

Biota Sampling Report for Wappinger Creek Three Star Anodizing Site (3-14-058) Wappingers Falls, New York

Prepared for

New York State Department of Environmental Conservation 625 Broadway Albany, New York 12233



Prepared by

EA Engineering, P.C. and Its Affiliate EA Science and Technology 3 Washington Center Newburgh, New York 12550 (845) 565-8100

> October 2007 Revision: DRAFT EA Project No. 14368.10

Biota Sampling Report for Wappinger Creek Three Star Anodizing Site (3-14-058) Wappingers Falls, New York

Prepared for

New York State Department of Environmental Conservation 625 Broadway Albany, New York 12233



Prepared by

EA Engineering, P.C. and Its Affiliate EA Science and Technology 3 Washington Center Newburgh, New York 12550 (845) 565-8100

Christopher J. Canonica, P.E., Program Manager EA Engineering, P.C.

Paul H. Muessig, Project Manager EA Science and Technology

Date

Date

October 2007 Revision: DRAFT EA Project No. 14368.10

CONTENTS

Page

LIST OF FIGURES LIST OF TABLES

1.	INT	RODUC	CTION1	
2.	SAN	1PLINC	G AND ANALYTICAL METHODS2	
	2.1 2.2 2.3	Inverte	ssue Collection	
3.	FIEI	LD OBS	SERVATIONS AND ANALYTICAL METHODS6	
	3.1	Sample	e Collections	
			Fish Sampling	
	3.2	Tissue	Contaminant Data8	
			Fish Tissue	
4.	REF	ERENC	CES10	0
AF AF AF	PPEN PPEN PPEN	DIX B: DIX C: DIX D:	COMPLETED FIELD DATA FORMS CHAIN-OF-CUSTODY FORM LABORATORY DATA PACKAGE (provided on CD) DATA USABILITY SUMMARY REPORT (provided on CD) FIELD PHOTO LOG	

APPENDIX F: SUMMARY OF FIELD AND VALIDATED ANALYTICAL DATA

LIST OF FIGURES

<u>Number</u>	Title
1	Location map showing Wappinger Creek study area and Three Star Anodizing site.
2	Location of sampling zones and fish collections in Wappinger Creek below Three Star Anodizing site, May 2007.
3	Location of sampling stations and invertebrate collections in Wappinger Creek below Three Star Anodizing site, May 2007.
4	Summary of taxon groups indicated by statistical analysis of differences in tissue metal concentrations among taxon collected from Wappinger Creek below the Three Star Anodizing site, May 2007.

LIST OF TABLES

Number	Title
1	Summary of analytical results for metal concentration in fish and invertebrate tissue collected from the tidal reach of Wappinger Creek, below the Three Star Anodizing site, May-August 2007.
2	Statistical comparison of metal concentration in tissue of fish and invertebrates between sampling locations in Wappinger Creek below the Three Star Anodizing Site, 2007.
3	Statistical comparison of metal concentration in tissue of fish and invertebrates among taxa collected from Wappinger Creek below the Three Star Anodizing Site, 2007.

1. INTRODUCTION

The New York State Department of Environmental Conservation (NYSDEC) tasked EA Engineering, P.C. and its affiliate EA Science and Technology to collect aquatic biota from Wappinger Creek at the Three Star Anodizing site, Wappingers Falls, New York (Figure 1).

The Work Assignment was conducted under the NYSDEC State Superfund Standby Contract (Work Assignment No. D004438-10).

The objectives of this Work Assignment were to:

- Collect aquatic biota (fish and aquatic invertebrate) samples from the tidal portion of Wappinger Creek to determine the concentration of eight metals in fish and invertebrate tissue
- Analyze tissue samples for arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc.

As part of this task, EA collected fish and aquatic invertebrate tissue and subcontracted laboratory services for analysis of arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc in tissue samples. Data were reviewed and validated by an independent data validation subconsultant.

2. SAMPLING AND ANALYTICAL METHODS

2.1 FISH TISSUE COLLECTION

Fish were collected from two sampling areas shown on Figure 2; locations and sampling procedures are described in more detail below:

- *Fish Sampling Area 1 (FSA-1) Embayment and Shoal*—Sampling began in the embayment and worked upstream through the shoal area until the target number of samples were collected.
- *Fish Sampling Area 2 (FSA-2) The Downstream Section*—Sampling began at the County Route 28 bridge and worked upstream until the target number of samples were collected.

A total of 60 samples of fish tissue were collected across the two sampling areas. The Work Assignment and Field Sampling Plan (EA 2007) specified that for each sampling area, 15 samples would be collected for each of 2 target species for a total of 30 samples.

WAPPINGER CREEK FISH COLLECTION							
Location	Target Species	No. of Samples					
FSA -1	Largemouth Bass	15					
	Spottail Shiner	15					
FSA -2	Largemouth Bass	15					
	Spottail Shiner	15					
TOTAL		60					

The target species for this sampling effort were largemouth bass (*Micropterus salmoides*) and spottail shiner (*Notropis hudsonius*). These species were chosen to represent different trophic levels; that is, largemouth bass represent top trophic level piscivore and spottail shiner represent lower trophic level forage fish. During the field sampling effort, it became apparent that adequate numbers of the target species could not be collected to fill the sampling quotas; therefore, in consultation with NYSDEC, other target species of opportunity were selected to augment the number of samples. The "targets of opportunity" were selected to represent similar trophic levels as the target species. Smallmouth bass (*Micropterus dolomieu*) were collected to complete the quota for largemouth bass and banded killifish (*Fundulus diaphanus*) and tessellated darters (*Etheostoma olmstedi*) were collected to supplement spottail shiner samples.

Fish tissue sampling was conducted on 1-3 May 2007.

Electrofishing by boat was the primary collection gear for sampling Wappinger Creek; however, 100-ft beach seine, experimental gill nets, and wire-mesh minnow traps were also used.

	Revision: DRAFT
EA Engineering, P.C. and Its Affiliate	Page 3 of 10
EA Science and Technology	October 2007

Sampling was conducted under NYSDEC License to Collect and Possess No. 1051. Sampling procedures complied with the Field Sampling Plan (EA 2007) and were consistent with *Draft Procedures for Collection and Preparation of Aquatic Biota for Contaminant Analysis* (NYSDEC Division of Fish, Wildlife, and Marine Resources, Bureau of Habitat 2002). These methods were established to optimize collection of specimens for contaminant analysis rather than quantification of sampling effort.

2.2 INVERTEBRATE TISSUE COLLECTION

Invertebrate sampling was conducted at four locations shown on Figure 3 and described below:

- Wappinger Biota Station 1 (WBS-1) Shoal area
- Wappinger Biota Station 2 (WBS-2) Embayment
- Wappinger Biota Station 3 (WBS-3) Downstream section (i.e., the widest section of Wappinger Creek)
- Wappinger Biota Station 4 (WBS-4) County Route 28 Bridge.

Odonata (i.e., dragonfly larvae) were selected as the target organism for assessment of metal contaminants in forage invertebrate tissue. If the targeted taxon could not be collected, non-target species of opportunity were to be retained for analysis. Suggested invertebrate targets of opportunity included crayfish, stonefly larvae, caddis fly larvae, hellgrammites, and mollusks.

A total of 20 invertebrate samples were proposed for analysis; five samples from each of four stations:

WAPPINGER CREEK INVERTEBRATE COLLECTION							
Location	Target Organism	No. of Samples					
WBS-1	Dragonfly Larvae	5					
WBS-2	Dragonfly Larvae	5					
WBS-3	Dragonfly Larvae	5					
WBS-4	Dragonfly Larvae	5					
TOTAL		20					

Sampling efforts for invertebrates were conducted during the fish sampling on 1-4 May and additionally on 14 June and 29 August 2007.

Invertebrate nets, sieve buckets, ponar dredge, crayfish traps, and hand picking from rocks and stem and root masses of aquatic vegetation were used as collection methods for sampling Wappinger Creek.

EA Project No. 14368.10

2.3 SAMPLE PREPARATION AND ANALYSIS

Total length and weight were recorded for all fish specimens. After measuring length and weight, fish samples were inspected for gross morphological conditions and abnormalities: fin erosion, skin ulcers, skeletal/shell anomalies, and neoplasms (tumors). Completed Field Data Forms are provided in Appendix A.

Largemouth and smallmouth bass collected for filet samples were placed in individual zip-lock bags labeled with sample number, location, date, taxon, initials of the sampling crew, and sample type (i.e., fillet). The bags were placed on ice in the field and then frozen as soon as possible after return from the field.

Total length and weight of individual forage fish that composed each composite sample for whole body analysis were recorded. Groups of forage fish and invertebrates comprising each composite sample were placed in labeled zip-lock bags and placed on ice in the field. After return from the field, these samples were transferred to decontaminated glass jars provided by the laboratory and frozen.

Frozen samples were double bagged and shipped on ice in coolers by overnight courier service to Pace Analytical Services. All samples in each cooler were logged on a Chain-of-Custody Form (Appendix B) which was affixed to the inside of the cooler. Coolers were taped closed and sealed with a signed Custody Seal.

Final tissue preparation and homogenization for analysis were performed by the analytical laboratory. Tissue sample preparation followed the protocols described in *Draft Procedures for Collection and Preparation of Aquatic Biota for Contaminant Analysis*, except for project specific modifications specified in the Contract Work Assignment and described in the Field Sampling Plan (EA 2007). Largemouth bass and smallmouth bass were prepared by the analytical laboratory using the standard filleting method while composite samples of spottail shiner, banded killifish, and tessellated darters were prepared for whole body analysis by the analytical laboratory.

The sample mass was sufficient to provide the laboratory with adequate tissue to allow achievement of the established analytical detection limits, whether the sample was a filet or a composite. Pace Analytical Services specified that 5 g of tissue was adequate to achieve the specified detection limits, but that samples consisting of 10-15 g of tissue were preferable. Bass filets were prepared with scales removed, but skin on; each sample consisted of one entire filet. The left filet was used for all primary analyses; the right filet was used for field duplicate analyses. The unused fillet from each specimen and unused homogenate were retained by the laboratory, in the event that additional analyses were requested.

Each sample was analyzed for arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc concentrations. U.S. Environmental Protection Agency SW-846 Method 7471A was used for mercury and Method 6020 was used for the Resource Conservation and Recovery Act

metals. Laboratory quality control methods and samples are described in the project Quality Assurance Project Plan (EA 2007) and included matrix spike/matrix spike duplicate, laboratory control sample, blanks, instrument calibrations, dilutions, and field duplicates.

The laboratory data packages (Appendix C) were reviewed for compliance with protocols and methods and data usability by Environmental Data Services, Inc of Williamsburg, Virginia. The Data Usability Summary Review Reports are provided in Appendix D. These data have been validated according to the protocols and quality control requirements for the analytical methods, EPA Region II Standard Operating Procedure (HW2 Revision, 11 January 1992) for the Evaluation of Metals Data for the Contract Laboratory Program.

EA Project No. 14368.10

3. FIELD OBSERVATIONS AND ANALYTICAL RESULTS

3.1 SAMPLE COLLECTIONS

3.1.1 Fish Sampling

Fish samples were collected from the tidal reach of Wappinger Creek on 1-3 May 2007 from the sampling areas designated FSA-1, the upstream embayment and shoal, and FSA-2, the downstream reach above the highway bridge at County Route 28. The primary sampling method was boat electrofishing focused in the vicinity of woody debris along the intertidal shore zone and in the embayment within 1-2 hours of high tide. Supplemental sampling using gill nets and beach seines was also conducted. A photo record of field sampling activities and aquatic habitat in the study reach is provided in Appendix E.

The majority of largemouth bass for analysis of edible filets were collected by electrofishing; however, the number of specimens collected was insufficient to meet the sample quota for area FSA-1. Four smallmouth bass collected in area FSA-1 by electrofishing were used to complete the sample quota for top predators from this sampling area. Two field duplicate samples of largemouth bass were analyzed.

Forage fish for analysis of whole body contaminant burden were collected by electrofishing and beach seine. Fifteen samples plus a field duplicate of spottail shiner were collected from area FSA-1; seven samples plus a field duplicate of spottail shiner were collected from area FSA-2. In consultation with NYSDEC, the sample quota for FSA-2 was completed with 6 samples of banded killifish and 2 samples of tessellated darter.

Largemouth bass ranged in size from 269 to 509 mm total length and 278-2,600 g total weight. The mean length and weight for largemouth bass from area FSA-2 were slightly higher than for bass collected from area FSA-1. Smallmouth bass were collected only from area FSA-1 and measured 344-407 mm in total length; weight ranged from 424 to 1,003 g. All bass of both species appeared generally healthy and robust. Four largemouth bass (two from each sampling area) and one smallmouth bass had lesions on their mandible and abdominal area. All the sores were fresh and clean with no apparent secondary fungal or bacterial infections. As these collections were made during the spawning season, it is possible that the sores were a result of abrasions sustained during nest excavation activities. No other abnormalities or deformities were observed on any of the other bass.

Composite samples of spottail shiners were comprised of 1-6 individuals; most composites contained two specimens. The total length of spottail shiners collected from area FSA-1 ranged from 94 to 115 mm; the mean length of the composite samples ranged from approximately 100 to 111 mm. The total length of spottail shiners collected from area FSA-2 ranged from 76 to 114 mm; the mean length of the composite samples ranged from approximately 81 to 113 mm. The weight of spottail shiners from FSA-1 ranged from 7.1 to 15.1 g; spottail shiners from FSA-2 weighed between 3.7 and 14.6 g. No abnormalities or deformities were observed on any

spottail shiners. The 6 samples of banded killifish from FSA-2 were composites of between 3 and 26 specimens. Total length of banded killifish ranged from 30 to 84 mm with average lengths of composite samples between 40.9 mm 68.3 mm. Individual weights ranged from 0.3 to 2.3 g. No abnormalities or deformities were observed for any banded killifish.

Total length of tessellated darters ranged from 51 to 64 mm; the mean length of the two composite samples were 58 and 59.2 mm. Individual weights ranged from 1.1 to 3 g. No abnormalities or deformities were observed for any tessellated darters.

3.1.2 Invertebrate Sampling

Invertebrate sampling occurred on 1-4 May, 21 June, and 29 August 2007. The most productive sampling was from picking organisms off rocks in the intertidal zone. In general, macroinvertebrates were scarce on all sampling dates. No Odonate larvae were collected on any date and few adult dragonflies were observed in the sampling areas. Numerous grab samples were collected using nets, buckets, and ponar dredge in the cove (WBS-2), along the shore, on the shoal (WBS-1), and in the channel of the tidal reach of Wappinger Creek (WBS-3 and WBS-4). During the May 2007 sampling, the cove and main channel of the Creek had open water with minimal aquatic vegetation. During the subsequent June and August sampling, much of the specified sampling areas in the tidal reach were choked with water chestnut. On the June and August visits, the cove was filled with a diversity of emergent and submerged wetland vegetation. An extensive effort was expended examining the stems and root mass to aquatic vegetation in the cove wetland and the extensive beds of water chestnut for invertebrates. No live Odonates or their cast-off exoskeletons were found on stems of the wetland vegetation. Extensive searching among rocks and on the substrate of the wetland produced only one crayfish (during the August visit), too small to constitute a sample. Occasional mayfly larvae, cadis fly larvae, amphipods, and isopods were encountered, but were not numerous or large enough to generate a sample.

Only two locations, WBS-4 and the south shoreline near WBS-3, produced sufficient organisms for composite samples. At both locations, zebra mussel and an unidentified species of snail were collected within a very concentrated and defined area of the shoreline; mussels and snails were not observed in any abundance outside of these two limited areas. The width of the shells of the zebra mussels were generally less than 10 mm, and the length of the spiral of the snails was typically less than 6 mm. The shells of both species were thin and fragile. The sample homogenate was prepared from the whole organisms including the shell. The composite samples of approximately 5 g typically consisted of 30-40 mussels or 55-65 snails.

3.1.3 Other Observations of Vertebrate Wildlife

Numerous observations of great blue heron, green heron, and American egret feeding and roosting in the shallows were made during the three sampling events. Osprey were also observed during all three sampling events; during the last event, an osprey was observed capturing what appeared to be a bass in the vicinity of WBS-3. An active beaver den and

EA Project No. 14368.10

beaver were observed along the shoreline in the vicinity of the cove (WBS-2). A number of large carp were observed during the second and third sampling events within the cove during high tide.

3.2 TISSUE CONTAMINANT DATA

3.2.1 Fish Tissue

The analytical results from the tissue analyses reported in wet weight are provided in Appendix F and summarized in Table 1. Nickel was below detection (0.34 mg/kg) in all but one fish tissue sample; one spottail shiner sample from FSA-1 was reported at 0.36 mg/kg. The concentrations of arsenic, cadmium, chromium, copper, lead, nickel, and zinc in edible portion filet samples from largemouth bass and smallmouth bass were generally reported with either a "U" and/or "J" qualifier; that is, either not detected or estimated concentration between the Method Detection Limit and the Reporting Limit. Mercury was the only metal in the validated dataset that was above the reporting limit. Mercury in largemouth bass filets ranged from 0.074 to 0.410 mg/kg in area FSA-1 and from 0.062 to 0.600 mg/kg from FSA-2. Smallmouth bass filets from FSA-1 had mercury concentrations between 0.090 and 0.340 mg/kg.

