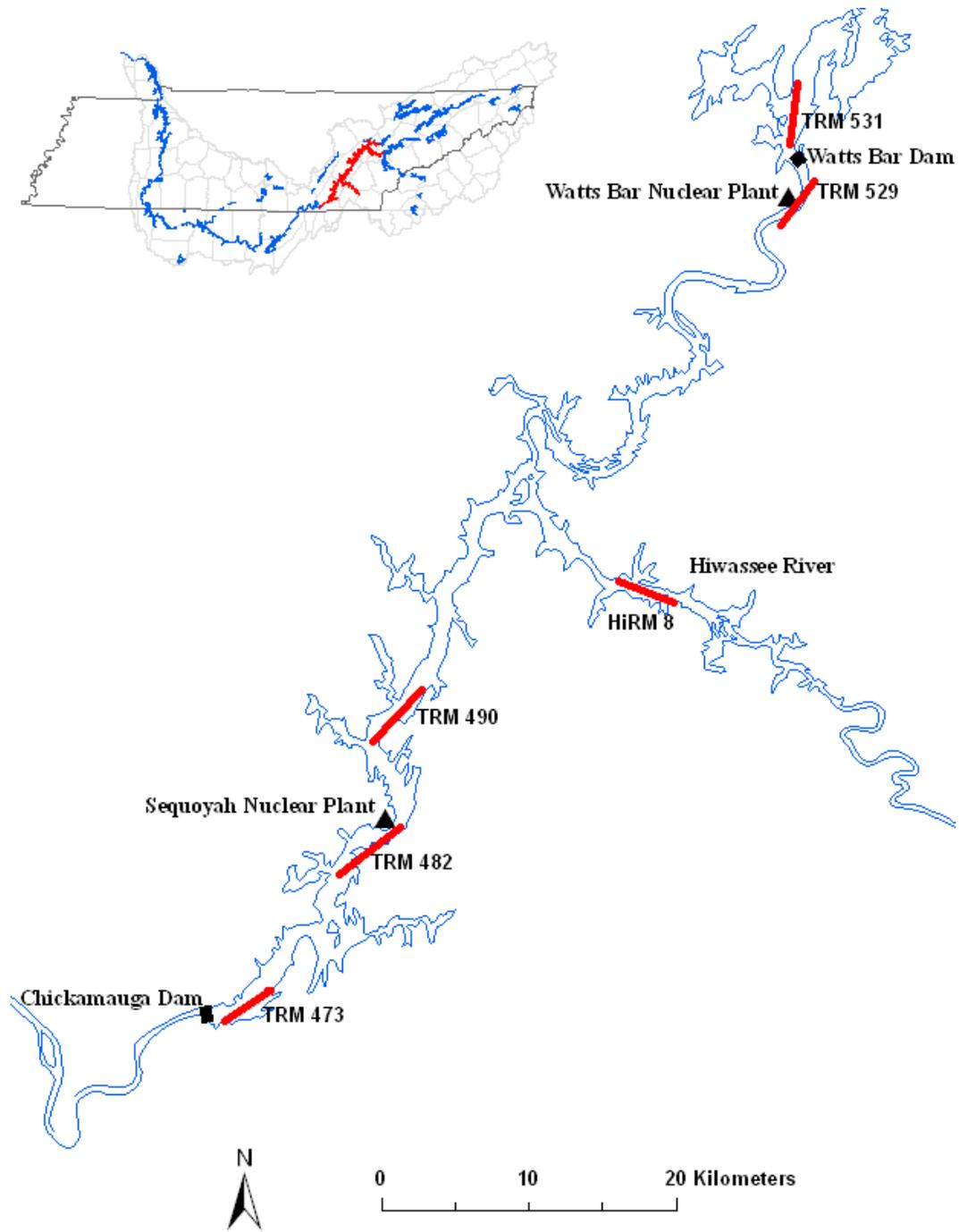


Figure 2. Reservoir Fish Assemblage Index (RFAI) monitoring sites in Chickamauga Reservoir and Watts Bar Reservoir forebay. Tennessee River Miles (TRM) displayed are positioned near the midpoint of each sample area (as represented by red line), with the exception of TRM 529, which is near the upstream end of the sample area.

Appendix 1. Species list and number of fish collected by year and Tennessee River mile (TRM) in Chickamauga Reservoir (TRM 529, 490.5, 482, 472.2, and Hiwassee River mile {HIRM} 8.4) and Watts Bar Reservoir forebay (TRM 531) during autumn RFAI sampling (electro-fishing {EF} and gill netting), 1993 to 2009. Species are listed in alphabetical order by common name.

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Alewife	<i>Alosa pseudoharengus</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Alewife	<i>Alosa pseudoharengus</i>					
		2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	1	1
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Atlantic needlefish	<i>Strongylura marina</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Atlantic needlefish	<i>Strongylura marina</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	1	---	1
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
482.0	---		---	---		
472.3	---		---	---		
HIRM 8.5	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Black buffalo	<i>Ictiobus niger</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	1	1
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
2001	531.0	---	---	---		
	529.0	---	---	---		
	490.5	3	---	3		
	482.0	---	---	---		
	472.3	1	---	1		
	HIRM 8.5	1	---	1		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Black buffalo	<i>Ictiobus niger</i>					
		2002	531.0	1	---	1
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	1	1
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	12	---	12
		2004	531.0	2	---	2
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	6	---	6
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	2	3	5
		2006	531.0	1	---	1
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	2	1	3
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Black crappie	<i>Pomoxis nigromaculatus</i>					
		1993	531.0	3	4	7
			529.0	15	---	15
			490.5	19	14	33
			472.3	---	14	14
			HIRM 8.5	1	47	48
		1994	531.0	1	---	1
			529.0	7	---	7
			490.5	3	---	3
			472.3	1	2	3
			HIRM 8.5	7	---	7
		1995	529.0	6	---	6
			490.5	10	1	11
			472.3	7	16	23
			HIRM 8.5	1	1	2
		1996	531.0	---	---	---
			529.0	16	---	16
			490.5	---	---	---
			482.0	---	18	18
		1997	529.0	12	---	12
			490.5	---	---	---
			472.3	---	2	2
			HiRM 8.5	1	---	1
		1998	531.0	---	1	1
		1999	531.0	---	1	1
			529.0	4	---	4
			490.5	1	1	2
			482.0	---	---	---
			472.3	1	4	5
			HIRM 8.5	6	3	9
		2000	531.0	7	2	9
			529.0	43	---	43
			490.5	18	9	27
			482.0	2	2	4
			472.3	---	4	4
			HIRM 8.5	14	5	19
		2001	531.0	2	34	36
			529.0	---	---	---
			490.5	6	5	11
			482.0	---	32	32
			472.3	1	41	42
			HIRM 8.5	12	15	27

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Black crappie	<i>Pomoxis nigromaculatus</i>	2002	531.0	1	25	26
			529.0	18	---	18
			490.5	17	8	25
			482.0	3	1	4
			472.3	1	23	24
		2003	531.0	6	7	13
			529.0	13	---	13
			490.5	19	8	27
			482.0	4	1	5
			472.3	---	8	8
			HIRM 8.5	12	---	12
		2004	531.0	---	13	13
			529.0	23	---	23
			490.5	23	10	33
			482.0	5	4	9
			472.3	5	14	19
			HIRM 8.5	25	7	32
		2005	531.0	1	52	53
			529.0	26	---	26
			490.5	3	4	7
			482.0	6	2	8
			472.3	2	8	10
			HIRM 8.5	14	3	17
		2006	531.0	3	29	32
			529.0	5	---	5
			490.5	12	18	30
			482.0	2	13	15
			472.3	1	47	48
		2007	531.0	---	44	44
			529.0	4	---	4
			490.5	2	56	58
			482.0	1	21	22
			472.3	1	57	58
			HIRM 8.5	18	1	19
		2008	531.0	---	7	7
			529.0	5	---	5
			490.5	8	22	30
			482.0	3	20	23
			472.3	1	30	31
		2009	531.0	1	26	27
			529.0	9	---	9
			490.5	94	8	102
482.0	24		11	35		
472.3	---		15	15		
HIRM 8.5	12		10	22		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Black redbhorse	<i>Moxostoma duquesnei</i>					
		1993	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	6	---	6
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	4	---	4
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	4	---	4
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	1	---	1
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	5	---	5
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	1	---	1
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2002	531.0	---	---	---
			529.0	2	---	2
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Black redborse	<i>Moxostoma duquesnei</i>	2003	531.0	---	---	---
			529.0	6	---	6
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	2	---	2
			490.5	1	---	1
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		2006	531.0	---	---	---
			529.0	6	---	6
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2007	531.0	---	---	---
			529.0	2	---	2
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	6	---	6
2008	531.0	---	---	---		
	529.0	3	---	3		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	1	---	1		
	HIRM 8.5	---	---	---		
2009	531.0	---	---	---		
	529.0	5	---	5		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Blue catfish	<i>Ictalurus furcatus</i>	1993	531.0	---	10	10
			529.0	1	---	1
			490.5	1	8	9
			472.3	1	4	5
			HIRM 8.5	---	1	1
		1994	531.0	---	4	4
			529.0	1	---	1
			490.5	---	4	4
			472.3	---	7	7
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	6	6
			472.3	---	9	9
			HIRM 8.5	1	7	8
		1996	531.0	---	6	6
			529.0	---	---	---
			490.5	---	7	7
			482.0	---	2	2
		1997	529.0	---	---	---
			490.5	---	6	6
			472.3	---	---	---
			HiRM 8.5	---	3	3
		1998	531.0	---	7	7
		1999	531.0	---	37	37
			529.0	---	---	---
			490.5	---	4	4
			482.0	---	15	15
			472.3	---	18	18
			HIRM 8.5	---	3	3
		2000	531.0	---	8	8
			529.0	1	---	1
			490.5	---	---	---
			482.0	10	8	18
			472.3	---	22	22
			HIRM 8.5	---	---	---
		2001	531.0	---	5	5
			529.0	11	---	11
			490.5	---	17	17
			482.0	2	18	20
			472.3	---	38	38
			HIRM 8.5	---	1	1
		2002	531.0	---	11	11
			529.0	---	---	---
			490.5	---	---	---
			482.0	8	2	10
			472.3	---	5	5

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Blue catfish	<i>Ictalurus furcatus</i>	2003	531.0	---	3	3
			529.0	2	---	2
			490.5	---	26	26
			482.0	---	12	12
			472.3	---	16	16
			HIRM 8.5	---	1	1
		2004	531.0	---	3	3
			529.0	---	---	---
			490.5	---	15	15
			482.0	---	8	8
			472.3	---	14	14
			HIRM 8.5	---	---	---
		2005	531.0	---	4	4
			529.0	2	---	2
			490.5	---	17	17
			482.0	---	23	23
			472.3	---	29	29
			HIRM 8.5	---	---	---
		2006	531.0	---	2	2
			529.0	1	---	1
			490.5	---	1	1
			482.0	---	15	15
			472.3	---	5	5
		2007	531.0	---	3	3
			529.0	---	---	---
			490.5	---	7	7
			482.0	1	32	33
			472.3	---	11	11
			HIRM 8.5	2	2	4
		2008	531.0	---	9	9
			529.0	2	---	2
			490.5	---	7	7
			482.0	4	12	16
472.3	---		14	14		
2009	531.0	---	13	13		
	529.0	---	---	---		
	490.5	---	3	3		
	482.0	---	19	19		
	472.3	---	17	17		
	HIRM 8.5	---	---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Bluegill	<i>Lepomis macrochirus</i>	1993	531.0	102	2	104
			529.0	460	---	460
			490.5	372	3	375
			472.3	160	3	163
			HIRM 8.5	361	6	367
		1994	531.0	348	3	351
			529.0	483	---	483
			490.5	217	1	218
			472.3	382	3	385
			HIRM 8.5	321	1	322
		1995	529.0	306	---	306
			490.5	148	2	150
			472.3	82	4	86
			HIRM 8.5	103	2	105
		1996	531.0	136	1	137
			529.0	459	---	459
			490.5	115	1	116
			482.0	442	1	443
		1997	529.0	222	---	222
			490.5	---	1	1
			472.3	52	2	54
			HiRM 8.5	27	---	27
		1998	531.0	156	1	157
		1999	531.0	46	1	47
			529.0	52	---	52
			490.5	29	1	30
			482.0	25	3	28
			472.3	14	1	15
			HIRM 8.5	159	1	160
		2000	531.0	329	1	330
			529.0	355	---	355
			490.5	83	4	87
			482.0	311	3	314
			472.3	126	1	127
			HIRM 8.5	148	6	154
		2001	531.0	264	5	269
529.0	166		---	166		
490.5	97		23	120		
482.0	405		3	408		
472.3	36		2	38		
HIRM 8.5	262		4	266		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Bluegill	<i>Lepomis macrochirus</i>	2002	531.0	254	---	254
			529.0	244	---	244
			490.5	361	---	361
			482.0	178	---	178
			472.3	184	2	186
		2003	531.0	419	---	419
			529.0	354	---	354
			490.5	193	---	193
			482.0	170	4	174
			472.3	144	7	151
			HIRM 8.5	272	---	272
		2004	531.0	368	---	368
			529.0	89	---	89
			490.5	219	2	221
			482.0	277	5	282
			472.3	112	2	114
			HIRM 8.5	449	2	451
		2005	531.0	540	---	540
			529.0	177	---	177
			490.5	247	5	252
			482.0	220	2	222
			472.3	236	6	242
			HIRM 8.5	190	2	192
		2006	531.0	485	1	486
			529.0	250	---	250
			490.5	171	8	179
			482.0	307	5	312
			472.3	309	1	310
		2007	531.0	281	2	283
			529.0	402	---	402
			490.5	228	3	231
			482.0	203	8	211
			472.3	376	7	383
			HIRM 8.5	322	1	323
		2008	531.0	935	2	937
			529.0	892	---	892
			490.5	698	---	698
			482.0	695	---	695
			472.3	1306	5	1311
		2009	531.0	468	---	468
			529.0	471	---	471
			490.5	903	2	905
482.0	534		6	540		
472.3	1011		1	1012		
HIRM 8.5	453		1	454		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Bluntnose minnow	<i>Pimephales notatus</i>	1993	531.0	19	---	19
			529.0	1	---	1
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		1994	531.0	1	---	1
			529.0	24	---	24
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	1	---	1
			HIRM 8.5	---	---	---
		1996	531.0	1	---	1
			529.0	1	---	1
			490.5	1	---	1
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	4	---	4
		1998	531.0	19	---	19
		1999	531.0	---	---	---
			529.0	2	---	2
			490.5	1	---	1
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		2000	531.0	9	---	9
			529.0	---	---	---
			490.5	---	---	---
			482.0	12	---	12
			472.3	---	---	---
			HIRM 8.5	2	---	2
		2001	531.0	3	---	3
			529.0	1	---	1
			490.5	21	---	21
			482.0	4	---	4
			472.3	---	---	---
			HIRM 8.5	13	---	13
		2002	531.0	2	---	2
529.0	---		---	---		
490.5	---		---	---		
482.0	---		---	---		
472.3	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Bluntnose minnow	<i>Pimephales notatus</i>	2003	531.0	2	---	2
			529.0	2	---	2
			490.5	12	---	12
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	20	---	20
		2004	531.0	---	---	---
			529.0	1	---	1
			490.5	5	---	5
			482.0	3	---	3
			472.3	---	---	---
			HIRM 8.5	3	---	3
		2005	531.0	1	---	1
			529.0	---	---	---
			490.5	2	---	2
			482.0	1	---	1
			472.3	---	---	---
			HIRM 8.5	1	---	1
		2006	531.0	21	---	21
			529.0	---	---	---
			490.5	1	---	1
			482.0	30	---	30
			472.3	---	---	---
		2007	531.0	1	---	1
			529.0	---	---	---
			490.5	3	---	3
			482.0	1	---	1
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	14	---	14
472.3	---		---	---		
2009	531.0	19	---	19		
	529.0	6	---	6		
	490.5	25	---	25		
	482.0	8	---	8		
	472.3	1	---	1		
	HIRM 8.5	7	---	7		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Brook silverside	<i>Labidesthes sicculus</i>	1993	531.0	94	---	94
			529.0	12	---	12
			490.5	130	---	130
			472.3	127	---	127
			HIRM 8.5	1	---	1
		1994	531.0	6	---	6
			529.0	28	---	28
			490.5	---	---	---
			472.3	234	---	234
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	624	---	624
			472.3	1	---	1
			HIRM 8.5	---	---	---
		1996	531.0	16	---	16
			529.0	---	---	---
			490.5	10	---	10
			482.0	16	---	16
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	4	---	4
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	9	---	9
		HIRM 8.5	---	---	---	
		2000	531.0	24	---	24
			529.0	---	---	---
			490.5	1	---	1
			482.0	2	---	2
472.3	152		---	152		
HIRM 8.5	3	---	3			
2001	531.0	14	---	14		
	529.0	19	---	19		
	490.5	7	---	7		
	482.0	6	---	6		
	472.3	4	---	4		
HIRM 8.5	12	---	12			