For most whole body samples (spottail shiner, banded killifish, and tessellated darter), the concentrations of arsenic, cadmium, chromium, copper, lead, and nickel were reported with a "U" or "J" qualifier. The zinc results for one batch of 14 spottail shiner whole body samples was rejected during data validation because of low recoveries (-3.1-12.9 percent) for the associated matrix spike/matrix spike duplicate sample. Of the other 17 samples, lead concentrations were between 22 and 48 mg/kg except for one sample reported at 78 mg/kg with a "J" qualifier. Mercury concentrations ranged from 0.016 to 0.067 mg/kg for the whole body forage fish samples. The reported mercury concentrations for banded killifish, tessellated darter, and most of the spottail shiners from FSA-2 were listed with a "J" qualifier.

3.2.2 Invertebrate Tissue (Note: Invertebrate analytical results have not completed the data validation process)

Concentrations of arsenic, cadmium, chromium, copper, lead, and nickel were generally lower in the mollusks (zebra mussel and snails) than in the fish. Mercury concentrations were typically lower in the invertebrate samples (0.0060-0.0230 mg/kg) than in the fish (0.0160-0.6000 mg/kg). Zinc concentrations in the invertebrate samples (5.4-25.0 mg/kg) were generally lower than in the whole body forage fish samples (18.0-78.0 mg/kg), but higher than the fish filet samples (5.3-11.0 mg/kg).

3.2.3 Statistical Comparison among Stations and Taxa

Fisher's least significant difference test was used to compare chemical concentrations among sample locations for each taxa. Results of the station location comparisons were used to determine if data from different locations could be lumped for purposes of comparing chemical concentration among taxa. Comparisons among taxa were then performed. Because the

distributions of chemical concentrations were non-normal, the least significant difference tests were computed on the data ranks rather than the data scores as described by Conover and Iman (1979), and Iman (1982). All statistical tests were done using the SAS Institute, Inc. (2001) statistical software Version 8.02 with a comparison-wise Type I error rate of $\alpha = 0.05$.

Comparisons by species indicated no significant difference between sampling stations (FSA-1 versus FSA-2; WBS-3 versus WBS-4) in the tissue concentration of metal contaminants (Table 2). Consequently, tissue concentration data from the different sampling stations were combined to test for differences among species.

Comparison among species (Table 3 and Figure 4) indicated considerable variability among taxon. The taxa distributed into three groups based on percent solids: invertebrates were highest, the bass species were lowest, and the forage fish species were grouped intermediate. The invertebrates generally had higher metal tissue concentrations than fish for arsenic, cadmium, copper, lead, and nickel (Table 1). Forage fish generally had higher concentrations of zinc and bass had higher concentrations of mercury. There was considerable statistical overlap among trophic groups (invertebrates, forage fish, and top predators) based on tissue concentrations of the eight metals; although some similarities among the sampled taxa were noted. The invertebrates were grouped together statistically (Table 3 and Figure 4) for cadmium, nickel, and lead; the two bass species were grouped together for copper and lead. All the fish species grouped together for nickel and the three forage fish species grouped together for copper, lead, and zinc.

EA Project No. 14368.10

4. REFERENCES

- Conover, W.J. and Iman, R.L. 1979. On multiple comparison procedures. Technical Report LA-7677-MS, Los Alamos Scientific Laboratory.
- EA Engineering, Science, and Technology. 2007. Field Sampling Plan for Biota Sampling of Wappinger Creek, Three Star Anodizing Site (3-14-058), Wappingers Falls, New York. April.
- Iman, R.L. 1982. Some aspects of the rank transform in analysis of variance problems. Proceedings of the Seventh Annual SAS Users Group International Conference, 7, 676-680.
- New York State Department of Environmental Conservation (NYSDEC). 2002. Procedures for Collection and Preparation of Aquatic Biota for Contaminant Analysis. Draft. Division of Fish, Wildlife, and Marine Resources, Bureau of Habitat.
- SAS Institute, Inc. 2001. SAS/STAT[™] User's Guide, Release 8.02 Edition. SAS Institute, Inc., Cary, North Carolina.

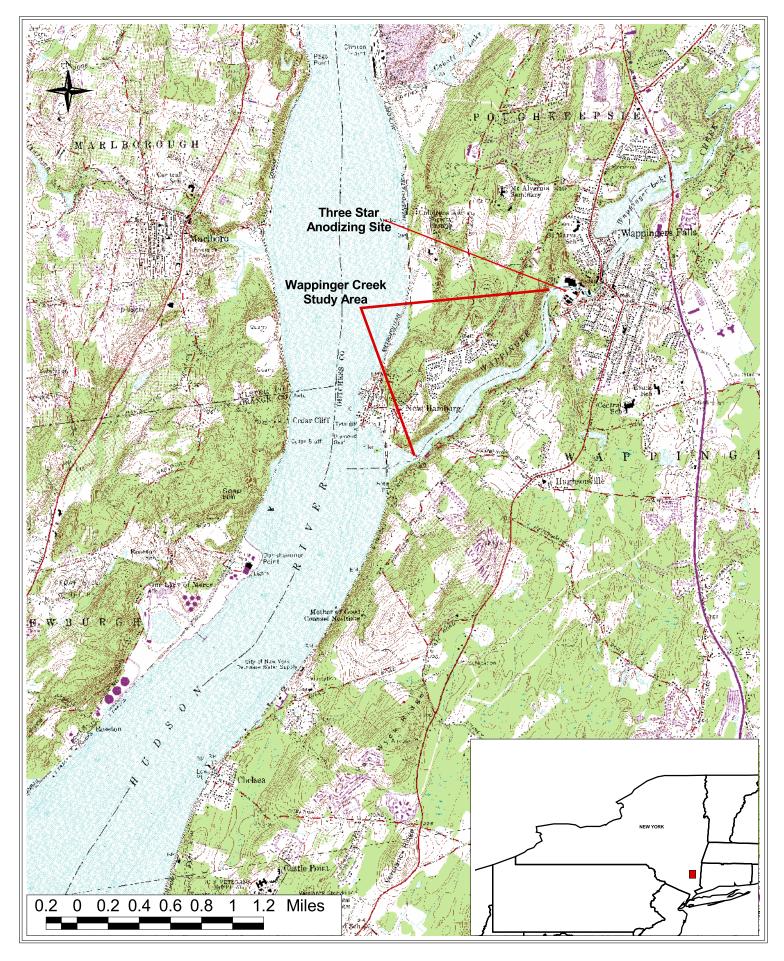


Figure 1. Location map showing Wappinger Creek study area and Three Star Anodizing site.

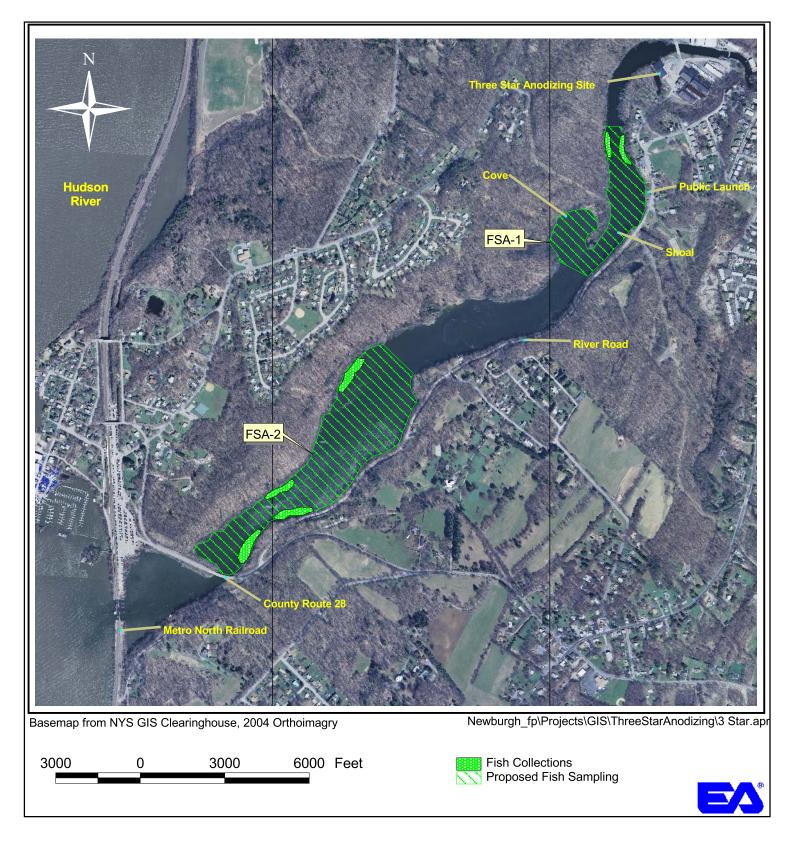


Figure 2. Location of sampling zones and fish collections in Wappinger Creek below Three Star Anodizing site, May 2007.

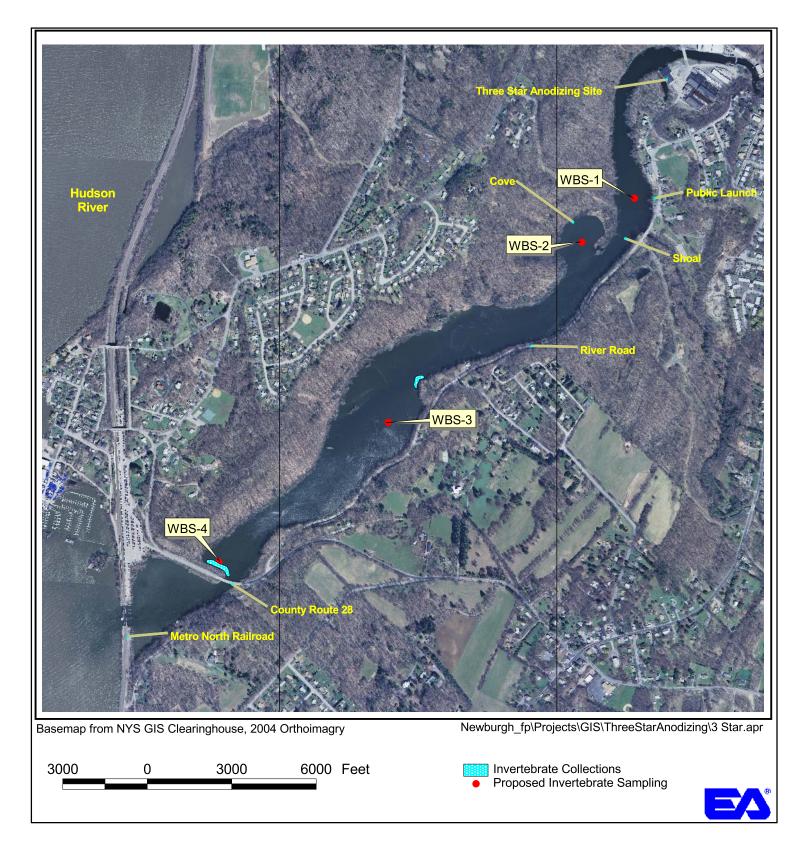


Figure 3. Location of sampling stations and invertebrate collections in Wappinger Creek below Three Star Anodizing site, May 2007.

Figure 4. Summary of Taxon Groups Indicated by Statistical Analysis of Differences in Tissue Metal Concentrations Among Taxon Collected from Wappinger Creek Below the Three Star Anodizing Site, 2007.

				Spottail	Banded	Tesselated	Largemouth	Smallmouth
Analyte	t Group	Snail	Mussel	Shiner	Killifish	Darter	Bass	Bass
Percent	А							
Solids	В							
	С							
Arsenic	А							
	В							
	С							
	D							
	E							
~								
Cadmium	A							
	B							
	С							
Chromium	А							
	В							
	С							
Copper	А							
	В							
	С							
	D							
Mercury	А							
wiereury	B							
	C							
	D							
Nickel	А							
	В							
Lead	А							
	В							
	С							
	D							
Zinc	A							
	B							
	С							



	Revision: DRAFT
EA Engineering, P.C. and Its Affiliate	Table 1, Page 1 of 2
EA Science and Technology	October 2007

TABLE 1 SUMMARY OF ANALYTICAL RESULTS FOR METAL CONCENTRATION IN FISH AND INVERTEBRATE TISSUE COLLECTED FROM THE TIDAL REACH OF WAPPINGER CREEK, BELOW THE THREE STAR ANODIZING SITE, MAY-AUGUST 2007

Location	Taxon	No. of Samples	Statistic	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Percent Solids
FSA-1	Largemouth bass	12	Mean	0.039	0.0094	0.23	0.25	0.024	0.1596	0.34	7.01	20.3
			Min	0.025	0.0081	0.21	0.19	0.024	0.0740	0.34	5.30	19.0
			Max	0.066	0.0200	0.24	0.41	0.024	0.4100	0.34	9.20	21.3
			Std Dev	0.013	0.0034	0.01	0.06	0.000	0.0968	0.00	1.15	0.8
FSA-2	Largemouth bass	16	Mean	0.036	0.0095	0.21	0.24	0.024	0.2403	0.34	7.99	20.0
			Min	0.018	0.0081	0.19	0.05	0.024	0.0620	0.34	5.40	18.2
			Max	0.053	0.0200	0.24	0.44	0.024	0.6000	0.34	11.00	22.0
			Std Dev	0.010	0.0039	0.01	0.08	0.000	0.1813	0.00	1.67	1.0
FSA-1	Smallmouth bass	4	Mean	0.141	0.0081	0.21	0.29	0.024	0.1975	0.34	6.13	20.4
			Min	0.095	0.0081	0.19	0.25	0.024	0.0900	0.34	5.60	18.7
			Max	0.180	0.0081	0.22	0.36	0.024	0.3400	0.34	6.40	21.6
			Std Dev	0.040	0.0000	0.01	0.05	0.000	0.1118	0.00	0.36	1.3
FSA-1	Spottail shiner	16	Mean	0.097	0.0304	0.28	0.67	0.186	0.0368	0.34	35.19	24.5
			Min	0.066	0.0100	0.19	0.06	0.044	0.0230	0.34	18.00	22.1
			Max	0.160	0.1100	0.62	1.40	0.700	0.0490	0.36	78.00	28.1
			Std Dev	0.028	0.0248	0.10	0.28	0.164	0.0073	0.00	16.64	1.6
FSA-2	Spottail shiner	8	Mean	0.101	0.0240	0.26	0.86	0.201	0.0401	0.34	32.63	24.4
			Min	0.067	0.0090	0.17	0.50	0.049	0.0160	0.34	25.00	22.8
			Max	0.210	0.0620	0.45	3.10	0.480	0.0670	0.34	41.00	26.1
			Std Dev	0.048	0.0162	0.09	0.91	0.153	0.0183	0.00	6.44	1.2
FSA-2	Banded killifish	6	Mean	0.062	0.0198	0.21	1.01	0.076	0.0172	0.34	29.83	22.9
			Min	0.052	0.0100	0.18	0.71	0.031	0.0160	0.34	26.00	20.7
			Max	0.073	0.0350	0.24	1.60	0.110	0.0190	0.34	34.00	24.1
			Std Dev	0.008	0.0105	0.02	0.32	0.031	0.0010	0.00	3.71	1.3
FSA-2	Tessellated darter	2	Mean	0.059	0.0081	0.18	0.57	0.079	0.0195	0.34	26.50	24.5
			Min	0.048	0.0081	0.17	0.54	0.063	0.0170	0.34	22.00	23.9
			Max	0.070	0.0081	0.19	0.59	0.094	0.0220	0.34	31.00	25.1
			Std Dev	0.016	0.0000	0.01	0.04	0.022	0.0035	0.00	6.36	0.8

EA Project No. 14368.10

Location	Taxon	No. of Samples	Statistic	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Percent Solids
WBS-3	Mussel	6	Mean	0.280	0.0803	0.30	3.28	0.837	0.0080	14.23	7.30	39.1
			Min	0.250	0.0640	0.16	1.40	0.220	0.0062	1.80	5.40	27.2
			Max	0.360	0.0970	0.70	7.70	1.800	0.0110	39.00	12.00	59.3
			Std Dev	0.041	0.0137	0.20	2.72	0.685	0.0018	17.43	2.51	10.9
WBS-4	Mussel	1	Value	0.270	0.0590	0.39	1.60	0.370	0.0060	20.00	5.40	43.3
WBS-3	Snail	6	Mean	0.387	0.0735	0.36	29.00	1.007	0.0167	6.93	16.33	34.1
			Min	0.330	0.0590	0.24	17.00	0.610	0.0120	1.40	12.00	30.1
			Max	0.510	0.1000	0.67	56.00	1.600	0.0230	24.00	25.00	39.7
			Std Dev	0.064	0.0147	0.16	13.68	0.434	0.0039	8.76	4.50	3.4
WBS-4	Snail	1	Value	0.340	0.0620	0.42	20.00	0.670	0.0170	58.00	15.00	46.9

TABLE 2 STATISTICAL COMPARISON OF METAL CONCENTRATION IN TISSUE OF FISH AND INVERTEBRATES BETWEEN SAMPLING LOCATIONS IN WAPPINGER CREEK BELOW THE THREE STAR ANODIZING SITE, 2007

Taxon	Chemical	Location	Median	t Grouping
Largemouth bass	Percent Solids	FSA-1	20.5	A
8		FSA-2	20	А
	Arsenic	FSA-1	0.038	А
		FSA-2	0.032	А
	Cadmium	FSA-1	<dl< td=""><td>А</td></dl<>	А
		FSA-2	<dl< td=""><td>А</td></dl<>	А
	Chromium	FSA-1	0.23	А
		FSA-2	0.21	В
	Copper	FSA-2	0.24	А
		FSA-1	0.23	А
	Mercury	FSA-2	0.15	А
	_	FSA-1	0.12	А
	Nickel	FSA-1	<dl< td=""><td>А</td></dl<>	А
		FSA-2	<dl< td=""><td>А</td></dl<>	А
	Lead	FSA-1	<dl< td=""><td>А</td></dl<>	А
		FSA-2	<dl< td=""><td>А</td></dl<>	А
	Zinc	FSA-2	7.7	А
		FSA-1	6.9	А
Mussel	Percent Solids	WBS-4	43.3	А
		WBS-3	35.85	А
	Arsenic	WBS-4	0.27	А
		WBS-3	0.26	А
	Cadmium	WBS-3	0.0775	А
		WBS-4	0.059	А
	Chromium	WBS-4	0.39	А
		WBS-3	0.225	А
	Copper	WBS-3	1.7	А
		WBS-4	1.6	А
	Mercury	WBS-3	0.00765	А
		WBS-4	0.006	А
	Nickel	WBS-4	20	А
		WBS-3	4.35	А
	Lead	WBS-3	0.73	А
		WBS-4	0.37	А
	Zinc	WBS-3	6.5	А
		WBS-4	5.4	А

Taxon	Chemical	Location	Median	t Grouping
Snail	Percent Solids	WBS-4	46.9	А
		WBS-3	33.4	А
	Arsenic	WBS-3	0.37	А
		WBS-4	0.34	А
	Cadmium	WBS-3	0.0725	А
		WBS-4	0.062	А
	Chromium	WBS-4	0.42	А
		WBS-3	0.31	А
	Copper	WBS-3	25	А
		WBS-4	20	А
	Mercury	WBS-3	0.017	А
		WBS-4	0.017	А
	Nickel	WBS-4	58	А
		WBS-3	3.45	А
	Lead	WBS-3	0.845	А
		WBS-4	0.67	А
	Zinc	WBS-3	15.5	А
		WBS-4	15	А
Spottail shiner	Percent Solids	FSA-2	24.8	А
-		FSA-1	24.25	А
	Arsenic	FSA-1	0.084	А
		FSA-2	0.079	А
	Cadmium	FSA-1	0.021	А
		FSA-2	0.02	А
	Chromium	FSA-1	0.265	А
		FSA-2	0.23	А
	Copper	FSA-1	0.635	А
		FSA-2	0.525	А
	Mercury	FSA-2	0.04	А
		FSA-1	0.0355	А
	Nickel	FSA-2	<dl< td=""><td>А</td></dl<>	А
		FSA-1	<dl< td=""><td>А</td></dl<>	А
	Lead	FSA-2	0.145	А
		FSA-1	0.135	А
	Zinc	FSA-2	32.5	А
		FSA-1	31.5	А

TABLE 3 STATISTICAL COMPARISON OF METAL CONCENTRATION IN TISSUE OF FISH AND INVERTEBRATES AMONG TAXA COLLECTED FROM WAPPINGER CREEK BELOW THE THREE STAR ANODIZING SITE, 2007

Chemical	Taxon	Median	t Grouping
Percent Solids	Mussel	36.3	А
	Snail	34.6	А
	Spottail shiner	24.6	В
	Tessellated darter	24.5	В
	Banded killifish	23.35	В
	Smallmouth bass	20.7	С
	Largemouth bass	20	С
Arsenic	Snail	0.36	А
	Mussel	0.26	В
	Smallmouth bass	0.145	С
	Spottail shiner	0.0825	С
	Banded killifish	0.0615	D
	Tessellated darter	0.059	D
	Largemouth bass	0.0345	E
Cadmium	Mussel	0.074	А
	Snail	0.071	А
	Spottail shiner	0.02	В
	Banded killifish	0.0155	В
	Smallmouth bass	<dl< td=""><td>С</td></dl<>	С
	Tessellated darter	<dl< td=""><td>С</td></dl<>	С
	Largemouth bass	<dl< td=""><td>С</td></dl<>	С
Chromium	Snail	0.32	А
	Spottail shiner	0.255	A B
	Mussel	0.25	В
	Largemouth bass	0.22	В
	Banded killifish	0.215	В
	Smallmouth bass	0.215	В
	Tessellated darter	0.18	С
Copper	Snail	24	А
	Mussel	1.6	В
	Banded killifish	0.905	B C
	Spottail shiner	0.575	С
	Tessellated darter	0.565	С
	Smallmouth bass	0.28	D
	Largemouth bass	0.23	D

EA Engineering, P.C. and Its Affiliate
EA Science and Technology

Chemical	Taxon	Median	t Grouping
Mercury	Smallmouth bass	0.18	А
	Largemouth bass	0.145	А
	Spottail shiner	0.0355	В
	Tessellated darter	0.0195	С
	Snail	0.017	С
	Banded killifish	0.017	С
	Mussel	0.0073	D
Nickel	Mussel	6.8	А
	Snail	5.4	А
	Smallmouth bass	<dl< td=""><td>В</td></dl<>	В
	Tessellated darter	<dl< td=""><td>В</td></dl<>	В
	Largemouth bass	<dl< td=""><td>В</td></dl<>	В
	Banded killifish	<dl< td=""><td>В</td></dl<>	В
	Spottail shiner	<dl< td=""><td>В</td></dl<>	В
Lead	Snail	0.8	А
	Mussel	0.37	А
	Spottail shiner	0.135	В
	Tessellated darter	0.0785	B C
	Banded killifish	0.071	С
	Smallmouth bass	<dl< td=""><td>D</td></dl<>	D
	Largemouth bass	<dl< td=""><td>D</td></dl<>	D
Zinc	Spottail shiner	31.5	А
	Banded killifish	29.5	A B
	Tessellated darter	26.5	A B
	Snail	15	В
	Largemouth bass	6.9	С
	Smallmouth bass	6.25	С
	Mussel	5.8	С

Appendix A

Completed Field Data Forms

Field Sheet for Finfish Fillet Collection	
	umber: <u>14368.10</u>
	Project N

SITE LOCATION

Site Name: Tidal reach of Wappinger Creek, Wappingers Falls, NY

Station: [KFSA-1 []FSA-2

Electrofishing. Bottom Trawl, Gill net, Beach Seine, Rod and Reel, Other (specify) **Collection Methods:**

DAVID CRANDALL ľ D þ 3 BRIAN Andersen Brien (Julene A. Ballen nive K. Rulles Collector(s) Name(s): (Print and sign)

FINFISH/SHELLFISH COLLECTED

Sample No	Species	Sample Date	Collection Method	Length (mm)	Whole Body Mass (g)	Remarks (e.g. morphological abnormalities, use reverse side for more room)
75 Auc-05/07 . FSA - Micro pterus	Micro pterus	5-1-07	5-1-07 Electrosheck	368	2.228	
10-7- 9M2-1-	salmoides	S-1-27 RA		1		
TSAUL- OSO7-PSA- Micropherus	Micropherus	5-1-07	Electroshock 336	336	624.1	
1-6AB-F-02	Ser mor des					
TSAWC-05/07-FSA MICOPACUS	MICO. Pterus	5-1-07	Electro shuck	364	747.6	
i - LMB- F-03	calline i ches			•		
TSAWC-05107-FSA	Micro pterus	5-1-07	5-1-07 Electro shuel	465	465 1819.1 20020	Sord Sore on modifile
1- LMB-F-04	Salmoides			11000 - 11000 - 11000 - 11000 - 11000 - 11000 - 11000 - 11000 - 11000 - 11000 - 11000 - 11000 - 11000 - 11000 -		
TSAUX-05/67-13A Microphras	Microphras	5-1-07	Electro Shock 390	310	P93.4	sore on cower manhield
1-LMB-F-05	salmoider					

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Odonates OD Smallmouth bass SMB Spottail shiner SS

		Field Shee	Field Sheet for Finfish Fillet Collection	collection		
Project Number: 14368.10	<u>8,10</u>					
SITE LOCATION Site Name: <u>Tidal reach</u> Collection Methods: (Collector(s) Name(s): (Print and sign)	SITE LOCATION Site Name: <u>Tidal reach of Wappinger Creek, Wappingers Falls, NY</u> Collection Methods: <u>Electrofishing, Bottom Trawl, Gill net, Beach</u> Collector(s) Name(s): <u>Electrofishing, Bottom Trawl, Gill net, Beach</u> (Print and sign)	p <mark>ingers Falls, NY</mark> wl, Gill net, Beach	h of Wappinger Creek, Wappingers Falls, NY Station: [X FSA-1 Electrofishing, Bottom Trawl, Gill net, Beach Seine, Rod and Reel, Other (specify)		[] FSA-2	
1						
FINFISH/SHELLFISH COLLECTED	DLLECTED					
Sample No	Species	Sample Date	Collection Method	Length (mm)	Whole Body Mass (g)	Remarks (e.g. morphological abnormalities, use reverse side for more room)
76AWC-05107-FSA	Micropterus	5-1-07	Electroshark	410	1018.4	PRIMA / NOD
1-LM3- F06	Salmoides					
T5AW(-05107-F5A	micropterus	5-1-07	6 lectroshock	341	657.8	
1- LMB-F07	Salmoides					
75AWC-05107-F5A	7	5-1-07	Clectroshork	289	331.4	
1-LMB-FOS	Salmoides				-	
TSPWC-05107-FSA	٤	5-1-07	Electroshock	284	278.5	
1-LMB-F09	salmoides					

•

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Smallmouth bass SMB Spottail shiner SS

293.7

315

roshock

E/62

Г

5-1-0

micropterus Salmoides.

TSAW (-05/67-75A) -LMB-F10 .

abnormalities, use reverse side for NOT SENT FOR ANAL Remarks (e.g. morphological AN A more room) \mathcal{N} 510 ar 2125.0 Mass (g) 9-70.2 Whole Body 998.7 416.2 216.9 [] FSA-2 Field Sheet for Finfish Fillet Collection Length (mm) Collection Methods: (Electrofishing) Bottom Trawl, Gill net, Beach Seine, Rod and Reel, Other (specify) 407 10C *9*92 269 Station: [X] FSA-1 Electrosheck **Collection Method** Froshou Electroshock Electrosheck Site Name: Tidal reach of Wappinger Creek, Wappingers Falls, NY Sample Date 5-1-07 1-1-01 5-1-07 ホーク 5-1-07 Micropterus Salmoides N/10 pterus Micropterus sal moides micropterus Salmoides Micropterus dolomica Species FINFISH/SHELLFISH COLLECTED Project Number: 14368.10 FSAWC-0567-58A 75AWC-05107-FSA T5AWC-05/07-F5A たっちょうしょうちょう - LM13-05/07 -TSAWC-05107-FSA Collector(s) Name(s): (Print and sign) 217-8M1-1 + LAUD-FIS -5m B-F01 SITE LOCATION Sample No

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Odonates OD Largemouth bass LMB Smallmouth bass SMB Spottail shiner SS

6 lectroshock

dolomicy

1-5MB-F02

ł

	Field Shee	Field Sheet for Finfish Fillet Collection	ollection		
Project Number: 14368.10					
SITE LOCATION					
Site Name: Tidal reach of Wappinger Creek, Wappingers Falls, NY	appingers Falls, NY	Station: [À FSA-1		[] FSA-2	
Collection Methods: Electrofishing, Bottom Tr	awl, Gill net, Beach	Electrofishing, Bottom Trawl, Gill net, Beach Seine, Rod and Reel, Other (specify)	ır (specify)		
Collector(s) Name(s): (Print and sign)					
FINFISH/SHELLFISH COLLECTED					
Sample Species No	Sample Date	Collection Method	Length (mm)	Whole Body Mass (g)	Remarks (e.g. morphological abnormalities, use reverse side for more room)
TSAWC-OSIO7-FSP MICOPTERUS	5-1-07	6.1Pctroshock	20h	8.2001	
1-5mB-F03 dolomien					
75PWC-05107-FSP Micropterus	5-1-07	Electrosnock.	344	424.4	u/ceration/Lesian
1-SMB-FOY dolomien					Lower Bady
45400000000000000000000000000000000000					
1-5mb-fas			14		

•

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Smallmouth bass SMB Spottail shiner SS

		Field Shee	Field Sheet for Finfish Fillet Collection	Collection		
Project Number: 14368.10	.10					
SITE LOCATION						
Site Name: <u>Tidal reach</u>	Site Name: Tidal reach of Wappinger Creek, Wappingers Falls, NY	pingers Falls, NY	Station: [] FSA-1		ĿÀ FSA-2	
	Electrofishing) Bottom Trawl, Gill net, Beach Seine, Rod and Reel, Other (specify)	vl, Gill net, Beach	Seine, Rod and Reel, Oth			
Collector(s) Name(s): (Print and sign)						
•						
FINFISH/SHELLFISH COLLECTED	DLLECTED					
Sample No	Species	Sample Date	Collection Method	Length (mm)	Whole Body Mass (g)	Remarks (e.g. morphological abnormalities, use reverse side for more room)
TSAWC -05/07-FSA Micropherus	Micropterus	2-1-07	6/Pctrashock	440	1597.7	
2- LMB -06	salmoides			-		
75AWE05107	Micropherus	5-1-07	Electroshock.	419	1047.8	Il lier Inverian'
2- DWB-01	salmo ides					
75AWC-05/07-FSA	micropterus	5-1-07	Electroshock.	112	1094.7	
2-UM3-2	sal moides				*	
TSA WC-05 167-FSA	micropterus	5-1-07	Electroshock.	147	1577.5	
-						

•

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Odonates OD Smallmouth bass SMB Spottail shiner SS

612.3

350

Electrostak

5-1-07

micropherus salmoides.

75A WC-05 107-F5A

2- LMB-04

Z-LMB-03

sal moides

llection
ဂ္ဂ
Fillet (
Finfish
õ
ield Sheet f
ĬĽ.

•

Project Number: 14368.10

SITE LOCATION	
Site Name: Tidal reach of Wappinger Creek, Wappingers Falls, NY Station: [] FSA-1	LA FSA-2
Collection Methods: Electrofishing, Bottom Trawl, Gill net, Beach Seine, Rod and Reel, Other (specify)	(A
Collector(s) Name(s):	

FINFISH/SHELLFISH COLLECTED

Remarks (e.g. morphological abnormalities, use reverse side for more room)							CUNK / NO			
Whole Body Mass (g)	378,3		792,5		9.99,9		72006	(2125)	538.4	•
Length (mm)	296.		375.		. 39		498		335	
Collection Method	Fiertrassek	An example of the second se	Electroshork 375.		5-1-07 Electroshock 391		Electroshark 49P		Flectrocheck 335	
Sample Date	5-1-07		60-1-5		20-1-5		5-1-07		5-2-07	
Species	wireptens	Salmoides	meropterus	sa Imoldes	m isopterus	sal moides	mirropterus	Salmordes		Salmordes
Sample No	75AW 6-05/07-FSA	50-0W7-2	TSAWE -05/07/5A MICTOPENS	LO-0M7 - 2	75AWC-05/07-554	2- MM2	424-10120-2WF124	b0-aw7-2	TSAWC-05/07-TSA MICCOPTENS	01-JWB-10

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Smallmouth bass SMB Spottail shiner SS

Field Sheet for Finfish Fillet Collection

•

Project Number: 14368.10

7
_
0
_
F
<
-CS
~
0
ш
_
_
ŝ
~ -

Station: [] FSA-1 Site Name: Tidal reach of Wappinger Creek, Wappingers Falls, NY

📢 FSA-2 Collection Methods: (Electrofishing) Bottom Trawl, Gill net) Beach Seine, Rod and Reel, Other (specify)

Collector(s) Name(s): <u>Brink of Huckers er</u> (Print and sign) Ruelou Brui

FINFISH/SHELLFISH COLLECTED

Remarks (e.g. morphological abnormalities, use reverse side for more room)					12185 Small Wound-lot Taw				MS MCN	0711711
Whole Body Mass (g)	501.2		489.9		12185	2	1343.7		1120000	
Length (mm)	318		324 489.9						509	
Collection Method	Ele ctashock.		5-2-07 Clectrostat.		HECTOSLAK 400		Electroshock. 435		- let destricted	G11 NOT (DU)
Sample Date	5-2-27		5-2-07		5-2-07		5-2-07	ĺ	60-2-5-	5-3-67k
Species	micropherus	Sal moides	micropterus	salmoides.	nicropolas	Sal moides	7- Mirophens	salmoides	micropterus	salmoides
Sample No	TSAWC-05107-FSA MICROHALLS	· 11-8-17-2	TSAWC-05/07-534	21-2MB-12	TSAWLOSOTER MICROPHUS	2-LMB-13	13AWC05 07487. Mirrophenes	2-LMB-14	TSAWC-OSIOT-FSA Microptenis	2-2MB-15

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Odonates OD Smallmouth bass SMB Spottail shiner SS

Project Nur	mber: <u>1436</u>	<u>8.10</u>	Sampl	ing Date an	id Time: _	5-1-07		
Site Name:	Tidal reac	h of Wappin	iger Creek, Wapp	ingers Falls	<u>, NY</u>	in the second	<u></u>	
Station:	אֲ∕FSA-1	[]FSA	-2 []WBS-	-1 []\	NBS-2	[] WBS-3	[]WBS-4	ļ
Collection I		[] Botto [X] Elect	om Trawl rofishing	[] Beach [] Minnov	Seine v trap	[] Hand ([] Gill nel	Collected	
Collector(s) (Print and sig) Name(s): gn)	BRIAN Brun	v Andersen Andem	Rob	Ballieu	tone De	ruid Ga	udai/
FINFISH/SH	ELLFISH C			14 ince				
Species Nar	me:	[] Large [X] Spott	emouth bass ail Shiner	[] Odonat	es			
Composite S	Sample # <u>1</u> 5	AW(-05 53-	167-FSA-1-	_ Number	of Individua	als:2		
Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
001	108	11.6	016		(37	031		(9)
002	115	14.2	017			032		·····
003			018			033		
004			019		-	034		
005			020		· · · · · · · · · · · · · · · · · · ·	035		····
006			021			036		
007			022			037		
008			023			038		
009			024			039		•
010			025			040		
011			026			041		<u>-</u>
012			027		,*	042		
013			028			043		7.1
014			029			044		·····
015			030			045		i
Notes (eg. m	orphologic	al abnorma	alities).				l	