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Brook silverside	<i>Labidesthes sicculus</i>	2002	531.0	4	---	4
			529.0	20	---	20
			490.5	13	---	13
			482.0	11	---	11
			472.3	51	---	51
		2003	531.0	70	---	70
			529.0	2	---	2
			490.5	10	---	10
			482.0	14	---	14
			472.3	11	---	11
			HIRM 8.5	12	---	12
		2004	531.0	36	---	36
			529.0	8	---	8
			490.5	13	---	13
			482.0	10	---	10
			472.3	41	---	41
			HIRM 8.5	2	---	2
		2005	531.0	52	---	52
			529.0	1	---	1
			490.5	5	---	5
			482.0	6	---	6
			472.3	10	---	10
			HIRM 8.5	7	---	7
		2006	531.0	3	---	3
			529.0	15	---	15
			490.5	---	---	---
			482.0	---	---	---
			472.3	3	---	3
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	2	---	2
			HIRM 8.5	---	---	---
		2008	531.0	2	---	2
			529.0	2	---	2
490.5	---		---	---		
482.0	1		---	1		
472.3	2		---	2		
2009	531.0	7	---	7		
	529.0	20	---	20		
	490.5	23	---	23		
	482.0	6	---	6		
	472.3	2	---	2		
	HIRM 8.5	2	---	2		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Brown bullhead	<i>Ameiurus nebulosus</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Brown bullhead	<i>Ameiurus nebulosus</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2009	531.0	---	---	---
529.0	---		---	---		
490.5	---		---	---		
482.0	---		---	---		
472.3	1		---	1		
HIRM 8.5	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Bullhead minnow	<i>Pimephales vigilax</i>	1993	531.0	10	---	10
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	1	---	1
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	1	---	1
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	1	---	1
			472.3	2	---	2
		HIRM 8.5	3	---	3	
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	1	---	1
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2002	531.0	---	---	---
529.0	6		---	6		
490.5	1		---	1		
482.0	---		---	---		
472.3	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Bullhead minnow	<i>Pimephales vigilax</i>	2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	2	---	2
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	1	---	1
			482.0	2	---	2
			472.3	---	---	---
		2007	531.0	1	---	1
			529.0	---	---	---
			490.5	1	---	1
			482.0	3	---	3
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	6	---	6
529.0	1		---	1		
490.5	9		---	9		
482.0	---		---	---		
472.3	---		---	---		
2009	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	3	---	3		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Channel catfish	<i>Ictalurus punctatus</i>					
		1993	531.0	1	11	12
			529.0	10	---	10
			490.5	---	11	11
			472.3	---	3	3
			HIRM 8.5	---	5	5
		1994	531.0	1	3	4
			529.0	10	---	10
			490.5	---	4	4
			472.3	1	7	8
			HIRM 8.5	---	6	6
		1995	529.0	28	---	28
			490.5	4	9	13
			472.3	15	8	23
			HIRM 8.5	---	---	---
		1996	531.0	1	3	4
			529.0	7	---	7
			490.5	3	7	10
			482.0	7	4	11
		1997	529.0	1	---	1
			490.5	4	2	6
			472.3	---	---	---
			HiRM 8.5	---	11	11
		1998	531.0	---	6	6
		1999	531.0	---	11	11
			529.0	4	---	4
			490.5	2	3	5
			482.0	4	16	20
			472.3	---	4	4
			HIRM 8.5	---	5	5
		2000	531.0	2	8	10
			529.0	3	---	3
			490.5	21	---	21
			482.0	8	1	9
			472.3	---	4	4
			HIRM 8.5	---	8	8
		2001	531.0	1	10	11
			529.0	11	---	11
			490.5	17	11	28
			482.0	8	4	12
			472.3	2	6	8
			HIRM 8.5	1	11	12
		2002	531.0	1	5	6
			529.0	22	---	22
			490.5	17	3	20
			482.0	13	9	22
			472.3	1	2	3

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Channel catfish	<i>Ictalurus punctatus</i>					
		2003	531.0	5	5	10
			529.0	5	---	5
			490.5	2	14	16
			482.0	6	15	21
			472.3	---	10	10
			HIRM 8.5	1	5	6
		2004	531.0	2	8	10
			529.0	9	---	9
			490.5	10	7	17
			482.0	15	7	22
			472.3	11	12	23
			HIRM 8.5	2	6	8
		2005	531.0	10	2	12
			529.0	15	---	15
			490.5	---	6	6
			482.0	6	13	19
			472.3	---	5	5
			HIRM 8.5	---	5	5
		2006	531.0	4	1	5
			529.0	20	---	20
			490.5	4	4	8
			482.0	3	14	17
			472.3	5	2	7
		2007	531.0	4	2	6
			529.0	12	---	12
			490.5	1	2	3
			482.0	12	8	20
			472.3	3	6	9
			HIRM 8.5	5	6	11
		2008	531.0	3	3	6
			529.0	16	---	16
			490.5	3	2	5
			482.0	18	5	23
			472.3	2	5	7
		2009	531.0	5	5	10
			529.0	35	---	35
			490.5	19	5	24
			482.0	18	11	29
			472.3	31	6	37
			HIRM 8.5	6	7	13

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Chestnut lamprey	<i>Ichthyomyzon castaneus</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	4	---	4
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	3	---	3
			472.3	---	---	---
			HIRM 8.5	1	---	1
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	1	---	1
			490.5	4	---	4
			472.3	2	---	2
			HiRM 8.5	1	---	1
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	1	---	1
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	4	---	4
			482.0	1	---	1
472.3	---		---	---		
HIRM 8.5	2	---	2			
2001	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
HIRM 8.5	---	---	---			

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Chestnut lamprey	<i>Ichthyomyzon castaneus</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	3	---	3
			482.0	---	---	---
			472.3	1	---	1
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	2	---	2
			482.0	1	---	1
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	1	1
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	1	1
			482.0	---	---	---
			472.3	---	---	---
HIRM 8.5	2		---	2		
2008	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
2009	531.0	---	---	---		
	529.0	---	---	---		
	490.5	2	---	2		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	1	2	3		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Common Carp	<i>Cyprinus carpio</i>					
		1993	531.0	4	6	10
			529.0	23	---	23
			490.5	16	1	17
			472.3	4	---	4
			HIRM 8.5	19	2	21
		1994	531.0	28	---	28
			529.0	13	---	13
			490.5	21	---	21
			472.3	15	1	16
			HIRM 8.5	31	5	36
		1995	529.0	7	---	7
			490.5	7	---	7
			472.3	4	---	4
			HIRM 8.5	30	2	32
		1996	531.0	10	5	15
			529.0	10	---	10
			490.5	7	1	8
			482.0	12	---	12
		1997	529.0	49	---	49
			490.5	12	---	12
			472.3	4	---	4
			HiRM 8.5	---	---	---
		1998	531.0	16	4	20
		1999	531.0	13	6	19
			529.0	4	---	4
			490.5	3	---	3
			482.0	11	---	11
			472.3	---	---	---
			HIRM 8.5	4	1	5
		2000	531.0	11	---	9
			529.0	38	---	38
			490.5	13	---	13
			482.0	1	---	1
			472.3	---	---	---
			HIRM 8.5	5	2	7
		2001	531.0	8	2	10
			529.0	2	---	2
			490.5	11	---	11
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	2	---	2
		2002	531.0	7	3	10
			529.0	7	---	7
			490.5	7	---	7
			482.0	3	---	3
			472.3	3	1	4

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Common carp	<i>Cyprinus carpio</i>					
		2003	531.0	8	4	12
			529.0	6	---	6
			490.5	6	---	6
			482.0	2	1	3
			472.3	5	---	5
			HIRM 8.5	3	---	3
		2004	531.0	7	1	8
			529.0	6	---	6
			490.5	4	---	4
			482.0	8	---	8
			472.3	3	---	3
			HIRM 8.5	4	---	4
		2005	531.0	7	3	10
			529.0	6	---	6
			490.5	1	---	1
			482.0	2	---	2
			472.3	---	1	1
			HIRM 8.5	5	1	6
		2006	531.0	9	4	13
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	4	1	5
		2007	531.0	7	1	8
			529.0	1	---	1
			490.5	4	---	4
			482.0	1	---	1
			472.3	---	1	1
			HIRM 8.5	6	---	6
		2008	531.0	2	4	6
			529.0	---	---	---
			490.5	---	---	---
			482.0	2	---	2
			472.3	1	1	2
		2009	531.0	6	---	6
			529.0	2	---	2
			490.5	7	---	7
			482.0	3	---	3
			472.3	3	---	3
			HIRM 8.5	1	2	3

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Dusky darter	<i>Percina sciera</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Dusky darter	<i>Percina sciera</i>					
		2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Emerald shiner	<i>Notropis atherinoides</i>	1993	531.0	10	---	10
			529.0	885	---	885
			490.5	901	---	901
			472.3	754	---	754
			HIRM 8.5	193	---	193
		1994	531.0	1638	---	1638
			529.0	60	---	60
			490.5	87	---	87
			472.3	94	---	94
			HIRM 8.5	37	---	37
		1995	529.0	---	---	---
			490.5	868	---	868
			472.3	705	---	705
			HIRM 8.5	352	---	352
		1996	531.0	19	---	19
			529.0	3	---	3
			490.5	325	---	325
			482.0	1015	---	1015
		1997	529.0	21	---	21
			490.5	1	---	1
			472.3	20	---	20
			HiRM 8.5	117	---	117
		1998	531.0	1428	---	1428
		1999	531.0	6	---	6
			529.0	6	---	6
			490.5	27	---	27
			482.0	48	---	48
			472.3	15	---	15
			HIRM 8.5	46	---	46
		2000	531.0	---	---	---
			529.0	4	---	4
			490.5	26	---	26
			482.0	83	---	83
			472.3	164	---	164
			HIRM 8.5	65	---	65
		2001	531.0	---	---	---
			529.0	33	---	33
			490.5	69	---	69
			482.0	98	---	98
			472.3	20	---	20
			HIRM 8.5	59	---	59
		2002	531.0	---	---	---
529.0	2		---	2		
490.5	54		---	54		
482.0	19		---	19		
472.3	64		---	64		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Emerald shiner	<i>Notropis atherinoides</i>	2003	531.0	---	---	---
			529.0	3	---	3
			490.5	15	---	15
			482.0	93	---	93
			472.3	95	---	95
			HIRM 8.5	4	---	4
		2004	531.0	11	---	11
			529.0	9	---	9
			490.5	62	---	62
			482.0	183	---	183
			472.3	260	---	260
			HIRM 8.5	55	---	55
		2005	531.0	2	---	2
			529.0	44	---	44
			490.5	21	---	21
			482.0	71	---	71
			472.3	51	---	51
			HIRM 8.5	8	---	8
		2006	531.0	---	---	---
			529.0	19	---	19
			490.5	23	---	23
			482.0	26	---	26
			472.3	10	---	10
		2007	531.0	---	---	---
			529.0	6	---	6
			490.5	36	---	36
			482.0	40	---	40
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	5	---	5
			490.5	3	---	3
482.0	4		---	4		
472.3	1		---	1		
2009	531.0	---	---	---		
	529.0	1	---	1		
	490.5	4	---	4		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Flathead catfish	<i>Pylodictis olivaris</i>	1993	531.0	1	9	10
			529.0	10	---	10
			490.5	1	6	7
			472.3	1	2	3
			HIRM 8.5	1	3	4
		1994	531.0	3	7	10
			529.0	7	---	7
			490.5	1	5	6
			472.3	4	3	7
			HIRM 8.5	---	4	4
		1995	529.0	4	---	4
			490.5	7	2	9
			472.3	1	2	3
			HIRM 8.5	---	1	1
		1996	531.0	3	6	9
			529.0	9	---	9
			490.5	1	5	6
			482.0	1	3	4
		1997	529.0	4	---	4
			490.5	1	4	5
			472.3	---	2	2
			HiRM 8.5	---	1	1
		1998	531.0	3	5	8
		1999	531.0	5	4	9
			529.0	6	---	6
			490.5	1	---	1
			482.0	---	1	1
			472.3	---	2	2
			HIRM 8.5	1	2	3
		2000	531.0	6	15	21
			529.0	5	---	5
			490.5	---	1	1
			482.0	---	1	1
			472.3	10	2	12
			HIRM 8.5	---	1	1
		2001	531.0	3	8	11
			529.0	8	---	8
			490.5	3	3	6
			482.0	1	---	1
			472.3	---	3	3
			HIRM 8.5	2	---	2
		2002	531.0	10	18	28
			529.0	6	---	6
			490.5	2	3	5
			482.0	3	3	6
			472.3	---	1	1

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Flathead catfish	<i>Pylodictis olivaris</i>	2003	531.0	4	17	21
			529.0	5	---	5
			490.5	5	4	9
			482.0	2	3	5
			472.3	5	2	7
			HIRM 8.5	---	5	5
		2004	531.0	5	3	8
			529.0	9	---	9
			490.5	6	4	10
			482.0	---	2	2
			472.3	6	5	11
			HIRM 8.5	5	---	5
		2005	531.0	17	11	28
			529.0	17	---	17
			490.5	3	2	5
			482.0	5	8	13
			472.3	1	5	6
			HIRM 8.5	2	5	7
		2006	531.0	5	10	15
			529.0	7	---	7
			490.5	3	---	3
			482.0	2	1	3
			472.3	1	4	5
		2007	531.0	7	14	21
			529.0	28	---	28
			490.5	16	1	17
			482.0	1	4	5
			472.3	7	3	10
			HIRM 8.5	2	1	3
		2008	531.0	5	9	14
			529.0	10	---	10
			490.5	8	4	12
			482.0	---	2	2
			472.3	7	8	15
		2009	531.0	5	10	15
			529.0	5	---	5
			490.5	9	3	12
			482.0	3	---	3
			472.3	4	7	11
			HIRM 8.5	2	---	2

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Freshwater drum	<i>Aplodinotus grunniens</i>					
		1993	531.0	3	5	8
			529.0	4	---	4
			490.5	6	7	13
			472.3	1	9	10
			HIRM 8.5	4	7	11
		1994	531.0	4	1	5
			529.0	7	---	7
			490.5	4	5	9
			472.3	10	9	19
			HIRM 8.5	7	2	9
		1995	529.0	4	---	4
			490.5	4	6	10
			472.3	7	1	8
			HIRM 8.5	6	16	22
		1996	531.0	7	5	12
			529.0	9	---	9
			490.5	7	6	13
			482.0	1	8	9
		1997	529.0	6	---	6
			490.5	3	1	4
			472.3	1	8	9
			HiRM 8.5	1	19	20
		1998	531.0	1	2	3
		1999	531.0	7	22	29
			529.0	3	---	3
			490.5	7	13	20
			482.0	4	5	9
			472.3	2	12	14
			HIRM 8.5	4	13	17
		2000	531.0	5	18	23
			529.0	1	---	1
			490.5	3	1	4
			482.0	---	2	2
			472.3	1	13	14
			HIRM 8.5	3	8	11
		2001	531.0	6	11	17
			529.0	6	---	6
			490.5	2	13	15
			482.0	1	1	2
			472.3	1	6	7
			HIRM 8.5	5	18	23

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Freshwater drum	<i>Aplodinotus grunniens</i>					
		2002	531.0	4	10	14
			529.0	6	---	6
			490.5	7	3	10
			482.0	2	6	8
			472.3	1	4	5
		2003	531.0	5	1	6
			529.0	3	---	3
			490.5	5	7	12
			482.0	5	10	15
			472.3	4	5	9
			HIRM 8.5	5	10	15
		2004	531.0	10	2	12
			529.0	17	---	17
			490.5	19	5	24
			482.0	13	5	18
			472.3	19	7	26
			HIRM 8.5	4	13	17
		2005	531.0	12	3	15
			529.0	3	---	3
			490.5	2	6	8
			482.0	3	5	8
			472.3	5	9	14
			HIRM 8.5	---	4	4
		2006	531.0	1	6	7
			529.0	19	---	19
			490.5	3	6	9
			482.0	2	3	5
			472.3	6	5	11
		2007	531.0	3	5	8
			529.0	3	---	3
			490.5	9	14	23
			482.0	---	6	6
			472.3	6	6	12
			HIRM 8.5	2	4	6
		2008	531.0	2	3	5
			529.0	---	---	---
			490.5	2	6	8
			482.0	6	7	13
			472.3	10	7	17
		2009	531.0	5	6	11
			529.0	5	---	5
			490.5	16	2	18
			482.0	6	3	9
			472.3	11	4	15
			HIRM 8.5	4	---	4