Field Sheet for Finfish/Invertebrate Composite Collection

(use reverse side for more room)

			or Finfish/Inv		• • • • • • •		sgon	
Project Nu	mber: <u>1436</u>	8.10	Sampl	ing Date an	d Time:	5-1-0		
							· · · · · · · · · · · · · · · · · · ·	
Site Name:	Tidal reac	h of Wappin	iger Creek, Wapp	ingers Falls	<u>. NY</u>			
Station: ζ	FSA-1	[]FSA	-2 []WBS	-1 []\	VBS-2	[] WBS-3	[]WBS-4	1
Collection I	Collection Method: [] Bottom Trawl		om Trawl rofishing	[] Beach Seine [] Minnow trap		[] Hand Collected [] Gill net:		
Collector(s) (Print and si								
FINFISH/SH								
Species Na	me:	[] Large [刈] Spott	emouth bass ail Shiner	[] Odonat [] Other:_	es			
Composite S	ample # <u>1</u>	5AW(-051 1-55-C	67-FSA - V-02	_ Number	of Individua	als:2		
Individual Sampl <u>e</u> No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
001	100	9.2	016			031		(5)
002	107	12.7	017					
		<u> </u>	017			032		
003		•	018			032 033		·····
003 004		·····				······		·····
		······································	018			033		
004			018 019			033 034		
004 005 006 007			018 019 020		-	033 034 035		
004 005 006 007 008			018 019 020 021		-	033 034 035 036		
004 005 006 007 008 009			018 019 020 021 022		-	033 034 035 036 037		· · · · · · · · · · · · · · · · · · ·
004 005 006 007 008 009 010			018 019 020 021 022 023 023 024 025		-	033 034 035 036 037 038		
004 005 006 007 008 009 010 011			018 019 020 021 022 023 023 024 025 026		-	033 034 035 036 037 038 039 040 041		
004 005 006 007 008 009 010 011 012			018 019 020 021 022 023 023 024 025 026 027			033 034 035 036 037 038 039 040 041 042		· · · · · · · · · · · · · · · · · · ·
004 005 006 007 008 009 010 011 012 013			018 019 020 021 022 023 024 025 026 027 028		-	033 034 035 036 037 038 039 040 041 042 043		
004 005 006 007 008 009 010 011 012			018 019 020 021 022 023 023 024 025 026 027		-	033 034 035 036 037 038 039 040 041 042		· · · · · · · · · · · · · · · · · · ·

Notes (eg. morphological abnormalities):

(use reverse side for more room)

Project Nur	Sampl	ing Date an	d Time:	5-1-07					
Site Name:	Tidal reac	h of Wappin	iger Creek, Wapp	oingers Falls	, NY				
Station: [FSA-1	[]FSA	-2 []WBS	-1 []\	NBS-2	[] WBS-3	[]WBS-4	Ļ	
Collection I				Trawl [] Beach Seine fishing [] Minnow trap					
	Collector(s) Name(s): (Print and sign)							······	
FINFISH/SH Species Nar	ne:	[]Large []Spott	mouth bass ail Shiner	[] Odonat [] Other:_	ies				
Composite S	ample #	JAWCH	05107-F\$1- W-03·	_ Number	of Individua	als:2			
Individual Sample No.	Length (mm)	r	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	
001	106	11.1	016	· · · · · · · · · · · · · · · · · · ·		031		(9)	
002	104	10.3	017			032		······	
003			018			033			
004			019		-	034			
005			020		······	035			
006			021			036		····	
007			022			037			
008			023			038	····	· <u>- </u>	
009			024			039		•	
010			025			040			
011			026			041			
012			027		······	042			
013			028			043			
014			029			044			
015			030			045			

Field Sheet for Finfish/Invertebrate Composite Collection

Notes (eg. morphological abnormalities):_____

(use reverse side for more room)

	Field	Sheet fo	r Finfish/Inv	vertebrat	e Comp	osite Collec	tion			
Project Nu	mber: <u>1436</u>	8.10	Sampl	Sampling Date and Time: $5-01-07$						
Site Name:	Tidal reac	h of Wappin	ger Creek, Wapp	ingers Falls	<u>, NY</u>					
Station:	XFSA-1	[]FSA-	2 []WBS-	-1 []\	NBS-2	[] WBS-3	[]WBS-4	Ļ		
Collection	Collection Method: [] Bottom Traw			[]Beach []Minnov	Seine v trap	I Hand Collected				
Collector(s) (Print and si										
FINFISH/SH	ELLFISH C	OLLECTED)							
Species Na		[X] Spotta	mouth bass ail Shiner	[] Odonat [] Other:_	tes					
Composite S	Sample $\#T$	SAW(-0	5/07-FSA -W-04	Number	of Individua	als: <u>2</u>				
			* /							
Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (q)		
Individual	Length (mm) 103	Mass	Individual	(mm)	1		- 1	Mass (g)		
Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	(mm)	1	Sample No.	- 1			
Individual Sample No. 001	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016	(mm)	1	Sample No. 031	- 1			
Individual Sample No. 001 002	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016 017	(mm)	1	Sample No. 031 032	- 1			
Individual Sample No. 001 002 003 004 005	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016 017 018	(mm)	1	Sample No. 031 032 033	- 1			
Individual Sample No. 001 002 003 004 005 006	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016 017 018 019	(mm)	1	Sample No. 031 032 033 034	- 1			
Individual Sample No. 001 002 003 004 005 006 007	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016 017 018 019 020 021 022	(mm)	1	Sample No. 031 032 033 034 035	- 1			
Individual Sample No. 001 002 003 004 005 006 007 008	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016 017 018 019 020 021 022 023	(mm)	1	Sample No. 031 032 033 034 035 036 037 038	- 1			
Individual Sample No. 001 002 003 004 005 006 007 008 009	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016 017 018 019 020 021 022 023 023 024	(mm)	1	Sample No. 031 032 033 034 035 036 037 038 039	- 1			
Individual Sample No. 001 002 003 004 005 006 007 008 009 010	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016 017 018 019 020 021 022 022 023 024 025	(mm)	1	Sample No. 031 032 033 034 035 036 037 038 039 040	- 1			
Individual Sample No. 001 002 003 004 005 006 007 008 009 010 011	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026	(mm)	1	Sample No. 031 032 033 034 035 035 036 037 038 039 040 041	- 1			
Individual Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027	(mm)	1	Sample No. 031 032 033 034 035 036 037 038 039 040 041 042	- 1			
Individual Sample No. 001 002 003 004 005 006 007 008 009 010 011 012 013	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027 028	(mm)	1	Sample No. 031 032 033 034 035 036 037 038 039 040 041 042 043	- 1			
Individual Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	Length (mm) 103	Mass (g) //. ८.	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027	(mm)	1	Sample No. 031 032 033 034 035 036 037 038 039 040 041 042	- 1			

Notes (eg. morphological abnormalities):____ (use reverse side for more room)

	Field	Sheet fo	r Finfish/Inv	ertebrat	e Comp	osite Collec	tion	
Project Nur	mber: <u>1436</u>	<u> 38.10</u>	Sampl	ing Date an	d Time:	51-07		
Site Name:	Tidal reac	h of Wappin	iger Creek, Wapp	ingers Falls	. NY			
	A FSA-1	[]FSA-						
-					NBS-2	[] WBS-3	[]WBS-4	•
Collection I	viethod:	[] Botto [X] Elect	m Trawl rofishing	[]Beach []Minnov	Seine v trap	[]Hand C []Gill net	Collected	
Collector(s) (Print and sig					•			
FINFISH/SH Species Nai	me:	[]Large	emouth bass ail Shiner	[]Odonat		ŀ	NSIM3D	. <u> </u>
Composite S	Sample # $\underline{\mathcal{T}}$	SAWC-0	w-05		of Individua	als:6		
		1-22-0	~ ~ ~					
Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (q)
	(mm) 102	Mass (g) 9.5	Individual	(mm)			Length (mm)	Mass (g)
Sample No.	(mm) 102 104	Mass (g) 9.5 10.9	Individual Sample No.	(mm)		Sample No.		
Sample No. 001	(mm) 102 104 105	Mass (g) 9.5 10.9 10.9	Individual Sample No. 016	(mm)		Sample No. 031		
Sample No. 001 002	(mm) 102 104 105 103	Mass (g) 9.5 10.9 10.9 9.5	Individual Sample No. 016 017	(mm)		Sample No. 031 032		
Sample No. 001 002 003	(mm) 102 104 105 105 103	Mass (g) 9.5 10.9 10.9 4.5 12.4	Individual Sample No. 016 017 018	(mm)	<u>(g)</u>	Sample No. 031 032 033		
Sample No. 001 002 003 004	(mm) 102 104 105 103	Mass (g) 9.5 10.9 10.9 9.5	Individual Sample No. 016 017 018 019	(mm)	<u>(g)</u>	Sample No. 031 032 033 034		
Sample No. 001 002 003 004 005	(mm) 102 104 105 105 103	Mass (g) 9.5 10.9 10.9 4.5 12.4	Individual Sample No. 016 017 018 019 020	(mm)	<u>(g)</u>	Sample No. 031 032 033 034 035		
Sample No. 001 002 003 004 005 006	(mm) 102 104 105 105 103	Mass (g) 9.5 10.9 10.9 4.5 12.4	Individual Sample No. 016 017 018 019 020 021	(mm)	<u>(g)</u>	Sample No. 031 032 033 034 035 036		
Sample No. 001 002 003 004 005 006 007	(mm) 102 104 105 105 103	Mass (g) 9.5 10.9 10.9 4.5 12.4	Individual Sample No. 016 017 018 019 020 021 022	(mm)	<u>(g)</u>	Sample No. 031 032 033 034 035 036 037		
Sample No. 001 002 003 004 005 006 007 008	(mm) 102 104 105 105 103	Mass (g) 9.5 10.9 10.9 4.5 12.4	Individual Sample No. 016 017 018 019 020 021 022 023	(mm)	<u>(g)</u>	Sample No. 031 032 033 034 035 035 036 037 038		
Sample No. 001 002 003 004 005 006 007 008 009 010 011	(mm) 102 104 105 105 103	Mass (g) 9.5 10.9 10.9 4.5 12.4	Individual Sample No. 016 017 018 019 020 021 022 023 023 024	(mm)	<u>(g)</u>	Sample No. 031 032 033 034 035 036 037 038 039		
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 102 104 105 105 103	Mass (g) 9.5 10.9 10.9 4.5 12.4	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025	(mm)	<u>(g)</u>	Sample No. 031 032 033 034 035 036 037 038 039 040		
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012 013	(mm) 102 104 105 105 103	Mass (g) 9.5 10.9 10.9 4.5 12.4	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026	(mm)	<u>(g)</u>	Sample No. 031 032 033 034 035 036 037 038 039 040 041		
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 102 104 105 105 103	Mass (g) 9.5 10.9 10.9 4.5 12.4	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027	(mm)	<u>(g)</u>	Sample No. 031 032 033 034 035 036 037 038 039 040 041 042		

Notes (eg. morphological abnormalities):__

	Field	Sheet fo	r Finfish/Inv	rertebrat	e Comp	osite Collec	tion	
Project Nu	mber: <u>1436</u>	8.10	Sampli	ing Date an	d Time:	5-1-07		
Site Name:	Tidal reac	h of Wappin	ger Creek, Wapp	ingers Falls	NY			
Station: F	الم J FSA-1	[]FSA-	2 []WBS-	.1 []\	VBS-2	[] WBS-3	[]WBS-4	ŀ
Collection I	Method:	[] Botto [X] Electi	m Trawl rofishing	[] Beach [] Minnov	Seine v trap	[] Hand C [] Gill net	Collected	
Collector(s) (Print and si) Name(s): gn)	<u></u>						<u></u>
FINFISH/SH	ELLFISH C	OLLECTED)					
Species Na		💦 Spott	mouth bass ail Shiner	[] Odonat [] Other:_	es			
	Sample # <u>1</u>	SAW (- 1-:	05/67-FSA 53-W-06	_ Number	of Individua	als: <u>2</u>		
Individual Sample No.	Length (mm)	Mass _ (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
001	98	8.8	016			031		
002	106	11.3	017			032		
003			018			033	****	
004			019		-	034		·····
005			020			035		
006			021			036		**
007			022			037		
800			023			038		
009			024			039		
010			025			040		
011			026			041		
012			027			042		
013			028			043		
014			029			044		
015			030			045		

Notes (eg. morphological abnormalities):

	Field	Sheet fo	or Finfish/Inv	ertebrat	e Comp	osite Collec	tion	
Project Nur	mber: <u>1436</u>	8.10	Sampl	ing Date an	d Time:	5-1-0	7	
Site Name:	Tidal reac	h of Wappir	iger Creek, Wapp	ingers Falls	, NY			
Station: [-2 []WBS-			[] WBS-3		I
Collection I			om Trawl rofishing					ł
Collector(s) (Print and sig								
FINFISH/SH Species Nar Composite S	me:	[] Large [X] Spott) emouth bass ail Shiner 5 <u>67 - FSP</u> 2070	[] Other:_		als:2		
Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
001	501	9.8	016			031	- <u>``</u>	
002	110	11.5	017			032		
003			018			033		
004			019		-	034		
005			020			035		
006			021			036		
007			022			037		
008 009			023			038		
009			024			039		
010		·····	025 026			040		
011	*		028			041		
012						1 1421		
- · •								
014			028			043		

Notes (eg. morphological abnormalities):

	Field	Sheet fo	or Finfish/Inv	vertebrat	e Comp	osite Collec	tion	
Project Nu	mber: <u>1436</u>	58.10	Sampl	ing Date an	d Time:	5-1-07		
		- <u>A-Manali III - A-A-A-</u>						
Site Name:	Tidal reac	h of Wappin	iger Creek, Wapp	oingers Falls,	NY			
Station:	SA-1	[]FSA	-2 []WBS	-1 []V	VBS-2	[] WBS-3	[]WBS-4	1
Collection	Method:	[]Botto [X] Elect	om Trawl rofishing	[]Beach []Minnow	Seine v trap	[] Hand ([] Gill net	Collected	
Collector(s (Print and s) Name(s): gn)							
FINFISH/SH Species Na		[]Large	emouth bass	[]Odonat				
	-16		ail Shiner	[] Other:_				
Composite §	Sample # <u>T=</u>	1-33-4	101-75	_ Number of	of Individua	als: <u>2</u>		
		1 / /	~ //					
Individual Sample No.		Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (ɑ)
Individual Sample No. 001	(mm) 105	T	Individual	(mm)	Mass (g)	Individual Sample No. 031	Length (mm)	Mass (g)
Sample No.	(mm) 105	Mass (g)	Individual Sample No.	(mm)		Sample No.		
Sample No. 001	(mm) 105	Mass (g) 9,6	Individual Sample No. 016	(mm)	(g)	Sample No. 031		
Sample No. 001 002	(mm) 105	Mass (g) 9,6	Individual Sample No. 016 017	(mm)		Sample No. 031 032		
Sample No. 001 002 003 004 005	(mm) 105	Mass (g) 9,6	Individual Sample No. 016 017 018	(mm)	(g)	Sample No. 031 032 033		
Sample No. 001 002 003 004 005 006	(mm) 105	Mass (g) 9,6	Individual Sample No. 016 017 018 019	(mm)	(g)	Sample No. 031 032 033 034		
Sample No. 001 002 003 004 005 006 007	(mm) 105	Mass (g) 9,6	Individual Sample No. 016 017 018 019 020	(mm)	(g)	Sample No. 031 032 033 034 035		
Sample No. 001 002 003 004 005 006 007 008	(mm) 105	Mass (g) 9,6	Individual Sample No. 016 017 018 019 020 021 022 023	(mm)	(g)	Sample No. 031 032 033 034 035 036		
Sample No. 001 002 003 004 005 006 007 008 009	(mm) 105	Mass (g) 9,6	Individual Sample No. 016 017 018 019 020 021 022 023 023 024	(mm)	(g)	Sample No. 031 032 033 034 035 036 037		
Sample No. 001 002 003 004 005 006 007 008 009 010	(mm) 105	Mass (g) 9,6	Individual Sample No. 016 017 018 019 020 021 022 022 023 024 025	(mm)	(g)	Sample No. 031 032 033 034 035 036 037 038 039 040		
Sample No. 001 002 003 004 005 006 007 008 009 010 011	(mm) 105	Mass (g) 9,6	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026	(mm)	(g)	Sample No. 031 032 033 034 035 035 036 037 038 039 040 041		
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 105	Mass (g) 9,6	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027	(mm)	(g)	Sample No. 031 032 033 034 035 035 036 037 038 039 040 041 042		
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012 013	(mm) 105	Mass (g) 9,6	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027 028	(mm)	(g)	Sample No. 031 032 033 034 035 036 037 038 039 040 041 042 043		
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 105	Mass (g) 9,6	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027	(mm)	(g)	Sample No. 031 032 033 034 035 035 036 037 038 039 040 041 042		

Notes (eg. morphological abnormalities):_____

(use reverse side for more room)

.