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Gizzard shad	<i>Dorosoma cepedianum</i>					
		1993	531.0	388	57	445
			529.0	570	---	570
			490.5	399	45	444
			472.3	37	53	90
			HIRM 8.5	361	62	423
		1994	531.0	81	15	96
			529.0	185	---	185
			490.5	151	28	179
			472.3	61	56	117
			HIRM 8.5	64	8	72
		1995	529.0	790	---	790
			490.5	330	58	388
			472.3	31	18	49
			HIRM 8.5	829	30	859
		1996	531.0	271	46	317
			529.0	3577	---	3577
			490.5	274	36	310
			482.0	253	48	301
		1997	529.0	85	---	85
			490.5	82	16	98
			472.3	53	7	60
			HiRM 8.5	43	24	67
		1998	531.0	133	47	180
		1999	531.0	25	260	285
			529.0	46	---	46
			490.5	28	118	146
			482.0	14	76	90
			472.3	28	67	95
			HIRM 8.5	28	58	86
		2000	531.0	79	105	184
			529.0	91	---	91
			490.5	34	60	94
			482.0	135	---	135
			472.3	33	75	108
			HIRM 8.5	87	2	89
		2001	531.0	25	91	116
			529.0	44	---	44
			490.5	93	115	208
			482.0	76	83	159
			472.3	7	80	87
			HIRM 8.5	130	57	187
		2002	531.0	27	61	88
			529.0	138	---	138
			490.5	163	12	175
			482.0	170	3	173
			472.3	49	12	61

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Gizzard shad	<i>Dorosoma cepedianum</i>					
		2003	531.0	149	40	189
			529.0	178	---	178
			490.5	5	7	12
			482.0	5	10	15
			472.3	41	42	83
			HIRM 8.5	146	33	179
		2004	531.0	331	36	367
			529.0	750	---	750
			490.5	86	39	125
			482.0	147	47	194
			472.3	47	50	97
			HIRM 8.5	183	3	186
		2005	531.0	191	12	203
			529.0	307	---	307
			490.5	121	24	145
			482.0	203	87	290
			472.3	36	74	110
			HIRM 8.5	42	44	86
		2006	531.0	353	42	395
			529.0	269	---	269
			490.5	260	63	323
			482.0	188	32	220
			472.3	52	65	117
		2007	531.0	103	122	225
			529.0	111	---	111
			490.5	245	77	322
			482.0	109	72	181
			472.3	69	59	128
			HIRM 8.5	182	16	198
		2008	531.0	125	105	230
			529.0	180	---	180
			490.5	357	80	437
			482.0	108	73	181
			472.3	67	46	113
		2009	531.0	53	35	88
			529.0	131	---	131
			490.5	349	39	388
			482.0	115	35	150
			472.3	17	51	68
			HIRM 8.5	131	6	137

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Golden redbhorse	<i>Moxostoma erythrurum</i>					
		1993	531.0	---	---	---
			529.0	8	---	8
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	7	---	7
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	4	4
		1995	529.0	10	---	10
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		1996	531.0	---	---	---
			529.0	7	---	7
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	10	---	10
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	1	---	1
			529.0	7	---	7
			490.5	5	---	5
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	2	2
		2000	531.0	---	---	---
			529.0	4	---	4
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	1	1
			529.0	8	---	8
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		2002	531.0	---	---	---
			529.0	7	---	7
			490.5	1	1	2
			482.0	---	---	---
			472.3	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Golden redbhorse	<i>Moxostoma erythrurum</i>					
		2003	531.0	---	---	---
			529.0	6	---	6
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	1	2
		2004	531.0	---	1	1
			529.0	2	---	2
			490.5	1	---	1
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		2005	531.0	---	---	---
			529.0	8	---	8
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	3	3
		2006	531.0	---	---	---
			529.0	12	---	12
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	4	---	4
			490.5	---	---	---
			482.0	1	---	1
			472.3	---	---	---
			HIRM 8.5	9	---	9
		2008	531.0	---	---	---
			529.0	7	---	7
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	3	---	3
			490.5	---	---	---
			482.0	---	1	1
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Golden shiner	<i>Notemigonus crysoleucas</i>					
		1993	531.0	---	---	---
			529.0	---	---	---
			490.5	42	1	43
			472.3	---	9	9
			HIRM 8.5	6	10	16
		1994	531.0	13	---	13
			529.0	6	---	6
			490.5	1	1	2
			472.3	---	5	5
			HIRM 8.5	43	---	43
		1995	529.0	10	---	10
			490.5	4	1	5
			472.3	---	---	---
			HIRM 8.5	10	---	10
		1996	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	3	---	3
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	3	---	3
			490.5	11	2	13
			482.0	11	8	19
			472.3	4	1	5
			HIRM 8.5	16	5	21
		2002	531.0	---	---	---
			529.0	3	---	3
			490.5	16	---	16
			482.0	1	---	1
			472.3	17	1	18

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Golden shiner	<i>Notemigonus crysoleucas</i>					
		2003	531.0	6	---	6
			529.0	3	---	3
			490.5	25	---	25
			482.0	6	1	7
			472.3	8	1	9
			HIRM 8.5	19	5	24
		2004	531.0	---	---	---
			529.0	1	---	1
			490.5	6	1	7
			482.0	3	---	15
			472.3	12	1	13
			HIRM 8.5	9	---	9
		2005	531.0	1	---	1
			529.0	3	---	3
			490.5	1	---	1
			482.0	16	---	16
			472.3	26	---	26
			HIRM 8.5	2	---	2
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	9	---	9
			482.0	4	2	6
			472.3	8	5	13
		2007	531.0	---	---	---
			529.0	1	---	1
			490.5	25	2	27
			482.0	---	1	1
			472.3	2	---	2
			HIRM 8.5	5	---	5
		2008	531.0	---	---	---
			529.0	8	---	8
			490.5	14	---	14
			482.0	11	---	11
			472.3	15	2	17
		2009	531.0	---	---	---
			529.0	14	---	14
			490.5	27	1	28
			482.0	7	6	13
			472.3	13	2	15
			HIRM 8.5	12	---	12

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Grass carp	<i>Ctenopharyngodon idella</i>					
		1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Grass carp	<i>Ctenopharyngodon idella</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
482.0	---		---	---		
472.3	---		---	---		
HIRM 8.5	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Green sunfish	<i>Lepomis cyanellus</i>	1993	531.0	4	---	4
			529.0	1	---	1
			490.5	---	---	---
			472.3	3	---	3
			HIRM 8.5	---	---	---
		1994	531.0	4	---	4
			529.0	7	---	7
			490.5	1	---	1
			472.3	10	---	10
			HIRM 8.5	---	---	---
		1995	529.0	1	---	1
			490.5	1	---	1
			472.3	1	---	1
			HIRM 8.5	---	---	---
		1996	531.0	6	---	6
			529.0	3	---	3
			490.5	---	---	---
			482.0	7	---	7
		1997	529.0	1	---	1
			490.5	---	---	---
			472.3	1	---	1
			HiRM 8.5	---	---	---
		1998	531.0	16	---	16
		1999	531.0	2	---	2
			529.0	5	---	5
			490.5	1	---	1
			482.0	1	---	1
			472.3	1	---	1
			HIRM 8.5	---	---	---
		2000	531.0	21	---	21
			529.0	4	---	4
			490.5	---	---	---
			482.0	2	---	2
			472.3	8	---	8
HIRM 8.5	2		---	2		
2001	531.0	8	---	8		
	529.0	11	---	11		
	490.5	10	---	10		
	482.0	1	---	1		
	472.3	1	---	1		
	HIRM 8.5	2	---	2		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Green sunfish	<i>Lepomis cyanellus</i>	2002	531.0	7	---	7
			529.0	4	---	4
			490.5	4	---	4
			482.0	---	---	---
			472.3	5	---	5
		2003	531.0	16	---	16
			529.0	3	---	3
			490.5	3	---	3
			482.0	---	---	---
			472.3	4	---	4
			HIRM 8.5	---	---	---
		2004	531.0	11	---	11
			529.0	5	---	5
			490.5	1	---	1
			482.0	---	---	---
			472.3	5	---	5
			HIRM 8.5	3	---	3
		2005	531.0	35	---	35
			529.0	30	---	30
			490.5	5	---	5
			482.0	2	---	2
			472.3	10	---	10
			HIRM 8.5	---	---	---
		2006	531.0	24	---	24
			529.0	3	---	3
			490.5	1	---	1
			482.0	1	---	1
			472.3	7	---	7
			HIRM 8.5	---	---	---
		2007	531.0	5	---	5
			529.0	3	---	3
			490.5	5	---	5
			482.0	3	---	3
			472.3	7	---	7
			HIRM 8.5	---	---	---
		2008	531.0	8	---	8
			529.0	26	---	26
			490.5	2	---	2
			482.0	---	---	---
			472.3	7	---	7
			HIRM 8.5	---	---	---
		2009	531.0	30	---	30
			529.0	11	---	11
			490.5	---	---	---
			482.0	---	---	---
472.3	4		---	4		
HIRM 8.5	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Highfin carpsucker	<i>Carpoides velifer</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	1	---	1
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
472.3	---		---	---		
HIRM 8.5	---		---	---		
2001	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Highfin carpsucker	<i>Carpoides velifer</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
490.5	---		---	---		
482.0	---		---	---		
472.3	---		---	---		
2009	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Hybrid striped x white bass	<i>Morone saxatilis x chrysops</i>	1993	531.0	---	1	1
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	4	4
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	3	3
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	3	3
		1997	529.0	1	---	1
			490.5	---	1	1
			472.3	---	5	5
			HiRM 8.5	---	2	2
		1998	531.0	1	---	1
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
472.3	---		---	---		
HIRM 8.5	---		---	---		
2001	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Hybrid striped x white bass	<i>Morone saxatilis x chrysops</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	1	1
			529.0	---	---	---
			490.5	---	---	---
482.0	---		---	---		
472.3	---		---	---		
HIRM 8.5	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Inland silverside	<i>Menidia beryllina</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Inland silverside	<i>Menidia beryllina</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	10	---	10
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	2	---	2
		2005	531.0	13	---	13
			529.0	---	---	---
			490.5	4	---	4
			482.0	2	---	2
			472.3	1	---	1
			HIRM 8.5	---	---	---
		2006	531.0	48	---	48
			529.0	30	---	30
			490.5	6	---	6
			482.0	38	---	38
			472.3	18	---	18
		2007	531.0	7	---	7
			529.0	---	---	---
			490.5	3	---	3
			482.0	2	---	2
			472.3	22	---	22
			HIRM 8.5	35	---	35
		2008	531.0	---	---	---
			529.0	45	---	45
			490.5	51	---	51
			482.0	23	---	23
			472.3	105	---	105
		2009	531.0	455	---	455
			529.0	---	---	---
			490.5	81	---	81
			482.0	53	---	53
			472.3	419	---	419
			HIRM 8.5	273	---	273

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Lake sturgeon	<i>Acipenser fulvescens</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Lake sturgeon	<i>Acipenser fulvescens</i>					
		2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	1	1
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Largemouth bass	<i>Micropterus salmoides</i>					
		1993	531.0	28	12	40
			529.0	120	---	120
			490.5	99	2	101
			472.3	19	2	21
			HIRM 8.5	169	---	169
		1994	531.0	42	1	43
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	118	---	118
			490.5	15	1	16
			472.3	16	2	18
			HIRM 8.5	27	---	27
		1996	531.0	25	2	27
			529.0	45	---	45
			490.5	7	3	10
			482.0	19	2	21
		1997	529.0	58	---	58
			490.5	7	---	7
			472.3	---	3	3
			HiRM 8.5	18	1	19
		1998	531.0	10	---	10
		1999	531.0	11	3	14
			529.0	8	---	8
			490.5	5	1	6
			482.0	3	3	6
			472.3	6	3	9
			HIRM 8.5	45	---	45
		2000	531.0	15	13	28
			529.0	47	---	47
			490.5	38	---	38
			482.0	31	---	31
			472.3	35	3	38
			HIRM 8.5	73	---	73
		2001	531.0	12	5	17
			529.0	17	---	17
			490.5	31	---	31
			482.0	29	3	32
			472.3	24	2	26
			HIRM 8.5	36	---	36

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Largemouth bass	<i>Micropterus salmoides</i>					
		2002	531.0	13	---	10
			529.0	39	---	39
			490.5	56	---	56
			482.0	32	---	32
			472.3	29	12	41
		2003	531.0	13	8	21
			529.0	30	---	30
			490.5	15	3	18
			482.0	22	2	24
			472.3	14	2	16
			HIRM 8.5	21	---	21
		2004	531.0	26	1	27
			529.0	65	---	65
			490.5	40	---	40
			482.0	41	4	45
			472.3	36	2	38
			HIRM 8.5	55	---	55
		2005	531.0	14	7	21
			529.0	30	---	30
			490.5	35	---	35
			482.0	20	2	22
			472.3	10	2	12
			HIRM 8.5	31	1	32
		2006	531.0	30	4	34
			529.0	16	---	16
			490.5	4	4	8
			482.0	23	1	24
			472.3	15	3	18
		2007	531.0	36	---	10
			529.0	17	---	17
			490.5	17	9	26
			482.0	20	2	22
			472.3	16	9	25
			HIRM 8.5	28	2	30
		2008	531.0	20	12	32
			529.0	15	---	15
			490.5	21	5	26
			482.0	21	4	25
			472.3	19	7	26
		2009	531.0	42	14	56
			529.0	61	---	61
			490.5	114	3	117
			482.0	66	5	71
			472.3	16	5	21
			HIRM 8.5	43	---	43

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Largescale stoneroller	<i>Campostoma oligolepis</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	1	---	1
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	6	---	6
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
472.3	---		---	---		
HIRM 8.5	---		---	---		
2001	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Largescale stoneroller	<i>Campostoma oligolepis</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
482.0	---		---	---		
472.3	---		---	---		
HIRM 8.5	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Logperch	<i>Percina caprodes</i>					
		1993	531.0	1	---	1
			529.0	7	---	7
			490.5	79	---	79
			472.3	3	---	3
			HIRM 8.5	9	---	9
		1994	531.0	3	---	3
			529.0	67	---	67
			490.5	---	---	---
			472.3	25	---	25
			HIRM 8.5	1	---	1
		1995	529.0	7	---	7
			490.5	12	---	12
			472.3	12	---	12
			HIRM 8.5	4	---	4
		1996	531.0	4	---	4
			529.0	19	---	19
			490.5	10	---	10
			482.0	13	---	13
		1997	529.0	1	---	1
			490.5	1	---	1
			472.3	5	---	5
			HiRM 8.5	---	---	---
		1998	531.0	7	---	7
		1999	531.0	---	---	---
			529.0	19	---	19
			490.5	1	---	1
			482.0	9	---	9
			472.3	3	---	3
			HIRM 8.5	9	---	9
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	4	---	4
			HIRM 8.5	---	---	---
		2001	531.0	4	---	4
			529.0	3	---	3
			490.5	23	---	23
			482.0	5	---	5
			472.3	4	---	4
			HIRM 8.5	7	---	7

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined	
Logperch	<i>Percina caprodes</i>	2002	531.0	---	---	---	
			529.0	---	---	---	
			490.5	1	---	1	
			482.0	2	---	2	
			472.3	4	---	4	
		2003	531.0	2	---	2	
			529.0	1	---	1	
			490.5	4	---	4	
			482.0	9	---	9	
			472.3	---	---	---	
		HIRM 8.5	3	---	3		
			2004	531.0	---	---	---
				529.0	18	---	18
				490.5	3	---	3
				482.0	1	---	1
		472.3		6	---	6	
		HIRM 8.5	---	---	---		
			2005	531.0	3	---	3
				529.0	4	---	4
				490.5	3	---	3
				482.0	6	---	6
		472.3		5	---	5	
		HIRM 8.5	2	---	2		
			2006	531.0	7	---	7
				529.0	22	---	22
				490.5	4	---	4
				482.0	15	---	15
		472.3		---	---	---	
		2007	531.0	---	---	---	
			529.0	5	---	5	
			490.5	7	---	7	
			482.0	---	---	---	
			472.3	---	---	---	
		HIRM 8.5	1	---	1		
			2008	531.0	3	---	3
				529.0	4	---	4
				490.5	4	---	4
				482.0	4	---	4
		472.3		4	---	4	
		2009	531.0	4	---	4	
			529.0	---	---	---	
			490.5	1	---	1	
482.0	---		---	---			
472.3	2		---	2			
HIRM 8.5	8	---	8				

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Longear sunfish	<i>Lepomis megalotis</i>					
		1993	531.0	---	---	---
			529.0	3	---	3
			490.5	7	---	7
			472.3	1	---	1
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	1	---	1
			490.5	1	---	1
			472.3	3	---	3
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	7	---	7
			472.3	3	---	3
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	3	---	3
			490.5	4	---	4
			482.0	12	---	12
		1997	529.0	1	---	1
			490.5	3	---	3
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	1	---	1
			529.0	---	---	---
			490.5	4	---	4
			482.0	1	---	1
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	9	---	9
			490.5	7	---	7
			482.0	45	---	45
			472.3	16	---	16
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	2	---	2
			490.5	8	---	8
			482.0	47	2	49
			472.3	1	---	1
			HIRM 8.5	4	---	4

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Longear sunfish	<i>Lepomis megalotis</i>	2002	531.0	---	---	---
			529.0	8	---	8
			490.5	14	---	14
			482.0	8	---	8
			472.3	16	---	16
		2003	531.0	2	---	2
			529.0	3	---	3
			490.5	27	---	27
			482.0	29	---	29
			472.3	6	---	6
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	32	---	32
			490.5	13	---	13
			482.0	7	---	7
			472.3	4	---	4
			HIRM 8.5	3	---	3
		2005	531.0	5	---	5
			529.0	46	---	46
			490.5	12	---	12
			482.0	12	---	12
			472.3	8	---	8
			HIRM 8.5	---	---	---
		2006	531.0	6	---	6
			529.0	25	---	25
			490.5	15	---	15
			482.0	11	---	11
			472.3	10	---	10
			HIRM 8.5	---	---	---
		2007	531.0	1	---	1
			529.0	9	---	9
			490.5	13	---	13
			482.0	9	---	9
			472.3	6	---	6
			HIRM 8.5	1	---	1
		2008	531.0	8	---	8
			529.0	19	---	19
			490.5	1	---	1
			482.0	19	---	19
			472.3	19	---	19
		2009	531.0	---	---	---
			529.0	12	---	12
490.5	33		---	33		
482.0	2		---	2		
472.3	22		---	22		
HIRM 8.5	3		---	3		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Longnose gar	<i>Lepisosteus osseus</i>	1993	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		1996	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	1	---	1
		1999	531.0	---	1	1
			529.0	2	---	2
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2000	HIRM 8.5	---	1	1
			531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		2001	472.3	---	---	---
			HIRM 8.5	---	---	---
			531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
		2002	482.0	---	3	3
			472.3	---	---	---
			HIRM 8.5	---	---	---
			531.0	---	3	3
529.0	---		---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Longnose gar	<i>Lepisosteus osseus</i>					
		2003	531.0	---	---	---
			529.0	3	---	3
			490.5	---	---	---
			482.0	1	---	1
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	1	---	1
			529.0	18	---	18
			490.5	1	---	1
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	1	1
			472.3	1	---	1
			HIRM 8.5	---	1	1
		2006	531.0	---	---	---
			529.0	2	---	2
			490.5	---	---	---
			482.0	---	2	2
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	1	---	1
			490.5	---	1	1
			482.0	---	1	1
			472.3	---	---	---
			HIRM 8.5	1	---	1
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	1	1
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	7	---	7
			490.5	---	1	1
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Mooneye	<i>Hiodon tergisus</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	1	1
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	2	2
			482.0	---	1	1
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	1	1	

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Mooneye	<i>Hiodon tergisus</i>					
		2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	1	1
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	1	1
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Northern hogsucker	<i>Hypentelium nigricans</i>					
		1993	531.0	1	---	1
			529.0	1	---	1
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	7	---	7
			529.0	1	---	1
			490.5	---	---	---
			472.3	3	---	3
			HIRM 8.5	---	---	---
		1995	529.0	1	---	1
			490.5	---	---	---
			472.3	1	---	1
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	2	2
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	4	---	4
			490.5	---	---	---
			482.0	---	---	---
			472.3	1	---	1
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Northern hogsucker	<i>Hypentelium nigricans</i>	2002	531.0	1	---	1
			529.0	1	---	1
			490.5	1	---	1
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	2	---	2
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	1	---	1
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	1	---	1
			529.0	---	---	---
			490.5	---	---	---
482.0	---		---	---		
472.3	---		---	---		
HIRM 8.5	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Redbreast sunfish	<i>Lepomis auritus</i>	1993	531.0	10	---	10
			529.0	4	---	4
			490.5	15	---	15
			472.3	25	---	25
			HIRM 8.5	---	---	---
		1994	531.0	7	---	7
			529.0	45	---	45
			490.5	7	---	7
			472.3	30	---	30
			HIRM 8.5	3	---	3
		1995	529.0	1	---	1
			490.5	3	---	3
			472.3	7	---	7
			HIRM 8.5	---	---	---
		1996	531.0	4	---	4
			529.0	4	---	4
			490.5	12	3	15
			482.0	15	---	15
		1997	529.0	3	---	3
			490.5	3	---	3
			472.3	2	---	2
			HiRM 8.5	---	---	---
		1998	531.0	37	---	37
		1999	531.0	7	---	7
			529.0	6	---	6
			490.5	11	---	11
			482.0	10	---	10
			472.3	26	---	26
			HIRM 8.5	1	---	1
		2000	531.0	35	---	35
			529.0	16	---	16
			490.5	12	---	12
			482.0	30	---	30
			472.3	53	1	54
			HIRM 8.5	4	---	4
		2001	531.0	36	---	36
			529.0	15	---	15
			490.5	38	---	38
			482.0	37	2	39
			472.3	36	---	36
			HIRM 8.5	3	---	3

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Redbreast sunfish	<i>Lepomis auritus</i>	2002	531.0	14	---	14
			529.0	19	---	19
			490.5	40	---	40
			482.0	25	---	25
			472.3	70	1	71
		2003	531.0	18	---	18
			529.0	7	---	7
			490.5	58	---	58
			482.0	29	---	29
			472.3	50	---	50
			HIRM 8.5	3	---	3
		2004	531.0	57	---	57
			529.0	19	---	19
			490.5	43	---	43
			482.0	56	---	56
			472.3	68	---	68
			HIRM 8.5	2	---	2
		2005	531.0	25	---	25
			529.0	29	---	29
			490.5	65	---	65
			482.0	152	---	152
			472.3	78	---	78
			HIRM 8.5	3	---	3
		2006	531.0	83	---	83
			529.0	19	---	19
			490.5	65	---	65
			482.0	70	---	70
			472.3	215	---	215
		2007	531.0	8	---	8
			529.0	22	---	22
			490.5	94	---	94
			482.0	68	1	69
			472.3	115	---	115
			HIRM 8.5	4	---	4
		2008	531.0	38	---	38
			529.0	26	---	26
			490.5	24	---	24
			482.0	93	1	94
			472.3	179	---	179
		2009	531.0	24	---	24
			529.0	18	---	18
			490.5	88	---	88
482.0	35		---	35		
472.3	110		---	110		
	HIRM 8.5	6	---	6		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Redear sunfish	<i>Lepomis microlophus</i>					
		1993	531.0	27	2	29
			529.0	150	---	150
			490.5	66	26	92
			472.3	27	8	35
			HIRM 8.5	298	22	320
		1994	531.0	46	2	48
			529.0	274	---	274
			490.5	55	10	65
			472.3	79	2	81
			HIRM 8.5	109	8	117
		1995	529.0	124	---	124
			490.5	19	19	38
			472.3	43	10	53
			HIRM 8.5	31	17	48
		1996	531.0	34	1	35
			529.0	91	---	91
			490.5	16	15	31
			482.0	213	20	233
		1997	529.0	105	---	105
			490.5	19	17	36
			472.3	3	2	5
			HiRM 8.5	133	8	141
		1998	531.0	46	---	46
		1999	531.0	17	1	18
			529.0	63	---	63
			490.5	34	8	42
			482.0	51	6	57
			472.3	7	3	10
			HIRM 8.5	99	6	105
		2000	531.0	44	---	44
			529.0	137	---	137
			490.5	35	8	43
			482.0	60	3	63
			472.3	19	4	23
			HIRM 8.5	179	7	186
		2001	531.0	56	---	56
			529.0	139	---	139
			490.5	25	39	64
			482.0	77	20	97
			472.3	25	6	31
			HIRM 8.5	71	7	78

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Redear sunfish	<i>Lepomis microlophus</i>	2002	531.0	36	---	36
			529.0	221	---	221
			490.5	71	6	77
			482.0	50	2	52
			472.3	29	5	34
		2003	531.0	50	---	50
			529.0	61	---	61
			490.5	45	47	92
			482.0	96	16	115
			472.3	55	10	65
			HIRM 8.5	66	2	68
		2004	531.0	42	1	43
			529.0	64	---	64
			490.5	76	19	95
			482.0	76	8	84
			472.3	32	4	36
			HIRM 8.5	87	9	96
		2005	531.0	35	---	35
			529.0	85	---	85
			490.5	32	8	40
			482.0	81	9	90
			472.3	28	5	33
			HIRM 8.5	65	16	81
		2006	531.0	55	---	55
			529.0	83	---	83
			490.5	42	37	79
			482.0	112	7	119
			472.3	33	9	42
		2007	531.0	31	---	31
			529.0	54	---	54
			490.5	44	12	56
			482.0	40	3	43
			472.3	22	3	25
			HIRM 8.5	47	---	47
		2008	531.0	33	1	34
			529.0	93	---	93
			490.5	42	13	55
			482.0	86	---	86
			472.3	36	5	41
		2009	531.0	42	1	43
			529.0	78	---	78
			490.5	115	33	148
482.0	82		12	94		
472.3	38		2	40		
HIRM 8.5	127		---	127		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
River carpsucker	<i>Carpoides carpio</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	1	---	1
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
River carpsucker	<i>Carpoides carpio</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
River redhorse	<i>Moxostoma carinatum</i>					
		1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	1	---	1
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
River redhorse	<i>Moxostoma carinatum</i>					
		2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	1	1
		2009	531.0	---	1	1
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Rock bass	<i>Ambloplites rupestris</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Rock bass	<i>Ambloplites rupestris</i>					
		2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Sauger	<i>Sander canadensis</i>					
		1993	531.0	---	1	1
			529.0	---	---	---
			490.5	---	1	1
			472.3	1	1	2
			HIRM 8.5	---	8	8
		1994	531.0	---	6	6
			529.0	1	---	1
			490.5	---	5	5
			472.3	---	2	2
			HIRM 8.5	1	15	16
		1995	529.0	4	---	4
			490.5	---	14	14
			472.3	---	12	12
			HIRM 8.5	1	7	8
		1996	531.0	---	5	5
			529.0	4	---	4
			490.5	1	10	11
			482.0	---	6	6
		1997	529.0	1	---	1
			490.5	1	25	26
			472.3	---	7	7
			HiRM 8.5	1	10	11
		1998	531.0	1	3	4
		1999	531.0	---	2	2
			529.0	1	---	1
			490.5	1	2	3
			482.0	---	4	4
			472.3	---	1	1
			HIRM 8.5	---	5	5
		2000	531.0	---	4	4
			529.0	---	---	---
			490.5	---	5	5
			482.0	---	3	3
			472.3	---	4	4
			HIRM 8.5	2	2	4
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	1	1
			HIRM 8.5	---	2	2

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Sauger	<i>Sander canadensis</i>					
		2002	531.0	---	---	---
			529.0	---	---	---
			490.5	1	4	5
			482.0	---	6	6
			472.3	---	1	1
		2003	531.0	---	1	1
			529.0	---	---	---
			490.5	---	1	1
			482.0	---	2	2
			472.3	---	---	---
			HIRM 8.5	---	1	1
		2004	531.0	---	1	1
			529.0	---	---	---
			490.5	---	2	2
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	1	1
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	1	1
			482.0	---	---	---
			472.3	---	1	1
			HIRM 8.5	---	2	2
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	1	1
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	1	1
			472.3	---	---	---
		2009	531.0	---	7	7
			529.0	1	---	1
			490.5	---	5	5
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	5	5

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Skipjack herring	<i>Alosa chrysochloris</i>	1993	531.0	---	13	13
			529.0	25	---	25
			490.5	---	54	54
			472.3	---	40	40
			HIRM 8.5	---	2	2
		1994	531.0	1	65	66
			529.0	10	---	10
			490.5	---	8	8
			472.3	1	17	18
			HIRM 8.5	---	---	---
		1995	529.0	1	---	1
			490.5	---	81	81
			472.3	---	34	34
			HIRM 8.5	---	10	10
		1996	531.0	---	44	44
			529.0	---	---	---
			490.5	---	43	43
			482.0	---	20	20
		1997	529.0	---	---	---
			490.5	---	25	25
			472.3	---	19	19
			HiRM 8.5	---	3	3
		1998	531.0	1	34	35
		1999	531.0	---	13	13
			529.0	---	---	---
			490.5	---	35	35
			482.0	1	19	20
			472.3	1	38	39
			HIRM 8.5	---	4	4
		2000	531.0	---	5	5
			529.0	---	---	---
			490.5	---	8	8
			482.0	---	3	3
			472.3	---	66	66
			HIRM 8.5	---	3	3
		2001	531.0	---	2	2
			529.0	---	---	---
			490.5	---	39	39
			482.0	---	6	6
			472.3	---	44	44
			HIRM 8.5	---	13	13
		2002	531.0	---	---	---
529.0	---		---	---		
490.5	---		15	15		
482.0	---		3	3		
472.3	---		24	24		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Skipjack herring	<i>Alosa chrysochloris</i>	2003	531.0	---	2	2
			529.0	---	---	---
			490.5	---	21	21
			482.0	---	7	7
			472.3	---	33	33
			HIRM 8.5	1	---	1
		2004	531.0	---	34	34
			529.0	---	---	---
			490.5	---	28	28
			482.0	---	15	15
			472.3	---	33	33
			HIRM 8.5	---	1	1
		2005	531.0	---	9	9
			529.0	---	---	---
			490.5	---	7	7
			482.0	---	17	17
			472.3	---	82	82
			HIRM 8.5	---	10	10
		2006	531.0	---	2	2
			529.0	---	---	---
			490.5	---	31	31
			482.0	---	21	21
			472.3	---	39	39
		2007	531.0	---	4	4
			529.0	---	---	---
			490.5	---	32	32
			482.0	---	18	18
			472.3	---	24	24
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
472.3	---		---	---		
2009	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Silver redhorse	<i>Moxostoma anisurum</i>					
		1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	1	1
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Silver redhorse	<i>Moxostoma anisurum</i>	2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	2	2
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
529.0	---		---	---		
490.5	---		---	---		
482.0	---		---	---		
472.3	---		---	---		
2009	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	5	5		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Smallmouth bass	<i>Micropterus dolomieu</i>	1993	531.0	19	---	19
			529.0	34	---	34
			490.5	6	1	7
			472.3	10	2	12
			HIRM 8.5	---	3	3
		1994	531.0	19	3	22
			529.0	36	---	36
			490.5	7	1	8
			472.3	16	---	16
			HIRM 8.5	---	---	---
		1995	529.0	10	---	10
			490.5	4	---	4
			472.3	15	4	19
			HIRM 8.5	---	---	---
		1996	531.0	31	---	31
			529.0	19	---	19
			490.5	10	---	10
			482.0	7	---	7
		1997	529.0	33	---	33
			490.5	9	6	15
			472.3	4	---	4
			HiRM 8.5	---	---	---
		1998	531.0	19	---	19
		1999	531.0	5	---	5
			529.0	3	---	3
			490.5	13	---	13
			482.0	1	---	1
			472.3	1	---	1
			HIRM 8.5	---	---	---
		2000	531.0	17	---	17
			529.0	19	---	19
			490.5	4	6	10
			482.0	7	1	8
			472.3	4	2	6
			HIRM 8.5	---	---	---
2001	531.0	6	1	7		
	529.0	2	---	2		
	490.5	8	1	9		
	482.0	4	---	4		
	472.3	1	---	1		
	HIRM 8.5	---	---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Smallmouth bass	<i>Micropterus dolomieu</i>	2002	531.0	6	2	8
			529.0	16	---	16
			490.5	29	2	31
			482.0	8	2	10
			472.3	7	3	10
		2003	531.0	11	2	13
			529.0	10	---	10
			490.5	12	---	12
			482.0	2	12	14
			472.3	3	1	4
			HIRM 8.5	---	---	---
		2004	531.0	26	1	27
			529.0	25	---	25
			490.5	18	---	18
			482.0	5	---	5
			472.3	5	---	5
			HIRM 8.5	---	---	---
		2005	531.0	12	1	13
			529.0	25	---	25
			490.5	24	---	24
			482.0	1	---	1
			472.3	4	---	4
			HIRM 8.5	---	---	---
		2006	531.0	11	---	11
			529.0	10	---	10
			490.5	17	1	---
			482.0	---	---	---
			472.3	15	---	15
			HIRM 8.5	---	---	---
		2007	531.0	2	2	4
			529.0	4	---	4
			490.5	5	---	5
			482.0	1	1	2
			472.3	3	1	4
			HIRM 8.5	---	---	---
		2008	531.0	6	1	7
			529.0	2	---	2
			490.5	8	---	8
			482.0	2	---	2
			472.3	7	---	7
			HIRM 8.5	---	---	---
		2009	531.0	15	---	15
529.0	15		---	15		
490.5	14		---	14		
482.0	13		1	14		
472.3	7		3	10		
HIRM 8.5	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Smallmouth buffalo	<i>Ictiobus bubalus</i>					
		1993	531.0	---	4	4
			529.0	---	---	---
			490.5	3	1	4
			472.3	1	---	1
			HIRM 8.5	---	6	6
		1994	531.0	1	---	1
			529.0	4	---	4
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	1	1
		1995	529.0	---	---	---
			490.5	3	2	5
			472.3	---	1	1
			HIRM 8.5	7	6	13
		1996	531.0	1	1	2
			529.0	---	---	---
			490.5	1	---	1
			482.0	7	4	11
		1997	529.0	---	---	---
			490.5	---	1	1
			472.3	---	---	---
			HiRM 8.5	1	5	6
		1998	531.0	1	4	5
		1999	531.0	2	4	6
			529.0	---	---	---
			490.5	2	---	2
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	19	14	33
		2000	531.0	1	3	4
			529.0	---	---	---
			490.5	---	---	---
			482.0	9	1	10
			472.3	---	---	---
			HIRM 8.5	---	1	1
		2001	531.0	2	1	3
			529.0	---	---	---
			490.5	3	---	3
			482.0	1	1	2
			472.3	1	---	1
			HIRM 8.5	21	3	24