		Field	Sheet fo	r Finfish/Inv	ertebrate	e Comp	osite Collec	tion	
Station:[]] FSA-1[]] FSA-2[]] WBS-1[]] WBS-2[]] WBS-3[]] WBS-4Collection Method:[]] Bottom Trawl[]] Beach Seine[]] Hand Collected[]] Electrofishing[]] Minnow trap[]] Gill net:Collector(s) Name(s):	Project Nur	nber: <u>1436</u>	8.10	Sampli	ing Date an	d Time:	5-1-0	7	
Station:[]] FSA-1[]] FSA-2[]] WBS-1[]] WBS-2[]] WBS-3[]] WBS-4Collection Method:[]] Bottom Trawl[]] Beach Seine[]] Hand Collected[]] Electrofishing[]] Minnow trap[]] Gill net:Collector(s) Name(s):	Site Name:	Tidal road	h of Monnin	aar Crook Man	ingose (-1)-				
Collection Method: [] Bottom Trawl [] Beach Seine [] Hand Collected Collector(s) Name(s): [] Gill net: (Print and sign) [] Largemouth bass [] Odonates FINFISH/SHELLFISH COLLECTED Species Name: [] Largemouth bass [] Odonates Species Name: [] Largemouth bass [] Odonates [] Other: Composite Sample # $TSAW C-OSIOT-FSA$ Number of Individuals: 2 Individual Length Mass Individual Length Mass Gond 031 031 031 031 033 033 000 107 11.7 032 033 033 034 033 001 10.7 11.7 033 033 034 033 034 033 034 033 034 035 036 036 037 036 038 033 04 019 034 033 04 033 04 033 04 041 042 043 044 044 044 044 044 005 022 034 023 03			n or wappin	ger Creek, wapp	ingers rails.	NY			
Light Electrofishing I j Minnow trap I j Minnow trap Collector(s) Name(s):	Station: [∦ FSA-1	[]FSA-	2 []WBS-	1 []V	VBS-2	[] WBS-3	[]WBS-4	ļ
(Print and sign) FINFISH/SHELLFISH COLLECTED Species Name: [] Largemouth bass [] Odnates Composite Sample # $\underline{TSAw} \leftarrow \underline{OSIo7} - \underline{FSA}$ Number of Individuals: 3 Individual Length Mass Individuals: 3 Individual Length Mass Individual Length Mass Sample No. (mm) (g) Sample No. (mm) (g) 001 $\underline{7}$ $\underline{7}$ $\underline{033}$ (g) 001 $\underline{7}$ $\underline{7}$ $\underline{033}$ (g) 001 $\underline{7}$ $\underline{019}$ $\underline{033}$ (g) 002 10 11 $\underline{2}$ $\underline{033}$ (g) 003 10 11 $\underline{036}$ (g) (g) 004 019 $\underline{034}$ (g) (g) (g) 005 020 035 (g) (g) (g) 006 021 036 (g) (g) (g) 007 022	Collection I	Method:] Botto [_ک] Elect	m Trawl rofishing	[] Beach [] Minnov	Seine v trap	[] Hand C [] Gill net	collected	
Species Name:[] Largemouth bass [] Spottail Shiner[] Odonates [] Other:Composite Sample # $TSAW (-OSI07 - FSA)$ $I-S = -W - OC$ Number of Individuals:Individual Sample No.Length (mm)Mass (g)Individual (mm)Length (mm)Mass (g)Individual Sample No.Length (mm)Mass (g)Individual (mm)Length (mm)Mass (g)001 $f(1, 7, q)$ 016031	Collector(s) (Print and si) Name(s): gn)							
Composite Sample # $TSAW C-05/b7 - FSA$ Number of Individuals: 3 Individual Sample No. Length (mm) Mass (g) Sample No. Individual (mm) Length (g) Mass Sample No. Individual (g) Length (mm) Mass Sample No. Individual (g) Length (g) Individual No. Length (g) </th <th></th> <th></th> <th>[]Large</th> <th>mouth bass</th> <th></th> <th></th> <th></th> <th></th> <th></th>			[]Large	mouth bass					
Sample No.(mm)(g)Sample No.(mm)(g)Sample No.(mm)(g)001 $\mathcal{I} \mathcal{I}$ $\mathcal{7} \cdot \mathcal{A}$ 016031(g)002 $\mathcal{I} \mathcal{I}$ $\mathcal{I} \cdot \mathcal{L}$ 017032(g)003 $\mathcal{I} \mathcal{I}$ $\mathcal{I} \cdot \mathcal{L}$ 017032(g)004019-034(g)(g)005020035(g)(g)006021036(g)007022037(g)008023038(g)009024039(g)010025040(g)011026041(g)012027042(g)013028043(g)014029044(g)	Composite S	Sample # <u>75</u>							
001 94 7.9 016 031 002 107 11.2 017 032 003 102 7.8 018 033 004 019 - 034 005 020 035 006 021 036 007 022 037 008 023 038 009 024 039 010 025 040 011 026 041 012 027 042 013 028 043 014 029 044	Individual Sample No.	-						- 1	
003 102 9.8 018 033 004 019 - 034 035 005 020 035 036 006 021 036 037 008 023 038 039 009 024 039 039 010 025 040 041 012 027 042 041 013 028 043 044	001	19		016			031		
004 019 - 034 005 020 035 035 006 021 036 037 008 023 038 038 009 024 039 039 010 025 040 041 012 027 042 041 013 028 043 044		T- C La		017			032		
005 020 035 006 021 036 007 022 037 008 023 038 009 024 039 010 025 040 011 026 041 012 027 042 013 028 043 014 029 044	003	102	9.8	018			033		
006 021 036 007 022 037 008 023 038 009 024 039 010 025 040 011 026 041 012 027 042 013 028 043	004			019		-	034		
007 022 037 008 023 038 009 024 039 010 025 040 011 026 041 012 027 042 013 028 043 014 029 044			·	020			035		
008 023 038 009 024 039 010 025 040 011 026 041 012 027 042 013 028 043 014 029 044				021			036		
009 024 039 010 025 040 011 026 041 012 027 042 013 028 043 014 029 044							037		
010 025 040 011 026 041 012 027 042 013 028 043 014 029 044									· · · · · · · · · · · · · · · · · · ·
011 026 041 012 027 042 013 028 043 014 029 044									
012 027 042 013 028 043 014 029 044									
013 028 043 014 029 044									
014 029 044								<u> </u>	
							<u></u>		

Notes (eg. morphological abnormalities):

	Field	Sheet fo	r Finfish/Inv	ertebrat	e Comp	osite Collec	tion	
Project Nur	mber: <u>1436</u>	8.10	Sampli	ing Date an	d Time:	5-1-07)	
Site Name:	Tidal reac	h of Wappin	ger Creek, Wapp	ingers Falls	<u>NY</u>			
Station:	भ्रे FSA-1	[]FSA-	2 []WBS-	.1 []\	VBS-2	[] WBS-3	[] WBS-4	Ļ
Collection I	Method:	[]Botto [入Electi	m Trawl rofishing	[] Beach [] Minnov	Seine v trap	[] Hand ([] Gill net		
Collector(s) (Print and si							<u> </u>	
FINFISH/SH	IELLFISH C	OLLECTED)				·····	
Species Na		N Spotta	mouth bass ail Shiner	[] Odonat [] Other:_				
Composite S	Sample #	SAWL-0	15/07-FSA	Number	of Individua	als: 3		
		1 331	W-QANO					
Individual Sample No.	Length (mm)	Mass	M-0410p Individual Sample No.	د Length	Mass	Individual	Length (mm)	Mass (α)
Individual	Length	1 33-	Individual	ک Length (mm)			Length (mm)	Mass (g)
Individual Sample No.	Length (mm) すら	Mass (g)	Individual Sample No.	ک Length (mm)	Mass	Individual Sample No.		
Individual Sample No. 001	Length (mm) イら (10	- 33- Mass (g) ら、う	Individual Sample No. 016	ک Length (mm)	Mass	Individual Sample No. 031		
Individual Sample No. 001 002	Length (mm) イラ [] <i>()</i> ー	- 33- Mass (g) 5, 3 .0	Individual Sample No. 016	ک Length (mm)	Mass	Individual Sample No. 031 032		
Individual Sample No. 001 002 003	Length (mm) すら [10 見4	- 33- Mass (g) 5, 3 .0	Individual Sample No. 016 017 018	د Length (mm)	Mass	Individual Sample No. 031 032 033		
Individual Sample No. 001 002 003 004	Length (mm) 45 110 44	- 33- Mass (g) 5, 3 .0	Individual Sample No. 016 017 018 019	د Length (mm)	Mass	Individual Sample No. 031 032 033 034		
Individual Sample No. 001 002 003 004 005	Length (mm) 45 110 44	- 33- Mass (g) 5, 3 .0	Individual Sample No. 016 017 018 019 020	د Length (mm)	Mass	Individual Sample No. 031 032 033 034 035		
Individual Sample No. 001 002 003 004 005 006	Length (mm) 45 110 44	- 33- Mass (g) 5, 3 .0	Individual Sample No. 016 017 018 019 020 021	د Length (mm)	Mass	Individual Sample No. 031 032 033 034 035 036		
Individual Sample No. 001 002 003 004 005 006 007	Length (mm) 45 110 44	- 33- Mass (g) 5, 3 .0	Individual Sample No. 016 017 018 019 020 021 022	د Length (mm)	Mass	Individual Sample No. 031 032 033 034 035 035 036 037		
Individual Sample No. 001 002 003 004 005 006 007 008 009 010	Length (mm) 45 110 44	- 33- Mass (g) 5, 3 .0	Individual Sample No. 016 017 018 019 020 021 022 023	د Length (mm)	Mass	Individual Sample No. 031 032 033 034 035 036 037 038		
Individual Sample No. 001 002 003 004 005 006 007 008 009 010 011	Length (mm) 45 110 44	- 33- Mass (g) 5, 3 .0	Individual Sample No. 016 017 018 019 020 021 022 023 023 024	د Length (mm)	Mass	Individual Sample No. 031 032 033 034 035 036 037 038 039		
Individual Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	Length (mm) 45 110 44	- 33- Mass (g) 5, 3 .0	Individual Sample No. 016 017 018 019 020 021 022 022 023 024 025	د Length (mm)	Mass	Individual Sample No. 031 032 033 034 035 036 036 037 038 039 040		
Individual Sample No. 001 002 003 004 005 006 007 008 009 010 011 011 012 013	Length (mm) 45 110 44	- 33- Mass (g) 5, 3 .0	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026	د Length (mm)	Mass	Individual Sample No. 031 032 033 034 035 036 037 038 039 040 041		
Individual Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	Length (mm) 45 110 44	- 33- Mass (g) 5, 3 .0	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026 027	د Length (mm)	Mass	Individual Sample No. 031 032 033 034 035 036 036 037 038 039 040 041 042		

Notes (eg. morphological abnormalities):___

	Field	Sheet fo	r Finfish/Inv	vertebrat	e Comp	osite Colleg	tion	
Project Nur	nber: <u>1436</u>	8.10	Sampl	ing Date an	d Time:	5-1-07		
Site Name:	Tidal reac	h of Wappin	ger Creek, Wapp	ingers Falls	<u>, NY</u>			
Station: [刘 FSA-1	[]FSA-	.2 []WBS-	-1 []\	NBS-2	[] WBS-3	[]WBS-4	Ļ
Collection I	Method:		om Trawl rofishing	[]Beach []Minnov	Seine v trap	[] Hand C [] Gill net		
Collector(s) (Print and si) Name(s): gn)							
FINFISH/SH	ELLFISH C	OLLECTED)					
Species Na		[] Spott	emouth bass ail Shiner	[] Odonat [] Other:_	tes			
Composite S	Sample # $\underline{\mathcal{T}}$	SAW(-0: 1-35-	5/07-FSA W-011011	Number	of Individua	als:2		
Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (q)
	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual	Length (mm)			-	Mass (g)
Sample No.	(mm)	Mass (g)	Individual Sample No.	Length (mm)		Sample No.	-	
Sample No. 001	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016	Length (mm)		Sample No. 031	-	
Sample No. 001 002	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016 017	Length (mm)		Sample No. 031 032	-	
Sample No. 001 002 003	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016 017 018	Length (mm)		Sample No. 031 032 033	-	
Sample No. 001 002 003 004	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016 017 018 019	Length (mm)		Sample No. 031 032 033 034	-	
Sample No. 001 002 003 004 005 006 007	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016 017 018 019 020	Length (mm)		Sample No. 031 032 033 034 035	-	
Sample No. 001 002 003 004 005 006 007 008	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016 017 018 019 020 021 022 023	Length (mm)		Sample No. 031 032 033 034 035 036	-	
Sample No. 001 002 003 004 005 006 007 008 009	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016 017 018 019 020 021 022	Length (mm)		Sample No. 031 032 033 034 035 036 037	-	
Sample No. 001 002 003 004 005 006 007 008 009 010	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025	Length (mm)		Sample No. 031 032 033 034 035 036 037 038	-	
Sample No. 001 002 003 004 005 006 007 008 009 010 011	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016 017 018 019 020 021 022 023 024 025 026	Length (mm)		Sample No. 031 032 033 034 035 036 037 038 039	-	
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027	Length (mm)		Sample No. 031 032 033 034 035 036 037 038 039 040	-	
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012 013	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027 028	Length (mm)		Sample No. 031 032 033 034 035 036 037 038 039 040 041 042 043	-	
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) [10	Mass (g) <i>] 2.</i> 7	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027	Length (mm)		Sample No. 031 032 033 034 035 036 037 038 039 040 041 042	-	

Notes (eg. morphological abnormalities):_____

	Field	Sheet fo	r Finfish/Inv	ertebrat	e Comp	osit <u>e</u> Collec	tion	
Project Nu	mber: <u>1436</u>	8.10	Sampli	ing Date an	d Time:	3-1-0	57	
Site Name:	Tidal reac	h of Wappin	ger Creek, Wapp	ingers Falls	NY			
Station:	Ъ,FSA-1	[]FSA-	2 []WBS-	1 []V	VBS-2	[]WBS-3	[]WBS-4	Ļ
Collection I	Method:	[]Botto [) Electi	m Trawl rofishing	[]Beach []Minnov		[] Hand ([] Gill net		
Collector(s) (Print and si								
FINFISH/SH Species Na		[]Large	mouth bass	[] Odonat	es			
	، سلہ	Spotta [۶] Spotta	ail Shiner	[] Other:_				
Composite S	Sample #1	135	=167-F5A	_ Number	of Individua	als: <u>2</u>		
Individual Sample No.		Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
001	105	10.2	016			031		
002	99	9.0	017			032		····
003			018			033		
004			019		-	034		
005			020			035		
006			021			036		
007			022			037		
008			023			038		
009			024			039		
010			025			040		
011			026			041		
012			027			042		
013			028			043		
014			029			044		
015			030			045		

Notes (eg. morphological abnormalities):

	Field	Sneet to	r Finfish/Inv					
Project Nu	mber: <u>1436</u>	68.10	Sampli	ing Date and	d Time: _	5-1-07		
		h of Wappin	ger Creek, Wapp	ingers Falls,	NY			
Station:	FSA-1	[]FSA-	2 []WBS-	۰1 <u>[</u>]۷	VBS-2	[] WBS-3	[]WBS-4	-
Collection	Method:	[]Botto [X Electi	m Trawl rofishing	[] Beach [] Minnow	Seine / trap	[] Hand 0 [] Gill net		
Collector(s (Print and s					. <u></u>			
		24111212 				••••••••••••••••••••••••••••••••••••••		
FINFISH/SH	IELLFISH C	OLLECTED)					
Species Na		[] Large [X] Spotta	mouth bass ail Shiner	[] Odonate [] Other:				
Composite \$	Sample #_ $ au$	SAWC-	05107-FSA -33-13	Number o	of Individu	als:		
Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
	(mm)	Mass (g) ଟ.ଟ	Individual	Length			-	Mass (g)
Sample No.	(mm) 10こ	Mass (g)	Individual Sample No.	Length		Sample No.	-	
Sample No. 001	(mm) 102 99	Mass (g) ଟ.ଟ	Individual Sample No. 016	Length		Sample No. 031	(mm)	
Sample No. 001 002	(mm) 10こ 99	Mass (g) ଟ.ଟ	Individual Sample No. 016 017	Length		Sample No. 031 032	(mm)	
Sample No. 001 002 003	(mm) 102 99	Mass (g) ଟ.ଟ	Individual Sample No. 016 017 018	Length		Sample No. 031 032 033	(mm)	
Sample No. 001 002 003 004	(mm) 102 99	Mass (g) ଟ.ଟ	Individual Sample No. 016 017 018 019	Length		Sample No. 031 032 033 034	(mm)	
Sample No. 001 002 003 004 005 006 007	(mm) 102 99	Mass (g) ଟ.ଟ	Individual Sample No. 016 017 018 019 020	Length		Sample No. 031 032 033 034 035	(mm)	
Sample No. 001 002 003 004 005 006 007 008	(mm) 102 99	Mass (g) ଟ.ଟ	Individual Sample No. 016 017 018 019 020 021	Length		Sample No. 031 032 033 034 035 036	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009	(mm) 102 19	Mass (g) ଟ.ଟ	Individual Sample No. 016 017 018 019 020 021 022	Length		Sample No. 031 032 033 034 035 036 037	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009 010	(mm) 102 99	Mass (g) ଟ.ଟ	Individual Sample No. 016 017 018 019 020 021 022 023	Length		Sample No. 031 032 033 034 035 035 036 037 038	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009 010 011	(mm) 102 99	Mass (g) ଟ.ଟ	Individual Sample No. 016 017 018 019 020 021 022 023 023 024	Length		Sample No. 031 032 033 034 035 036 036 037 038 039	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 102 99	Mass (g) ଟ.ଟ	Individual Sample No. 016 017 018 019 020 021 022 022 023 024 025	Length		Sample No. 031 032 033 034 035 036 037 038 039 040	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012 013	(mm) 102 99	Mass (g) ଟ.ଟ	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026	Length		Sample No. 031 032 033 034 035 035 036 037 038 039 040 041	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 102 99	Mass (g) ଟ.ଟ	Individual Sample No. 016 017 018 019 020 021 022 023 024 025 026 027	Length		Sample No. 031 032 033 034 035 036 037 038 039 040 041 042	(mm)	