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Smallmouth buffalo	<i>Ictiobus bubalus</i>					
		2002	531.0	5	3	8
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	3	9	12
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	8	3	11
		2004	531.0	9	1	10
			529.0	1	---	1
			490.5	---	---	---
			482.0	1	---	1
			472.3	---	---	---
			HIRM 8.5	3	2	5
		2005	531.0	2	1	3
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	1	---	1
			HIRM 8.5	4	---	4
		2006	531.0	3	4	7
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	4	5	9
			529.0	---	---	---
			490.5	1	1	2
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	37	---	37
		2008	531.0	2	7	9
			529.0	1	---	1
			490.5	1	---	1
			482.0	---	---	---
			472.3	---	1	1
		2009	531.0	1	1	2
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	4	---	4

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Smallmouth redhorse	<i>Moxostoma breviceps</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	---	1
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Smallmouth redhorse	<i>Moxostoma breviceps</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
482.0	---		---	---		
472.3	---		---	---		
HIRM 8.5	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Spotfin shiner	<i>Cyprinella spiloptera</i>	1993	531.0	43	---	43
			529.0	13	---	13
			490.5	13	---	13
			472.3	1	---	1
			HIRM 8.5	---	---	---
		1994	531.0	57	---	57
			529.0	12	---	12
			490.5	28	---	28
			472.3	---	---	---
			HIRM 8.5	1	---	1
		1995	529.0	4	---	4
			490.5	52	---	52
			472.3	---	---	---
			HIRM 8.5	1	---	1
		1996	531.0	49	---	49
			529.0	7	---	7
			490.5	4	---	4
			482.0	13	---	13
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	3	---	3
			HiRM 8.5	1	---	1
		1998	531.0	103	---	103
		1999	531.0	6	---	6
			529.0	9	---	9
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	66	---	66
			529.0	23	---	23
			490.5	---	---	---
			482.0	18	---	18
			472.3	2	---	2
			HIRM 8.5	1	---	1
		2001	531.0	92	---	92
			529.0	31	---	31
			490.5	21	---	21
			482.0	41	---	41
			472.3	---	---	---
			HIRM 8.5	1	---	1
		2002	531.0	6	---	6
			529.0	28	---	28
			490.5	7	---	7
			482.0	---	---	---
			472.3	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Spotfin shiner	<i>Cyprinella spiloptera</i>	2003	531.0	50	---	50
			529.0	11	---	11
			490.5	19	---	19
			482.0	20	---	20
			472.3	2	---	2
			HIRM 8.5	5	---	5
		2004	531.0	16	---	16
			529.0	11	---	11
			490.5	2	---	2
			482.0	1	---	1
			472.3	3	---	3
			HIRM 8.5	1	---	1
		2005	531.0	102	---	102
			529.0	4	---	4
			490.5	1	---	1
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	86	---	86
			529.0	44	---	44
			490.5	6	---	6
			482.0	38	---	38
			472.3	7	---	7
		2007	531.0	16	---	16
			529.0	27	---	27
			490.5	9	---	9
			482.0	20	---	20
			472.3	4	---	4
			HIRM 8.5	2	---	2
		2008	531.0	79	---	79
			529.0	17	---	17
			490.5	6	---	6
			482.0	20	---	20
			472.3	4	---	4
		2009	531.0	101	---	101
			529.0	33	---	33
			490.5	59	---	59
			482.0	20	---	20
			472.3	10	---	10
			HIRM 8.5	20	---	20

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Spotted bass	<i>Micropterus punctulatus</i>					
		1993	531.0	3	1	4
			529.0	82	---	82
			490.5	82	23	105
			472.3	43	28	71
			HIRM 8.5	7	1	8
		1994	531.0	7	3	10
			529.0	52	---	52
			490.5	49	13	62
			472.3	115	2	117
			HIRM 8.5	10	5	15
		1995	529.0	9	---	9
			490.5	36	1	37
			472.3	22	15	37
			HIRM 8.5	4	4	8
		1996	531.0	1	4	5
			529.0	40	---	40
			490.5	16	10	26
			482.0	25	35	60
		1997	529.0	7	---	7
			490.5	10	15	25
			472.3	1	2	3
			HiRM 8.5	4	2	6
		1998	531.0	YOY	---	YOY
		1999	531.0	1	---	1
			529.0	11	---	11
			490.5	13	1	14
			482.0	12	5	17
			472.3	7	4	11
			HIRM 8.5	3	2	5
		2000	531.0	16	---	16
			529.0	35	---	35
			490.5	13	35	48
			482.0	47	14	61
			472.3	19	22	41
			HIRM 8.5	7	---	7
		2001	531.0	1	2	3
			529.0	16	---	16
			490.5	22	27	49
			482.0	26	70	96
			472.3	21	43	64
			HIRM 8.5	7	5	12

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Spotted bass	<i>Micropterus punctulatus</i>					
		2002	531.0	9	4	13
			529.0	31	---	31
			490.5	61	21	82
			482.0	35	34	69
			472.3	18	49	67
		2003	531.0	12	4	16
			529.0	24	---	24
			490.5	21	7	28
			482.0	42	8	50
			472.3	19	25	44
			HIRM 8.5	9	---	9
		2004	531.0	3	---	9
			529.0	49	---	49
			490.5	49	18	67
			482.0	29	18	47
			472.3	31	5	36
			HIRM 8.5	12	3	15
		2005	531.0	2	---	2
			529.0	56	---	56
			490.5	22	18	40
			482.0	30	21	51
			472.3	16	25	41
			HIRM 8.5	11	4	15
		2006	531.0	3	---	3
			529.0	32	---	32
			490.5	24	10	34
			482.0	30	9	39
			472.3	17	41	58
		2007	531.0	4	---	4
			529.0	30	---	30
			490.5	19	7	26
			482.0	9	12	21
			472.3	13	19	32
			HIRM 8.5	22	---	22
		2008	531.0	1	2	3
			529.0	13	---	13
			490.5	14	2	16
			482.0	20	44	64
			472.3	5	27	32
		2009	531.0	---	---	---
			529.0	35	---	35
			490.5	44	16	60
			482.0	33	17	50
			472.3	12	6	18
			HIRM 8.5	22	2	24

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Spotted gar	<i>Lepisosteus oculatus</i>					
		1993	531.0	1	---	1
			529.0	---	---	---
			490.5	---	1	1
			472.3	---	---	---
			HIRM 8.5	1	2	3
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	3	---	3
		1995	529.0	---	---	---
			490.5	---	1	1
			472.3	---	---	---
			HIRM 8.5	4	---	4
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	1	1
			482.0	10	4	14
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	1	---	1
		1998	531.0	1	---	1
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	2	---	2
			482.0	6	---	6
			472.3	---	---	---
			HIRM 8.5	8	2	10
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	2	---	2
			529.0	1	---	1
			490.5	4	4	8
			482.0	1	---	1
			472.3	2	---	2
			HIRM 8.5	---	---	---
		2002	531.0	1	---	1
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Spotted gar	<i>Lepisosteus oculatus</i>	2003	531.0	2	---	2
			529.0	---	---	---
			490.5	1	---	1
			482.0	3	---	3
			472.3	4	---	4
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	1	---	1
			490.5	8	---	8
			482.0	8	---	8
			472.3	---	---	---
			HIRM 8.5	1	---	1
		2005	531.0	5	---	5
			529.0	---	---	---
			490.5	2	---	2
			482.0	---	---	---
			472.3	2	---	2
			HIRM 8.5	1	---	1
		2006	531.0	2	---	2
			529.0	2	---	2
			490.5	1	---	1
			482.0	2	---	2
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	25	1	26
			482.0	4	1	5
			472.3	1	1	2
			HIRM 8.5	2	---	2
		2008	531.0	2	---	2
			529.0	7	---	7
490.5	11		---	11		
482.0	9		---	9		
472.3	5		---	5		
2009	531.0	1	---	1		
	529.0	1	---	1		
	490.5	10	---	10		
	482.0	10	1	11		
	472.3	1	---	1		
	HIRM 8.5	1	---	1		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Spotted sucker	<i>Minytrema melanops</i>					
		1993	531.0	1	1	2
			529.0	16	---	16
			490.5	15	4	19
			472.3	---	---	---
			HIRM 8.5	16	5	21
		1994	531.0	1	---	1
			529.0	28	---	28
			490.5	4	5	9
			472.3	6	---	6
			HIRM 8.5	34	13	47
		1995	529.0	28	---	28
			490.5	16	1	17
			472.3	13	5	18
			HIRM 8.5	64	4	68
		1996	531.0	4	1	5
			529.0	13	---	13
			490.5	3	1	4
			482.0	4	3	7
		1997	529.0	16	---	16
			490.5	4	12	16
			472.3	---	3	3
			HiRM 8.5	---	28	28
		1998	531.0	4	4	8
		1999	531.0	---	2	2
			529.0	9	---	9
			490.5	4	---	4
			482.0	8	4	12
			472.3	1	---	1
			HIRM 8.5	56	14	70
		2000	531.0	6	10	16
			529.0	5	---	5
			490.5	5	10	15
			482.0	1	8	9
			472.3	---	9	9
			HIRM 8.5	13	26	39
		2001	531.0	7	12	19
			529.0	6	---	6
			490.5	9	1	10
			482.0	2	8	10
			472.3	3	3	6
			HIRM 8.5	64	21	85
		2002	531.0	6	7	13
			529.0	8	---	8
			490.5	4	---	4
			482.0	5	3	8
			472.3	4	8	12

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Spotted sucker	<i>Minytrema melanops</i>	2003	531.0	6	14	20
			529.0	4	---	4
			490.5	6	3	9
			482.0	4	5	9
			472.3	3	6	9
			HIRM 8.5	26	11	37
		2004	531.0	14	13	27
			529.0	4	---	4
			490.5	3	2	5
			482.0	6	1	7
			472.3	6	2	8
			HIRM 8.5	30	11	41
		2005	531.0	4	17	21
			529.0	8	---	8
			490.5	5	2	7
			482.0	3	1	4
			472.3	3	1	4
			HIRM 8.5	28	18	46
		2006	531.0	8	8	16
			529.0	3	---	3
			490.5	5	1	6
			482.0	2	1	3
			472.3	3	2	5
			HIRM 8.5	21	2	23
		2007	531.0	3	5	8
			529.0	5	---	5
			490.5	2	3	5
			482.0	8	---	8
			472.3	---	---	---
			HIRM 8.5	21	2	23
		2008	531.0	2	3	5
529.0	1		---	1		
490.5	2		---	2		
482.0	5		1	6		
472.3	5		1	6		
HIRM 8.5	23		31	54		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Steelcolor shiner	<i>Cyprinella whipplei</i>					
		1993	531.0	48	---	48
			529.0	39	---	39
			490.5	---	---	---
			472.3	1	---	1
			HIRM 8.5	---	---	---
		1994	531.0	34	---	34
			529.0	93	---	93
			490.5	---	---	---
			472.3	1	---	1
			HIRM 8.5	---	---	---
		1995	529.0	7	---	7
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	1	---	1
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	31	---	31
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Steelcolor shiner	<i>Cyprinella whipplei</i>	2003	531.0	---	---	---
			529.0	4	---	4
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2007	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	1	---	1
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2009	531.0	1	---	1
			529.0	4	---	4
			490.5	---	---	---
			482.0	---	---	---
			472.3	4	---	4
			HIRM 8.5	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Striped bass	<i>Morone saxatilis</i>	1993	531.0	---	---	---
			529.0	7	---	6
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	1	1	2
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	1	1
			HIRM 8.5	---	---	---
		1995	529.0	1	---	1
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	1	---	1
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	4	4
			HiRM 8.5	YOY	---	YOY
		1998	531.0	---	5	5
		1999	531.0	---	3	3
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	4	4
		2000	531.0	---	4	4
			529.0	1	---	1
			490.5	---	5	5
			482.0	---	1	1
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	4	4
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2002	531.0	---	5	5
529.0	1		---	1		
490.5	---		2	2		
482.0	---		3	3		
472.3	---		3	3		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Striped bass	<i>Morone saxatilis</i>	2003	531.0	1	6	7
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	1	1
		2004	531.0	2	1	3
			529.0	---	---	---
			490.5	---	1	1
			482.0	---	1	1
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	1	2	3
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	2	---	2
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2007	531.0	---	9	9
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
2008	531.0	---	7	7		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	---	---		
2009	531.0	---	6	6		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	1	1		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Striped shiner	<i>Luxilus chrysocephalus</i>	1993	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2000	531.0	1	---	1
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2002	531.0	---	---	---
529.0	---		---	---		
490.5	---		---	---		
482.0	---		---	---		
472.3	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Striped shiner	<i>Luxilus chrysocephalus</i>	2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	2	---	2
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
2008	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	---	---		
2009	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	---	---		

Appendix 1. (Continued) YOY= Young of year (not included in RFAI scores)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Threadfin shad	<i>Dorosoma petenense</i>	1993	531.0	---	6	6
			529.0	YOY	---	YOY
			490.5	YOY	---	YOY
			472.3	YOY	---	YOY
			HIRM 8.5	YOY	---	YOY
		1994	531.0	YOY	---	YOY
			529.0	YOY	---	YOY
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	YOY	---	YOY
			490.5	YOY	---	YOY
			472.3	YOY	---	YOY
			HIRM 8.5	YOY	---	YOY
		1996	531.0	YOY	---	YOY
			529.0	YOY	---	YOY
			490.5	YOY	---	YOY
			482.0	YOY	---	YOY
		1997	529.0	YOY	---	YOY
			490.5	---	1	1
			472.3	---	---	---
			HiRM 8.5	YOY	---	YOY
		1998	531.0	---	18	18
		1999	531.0	---	17	17
			529.0	261	---	261
			490.5	10	2	12
			482.0	15	5	20
			472.3	---	3	3
			HIRM 8.5	177	---	177
		2000	531.0	---	1	1
			529.0	27	---	27
			490.5	YOY	---	YOY
			482.0	YOY	---	YOY
			472.3	---	3	3
			HIRM 8.5	48	---	48
		2001	531.0	---	3	---
			529.0	YOY	---	YOY
			490.5	2	2	4
			482.0	1	2	3
			472.3	---	3	3
			HIRM 8.5	3	---	3
		2002	531.0	---	1	1
			529.0	378	---	378
			490.5	134	---	134
			482.0	---	---	---
472.3	125		1	126		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Threadfin shad	<i>Dorosoma petenense</i>	2003	531.0	1	5	6
			529.0	265	---	265
			490.5	17	1	18
			482.0	---	---	---
			472.3	3	1	4
			HIRM 8.5	---	---	---
		2004	531.0	1	---	1
			529.0	196	---	196
			490.5	5	---	5
			482.0	16	---	16
			472.3	51	---	51
			HIRM 8.5	1	---	1
		2005	531.0	5	---	5
			529.0	56	---	56
			490.5	7	---	7
			482.0	26	---	26
			472.3	23	---	23
			HIRM 8.5	---	---	---
		2006	531.0	1	5	6
			529.0	1	---	1
			490.5	58	1	59
			482.0	5	---	5
			472.3	83	---	83
		2007	531.0	6	---	6
			529.0	1	---	1
			490.5	1	---	1
			482.0	2	1	3
			472.3	2	---	2
			HIRM 8.5	4	---	4
		2008	531.0	2	---	2
			529.0	---	---	---
490.5	3		---	3		
482.0	22		1	23		
472.3	13		---	13		
2009	531.0	66	---	66		
	529.0	31	---	31		
	490.5	205	---	205		
	482.0	3	---	3		
	472.3	44	---	44		
	HIRM 8.5	2	---	2		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Walleye	<i>Sander vitreus</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	29	29
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	15	15
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	4	4
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	10	10
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	1	1	
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
472.3	---		---	---		
HIRM 8.5	---	1	1			
2001	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
HIRM 8.5	---	---	---			