Notes (eg. morphological abnormalities):_____

Project Number: <u>14368.10</u> Sampling Date and Time: <u>5-1-07</u>	
Site Name: Tidal reach of Wappinger Creek, Wappingers Falls, NY	
Station: [X]FSA-1 []FSA-2 []WBS-1 []WBS-2 []WBS-3 []W	3S-4
Collection Method: [] Bottom Trawl [] Beach Seine [] Hand Collected X] Electrofishing [] Minnow trap [] Gill net:	I
Collector(s) Name(s); (Print and sign)	
FINFISH/SHELLFISH COLLECTED Species Name: [] Largemouth bass [] Odonates M] Spottail Shiner [] Other:	
Composite Sample # $TSAWC-05/07^{-}$ Number of Individuals: 3	A 111492
Individual Length Mass Individual Length Mass Individual Leng Sample No. (mm) (g) Sample No. (mm) (g) Sample No. (mm	
001 103 9.9 016 031	,
002 10 4 8.6 017 032	
003 101 9.2 018 033	
004 019 - 034	
005 020 035	
006 021 036	
007 022 037	
008 023 038	
009 024 039	
<u>010</u> 025 040 011 026 041	
<u>013</u> 028 043 014 029 044	
015 030 045	

Notes (eg. morphological abnormalities):

Project Nur	nber: <u>1436</u>	8.10	Sampl	ing Date an	d Time:	5-1-07		
Site Name:	Tidal reac	h of Wappin	ger Creek, Wapp	ingers Falls	. NY	<u></u>		
Station: [) FSA-1	[]FSA-	2 []WBS-	1 []V	VBS-2	[] WBS-3	[] WBS-4	ł
Collection I	Method:	[] Botto [X] Electi	m Trawl rofishing	[]Beach []Minnov	Seine v trap	[] Hand ([] Gill net	Collected	
Collector(s) (Print and sig	Name(s): gn)							·····
FINFISH/SH Species Nar Composite S	ne:	[] Large [X] Spott	mouth bass ail Shiner 05/67 - FSA - SS - 15	[]Odonat []Other:_ Number D いア		als:		
Individual	Length	Mass	Individual	Length	Mass	Individual	Length	Mass
Sample No.	(mm)	(g)	Sample No.	(mm)	(g)	Sample No.	(mm)	(g)
001	112	14.7	016		·	031		
002	106	11.8	017			032		
	105	10.3	018			033		
004	100	9.2	019		-	034		
005			020			035		
006			021			036		
007			022			037		
008			023			038		
009			024			039		
010			025			040		
011			026			041		
012			027			042		
013			028			043		
014			029			044		
015			030			045		

Field Sheet for Finfish/Invertebrate Composite Collection

Notes (eg. morphological abnormalities):

Project Nu			Sampl	ing Date an	е сопр Id Time:	5 - 1 - 0	$7 \cdot$	
Site Name:	Tidal reac	h of Wappir	iger Creek, Wapr	bingers Falls	, NY	ардан калан тайы түүүүн калан калан калан калан кала		
Station: [[뇌] FSA			WBS-2	[] WBS-3	[]WBS-	4
Collection I	Wethod:	[] Botto [x] Elect	om Trawl trofishing		Seine	I 1 Hand (Collected	•
Collector(s) (Print and si) Name(s): gn)	4 ,						
FINFISH/SH	ELLFISH C	OLLECTED)					
Species Na		MI Spott	emouth bass ail Shiner	[]Odonat []Other:_	es			
Composite S	ample # $\frac{13}{FS}$	5AW (12	.05/07 - 33-01	Number	of Individua	als:	······································	
Individual Sampl <u>e</u> No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
001	100	10.3	016	·····		031		(3)
002	82	5.2	017			032		
003			018			033		
004			019		-	034		
005			020			035	·	
006		·	021			036		
007			022			037		
008			023			038	····	
009			024			039		· · · · · ·
010			025			040		
011			026			041		
012			027			042		·····
013			028			043		
014			029			044		-y
015			030			045		- <u>,,,</u> ,,,

Field Sheet for Finfish/Invertebrate Composite Collection

Notes (eg. morphological abnormalities):_____

Project Nu			or Finfish/Inv Sampl	vertebrat ing Date an	e Comp d Time:	osite Collec $5 - 2 - C$	tion	
Site Name:	Tidal reac	h of Wappir	nger Creek, Wapp	ingers Falls	<u>, NY</u>			
Station: [] FSA-1	🕅 FSA	-2 []WBS	-1 []\	NBS-2	[]WBS-3	[]WBS-4	ţ.
Collection I	Method:		om Trawl trofishing	[]Beach []Minnov	Seine v trap	I Hand Collected		
Collector(s) (Print and si								
FINFISH/SH Species Nar Composite S	me:	[]Large [X]Spott SA₩(- 0	emouth bass ail Shiner 95/67-751-	[] Other:_	of Individua	als:_2		
Individual Sample No.	Length (mm)	Mass (g)	SS-0て] Individual Sample No.	Length	⊬ <u>(</u> Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
001	114	14.6	016			031		
002	112	11.5	017			032		
003			018		·····	033		
004			019		-	034		
005			020			035		
006 007			021			036		
007			022			037		
009			023			038		· <u>·</u> ·····
010			024			039 040		
011	· · · · · · · · · · · · · · · · · · ·		026		· ***	041		
012			027			041		
013			028			043		·····
014			029			044		
015			030			045		

Notes (eg. morphological abnormalities):_____ (use reverse side for more room)

•

Project Nı	umber: <u>1436</u>		Sampl	ing Date an	-	1 7-		
Site Name	:_Tidal read	h of Wappir	iger Creek, Wapp	ingers Falls	, <u>NY</u>			
Station:	[] FSA-1	🕅 FSA	-2 []WBS	.1 []\	VBS-2	[]WBS-3	[]WBS-4	1
Collection	Method:	[] Botto [-국] Elect	om Trawl trofishing	/l [] Beach Seine g [] Minnow trap		I Hand Collected		
Collector(s (Print and s	s) Name(s): sign)							·····
			······································					
FINFISH/SI	HELLFISH C	OLLECTED)					
Species Na		DA Spott	emouth bass ail Shiner	[] Odonat [] Other:_				
		1-22-	107-FSA- 03.	_ Number	of Individua	als:		
Individual Sample No	U	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
001	99	8.9	016			031		(3)
002	2107	12.9	017			032		
003	3		018			033		
004			019		-	034		******
005	5		020			035		
006	; 		021			036		
007			022			037		
800			023			038		
009			024			039		
010			025			040		
011			026			041		
012			027			042		·····
013			028			043		
014			029			044		
015			030			045		·····

Field Sheet for Finfish/Invertebrate Composite Collection

Notes (eg. morphological abnormalities):_____

Project Nu			or Finfish/Inv Sampl	vertebrat ing Date an	-	53.		
Site Name:		h of Wappir	nger Creek, Wapp	ingers Falls	<u>, NY</u>			
Station: [] FSA-1	K] FSA	-2 []WBS-	-1 []\	NBS-2	[] WBS-3	[] WBS-4	ı
Collection	Method:	[]Botto []Elect	om Trawl trofishing	[≯] Beach Seine [] Minnow trap				-
Collector(s (Print and si) Name(s): gn)					••••••••••••••••••••••••••••••••••••••		
FINFISH/SH Species Na Composite S	me:	[]Large 図Spott	emouth bass ail Shiner 05 67- F≤A	[] Other:_				
Individual		Z-1 Mass	SS - 04 Individual	Length	Mass	Individual	Length	Mass
Sample No.	(mm)	(g)	Sample No.	(mm)	(g)	Sample No.	(mm)	(g)
001	109	13.2	016			031		
002	109	11.6	017			032		·····
003			018			033		
004			019		-	034		
005			020			035		
006			021			036	·····	
007			022			036 037		
007 008			022 023			036 037 038		······································
007 008 009			022 023 024		······································	036 037 038 039		
007 008 009 010			022 023 024 025			036 037 038 039 040		· · · · · · · · · · · · · · · · · · ·
007 008 009 010 011			022 023 024 025 026			036 037 038 039 040 041		
007 008 009 010 011 012			022 023 024 025 026 027			036 037 038 039 040 041 042		· · · · · · · · · · · · · · · · · · ·
007 008 009 010 011			022 023 024 025 026			036 037 038 039 040 041		· · · · · · · · · · · · · · · · · · ·

Notes (eg. morphological abnormalities): _____ (use reverse side for more room)

•

	Field	Sheet fo	or Finfish/Inv	vertebrat	e Comp	osite Colleg	ction	
Project Nu	mber: <u>143</u>	38.10	Sampl	ing Date an	ld Time:	5-2-0	· /	
			·····					
Site Name:	Tidal read	h of Wappin	iger Creek, Wapp	oingers Falls	, NY			
Station:	[] FSA-1		-2 []WBS-	-1 []\	WBS-2	[] WBS-3	[]WBS-4	4
Collection	Method:	[]Botto []Elect	om Trawl rofishing	wl 🎦 Beach Seine ng 🏾 [] Minnow trap		•••••••••••••••••••••••••••••••••••••••		
Collector(s (Print and s) Name(s): ign)							
FINFISH/SH Species Na			mouth bass					
Composite \$	Sample #	TGAWL	ail Shiner -05/07 -FS 3-05	[] Other:_ A Number	of Individua			
Individual Sample No.		Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (q)
	(mm)	Mass (g) /2 · /	Individual	(mm)	1			Mass (g)
Sampl <u>e</u> No.	(mm) 107	Mass (g)	Individual Sample No.	(mm)	1	Sample No.		
Sample No. 001	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016	(mm)	1	Sample No. 031		
Sample No. 001 002	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016 017	(mm)	1	Sample No. 031 032		
Sample No. 001 002 003	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016 017 018	(mm)	(g)	Sample No. 031 032 033		
Sample No. 001 002 003 004	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016 017 018 019	(mm)	(g)	Sample No. 031 032 033 034		
Sample No. 001 002 003 004 005 006 007	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016 017 018 019 020	(mm)	(g)	Sample No. 031 032 033 034 035		
Sample No. 001 002 003 004 005 006 007 008	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016 017 018 019 020 021 022 023	(mm)	(g)	Sample No. 031 032 033 034 035 036		
Sample No. 001 002 003 004 005 006 007 008 009	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016 017 018 019 020 021 022 023 023 024	(mm)	(g)	Sample No. 031 032 033 034 035 036 037		
Sample No. 001 002 003 004 005 006 007 008 009 010	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025	(mm)	(g)	Sample No. 031 032 033 034 035 036 037 038		
Sample No. 001 002 003 004 005 006 007 008 009 010 011	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026	(mm)	(g)	Sample No. 031 032 033 034 035 036 037 038 039		
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016 017 018 019 020 021 022 023 024 025 026 027	(mm)	(g)	Sample No. 031 032 033 034 035 036 037 038 039 040		
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012 013	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016 017 018 019 020 021 022 023 024 025 026 027 028	(mm)	(g)	Sample No. 031 032 033 034 035 035 036 037 038 039 040 041		
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 107 105	Mass (g) /2 · /	Individual Sample No. 016 017 018 019 020 021 022 023 024 025 026 027	(mm)	(g)	Sample No. 031 032 033 034 035 036 037 038 039 040 041 042		

Notes (eg. morphological abnormalities):_____

Project Nur			or Finfish/Inv Sampli	ing Date an	d Time:	5-2-0	7	
Site Name:	Tidal reac	h of Wappir	iger Creek, Wapp	ingers Falls	. NY			
Station: [] FSA-1	[X] FSA	-2 []WBS-	.1 []V	VBS-2	[] WBS-3	[]WBS-4	ļ
Collection I		[]Botto	om Trawl <u>rofishin</u> g⊋උ	M Beach	Seine v tran	[] Hand ([] Gill net		
Collector(s) (Print and si	Name(s):					[]0mmot	•	
FINFISH/SH								
Species Na	me:	[] Large [X] Spott	emouth bass ail Shiner	[] Odonat [] Other:_	es			
Composite S	Sample # <u>1</u> 2	SAWL-1	55/67-FSA0 5-06		of Individua	als: 3		
Individual ample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
001	81	501	016			031		
002	76	3.7	017			032		
003	87	5.8	018			033		
004			019		-	004		
004						034		
004			020			034		······
005 006	······································	······	020 021			<u> </u>		
005 006 007		·····	020 021 022			035		······································
005 006 007 008		······································	020 021 022 023			035 036 037 038		······
005 006 007 008 009			020 021 022 023 024		· · · · · · · · · · · · · · · · · · ·	035 036 037 038 039		······································
005 006 007 008 009 010			020 021 022 023 024 025			035 036 037 038 039 040		· · · · · · · · · · · · · · · · · · ·
005 006 007 008 009 010 011			020 021 022 023 024 025 026			035 036 037 038 039 040 041		· · · · · · · · · · · · · · · · · · ·
005 006 007 008 009 010 011 012			020 021 022 023 024 025 026 027			035 036 037 038 039 040 041 042		· · · · · · · · · · · · · · · · · · ·
005 006 007 008 009 010 011 012 013			020 021 022 023 024 025 026 027 028			035 036 037 038 039 040 041 042 043		· · · · · · · · · · · · · · · · · · ·
005 006 007 008 009 010 011 012			020 021 022 023 024 025 026 027			035 036 037 038 039 040 041 042		

Project Nur			r Finfish/Inv Sampl	ing Date an		5 - 3 - (57	
Site Name:	Tidal reac	h of Wappin	ger Creek, Wapp	ingers Falls	, NY			
Station: [] FSA-1	[]FSA-	2 []WBS	.1 []\	NBS-2	[] WBS-3	[] WBS-4	Ļ
Collection I	Method:		m Trawl rofishing	[]Beach []Minnov		[] Hand Collected [] Gill net:		
Collector(s) (Print and sig				······			<u>-</u>	
FINFISH/SH Species Nar Composite S	ne:	[]Large [オ]Spott (AWく-)	emouth bass ail Shiner 25/09 - F9A	[]Odonat []Other:_ Number				
Individual	Length	Mass	<i>≤ ~0</i> 87 Individual	Length	Mass	Individual	Length	Mass
Sample No.	(mm) 105	(g)	Sample No.	(mm)	(g)	Sample No.	(mm)	<u>(g)</u>
001	105) .	016			031		
002			017			032		
003			018			033		
004			019		-	034		
006	·····		020			035		
007			022			030		
008	•.•		023			038		
009			024			039		······
010			025			040		
011			026			041		
012			027			042		
013			028			043		
014			029			044		
015			030			045		

Notes (eg. morphological abnormalities):