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Walleye	<i>Sander vitreus</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	1	---	1
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	2	2
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	1	1
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
482.0	---		---	---		
472.3	---		---	---		
HIRM 8.5	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Warmouth	<i>Lepomis gulosus</i>	1993	531.0	1	---	1
			529.0	16	---	16
			490.5	10	1	11
			472.3	1	---	1
			HIRM 8.5	10	---	10
		1994	531.0	---	---	---
			529.0	9	---	9
			490.5	1	---	1
			472.3	---	---	---
			HIRM 8.5	1	---	1
		1995	529.0	1	---	1
			490.5	3	---	3
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	1	---	1
			529.0	1	---	1
			490.5	1	---	1
			482.0	1	---	1
		1997	529.0	1	---	1
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	6	---	6
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	1	---	1
			HIRM 8.5	1	---	1
		2000	531.0	3	---	3
			529.0	9	---	9
			490.5	8	1	9
			482.0	4	1	5
			472.3	1	---	1
			HIRM 8.5	6	---	6
		2001	531.0	---	1	1
			529.0	1	---	1
			490.5	2	---	2
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	2	---	2
		2002	531.0	4	---	4
			529.0	5	---	5
			490.5	24	---	24
			482.0	4	1	5
472.3	1		---	1		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Warmouth	<i>Lepomis gulosus</i>	2003	531.0	---	---	---
			529.0	1	---	1
			490.5	14	---	14
			482.0	---	---	---
			472.3	4	---	4
			HIRM 8.5	11	---	11
		2004	531.0	5	---	5
			529.0	8	2	10
			490.5	---	---	---
			482.0	---	---	---
			472.3	5	---	5
			HIRM 8.5	26	---	26
		2005	531.0	8	---	8
			529.0	---	---	---
			490.5	1	---	1
			482.0	2	---	2
			472.3	---	---	---
			HIRM 8.5	9	---	9
		2006	531.0	2	1	3
			529.0	---	---	---
			490.5	1	---	1
			482.0	---	---	---
			472.3	4	---	4
		2007	531.0	2	---	2
			529.0	6	---	6
			490.5	4	---	4
			482.0	---	---	---
			472.3	3	---	3
			HIRM 8.5	14	---	14
		2008	531.0	1	---	1
			529.0	12	---	12
			490.5	1	---	1
			482.0	1	---	1
			472.3	1	1	2
		2009	531.0	2	1	3
			529.0	11	---	11
490.5	7		---	7		
482.0	---		---	---		
472.3	---		---	---		
HIRM 8.5	11		---	11		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Western mosquitofish	<i>Gambusia affinis</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Western mosquitofish	<i>Gambusia affinis</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	1	---	1
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
490.5	---		---	---		
482.0	---		---	---		
472.3	---		---	---		
2009	531.0	---	---	---		
	529.0	---	---	---		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
White bass	<i>Morone chrysops</i>	1993	531.0	4	16	20
			529.0	10	---	10
			490.5	---	104	104
			472.3	1	11	12
			HIRM 8.5	12	9	21
		1994	531.0	3	11	14
			529.0	6	---	6
			490.5	1	---	1
			472.3	---	---	---
			HIRM 8.5	---	3	3
		1995	529.0	61	---	61
			490.5	9	4	13
			472.3	1	7	8
			HIRM 8.5	1	2	3
		1996	531.0	1	9	10
			529.0	13	---	13
			490.5	---	2	2
			482.0	---	8	8
		1997	529.0	15	---	15
			490.5	---	2	2
			472.3	---	3	3
			HiRM 8.5	3	---	3
		1998	531.0	---	4	4
		1999	531.0	---	10	10
			529.0	3	---	3
			490.5	---	3	3
			482.0	1	1	2
			472.3	---	1	1
			HIRM 8.5	---	2	2
		2000	531.0	---	2	2
			529.0	6	---	6
			490.5	---	3	3
			482.0	---	1	1
			472.3	---	4	4
			HIRM 8.5	---	4	4
		2001	531.0	---	2	2
			529.0	6	---	6
			490.5	---	3	3
			482.0	---	1	1
			472.3	---	4	4
			HIRM 8.5	---	4	4
		2002	531.0	1	18	19
			529.0	9	---	9
			490.5	---	4	4
			482.0	1	---	1
			472.3	---	---	---

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
White bass	<i>Morone chrysops</i>	2003	531.0	2	6	8
			529.0	2	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	1	1
			HIRM 8.5	---	---	---
		2004	531.0	1	17	18
			529.0	32	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	1	1	2
			HIRM 8.5	---	---	---
		2005	531.0	4	14	18
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	3	3
			472.3	---	2	2
			HIRM 8.5	1	9	10
		2006	531.0	21	11	32
			529.0	---	8	8
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	1	3	4
			529.0	---	---	---
			490.5	---	2	2
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	1	6	7
529.0	---		---	---		
490.5	---		3	3		
482.0	---		---	---		
472.3	---		1	1		
2009	531.0	---	4	4		
	529.0	1	---	1		
	490.5	1	1	2		
	482.0	1	2	3		
	472.3	---	1	1		
	HIRM 8.5	1	3	4		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
White crappie	<i>Pomoxis annularis</i>	1993	531.0	---	5	5
			529.0	4	---	4
			490.5	1	3	4
			472.3	---	6	6
			HIRM 8.5	9	1	10
		1994	531.0	---	---	---
			529.0	1	---	1
			490.5	1	2	3
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	3	---	3
			490.5	---	1	1
			472.3	---	2	2
			HIRM 8.5	---	---	---
		1996	531.0	---	4	4
			529.0	6	---	6
			490.5	---	2	2
			482.0	---	2	2
		1997	529.0	1	---	1
			490.5	1	---	1
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	2	2
		1999	531.0	---	2	2
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	2	2
			HIRM 8.5	2	1	3
		2000	531.0	---	20	20
			529.0	---	---	---
			490.5	---	1	1
			482.0	---	---	---
			472.3	---	4	4
			HIRM 8.5	---	---	---
		2001	531.0	---	---	---
			529.0	1	---	1
			490.5	---	10	10
			482.0	1	2	3
			472.3	---	5	5
			HIRM 8.5	1	---	1

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
White crappie	<i>Pomoxis annularis</i>	2002	531.0	---	2	2
			529.0	---	---	---
			490.5	---	1	1
			482.0	---	2	2
			472.3	---	---	---
		2003	531.0	---	1	1
			529.0	1	---	1
			490.5	---	1	1
			482.0	---	1	1
			472.3	---	1	1
			HIRM 8.5	2	---	2
		2004	531.0	---	3	3
			529.0	6	---	6
			490.5	2	---	2
			482.0	---	2	2
			472.3	---	---	---
			HIRM 8.5	1	---	1
		2005	531.0	---	4	4
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	1	1
			HIRM 8.5	---	---	---
		2006	531.0	---	5	5
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	1	1
			HIRM 8.5	---	---	---
		2007	531.0	1	3	4
			529.0	---	---	---
			490.5	---	1	1
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	1	2	3
		2008	531.0	---	1	1
529.0	---		---	---		
490.5	---		1	1		
482.0	---		1	1		
472.3	---		---	---		
2009	531.0	---	3	3		
	529.0	1	---	1		
	490.5	---	---	---		
	482.0	---	---	---		
	472.3	---	---	---		
	HIRM 8.5	---	1	1		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Yellow bass	<i>Morone chrysops</i>	1993	531.0	---	66	66
			529.0	79	---	79
			490.5	1	69	70
			472.3	---	33	33
			HIRM 8.5	46	24	70
		1994	531.0	---	8	8
			529.0	54	---	54
			490.5	4	62	66
			472.3	---	14	14
			HIRM 8.5	10	12	22
		1995	529.0	22	---	22
			490.5	1	83	84
			472.3	---	33	33
			HIRM 8.5	7	35	42
		1996	531.0	---	59	59
			529.0	52	---	52
			490.5	1	39	40
			482.0	1	25	26
		1997	529.0	82	---	82
			490.5	---	28	28
			472.3	---	5	5
			HiRM 8.5	34	11	45
		1998	531.0	---	8	8
		1999	531.0	---	45	45
			529.0	6	6	12
			490.5	---	50	50
			482.0	---	16	16
			472.3	1	13	14
			HIRM 8.5	21	7	28
		2000	531.0	---	108	108
			529.0	34	---	34
			490.5	4	34	38
			482.0	6	9	15
			472.3	1	40	41
			HIRM 8.5	117	28	145
		2001	531.0	---	71	71
			529.0	1	---	1
			490.5	---	124	124
			482.0	---	80	80
			472.3	1	80	81
			HIRM 8.5	2	159	161
		2002	531.0	---	42	42
			529.0	35	---	35
			490.5	18	---	46
			482.0	1	---	1
472.3	17		---	17		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Yellow bass	<i>Morone chrysops</i>	2003	531.0	---	54	54
			529.0	17	---	17
			490.5	---	33	33
			482.0	2	18	20
			472.3	1	24	25
			HIRM 8.5	15	10	25
		2004	531.0	1	5	6
			529.0	26	---	26
			490.5	1	31	32
			482.0	---	17	17
			472.3	---	28	28
			HIRM 8.5	19	50	69
		2005	531.0	---	76	76
			529.0	13	---	13
			490.5	---	25	25
			482.0	2	18	20
			472.3	---	13	13
			HIRM 8.5	1	35	36
		2006	531.0	21	11	33
			529.0	8	---	8
			490.5	---	55	55
			482.0	---	9	9
			472.3	---	32	32
		2007	531.0	---	46	46
			529.0	7	---	7
			490.5	2	89	91
			482.0	---	32	32
			472.3	---	---	---
			HIRM 8.5	8	86	94
		2008	531.0	---	26	26
			529.0	1	---	1
			490.5	---	37	37
			482.0	---	14	14
			472.3	---	24	24
		2009	531.0	---	74	74
			529.0	22	---	22
490.5	5		31	36		
482.0	---		10	10		
472.3	---		22	22		
HIRM 8.5	8		36	44		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Yellow bullhead	<i>Ameiurus natalis</i>	1993	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1994	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1995	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		1996	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	1	1
		1997	529.0	---	---	---
			490.5	---	---	---
			472.3	---	---	---
			HiRM 8.5	---	---	---
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	4	---	4	
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2001	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	---	---	---	

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Yellow bullhead	<i>Ameiurus natalis</i>	2002	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2004	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2005	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2006	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
			HIRM 8.5	---	---	---
		2008	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2009	531.0	---	---	---
			529.0	---	---	---
			490.5	---	---	---
482.0	---		---	---		
472.3	---		---	---		
HIRM 8.5	---		---	---		

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Yellow perch	<i>Perca flavescens</i>					
		1993	531.0	1	---	1
			529.0	1	---	1
			490.5	10	8	18
			472.3	1	1	2
			HIRM 8.5	43	---	43
		1994	531.0	4	---	4
			529.0	3	---	3
			490.5	4	---	4
			472.3	1	---	1
			HIRM 8.5	28	---	28
		1995	529.0	---	---	---
			490.5	3	3	6
			472.3	---	---	---
			HIRM 8.5	4	---	4
		1996	531.0	1	---	1
			529.0	1	---	1
			490.5	3	1	4
			482.0	1	---	1
		1997	529.0	7	---	7
			490.5	7	---	7
			472.3	---	---	---
			HiRM 8.5	19	---	19
		1998	531.0	---	---	---
		1999	531.0	---	---	---
			529.0	---	---	---
			490.5	1	---	1
			482.0	7	---	7
			472.3	2	---	2
			HIRM 8.5	8	---	8
		2000	531.0	---	---	---
			529.0	---	---	---
			490.5	2	---	2
			482.0	1	---	1
			472.3	---	---	---
			HIRM 8.5	2	---	2
		2001	531.0	5	---	5
			529.0	---	---	---
			490.5	---	---	---
			482.0	1	---	1
			472.3	---	---	---
			HIRM 8.5	1	1	2

Appendix 1. (Continued)

Common Name	Scientific Name	Year	River Mile	Total Fish EF	Total Gill Net Fish	Total Fish Combined
Yellow perch	<i>Perca flavescens</i>	2002	531.0	---	---	---
			529.0	2	---	2
			490.5	2	---	2
			482.0	---	---	---
			472.3	---	---	---
		2003	531.0	---	---	---
			529.0	---	---	---
			490.5	1	3	4
			482.0	---	---	---
			472.3	---	1	1
		HIRM 8.5	---	---	---	
		2004	531.0	5	---	5
			529.0	1	---	1
			490.5	2	---	2
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	5	---	5	
		2005	531.0	1	---	1
			529.0	4	---	4
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		HIRM 8.5	10	---	10	
		2006	531.0	3	---	3
			529.0	---	---	---
			490.5	---	---	---
			482.0	---	---	---
			472.3	---	---	---
		2007	531.0	---	---	---
			529.0	---	---	---
			490.5	1	---	1
			482.0	2	---	2
			472.3	---	---	---
		HIRM 8.5	---	---	---	
		2008	531.0	---	---	---
529.0	---		---	---		
490.5	1		---	1		
482.0	2		---	2		
472.3	1		---	1		
2009	531.0	---	---	---		
	529.0	---	---	---		
	490.5	9	1	10		
	482.0	5	---	5		
	472.3	---	---	---		
HIRM 8.5	---	---	---			

Appendix 2-A. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 2009.

Autumn 2009		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition													
1. Number of species		31	5	28	3	23	3	26	3	29	3	28	5
2. Number of centrarchid species		8	5	6	5	5	5	7	5	7	5	7	5
3. Number of benthic invertivores		4	3	3	1	3	1	3	1	4	3	5	3
4. Number of intolerant species		5	5	4	3	4	3	5	5	3	3	5	5
5. Percent tolerant individuals	Electrofishing	33.8	3	69.3	0.5	75	0.5	34.5	1.5	56.7	1.5	54.8	1.5
	Gill Netting	---	---	29.7	1.5	37.1	0.5	17.7	1.5	8.9	2.5	23.7	1.5
6. Percent dominance by 1 species	Electrofishing	52.7	1	39.8	1.5	50.8	0.5	52.5	0.5	38.2	1.5	34.5	1.5
	Gill Netting	---	---	25.2	1.5	25	1.5	25.4	1.5	32.1	0.5	33.8	0.5
7. Percent non-native species	Electrofishing	52.8	1	4.3	1.5	5.8	0.5	53.3	0.5	23.1	0.5	34	0.5
	Gill Netting	---	---	0.6	2.5	0	2.5	1.1	2.5	2.7	2.5	3.2	2.5
8. Number of top carnivore species		11	5	10	5	8	5	8	5	9	5	9	5
B. Trophic composition													
9. Percent top carnivores	Electrofishing	7.2	1	13	2.5	14.3	2.5	6.3	1.5	7.5	1.5	4.7	0.5
	Gill Netting	---	---	43.9	1.5	33.6	1.5	69.1	2.5	51.8	1.5	66.2	2.5
10. Percent omnivores	Electrofishing	8.5	5	18.8	2.5	14.4	2.5	7.5	2.5	13.6	2.5	6.2	2.5
	Gill Netting	---	---	31	1.5	50.7	0.5	23.8	1.5	13.4	2.5	25.1	1.5
C. Fish abundance and health													
11. Average number per run	Electrofishing	148.7	5	151.3	1.5	70.1	0.5	128.7	1.5	79.1	0.5	90.5	0.5
	Gill Netting	---	---	15.5	1.5	14	1.5	18.1	1.5	11.2	0.5	21.9	1.5
12. Percent anomalies	Electrofishing	1.7	5	2	1.5	1	2.5	2.4	1.5	1.4	2.5	0.4	2.5
	Gill Netting	---	---	0	2.5	0.7	2.5	0	2.5	0	2.5	0.9	2.5
Overall RFAI Score		44		41		37		42		42		45	

Appendix 2-B. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 2008.

Autumn 2008 Metric		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 472.3 Chickamauga Forebay		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition											
1. Number of species		28	5	27	3	30	5	27	3	27	3
2. Number of centrarchid species		7	5	8	5	7	5	7	5	8	5
3. Number of benthic invertivores		5	3	3	1	3	1	4	3	3	1
4. Number of intolerant species		6	5	3	3	5	5	5	5	4	3
5. Percent tolerant individuals	Electrofishing	82.3	1	86.7	0.5	80.7	0.5	87.7	0.5	93.8	0.5
	Gill Netting	---	---	47.5	0.5	41.9	0.5	32.8	0.5	58.8	0.5
6. Percent dominance by 1 species	Electrofishing	63	1	53.9	0.5	58.2	0.5	71.6	0.5	72.6	0.5
	Gill Netting	---	---	44.2	0.5	38.2	0.5	24.7	1.5	49.8	0.5
7. Percent non-native species	Electrofishing	32.5	5	4	1.5	2.3	1.5	5.9	0.5	0.2	2.5
	Gill Netting	---	---	0	2.5	0	2.5	0.5	2.5	5.2	2.5
8. Number of top carnivore species		7	5	9	5	11	5	8	5	9	5
B. Trophic composition											
9. Percent top carnivores	Electrofishing	3.7	1	5.4	0.5	4.7	0.5	2.5	0.5	2.7	0.5
	Gill Netting	---	---	40.3	1.5	47.1	1.5	52.2	2.5	33.6	1.5
10. Percent omnivores	Electrofishing	14.6	5	29	1.5	13.1	2.5	4.7	2.5	10.3	2.5
	Gill Netting	---	---	49.2	0.5	47.1	0.5	37.1	0.5	61.6	0.5
C. Fish abundance and health											
11. Average number per run	Electrofishing	94.3	3	86.3	0.5	79.7	0.5	121.5	1.5	85.8	0.5
	Gill Netting	---	---	18.1	1.5	19.1	1.5	18.6	1.5	21.1	1.5
12. Percent anomalies	Electrofishing	0.9	5	1.1	2.5	2.1	1.5	0.1	2.5	0.4	2.5
	Gill Netting	---	---	0	2.5	0	2.5	0	2.5	0.9	2.5
Overall RFAI Score		44		34		38		41		36	

Appendix 2-C. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 2007.