	Field	Sheet fo	or Finfish/Inv					
Project Nur	mber: <u>143</u>	58.10	Sampl	ing Date an	d Time:	5-2-	07	
Site Name:	Tidal read	h of Wappin	iger Creek, Wapp	ingers Falls	, NY			
Station: [] FSA-1	🕅 FSA-	-2 []WBS-	-1 []\	NBS-2	[] WBS-3	[]WBS-4	4
Collection I	Method:	·	om Trawl					Ŧ
		[]Elect	rofishing	[] Minnov	v trap	[]Hand ([]Gill net	:	
Collector(s) (Print and si) Name(s): gn)							
FINFISH/SH	ELLFISH C	OLLECTED)					
Species Nai			emouth bass ail Shiner		BANDE	p Kelletru	4	
Composite S	Sample # <u>T</u>	SAWC-0	5/07-F3A-	_ Number	of Individua	als:		
Individual Sample No.		Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.		Mass (α)
	<u>(mm)</u> 나3	(g) 0.7		(mm)		Individual Sample No. 031	Length (mm)	Mass (g)
Sample No. 001 002	(mm) 43 45	(g) 0.7 0.4	Sample No.	(mm)		Sample No.	(mm)	
Sample No. 001 002 003	(mm) 43 45 35	(g) 0.7 0.4 0.4	Sample No. 016	(mm)		Sample No. 031	(mm)	
Sample No. 001 002 003 004	(mm) 43 45 35 5)	(g) 0.8 0.4 0.4 1.3	Sample No. 016 017	(mm)		Sample No. 031 032	(mm)	
Sample No. 001 002 003 004 005	(mm) 43 45 35 5) 46	(g) 0.7 0.4 0.4 0.4 1.3 1.1	Sample No. 016 017 018	(mm)		Sample No. 031 032 033	(mm)	
Sample No. 001 002 003 004 005 006	(mm) 43 45 35 5) 46 45	(g) 0.8 0.4 0.4 1.3 1.1 0.3	Sample No. 016 017 018 019	(mm)		Sample No. 031 032 033 034	(mm)	
Sample No. 001 002 003 004 005 006 007	(mm) 43 45 35 5) 46 45 45 45	(g) 0.8 0.4 0.4 1.3 1.1 0.3 0.3 0.4	Sample No. 016 017 018 019 020	(mm)		Sample No. 031 032 033 034 035	(mm)	
Sample No. 001 002 003 004 005 006 007 008	(mm) 43 45 35 5) 46 45 45 45 45 47	(g) 0.8 0.4 0.4 1.3 1.1 0.3 0.9 1.3	Sample No. 016 017 018 019 020 021 022 023	(mm)		Sample No. 031 032 033 034 035 036	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009	(mm) 43 45 35 5) 46 45 45 45 45 47 48	(g) 0.8 0.4 0.4 1.3 1.1 0.3 0.9 1.3 1.1	Sample No. 016 017 018 019 020 021 022 023 023 024	(mm)		Sample No. 031 032 033 034 035 036 037	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009 010	(mm) 43 45 35 5) 46 45 45 45 45 47 48 49	(g) 0.7 0.4 0.4 1.3 1.1 0.3 0.9 1.3 1.1 1.1 1.1	Sample No. 016 017 018 019 020 021 022 023 023 024 025	(mm)		Sample No. 031 032 033 034 035 036 037 038	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009 010 011	(mm) 43 45 35 5) 46 45 45 45 45 45 47 48 49 49 47	(g) 0.8 0.4 0.4 1.3 1.1 0.3 0.3 1.3 1.1 1.1 1.0	Sample No. 016 017 018 019 020 021 022 023 023 024 025 026	(mm)		Sample No. 031 032 033 034 035 035 036 037 038 039	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 43 45 35 5) 46 45 45 45 45 45 47 49 49 49 47 40	(g) 0.8 0.4 0.4 1.3 1.1 0.3 0.9 1.3 1.1 1.1 1.1 1.0 0.7	Sample No. 016 017 018 019 020 021 022 023 023 024 025 026 027	(mm)		Sample No. 031 032 033 034 035 036 037 038 039 040	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012 013	(mm) 43 45 35 5) 46 45 45 45 45 45 47 48 49 49 47	(g) 0.8 0.4 0.4 1.3 1.1 0.3 0.3 1.3 1.1 1.1 1.0	Sample No. 016 017 018 019 020 021 022 023 024 025 026 027 028	(mm)		Sample No. 031 032 033 034 035 035 036 037 038 039 040 041	(mm)	
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 43 45 35 5) 46 45 45 45 45 45 47 47 49 49 49 47 40	(g) 0.8 0.4 0.4 1.3 1.1 0.3 0.9 1.3 1.1 1.1 1.1 1.0 0.7	Sample No. 016 017 018 019 020 021 022 023 023 024 025 026 027	(mm)		Sample No. 031 032 033 034 035 036 037 038 039 040 041 042	(mm)	

Notes (eg. morphological abnormalities):_____ (use reverse side for more room)

•

	Field	Sheet fo	or Finfish/Inv	ertebrat	e Comp	osite Collec	tion		
Project Nu	mber: <u>1436</u>	68.10	Sampli	ing Date an	d Time:	5-2-0-	7		
Site Name:	Tidal road	h of Mannin	mon Croak Man		N 13 <i>(</i>				
			iger Creek, Wapp		<u>, NY</u>				
Station: [] FSA-1	[XFSA-	-2 []WBS-	.1 []\	VBS-2	[] WBS-3	[]WBS-4	Ļ	
Collection	ion Method: [] Bottom Trawl [] Electrofishing		om Trawl rofishing				[] Hand Collected [] Gill net:		
Collector(s (Print and si		••••		*******			·		
FINFISH/SH	IELLFISH C	OLLECTED)						
Species Na		[]Spott	mouth bass ail Shiner	[]] Odonat [ʃʃ] Other:	es BANDEI	s kilrfish			
Composite S	Sample $\# 13$	AWCOS	5/07-FSA 02	Number	of Individua	als: 3			
Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	
	-	(g) 도, <u></u>		(mm)	i i i i i i i i i i i i i i i i i i i			Mass (g)	
Sample No.	(mm)	(g)	Sample No.	(mm)	i i i i i i i i i i i i i i i i i i i	Sample No.			
Sample No. 001	(mm) 84 57	(g) 도, <u></u>	Sample No. 016	(mm)	i i i i i i i i i i i i i i i i i i i	Sample No. 031			
Sample No. 001 002	(mm) 84 57	(g) 5.3 2.0	Sample No. 016 017	(mm)	i i i i i i i i i i i i i i i i i i i	Sample No. 031 032			
Sample No. 001 002 003	(mm) 84 57	(g) 5.3 2.0	Sample No. 016 017 018	(mm)	(g)	Sample No. 031 032 033			
Sample No. 001 002 003 004 005 006	(mm) 84 57 64	(g) 5.3 2.0	Sample No. 016 017 018 019	(mm)	(g)	Sample No. 031 032 033 034			
Sample No. 001 002 003 004 005 006 007	(mm) 84 57 64	(g) 5.3 2.0	Sample No. 016 017 018 019 020	(mm)	(g)	Sample No. 031 032 033 034 035			
Sample No. 001 002 003 004 005 006 007 008	(mm) 84 57 64	(g) 5.3 2.0	Sample No. 016 017 018 019 020 021 022 023	(mm)	(g)	Sample No. 031 032 033 034 035 036			
Sample No. 001 002 003 004 005 006 007 008 009	(mm) 84 57 64	(g) 5.3 2.0	Sample No. 016 017 018 019 020 021 022 023 023 024	(mm)	(g)	Sample No. 031 032 033 034 035 036 037			
Sample No. 001 002 003 004 005 006 007 008 009 010	(mm) 84 57 64	(g) 5.3 2.0	Sample No. 016 017 018 019 020 021 022 023 023 024 025	(mm)	(g)	Sample No. 031 032 033 034 035 036 037 038 039 040			
Sample No. 001 002 003 004 005 006 005 006 007 008 009 010 011	(mm) 84 57 64	(g) 5.3 2.0	Sample No. 016 017 018 019 020 021 022 023 023 024 025 026	(mm)	(g)	Sample No. 031 032 033 034 035 035 036 037 038 039 040 041			
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 84 57 64	(g) 5.3 2.0	Sample No. 016 017 018 019 020 021 022 023 023 024 025 026 027	(mm)	(g)	Sample No. 031 032 033 034 035 035 036 037 038 039 040 041 042			
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012 013	(mm) 84 57 64	(g) 5.3 2.0	Sample No. 016 017 018 019 020 021 022 022 023 024 025 026 027 028	(mm)	(g)	Sample No. 031 032 033 034 035 036 037 038 039 040 041 042 043			
Sample No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 84 57 64	(g) 5.3 2.0	Sample No. 016 017 018 019 020 021 022 023 023 024 025 026 027	(mm)	(g)	Sample No. 031 032 033 034 035 035 036 037 038 039 040 041 042			

Notes (eg. morphological abnormalities):___

			r Finfish/Inv			~ ~ ~	n / I	
Project Nur	nber: <u>1436</u>	8.10	Sampli	ing Date an	d Time:	5-3-0		<u> </u>
Site Name:	Tidal reac	h of Wappin	ger Creek, Wapp	ingers Falls	, NY			
Station: [] FSA-1	JXI FSA-	2 []WBS-	1 []\	WBS-2	[] WBS-3	[]WBS-4	
Collection N	Method:		m Trawl rofishing	🕅 Beach	Seine w trap	[] Hand C [] Gill net	Collected	
Collector(s) (Print and sig								
FINFISH/SH	ELLFISH C	OLLECTED)					
Species Nar		E T Choite	mouth bass ail Shiner	[] Odona [⊁] Other:_	tes Banded	<u>killifish</u> (F	Fundulus c	liphan
	-	1000120	シルフィエイトー					
	<u> </u>	- BKF	5/67-FSA - -03 1	Number ∿≤IM≲[of Individua	ls: <u>26</u>		
dividual	ample # <u>7-</u> <u>ک</u> Length (mm)	<u> </u>	Individual	Length	Mass	Individual	Length (mm)	Mass
dividual	Length	FORF	-03 11	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
dividual mple No.	Length (mm)	- 6 (7 Mass (g)	Individual Sample No.	Length (mm) 62	Mass (g) ス,ス	Individual Sample No. 031	-	
dividual mple No. 001	Length (mm) 41 57	<i>- G</i> (, <i>r</i> Mass (g) j₊ Ø	Individual Sample No. 016	Length (mm) 62 48	Mass (g)	Individual Sample No.	-	
dividual mple No. 001 002 003	Length (mm) 41 57	<i>- G</i> (, <i>r</i> Mass (g) j₊ Ø	Individual Sample No. 016	Length (mm) 62 48 54	Mass (g) 2,2 1.3	Individual Sample No. 031 032	-	
dividual mple No. 001 002 003	Length (mm) 57 58 58	<i>- G</i> (, <i>r</i> Mass (g) j₊ Ø	Individual Sample No. 016 017 018	Length (mm) 62 48 54 47	Mass (g) 2,2 1.3 1.6	Individual Sample No. 031 032 033	-	
dividual mple No. 001 002 003 004	Length (mm) 57 58 58 58 55 58 55 55 64	<i>- G (</i>	Individual Sample No. 016 017 018 019	Length (mm) 62 48 54 47	Mass (g) 2,2 1.3 1.6	Individual Sample No. 031 032 033 034	-	
dividual mple No. 001 002 003 004 005	Length (mm) 57 58 58 55	<i>- G (</i>	Individual Sample No. 016 017 018 019 020	Length (mm) 62 48 54 47 47 48 53 42	Mass (g) 2,2 1.3 1.6 -1.0 1.1	Individual Sample No. 031 032 033 034 035	-	
dividual mple No. 001 002 003 004 005 006 007	Length (mm) 57 58 58 58 55 58 55 64 50 61	- GI(F Mass (g) 1.0 1.8 1.4 1.4 1.4 1.4 1.2 2.4	Individual Sample No. 016 017 018 019 020 021	Length (mm) 62 48 54 47 47 47 47 47 42 40	Mass (g) 2,2 1.3 1.6 -1.0 1.1 1.3 0.7	Individual Sample No. 031 032 033 034 035 036	-	
dividual mple No. 001 002 003 004 005 006 007 008 009	Length (mm) 57 58 58 55 58 55 58 55 56 50 61 52	- G (F Mass (g) 1.0 1.8 1.4 1.4 1.4 1.4 1.4 1.2 2.4 1.1 2.1 1.2	Individual Sample No. 016 017 018 019 020 021 022	Length (mm) 62 48 54 47 47 48 53 42 42 40 4]	Mass (g) 2.2 1.3 1.6 -1.0 1.1 1.3 0.7 0.7 0.7 0.6	Individual Sample No. 031 032 033 034 035 036 037	-	
dividual mple No. 001 002 003 004 005 006 007 008 009 010	Length (mm) 57 58 58 58 55 64 50 61 52 41	- B (F Mass (g) 1.0 1.8 1.4 1.4 1.4 1.4 1.4 1.2 2.4 1.1 2.1 1.2 0.9	Individual Sample No. 016 017 018 019 020 021 022 023	Length (mm) 62 48 54 47 48 53 47 47 48 53 47 40 41 38	Mass (g) 2.2 1.3 1.6 -1.0 1.1 1.3 0.7 0.7 0.7 0.7 0.6 0,3	Individual Sample No. 031 032 033 034 035 036 037 038	-	
dividual mple No. 001 002 003 004 005 006 007 008 009 010 011	Length (mm) 57 58 58 58 58 58 58 56 64 50 61 52 41 39	- BILF Mass (g) 1.0 1.8 1.4 1.4 1.4 1.4 1.4 1.2 2.4 1.1 2.4 1.1 2.1 1.2 0.9	Individual Sample No. 016 017 018 019 020 021 022 023 023 024	Length (mm) 62 48 54 47 47 48 53 42 42 40 4]	Mass (g) 2.2 1.3 1.6 -1.0 1.1 1.3 0.7 0.7 0.7 0.6	Individual Sample No. 031 032 033 034 035 036 037 038 039	-	
dividual mple No. 001 002 003 004 005 006 007 008 009 010 011 012	Length (mm) 57 58 58 58 58 58 58 58 58	I I I	Individual Sample No. 016 017 018 019 020 021 022 022 023 024 025	Length (mm) 62 48 54 47 48 53 47 47 48 53 47 40 41 38	Mass (g) 2.2 1.3 1.6 -1.0 1.1 1.3 0.7 0.7 0.7 0.7 0.6 0,3	Individual Sample No. 031 032 033 034 035 036 037 038 039 040	-	
dividual mple No. 001 002 003 004 005 006 007 008 009 010 011 012 013	Length (mm) 57 58 58 58 58 58 56 50 61 50 61 52 47 39 34 51	I I	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026	Length (mm) 62 48 54 47 48 53 47 47 48 53 47 40 41 38	Mass (g) 2.2 1.3 1.6 -1.0 1.1 1.3 0.7 0.7 0.7 0.7 0.6 0,3	Individual Sample No. 031 032 033 034 035 036 037 038 039 040 041	-	
dividual mple No. 001 002 003 004 005 006 007 008 009 010 011 012	Length (mm) 57 58 58 58 58 58 58 58 58	I I I	Individual Sample No. 016 017 018 019 020 021 022 023 024 025 026 027	Length (mm) 62 48 54 47 48 53 47 47 48 53 47 40 41 38	Mass (g) 2.2 1.3 1.6 -1.0 1.1 1.3 0.7 0.7 0.7 0.7 0.6 0,3	Individual Sample No. 031 032 033 034 035 036 037 038 039 040 041 042	-	

Notes (eg. morphological abnormalities):

		Field	Sheet fo	r Finfish/Inv	ertebrate	e Comp	osite Collec	tion	
Pro	ject Nur	nber: <u>1436</u>	8.10	Sampli	ing Date an	d Time:	5-3-0	7	
Site	Name:	Tidal reac	h of Wappin	ger Creek, Wapp	ingers Falls,	NY			
Stat	tion: [] FSA-1	[Jrsa-	2 []WBS-	1 []V	VBS-2	[] WBS-3	[]WBS-4	Ļ
Coll	lection I	Method:		m Trawl rofishing	[≫] Beach [] Minnov		[] Hand C [] Gill net		
	ector(s) at and sig	n Name(s): gn)							
Spe	cies Nar	ne:	[] Spotta	mouth bass ail Shiner	[] Odonat [X] Other:_	es Barda	l 12:1(i fesh als: 6		
Com	posite S	sample $\#\underline{P}$	FWC-051 2-BKF	107-FSA-	_ Number o	of Individua	als: <u>6</u>		
			C 21	• •					
	idual le No.	Length (mm)	Mass	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
		-		Individual	-	Mass (g)	Individual Sample No. 031	Length (mm)	Mass (g)
	le No.	(mm)	Mass	Individual Sample No.	-		Sample No.	-	
	le No. 001	(mm) 57	Mass	Individual Sample No. 016	-		Sample No. 031	-	
	le No. 001 002	(mm) 57 56 57	Mass (g) 1.5 1.3 1.7	Individual Sample No. 016 017	-		Sample No. 031 032	-	
	le No. 001 002 003	(mm) 57 56 57 51 63	Mass (g) 1.5 1.3 1.7 1.3 2.3	Individual Sample No. 016 017 018	-		Sample No. 031 032 033	-	
	le No. 001 002 003 004	(mm) 57 56 57 51 63 63	Mass (g) 1.5 1.3 1.7	Individual Sample No. 016 017 018 019	-		Sample No. 031 032 033 034	-	
	le No. 001 002 003 004 005	(mm) 57 56 57 51 63	Mass (g) 1.5 1.3 1.7 1.3 2.3	Individual Sample No. 016 017 018 019 020	-		Sample No. 031 032 033 034 035	-	
	le No. 001 002 003 004 005 006	(mm) 57 56 57 51 63 63	Mass (g) 1.5 1.3 1.7 1.3 2.3	Individual Sample No. 016 017 018 019 020 021	-		Sample No. 031 032 033 034 035 036	-	
	le No. 001 002 003 004 005 006 007 008 009	(mm) 57 56 57 51 63 63	Mass (g) 1.5 1.3 1.7 1.3 2.3	Individual Sample No. 016 017 018 019 020 021 022	-		Sample No. 031 032 033 034 035 036 037	-	
	le No. 001 002 003 004 005 006 007 008 009 010	(mm) 57 56 57 51 63 63	Mass (g) 1.5 1.3 1.7 1.3 2.3	Individual Sample No. 016 017 018 019 020 021 022 023	-		Sample No. 031 032 033 034 035 036 037 038	-	
	le No. 001 002 003 004 005 006 007 008 009 010 011	(mm) 57 56 57 51 63 63	Mass (g) 1.5 1.3 1.7 1.3 2.3	Individual Sample No. 016 017 018 019 020 021 022 023 023 024	-		Sample No. 031 032 033 034 035 035 036 037 038 039	-	
	le No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 57 56 57 51 63 63	Mass (g) 1.5 1.3 1.7 1.3 2.3	Individual Sample No. 016 017 018 019 020 021 022 022 023 024 025	-		Sample No. 031 032 033 034 035 036 037 038 039 040	-	
	le No. 001 002 003 004 005 006 007 008 009 010 011 012 013	(mm) 57 56 57 51 63 63	Mass (g) 1.5 1.3 1.7 1.3 2.3	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026	-		Sample No. 031 032 033 034 035 035 036 037 038 039 040 041	-	
	le No. 001 002 003 004 005 006 007 008 009 010 011 012	(mm) 57 56 57 51 63 63	Mass (g) 1.5 1.3 1.7 1.3 2.3	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027	-		Sample No. 031 032 033 034 035 036 037 038 039 040 041 042	-	