Autumn 2007		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment		TRM 531 Watts Bar Forebay		
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score	
A. Species richness and composition														
1.	Number of species	27	3	31	5	26	3	22	3	26	3	26	3	
2.	Number of centrarchid species	7	5	8	5	6	5	7	5	7	5	8	5	
3.	Number of benthic invertivores	6	3	3	1	3	1	1	1	5	3	2	1	
4.	Number of intolerant species	6	5	4	3	4	3	4	3	3	3	4	3	
5.	Percent tolerant individuals	Electrofishing	75.6	1	76.5	0.5	75.7	0.5	86.6	0.5	70.3	0.5	85.1	0.5
		Gill Netting	---	---	29	1.5	37.7	0.5	27.1	1.5	17.1	1.5	46.8	0.5
6.	Percent dominance by 1 species	Electrofishing	51.9	1	29.7	1.5	36.3	1.5	55.3	0.5	41.1	0.5	52.2	0.5
		Gill Netting	---	---	27.7	1.5	31.6	0.5	26.1	1.5	69.9	0.5	41.4	0.5
7.	Percent non-native species	Electrofishing	0.3	5	1	2.5	0.7	2.5	3.2	1.5	5.2	1.5	2.6	1.5
		Gill Netting	---	---	0	2.5	0.4	2.5	0.4	2.5	0	2.5	3.4	2.5
8.	Number of top carnivore species	8	5	11	5	9	5	8	5	8	5	9	5	
B. Trophic composition														
9.	Percent top carnivores	Electrofishing	12	3	10.7	1.5	6.4	1.5	6	1.5	10.5	1.5	9.5	1.5
		Gill Netting	---	---	62	2.5	40.4	1.5	66.8	2.5	74.8	2.5	45.8	1.5
10.	Percent omnivores	Electrofishing	16.1	5	33.9	1.5	22	2.5	10.9	2.5	30.2	1.5	22.5	2.5
		Gill Netting	---	---	27.7	1.5	51.3	0.5	27.5	1.5	19.5	2.5	50.2	0.5
C. Fish abundance and health														
11.	Average number per run	Electrofishing	51.6	3	54.9	0.5	37.3	0.5	45.3	0.5	52.3	0.5	35.9	0.5
		Gill Netting	---	---	32.1	2.5	22.8	1.5	28	2.5	12.3	1.5	29.5	2.5
12.	Percent anomalies	Electrofishing	3.2	3	1.6	2.5	1.4	2.5	0.6	2.5	1.5	2.5	1.3	2.5
		Gill Netting	---	---	0.6	2.5	1.3	2.5	0.4	2.5	0	2.5	4.7	1.5
Overall RFAI Score		42		44		38		41		41		36		

Appendix 2-D. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 2006.

Autumn 2006 Metric		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 472.3 Chickamauga Forebay		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition											
1. Number of species		26	3	30	5	26	3	24	3	28	5
2. Number of centrarchid species		6	5	7	5	6	5	8	5	8	5
3. Number of benthic invertivores		5	3	4	3	3	1	2	1	3	1
4. Number of intolerant species		6	5	5	5	3	3	5	5	5	5
5. Percent tolerant individuals		Electrofishing		65.3	1	70.1	0.5	72.4	0.5	74.6	0.5
		Gill Netting		---	---	30	1.5	29.6	0.5	28.6	0.5
6. Percent dominance by 1 species		Electrofishing		29.1	3	35.3	1.5	33.6	1.5	37.4	1.5
		Gill Netting		---	---	25.2	1.5	22.5	1.5	24.4	1.5
7. Percent non-native species		Electrofishing		3.4	5	0.8	2.5	4.2	0.5	2.7	1.5
		Gill Netting		---	---	0	2.5	0	2.5	0.4	2.5
8. Number of top carnivore species		9	5	10	5	8	5	8	5	10	5
B. Trophic composition											
9. Percent top carnivores		Electrofishing		9	1	8.3	1.5	6.5	1.5	5.9	1.5
		Gill Netting		---	---	51.2	1.5	40.8	1.5	62.8	2.5
10. Percent omnivores		Electrofishing		31.5	3	37.2	1.5	24.6	1.5	8.3	2.5
		Gill Netting		---	---	27.2	1.5	47.9	0.5	30.8	1.5
C. Fish abundance and health											
11. Average number per run		Electrofishing		61.7	3	49.1	0.5	60.9	0.5	55.1	0.5
		Gill Netting		---	---	25	2.5	14.2	1.5	26.6	2.5
12. Percent anomalies		Electrofishing		1.5	5	0.3	2.5	0.4	2.5	0.7	2.5
		Gill Netting		---	---	0.4	2.5	3.5	1.5	1.9	2.5
Overall RFAI Score				42		47		35		43	

Appendix 2-E. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 2005.

Autumn 2005 Metric		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition													
1. Number of species		27	3	29	3	26	3	29	5	31	5	30	5
2. Number of centrarchid species		6	5	7	5	7	5	7	5	5	5	8	5
3. Number of benthic invertivores		6	3	4	3	3	1	4	3	6	3	3	1
4. Number of intolerant species		6	5	7	5	5	5	6	5	4	3	5	5
5. Percent tolerant individuals	Electrofishing	58.6	1	76.2	0.5	70.2	0.5	71	0.5	62	1.5	81.9	0.5
	Gill Netting	---	---	23	1.5	43.4	0.5	31.2	0.5	28.7	1.5	11.9	2.5
6. Percent dominance by 1 species	Electrofishing	30.5	3	39.4	1.5	25.1	1.5	42.2	1.5	43	0.5	48.3	1.5
	Gill Netting	---	---	19.8	1.5	41	0.5	30.5	0.5	25.7	1.5	34.9	0.5
7. Percent non-native species	Electrofishing	1	5	0.8	2.5	0.5	2.5	0.2	2.5	3.4	1.5	2	1.5
	Gill Netting	---	---	0	2.5	0	2.5	0.4	2.5	0.6	2.5	2.3	2.5
8. Number of top carnivore species		7	5	9	5	9	5	12	5	11	5	10	5
B. Trophic composition													
9. Percent top carnivores	Electrofishing	16.7	3	14.2	2.5	7.3	1.5	6.4	1.5	13.8	2.5	5	1.5
	Gill Netting	---	---	45.2	1.5	34	1.5	51.7	2.5	41.5	1.5	80.7	2.5
10. Percent omnivores	Electrofishing	33.3	3	19.9	2.5	26	1.5	11.3	2.5	12.7	2.5	19.5	2.5
	Gill Netting	---	---	37.3	1.5	58	0.5	40.5	0.5	32.2	1.5	10.1	2.5
C. Fish abundance and health													
11. Average number per run	Electrofishing	67	3	41.8	0.5	58.5	0.5	37.3	0.5	29.5	0.5	74.5	0.5
	Gill Netting	---	---	12.6	1.5	21.2	1.5	26.9	2.5	17.1	1.5	21.8	1.5
12. Percent anomalies	Electrofishing	2.2	3	0.8	2.5	0.9	2.5	0.5	2.5	0.7	2.5	0.8	2.5
	Gill Netting	---	---	0	2.5	0	2.5	0	2.5	0	2.5	0	2.5
Overall RFAI Score		42		46		39		46		45		46	

Appendix 2-F. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 2004.

Autumn 2004		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition													
1.	Number of species	29	5	31	5	27	3	25	3	28	3	28	5
2.	Number of centrarchid species	7	5	8	5	6	5	7	5	8	5	7	5
3.	Number of benthic invertivores	4	3	4	3	3	1	3	1	3	1	3	1
4.	Number of intolerant species	4	3	5	5	5	5	5	5	4	3	4	3
5.	Percent tolerant individuals	64.8	1	55.1	1.5	58.8	1.5	37.2	1.5	71.5	0.5	81.8	0.5
	Electrofishing												
	Gill Netting	---	---	22.9	1.5	45.9	0.5	30.6	0.5	4.6	2.5	26.6	1.5
6.	Percent dominance by 1 species	50	1	29.6	1.5	30.4	1.5	33.8	1.5	45.2	0.5	36.8	1.5
	Electrofishing												
	Gill Netting	---	---	20.7	1.5	29.6	0.5	27.8	1.5	45.9	0.5	23.4	1.5
7.	Percent non-native species	0.5	5	2.2	2.5	0.9	2.5	0.4	2.5	1.1	2.5	1.4	2.5
	Electrofishing												
	Gill Netting	---	---	0.5	2.5	0.6	2.5	0	2.5	0	2.5	1.3	2.5
8.	Number of top carnivore species	10	5	11	5	9	5	8	5	9	5	11	5
B. Trophic composition													
9.	Percent top carnivores	16.9	3	19.9	2.5	9.6	1.5	10.9	2.5	11.9	2.5	6.5	1.5
	Electrofishing												
	Gill Netting	---	---	50.5	1.5	39.6	1.5	48.9	1.5	56.9	2.5	57.1	2.5
10.	Percent omnivores	51.2	3	15	2.5	19.4	2.5	9.5	2.5	20.5	2.5	35.1	1.5
	Electrofishing												
	Gill Netting	---	---	33	1.5	48.4	0.5	42.8	0.5	11	2.5	31.8	1.5
C. Fish abundance and health													
11.	Average number per run	99.9	3	49.3	0.5	60.8	0.5	51.3	0.5	66.2	0.5	66.6	0.5
	Electrofishing												
	Gill Netting	---	---	18.8	1.5	15.9	1.5	18	1.5	10.9	0.5	15.4	1.5
12.	Percent anomalies	1.3	5	1.2	2.5	1.5	2.5	1	2.5	0.9	2.5	1.6	2.5
	Electrofishing												
	Gill Netting	---	---	0.5	2.5	0	2.5	0	2.5	0	2.5	0	2.5
Overall RFAI Score		42		49		41		43		42		43	

Appendix 2-G. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 2003.

Autumn 2003 Metric		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition													
1. Number of species		30	5	29	3	25	3	26	3	27	3	29	5
2. Number of centrarchid species		8	5	8	5	6	5	8	5	6	5	7	5
3. Number of benthic invertivores		5	3	3	1	3	1	2	1	4	3	3	1
4. Number of intolerant species		5	5	5	5	5	5	5	5	3	3	5	5
5. Percent tolerant individuals	Electrofishing	57.7	3	67	0.5	54.7	1.5	55.6	1.5	72.5	0.5	78.8	0.5
	Gill Netting	---	---	29.7	1.5	26.4	1.5	27	1.5	41.8	0.5	27.9	1.5
6. Percent dominance by 1 species	Electrofishing	34.2	3	31.2	1.5	24.8	2.5	29.9	1.5	40.2	0.5	48.5	1.5
	Gill Netting	---	---	28.1	0.5	19.6	1.5	21.4	1.5	36.3	0.5	28.4	1.5
7. Percent non-native species	Electrofishing	0.6	5	1.1	2.5	0.3	2.5	1	2.5	0.4	2.5	1	2.5
	Gill Netting	---	---	0.8	2.5	0.7	2.5	0.5	2.5	2.2	2.5	5.3	2.5
8. Number of top carnivore species		10	5	10	5	11	5	10	5	9	5	11	5
B. Trophic composition													
9. Percent top carnivores	Electrofishing	10.2	1	11.8	2.5	11.2	2.5	9.5	1.5	8.9	1.5	5.9	1.5
	Gill Netting	---	---	31.3	1.5	37.2	1.5	49.5	1.5	20.9	0.5	56.8	2.5
10. Percent omnivores	Electrofishing	18.7	5	20.8	2.5	20.4	2.5	11.2	2.5	30.9	1.5	20	2.5
	Gill Netting	---	---	44.2	1.5	39.2	0.5	35.2	0.5	51.6	0.5	32.6	1.5
C. Fish abundance and health													
11. Average number per run	Electrofishing	69.1	3	41.3	0.5	45.7	0.5	32.1	0.5	45.1	0.5	57.6	0.5
	Gill Netting	---	---	24.9	2.5	14.8	1.5	19.6	1.5	9.1	0.5	19	1.5
12. Percent anomalies	Electrofishing	0.7	5	1	2.5	0.3	2.5	0.8	2.5	0.4	2.5	0.8	2.5
	Gill Netting	---	---	6.4	0.5	0.7	2.5	0.5	2.5	0	2.5	2.1	1.5
Overall RFAI Score		48		42		45		43		36		45	

Appendix 2-H. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 2002.

Autumn 2002 Metric		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 472.3 Chickamauga Forebay		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition											
1. Number of species		26	3	30	5	24	3	25	3	27	3
2. Number of centrarchid species		7	5	8	5	7	5	7	5	7	5
3. Number of benthic invertivores		5	3	5	3	3	1	3	1	3	1
4. Number of intolerant species		6	5	6	5	5	5	5	5	4	3
5. Percent tolerant individuals	Electrofishing	37.5	3	57.9	1.5	70.3	0.5	52.5	1.5	78	0.5
	Gill Netting	---	---	9.8	2.5	6.2	2.5	16.6	1.5	33.9	0.5
6. Percent dominance by 1 species	Electrofishing	29.4	3	32	1.5	30.6	1.5	27.1	1.5	60	0.5
	Gill Netting	---	---	34.8	0.5	42	0.5	28	1.5	26.2	1.5
7. Percent non-native species	Electrofishing	0.8	5	0.8	2.5	0.5	2.5	0.4	2.5	1.7	2.5
	Gill Netting	---	---	2.3	2.5	3.7	2.5	2.3	2.5	4.7	2.5
8. Number of top carnivore species		7	5	10	5	10	5	8	5	10	5
B. Trophic composition											
9. Percent top carnivores	Electrofishing	12.1	3	16.3	2.5	14.3	2.5	8.1	1.5	9.7	1.5
	Gill Netting	---	---	81.1	2.5	67.9	2.5	76	2.5	56.7	2.5
10. Percent omnivores	Electrofishing	13.2	5	18	2.5	33.5	1.5	10.3	2.5	10.2	2.5
	Gill Netting	---	---	11.4	2.5	17.3	1.5	12	2.5	35.6	0.5
C. Fish abundance and health											
11. Average number per run	Electrofishing	85.7	3	75.3	0.5	38.8	0.5	45.3	0.5	28.2	0.5
	Gill Netting	---	---	13.2	1.5	8.1	0.5	17.5	1.5	23.3	1.5
12. Percent anomalies	Electrofishing	0.5	5	0.6	2.5	0.9	2.5	1	2.5	0.9	2.5
	Gill Netting	---	---	0	2.5	0	2.5	0	2.5	0	2.5
Overall RFAI Score		48		51		43		46		39	

Appendix 2-I. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 2001.

Autumn 2001 Metric		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition													
1. Number of species		29	5	31	5	29	5	28	5	32	5	27	3
2. Number of centrarchid species		7	5	8	5	7	5	7	5	8	5	6	5
3. Number of benthic invertivores		6	3	3	1	3	1	3	1	4	3	4	3
4. Number of intolerant species		6	5	5	5	5	5	5	5	5	5	4	3
5. Percent tolerant individuals	Electrofishing	51.8	3	60	1.5	67.7	0.5	54.5	1.5	62.8	0.5	75.9	0.5
	Gill Netting	---	---	34	0.5	29.5	0.5	24.6	1.5	19.9	1.5	37.5	0.5
6. Percent dominance by 1 species	Electrofishing	29.5	3	17.5	2.5	45.4	1.5	18.2	2.5	35.3	1.5	44.7	1.5
	Gill Netting	---	---	28.1	0.5	23.6	1.5	21.9	1.5	48	0.5	33.1	0.5
7. Percent non-native species	Electrofishing	0.4	5	2	2.5	0.1	2.5	0	2.5	0.3	2.5	2.2	1.5
	Gill Netting	---	---	0.2	2.5	0	2.5	0.3	2.5	0	2.5	2.5	2.5
8. Number of top carnivore species		8	5	10	5	11	5	11	5	9	5	9	5
B. Trophic composition													
9. Percent top carnivores	Electrofishing	8.4	1	13.5	2.5	7.4	1.5	25.8	2.5	8.2	1.5	4.7	0.5
	Gill Netting	---	---	49.4	1.5	56.8	2.5	60.4	2.5	61	2.5	48.4	1.5
10. Percent omnivores	Electrofishing	12.8	5	28.6	1.5	11.4	2.5	7.6	2.5	24.8	1.5	6.6	2.5
	Gill Netting	---	---	32.9	1.5	32.4	1.5	34.2	0.5	23.3	1.5	39.6	0.5
C. Fish abundance and health													
11. Average number per run	Electrofishing	37.5	1	37	0.5	59.5	0.5	13.2	0.5	49.5	0.5	39.3	0.5
	Gill Netting	---	---	44.1	2.5	35.2	2.5	36.6	2.5	33.1	2.5	27.5	2.5
12. Percent anomalies	Electrofishing	1.2	5	2.5	1.5	1.5	2.5	2.5	1.5	1.8	2.5	0.7	2.5
	Gill Netting	---	---	0	2.5	1.7	2.5	1.9	2.5	0.6	2.5	0.4	2.5
Overall RFAI Score		46		45		46		48		47		39	

Appendix 2-J. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 2000.

Autumn 2000 Metric		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition													
1. Number of species		24	3	23	3	28	5	27	3	28	3	31	5
2. Number of centrarchid species		7	5	7	5	7	5	8	5	6	5	7	5
3. Number of benthic invertivores		4	3	2	1	2	1	3	1	2	1	3	1
4. Number of intolerant species		4	3	5	5	5	5	5	5	3	3	5	5
5. Percent tolerant individuals	Electrofishing	62.5	1	54.4	1.5	66.5	0.5	39.5	1.5	42.5	1.5	81	0.5
	Gill Netting	---	---	8	2.5	4.9	2.5	29.7	0.5	9.6	2.5	43.5	0.5
6. Percent dominance by 1 species	Electrofishing	38.5	3	25.1	1.5	37.5	1.5	25.2	1.5	21.9	1.5	46.7	1.5
	Gill Netting	---	---	25.5	1.5	23	1.5	26.5	1.5	26.9	1.5	31.8	0.5
7. Percent non-native species	Electrofishing	4.2	5	4.5	1.5	0.2	2.5	0	2.5	0.9	2.5	1.6	2.5
	Gill Netting	---	---	3.6	2.5	1.6	2.5	0	2.5	1.9	2.5	4.7	2.5
8. Number of top carnivore species		7	5	10	5	9	5	10	5	10	5	10	5
B. Trophic composition													
9. Percent top carnivores	Electrofishing	20.6	3	23.3	2.5	11.2	2.5	10.6	2.5	26.8	2.5	8.7	1.5
	Gill Netting	---	---	78.1	2.5	57.4	2.5	53.4	2.5	42.3	1.5	51.8	2.5
10. Percent omnivores	Electrofishing	14.7	5	20.5	2.5	21.4	2.5	5.1	2.5	14.6	2.5	15.3	2.5
	Gill Netting	---	---	4.4	2.5	14.8	2.5	35.7	0.5	12.5	2.5	39.4	0.5
C. Fish abundance and health													
11. Average number per run	Electrofishing	61.5	3	22.1	0.5	55.3	0.5	43.3	0.5	54.5	0.5	47	0.5
	Gill Netting	---	---	13.7	1.5	6.1	0.5	28.3	2.5	10.4	0.5	34	2.5
12. Percent anomalies	Electrofishing	1.1	5	3	1.5	1.7	2.5	1.8	2.5	4.7	1.5	1.4	2.5
	Gill Netting	---	---	1.5	2.5	1.6	2.5	0.7	2.5	0	2.5	0	2.5
Overall RFAI Score		44		46		48		45		43		44	

Appendix 2-K. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 1999.

Autumn 1999 Metric		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition													
1. Number of species		27	3	28	3	25	3	25	3	30	5	26	3
2. Number of centrarchid species		5	5	6	5	5	5	7	5	6	5	7	5
3. Number of benthic invertivores		7	5	4	3	3	1	4	3	6	3	3	1
4. Number of intolerant species		4	3	5	5	5	5	5	5	2	3	4	3
5. Percent tolerant individuals	Electrofishing	25.1	5	38	1.5	26.3	2.5	59.1	1.5	34.7	1.5	71	0.5
	Gill Netting	---	---	49.2	0.5	45.3	0.5	41.5	0.5	40.8	0.5	61.4	0.5
6. Percent dominance by 1 species	Electrofishing	46.9	1	16.3	2.5	21	2.5	22	2.5	25.2	1.5	29.7	1.5
	Gill Netting	---	---	48.4	0.5	42	0.5	38.1	0.5	38.2	0.5	58	0.5
7. Percent non-native species	Electrofishing	0.7	5	2.4	2.5	7.4	0.5	1.6	2.5	1.7	2.5	8.4	0.5
	Gill Netting	---	---	0	2.5	0	2.5	0	2.5	3.3	2.5	2	2.5
8. Number of top carnivore species		9	5	10	5	9	5	10	5	12	5	11	5
B. Trophic composition													
9. Percent top carnivores	Electrofishing	7.9	1	17.8	2.5	9.9	1.5	13.4	2.5	12.2	2.5	14.2	2.5
	Gill Netting	---	---	38.1	1.5	27.1	1.5	38.6	1.5	22.4	0.5	19.4	0.5
10. Percent omnivores	Electrofishing	11.1	5	17.8	2.5	15.6	2.5	22	2.5	8	2.5	25.8	1.5
	Gill Netting	---	---	51.2	0.5	59.7	0.5	50.6	0.5	53.9	0.5	71	0.5
C. Fish abundance and health													
11. Average number per run	Electrofishing	37.1	1	13.9	0.5	16.2	0.5	8.5	0.5	46.9	0.5	10.3	0.5
	Gill Netting	---	---	24.4	2.5	18.1	1.5	17.6	1.5	15.2	1.5	44.8	2.5
12. Percent anomalies	Electrofishing	2.7	3	2.9	1.5	0.8	2.5	0	2.5	0.6	2.5	1.3	2.5
	Gill Netting	---	---	0	2.5	0.6	2.5	0.6	2.5	0	2.5	0	2.5
Overall RFAI Score		42		45		41		45		43		36	

Appendix 2-L. Individual metric scores and overall RFAI scores for Watts Bar Reservoir forebay, Autumn 1998.

Autumn 1998		TRM 531 Watts Bar Forebay	
		Obs	Score
A. Species richness and composition			
1. Number of species		28	5
2. Number of centrarchid species		7	5
3. Number of benthic invertivores		3	1
4. Number of intolerant species		4	3
5. Percent tolerant individuals	Electrofishing	29.5	2.5
	Gill Netting	37.9	0.5
6. Percent dominance by 1 species	Electrofishing	65.5	0.5
	Gill Netting	33.5	0.5
7. Percent non-native species	Electrofishing	0.8	2.5
	Gill Netting	6.8	2.5
8. Number of top carnivore species		11	5
B. Trophic composition			
9. Percent top carnivores	Electrofishing	1.7	0.5
	Gill Netting	36.6	1.5
10. Percent omnivores	Electrofishing	8	2.5
	Gill Netting	48.4	0.5
C. Fish abundance and health			
11. Average number per run	Electrofishing	144.4	1.5
	Gill Netting	16.1	1.5
12. Percent anomalies	Electrofishing	0.3	2.5
	Gill Netting	0.6	2.5
Overall RFAI Score		41	

Appendix 2-M. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir, Autumn 1997.

Autumn 1997		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition									
1. Number of species		26	3	20	3	22	3	22	3
2. Number of centrarchid species		8	5	5	5	5	5	3	3
3. Number of benthic invertivores		6	3	3	1	4	3	2	1
4. Number of intolerant species		5	5	4	3	4	3	2	3
5. Percent tolerant individuals	Electrofishing	52.6	3	66.8	0.5	64	0.5	23.4	2.5
	Gill Netting	---	---	16.2	1.5	14.3	1.5	20.7	1.5
6. Percent dominance by 1 species	Electrofishing	25.8	3	29	1.5	53	0.5	28	1.5
	Gill Netting	---	---	18	1.5	23.8	1.5	19.8	1.5
7. Percent non-native species	Electrofishing	8.1	3	7.9	0.5	4	1.5	8.5	0.5
	Gill Netting	---	---	0.9	2.5	7.1	2.5	1.7	2.5
8. Number of top carnivore species		9	5	8	5	9	5	10	5
B. Trophic composition									
9. Percent top carnivores	Electrofishing	29.1	5	14.9	2.5	5	1.5	16.1	2.5
	Gill Netting	---	---	55	2.5	64.3	2.5	36.4	1.5
10. Percent omnivores	Electrofishing	18.5	5	35.3	1.5	57	0.5	12.4	2.5
	Gill Netting	---	---	22.5	2.5	10.7	2.5	36.4	1.5
C. Fish abundance and health									
11. Average number per run	Electrofishing	49.4	1	16.1	0.5	6.7	0.5	27.4	0.5
	Gill Netting	---	---	11.1	0.5	8.4	0.5	12.1	1.5
12. Percent anomalies	Electrofishing	2.4	3	3.3	1.5	0	2.5	0.5	2.5
	Gill Netting	---	---	0	2.5	0	2.5	0	2.5
Overall RFAI Score		44		39		40		40	

Appendix 2-N. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 1996.

Autumn 1996		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 482 Chickamauga Forebay		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition									
1. Number of species		30	5	27	3	31	5	27	3
2. Number of centrarchid species		8	5	6	5	8	5	6	5
3. Number of benthic invertivores		6	3	3	1	3	1	3	1
4. Number of intolerant species		6	5	5	5	5	5	5	5
5. Percent tolerant individuals	Electrofishing	92.9	1	52.5	1.5	38.2	1.5	85.4	0.5
	Gill Netting	---	---	23.8	1.5	24.9	1.5	25.7	1.5
6. Percent dominance by 1 species	Electrofishing	80.8	1	34.1	1.5	45.9	1.5	45.3	1.5
	Gill Netting	---	---	22.3	1.5	22.1	1.5	26.1	1.5
7. Percent non-native species	Electrofishing	0.3	5	2.2	2.5	1.1	2.5	1.3	2.5
	Gill Netting	---	---	1	2.5	1.4	2.5	4.4	2.5
8. Number of top carnivore species		10	5	10	5	11	5	9	5
B. Trophic composition									
9. Percent top carnivores	Electrofishing	4.7	1	6.7	1.5	3.7	0.5	7.3	1.5
	Gill Netting	---	---	59.6	2.5	58.1	2.5	59.3	2.5
10. Percent omnivores	Electrofishing	81.2	1	31.9	1.5	13.6	2.5	31.1	1.5
	Gill Netting	---	---	26.4	1.5	27.2	1.5	29.6	1.5
C. Fish abundance and health									
11. Average number per run	Electrofishing	295.3	5	63.6	0.5	147.5	1.5	61.3	0.5
	Gill Netting	---	---	19.3	1.5	21.7	1.5	22.6	1.5
12. Percent anomalies	Electrofishing	0	5	0	2.5	0	2.5	0.1	2.5
	Gill Netting	---	---	0	2.5	0	2.5	1.8	2.5
Overall RFAI Score			42		44		47		43

Appendix 2-O. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir, Autumn 1995.

Autumn 1995		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment		
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	
A. Species richness and composition										
1.	Number of species	28	5	29	3	27	3	26	3	
2.	Number of centrarchid species	7	5	8	5	7	5	3	3	
3.	Number of benthic invertivores	6	3	3	1	4	3	5	3	
4.	Number of intolerant species	5	5	5	5	6	5	2	3	
5.	Percent tolerant individuals	Electrofishing	64.7	1	16.8	2.5	14.5	2.5	51.5	1.5
		Gill Netting	---	---	21.3	1.5	14.2	1.5	22.8	1.5
6.	Percent dominance by 1 species	Electrofishing	40.9	3	36.3	1.5	58.3	0.5	42.7	0.5
		Gill Netting	---	---	28	1.5	18.6	1.5	23.5	1.5
7.	Percent non-native species	Electrofishing	0.5	5	0.3	2.5	0.1	2.5	1.8	2.5
		Gill Netting	---	---	1	2.5	0	2.5	1.3	2.5
8.	Number of top carnivore species	11	5	11	5	10	5	11	5	
B. Trophic composition										
9.	Percent top carnivores	Electrofishing	12.7	3	2.5	0.5	2	0.5	2.6	0.5
		Gill Netting	---	---	63.9	2.5	69.4	2.5	43	1.5
10.	Percent omnivores	Electrofishing	43.3	3	10	2.5	1.7	2.5	45.2	0.5
		Gill Netting	---	---	25.7	1.5	19.7	1.5	30.2	1.5
C. Fish abundance and health										
11.	Average number per run	Electrofishing	128.7	5	232.6	2.5	206	1.5	129.5	1.5
		Gill Netting	---	---	29.6	2.5	18.3	1.5	14.9	1.5
12.	Percent anomalies	Electrofishing	0	5	0	2.5	0	2.5	0	2.5
		Gill Netting	---	---	0	2.5	0	2.5	0	2.5
Overall RFAI Score		48		48		47		39		

Appendix 2-P. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 1994.

Autumn 1994 Metric		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment		TRM 531 Watts Bar Forebay	
		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition											
1. Number of species		34	5	28	3	24	3	24	3	28	5
2. Number of centrarchid species		8	5	8	5	6	5	5	5	5	5
3. Number of benthic invertivores		6	3	2	1	4	3	4	3	4	3
4. Number of intolerant species		7	5	4	3	6	5	1	1	5	5
5. Percent tolerant individuals	Electrofishing	49.9	3	66	0.5	46.9	1.5	66.8	0.5	25.3	2.5
	Gill Netting	---	---	21.4	1.5	51.1	0.5	15.7	2.5	13.4	2.5
6. Percent dominance by 1 species	Electrofishing	27.1	3	32.1	1.5	33.8	1.5	41.6	0.5	64.6	0.5
	Gill Netting	---	---	40.3	0.5	41.5	0.5	16.9	1.5	45.8	0.5
7. Percent non-native species	Electrofishing	1	5	3.8	1.5	1.4	2.5	7.7	0.5	1.7	2.5
	Gill Netting	---	---	0	2.5	1.5	2.5	5.6	1.5	4.9	2.5
8. Number of top carnivore species		10	5	10	5	8	5	9	5	9	5
B. Trophic composition											
9. Percent top carnivores	Electrofishing	16.9	3	12.4	2.5	15	2.5	11.2	2.5	4	0.5
	Gill Netting	---	---	62.3	2.5	33.3	1.5	46.1	1.5	75.4	2.5
10. Percent omnivores	Electrofishing	13.6	5	26.2	1.5	6.9	2.5	18	2.5	5.2	2.5
	Gill Netting	---	---	24	1.5	56.3	0.5	22.5	2.5	19	1.5
C. Fish abundance and health											
11. Average number per run	Electrofishing	120.9	5	45.1	0.5	75.5	0.5	51.4	0.5	168.9	1.5
	Gill Netting	---	---	15.4	1.5	13.5	1.5	8.9	0.5	14.2	1.5
12. Percent anomalies	Electrofishing	0.1	5	0	2.5	0.2	2.5	0	2.5	0	2.5
	Gill Netting	---	---	0	2.5	0	2.5	0	2.5	2.1	1.5
Overall RFAI Score		52		40		44		39		48	

Appendix 2-Q. Individual metric scores and overall RFAI scores for sites sampled in Chickamauga Reservoir and Watts Bar Reservoir forebay, Autumn 1993.

Autumn 1993		TRM 529 Chickamauga Inflow		TRM 490.5 Chickamauga Transition		TRM 472.3 Chickamauga Forebay		HiRM 8.5 Hiwassee Embayment		TRM 531 Watts Bar Forebay	
Metric		Obs	Score	Obs	Score	Obs	Score	Obs	Score	Obs	Score
A. Species richness and composition											
1.	Number of species	32	5	30	5	28	5	30	5	31	5
2.	Number of centrarchid species	8	5	7	5	8	5	5	5	7	5
3.	Number of benthic invertivores	6	3	3	1	2	1	4	3	4	3
4.	Number of intolerant species	7	5	6	5	4	3	4	3	5	5
5.	Percent tolerant individuals	45.6	3	41.4	1.5	20.6	2.5	57.3	1.5	73.4	0.5
	Electrofishing										
6.	Percent dominance by 1 species	34.2	3	39.7	1.5	62.1	0.5	25.6	1.5	43.4	1.5
	Electrofishing										
7.	Percent non-native species	1.3	5	1.2	2.5	0.5	2.5	4.5	1.5	0.6	2.5
	Gill Netting										
8.	Number of top carnivore species	10	5	11	5	10	5	12	5	11	5
B. Trophic composition											
9.	Percent top carnivores	14.4	3	8.8	1.5	4.8	0.5	17.3	2.5	6.5	1.5
	Gill Netting										
10.	Percent omnivores	23.5	5	20.2	2.5	3.6	2.5	27.6	1.5	46.3	1.5
	Gill Netting										
C. Fish abundance and health											
11.	Average number per run	172.2	5	151.5	1.5	80.9	0.5	93.9	0.5	58.1	0.5
	Gill Netting										
12.	Percent anomalies	0	5	0	2.5	0	2.5	0.1	2.5	0	2.5
	Gill Netting										
Overall RFAI Score		52		51		43		46		44	