Notes (eg. morphological abnormalities):_____

	Field	Sheet fo	r Finfish/Inv	vertebrat	e Comp	osite Collec	tion	
Project N	umber: <u>1436</u>	68.10	Sampl	ing Date an	nd Time:	5-3.	-07	
Site Name	: Tidal reac	h of Wappin	ger Creek, Wapp	ingers Falls	, NY			
Station:	[] FSA-1	N FSA-	2 []WBS-	-1 []	WBS-2	[] WBS-3	[]WBS-4	ļ
Collection	Method:		m Trawl rofishing	[X] Beach []] Minnov	Seine w trap	[] Hand C [] Gill net	Collected	
Collector((Print and	s) Name(s): sign)							
FINFISH/S Species N	HELLFISH C ame:	[]Large	mouth bass ail Shiner	[] Odona [X] Other:	tes Barda	ط النواد وديلر		
		わい <i>いの</i> て- B	107-FSA- (F-05 10		of Individua			
Individual Sample No		Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
	. (mm)		Individual	Length (mm)	Mass (g)	Individual Sample No. 031	Length (mm)	Mass (g)
Sample No	(mm) 45	(g)	Individual Sample No.	Length (mm)	(g)	Sample No.	- 1	
Sample No 00	(mm) 45 50	(g) ১.৪	Individual Sample No. 016	Length (mm) 44 37	(g) 0.8	Sample No. 031	- 1	
Sample No 00 00:	(mm) 45 50 349 40	(g) 8.8 1.3	Individual Sample No. 016 017	Length (mm) 44 37 45 43	(g) 0.8 0.3	Sample No. 031 032	- 1	
Sample No 00 00: 00:	(mm) 45 2 50 3 49 40 5 64	(g) 8.8 1.3 0.9	Individual Sample No. 016 017 018	Length (mm) 44 37 45 43 38	(g) 0.8 0.3 0.8 -0.6 0.5	Sample No. 031 032 033	- 1	
Sample No 00 002 002 004	(mm) 45 50 49 49 40 564	(g) 8.8 1.3 0.9 0.8	Individual Sample No. 016 017 018 019	Length (mm) 44 37 45 43	(g) 0.8 0.3 0.8 -0.6	Sample No. 031 032 033 034	- 1	
Sample No 00 002 002 004 004 005	(mm) 45 50 49 40 40 64 564 50	(g) 8.8 1.3 0.9 0.8 2.0	Individual Sample No. 016 017 018 019 020	Length (mm) 44 37 45 43 38 42 41	(g) 0.8 0.3 0.8 -0.6 0.5 0.6 0.5	Sample No. 031 032 033 034 035	- 1	
Sample No 00 002 002 004 005 005 005 005	(mm) 45 50 49 40 40 64 64 50 48 50 47	(g) 8.8 1.3 0.9 0.8 2.0 0.8 1.0 0.7	Individual Sample No. 016 017 018 019 020 021	Length (mm) 44 37 45 45 43 38 42 41 30	(g) 0.8 0.3 0.8 -0.6 0.5 0.5 0.3	Sample No. 031 032 033 034 035 036	- 1	
Sample No 00 002 002 002 002 002 002 002 002 002	(mm) 45 50 49 40 64 64 50 48 50 47 39	(g) <i>b.8</i> <i>1.3</i> <i>0.9</i> <i>0.8</i> <i>2.0</i> <i>0.8</i> <i>1.0</i> <i>0.7</i> <i>0.8</i>	Individual Sample No. 016 017 018 019 020 021 022	Length (mm) 44 37 45 45 43 38 42 41 30	(g) 0.8 0.3 0.8 -0.6 0.5 0.6 0.5	Sample No. 031 032 033 034 035 036 037	- 1	
Sample No 00 002 002 004 004 004 004 005 005 005 005 005	(mm) 45 50 49 40 64 64 64 50 48 50 47 39 57	(g) <i>b</i> .8 <i>l</i> .3 <i>o</i> .9 <i>o</i> .8 <i>a</i> .0 <i>o</i> .8 <i>l</i> .0 <i>o</i> .9 <i>o</i> .	Individual Sample No. 016 017 018 019 020 021 022 022 023 024 025	Length (mm) 44 37 45 45 43 38 42 41 30	(g) 0.8 0.3 0.8 -0.6 0.5 0.5 0.3	Sample No. 031 032 033 034 035 036 037 038	- 1	
Sample No 00 002 002 004 004 004 004 005 005 005 005 005 005	(mm) 45 50 49 40 64 50 48 50 47 50 39 57 43	(g) <i>b</i> .8 <i>l</i> .3 <i>o</i> .9 <i>o</i> .8 <i>a</i> .0 <i>o</i> .8 <i>l</i> .0 <i>o</i> .8 <i>o</i> .7 <i>o</i> .8 <i>o</i> .8 <i>o</i> .8 <i>o</i> .9 <i>o</i> .8 <i>o</i> .9 <i>o</i> .6 <i>o</i> .6 <i>o</i> .8 <i>o</i> .8 <i>o</i> .9 <i>o</i> .6 <i>o</i> .	Individual Sample No. 016 017 018 019 020 021 022 023 023 024	Length (mm) 44 37 45 45 43 38 42 41 30	(g) 0.8 0.3 0.8 -0.6 0.5 0.5 0.3	Sample No. 031 032 033 034 035 036 037 038 039	- 1	
Sample No 00 002 002 002 002 002 002 002 002 002	(mm) 45 50 49 40 64 64 50 48 50 47 39 57 43 43 49	(g) <i>b</i> .8 <i>l</i> .3 <i>o</i> .9 <i>o</i> .8 <i>d</i> .0 <i>o</i> .8 <i>l</i> .0 <i>o</i> .8 <i>o</i> .7 <i>o</i> .8 <i>o</i> .9 <i>o</i> .8 <i>o</i> .9 <i>o</i> .6 <i>o</i> .6 <i>o</i> .1 <i>o</i> .6 <i>o</i> .6 <i>o</i> .1 <i>o</i> .6 <i>o</i> .6 <i>o</i> .6 <i>o</i> .6 <i>o</i> .6 <i>o</i> .6 <i>o</i> .7 <i>o</i> .8 <i>o</i> .9 <i>o</i> .6 <i>o</i> .6 <i>o</i> .1	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026 027	Length (mm) 44 37 45 45 43 38 42 41 30	(g) 0.8 0.3 0.8 -0.6 0.5 0.5 0.3	Sample No. 031 032 033 034 035 036 037 038 039 040	- 1	
Sample No 00 002 002 002 002 002 002 002 002 002 002 002 002 003 004 005 006 007 008 009 010 0112 013	(mm) 45 50 49 40 64 50 48 50 47 39 57 43 43 49 55	(g) 8.8 1.3 0.9 0.8 2.0 0.8 1.0 0.8 1.0 0.7 0.8 0.9 0.9 0.6 1.1 1.3	Individual Sample No. 016 017 018 019 020 021 022 022 023 024 025 026 027 028	Length (mm) 44 37 45 45 43 38 42 41 30	(g) 0.8 0.3 0.8 -0.6 0.5 0.5 0.3	Sample No. 031 032 033 034 035 036 037 038 039 040 041	- 1	
Sample No 00 002 002 002 002 002 002 002 002 002	(mm) 45 50 49 40 64 50 47 39 57 43 49 55 47	(g) <i>b</i> .8 <i>l</i> .3 <i>o</i> .9 <i>o</i> .8 <i>d</i> .0 <i>o</i> .8 <i>l</i> .0 <i>o</i> .8 <i>o</i> .7 <i>o</i> .8 <i>o</i> .9 <i>o</i> .8 <i>o</i> .9 <i>o</i> .6 <i>o</i> .6 <i>o</i> .1 <i>o</i> .6 <i>o</i> .6 <i>o</i> .1 <i>o</i> .6 <i>o</i> .6 <i>o</i> .6 <i>o</i> .6 <i>o</i> .6 <i>o</i> .6 <i>o</i> .7 <i>o</i> .8 <i>o</i> .9 <i>o</i> .6 <i>o</i> .6 <i>o</i> .1	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026 027	Length (mm) 44 37 45 45 43 38 42 41 30	(g) 0.8 0.3 0.8 -0.6 0.5 0.5 0.3	Sample No. 031 032 033 034 035 036 037 038 039 040 041 042	- 1	

Notes (eg. morphological abnormalities):

	Field	Sheet fo	or Finfish/Inv	vertebrat	e Comp	osite Colleg	tion	
Project N	umber: <u>1436</u>	58.10	Sampl	ing Date an	d Time:	5-3-0	/	
Site Name	e: Tidal reac	h of Wappin	iger Creek, Wapp	ingers Falls	<u>, NY</u>			
Station:	[] FSA-1	JUI FSA	-2 []WBS-	-1 []\	WBS-2	[] WBS-3	[] WBS-4	Ļ
Collection	Method:		om Trawl rofishing	[〉] Beach [] Minnov	Seine w trap	[] Hand ([] Gill net	Collected	
Collector (Print and	s) Name(s): sign)							
				······································				
FINFISH/S	HELLFISH C	OLLECTED)					
Species N		[] Spott	emouth bass ail Shiner	[] Odonal [★] Other:_	BANDE	D Kilcford		
Composite	Sample #	3AW2-0 2-8KF-	25/07-FSA	Number	of Individua	ıls:		
			V					
Individua Sample No	Length	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length (mm)	Mass (g)
	Length (mm) 1 33	Mass	Individual	(mm)	Mass (g) ().2	Individual Sample No. 031	Length (mm)	Mass (g)
Sample No	Length (mm) 1 33 2 44	Mass (g)	Individual Sample No.	(mm)	(g)	Sample No.		
Sample No 00	Length (mm) 1 33 2 44 3 42	Mass (g) 0.2 0.9 0.6	Individual Sample No. 016	(mm) 31	(g) 이.乙	Sample No. 031		
Sample No 00 00	Length (mm) 1 33 2 44 3 42 4 46	Mass (g) 0.2 0.4 0.6 0.5	Individual Sample No. 016 017	(mm) 31 30	(g) 이.乙	Sample No. 031 032		
Sample No 00 00 00	Length (mm) 1 33 2 44 3 42 4 46 5 62	Mass (g) 0.2 0.4 0.6 0.5 2.1	Individual Sample No. 016 017 018	(mm) 31 30	(g) 0.2 0.3	Sample No. 031 032 033		
Sample No 00 00 00 00	Length (mm) 1 33 2 44 3 42 4 46 5 62 5 46	Mass (g) 0.2 0.4 0.6 0.5 2.1 1.0	Individual Sample No. 016 017 018 019	(mm) 31 30	(g) 0.2 0.3	Sample No. 031 032 033 034		
Sample No 00 00 00 00 00 00 00 00	Length (mm) 1 33 2 44 3 42 4 46 5 62 5 46 7 35	Mass (g) 0.2 0.4 0.6 0.5 2.1 1.0 0.3	Individual Sample No. 016 017 018 019 020	(mm) 31 30	(g) 0.2 0.3	Sample No. 031 032 033 034 035		
Sample No 00 00 00 00 00 00 00 00	Length (mm) 1 33 2 44 3 42 4 46 5 62 5 62 5 46 7 35 3 45	Mass (g) 0.2 0.4 0.6 0.5 2.1 1.0 0.3 0.8	Individual Sample No. 016 017 018 019 020 021	(mm) 31 30	(g) 0.2 0.3	Sample No. 031 032 033 034 035 036		
Sample No 00 00 00 00 00 00 00 00 00	Length (mm) 1 33 2 44 3 42 4 46 5 62 5 46 7 35 3 45 9 44	Mass (g) 0.2 0.4 0.6 0.5 2.1 1.0 0.3 0.8 0.6	Individual Sample No. 016 017 018 019 020 021 022	(mm) 31 30	(g) 0.2 0.3	Sample No. 031 032 033 034 035 036 037		
Sample No 00 00 00 00 00 00 00 00 00 00	Length (mm) 1 33 2 44 3 42 4 46 5 62 5 62 5 46 7 35 3 45 9 44 0 42	Mass (g) 0.2 0.4 0.6 0.5 2.1 1.0 0.3 0.8 0.8 0.6 0.9	Individual Sample No. 016 017 018 019 020 021 022 023	(mm) 31 30	(g) 0.2 0.3	Sample No. 031 032 033 034 035 036 037 038		
Sample No 00 00 00 00 00 00 00 00 00 00 00	Length (mm) 1 33 2 44 3 42 4 46 5 62 5 46 7 35 3 45 9 44 5 45 9 44 1 34	Mass (g) 0.2 0.4 0.6 0.5 2.1 1.0 0.3 0.8 0.8 0.6 0.9 0.7	Individual Sample No. 016 017 018 019 020 021 022 023 023 024	(mm) 31 30	(g) 0.2 0.3	Sample No. 031 032 033 034 035 035 036 037 038 039		
Sample No 00 00 00 00 00 00 00 00 00 00 01 01 01	Length (mm) 1 33 2 44 3 42 4 46 5 62 5 46 7 35 3 45 9 44 9 42 1 34 2 40	Mass (g) 0.2 0.4 0.6 0.5 2.1 1.0 0.3 0.8 0.8 0.6 0.9 0.7 0.6	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025	(mm) 31 30	(g) 0.2 0.3	Sample No. 031 032 033 034 035 036 037 038 039 040		
Sample No 00 00 00 00 00 00 00 00 00 01 01 01 01	Length (mm) 1 33 2 44 3 42 4 46 5 62 5 46 7 35 3 45 9 44 0 42 1 34 2 40 3 48	Mass (g) 0.2 0.4 0.6 0.5 2.1 1.0 0.3 0.8 0.6 0.6 0.7 0.6 0.9	Individual Sample No. 016 017 018 019 020 021 022 023 023 024 025 026	(mm) 31 30	(g) 0.2 0.3	Sample No. 031 032 033 034 035 036 037 038 039 040 041		
Sample No 00 00 00 00 00 00 00 00 00 00 00 01 01	Length (mm) 1 33 2 44 3 42 4 46 5 62 5 46 7 35 3 45 9 44 9 42 1 34 2 40	Mass (g) 0.2 0.4 0.6 0.5 2.1 1.0 0.3 0.8 0.8 0.6 0.9 0.7 0.6	Individual Sample No. 016 017 018 019 020 021 022 023 022 023 024 025 026 027	(mm) 31 30	(g) 0.2 0.3	Sample No. 031 032 033 034 035 035 036 037 038 039 040 041 042		

Notes (eg. morphological abnormalities):_____ (use reverse side for more room)

	Field	Sheet fo	or Finfish/Inv					
Project Nu	mber: <u>1436</u>	<u>8.10</u>	Sampli	ing Date an	d Time:	5-2-0	<u>``</u> ``	
Site Name:	Tidal reac	h of Wappin	iger Creek, Wapp	ingers Falls	, NY			
Station: [] FSA-1	[X] FSA	-2 []WBS-	.1 []V	VBS-2	[]WBS-3	[]WBS-4	Ļ
Collection I	Method:	[]Botto []Elect	om Trawl rofishing	[⁄/] Beach [] Minnov	Seine v trap			
Collector(s) (Print and si) Name(s): gn)							
FINFISH/SH Species Nai				[] Odonat	es	Darder (E	Haching	alu al
Composito S	Comple #	[]spott SAω/-/	air Shiner のよ Iカフ - エくA	[√] Other: <u>/</u>	<u>pesalma</u>		meosiowa	OIMSt
		2-71	2-01	[v] Other:	of Individua	als: 4	n eostoura	01M1+
dividual		<u>Z- 71</u> Mass (g)	05101-720	[√] Other: <u>/</u> _ Number of Length (mm)	of Individua Mass (g)	ais: <u>੫</u> Individual	Length	Mass
dividual	Length (mm) 60	2-71. Mass (g) 3.0	$\frac{05[07^{-}751]}{2-0}$	_ Number of Length (mm)	of Individua Mass	als: <u>4</u>	Length	
dividual mple No.	Length (mm) 60	2-71. Mass (g) 3.0 2.4	$\frac{OS(07-7-31)}{O-O}$ Individual Sample No.	_ Number of Length (mm)	of Individua Mass	als: <u>4</u> Individual Sample No.	Length	Mass
dividual mple No. 001 002 003	Length (mm) 60 54 60	2-71. Mass (g) 3.0 2.4 1.7	05107-731 2 - 0 1 Individual Sample No. 016	_ Number of Length (mm)	of Individua Mass	als: <u>4</u> Individual Sample No. 031	Length	Mass
dividual mple No. 001 002 003 004	Length (mm) 60 54 60	2-71. Mass (g) 3.0 2.4	05[07-731 2-0] Individual Sample No. 016 017	_ Number of Length (mm)	of Individua Mass	als: <u>4</u> Individual Sample No. 031 032	Length	Mass
ndividual Imple No. 001 002 003 004 005	Length (mm) 60 54 60	2-71. Mass (g) 3.0 2.4 1.7	05[07-731 2-0] Individual Sample No. 016 017 018 019 020	_ Number of Length (mm)	of Individua Mass	als: <u>4</u> Individual Sample No. 031 032 033	Length	Mass
ndividual mple No. 001 002 003 004 005 006	Length (mm) 60 54 60	2-71. Mass (g) 3.0 2.4 1.7	05 [07 - 73] Individual Sample No. 016 017 018 019 020 021	_ Number of Length (mm)	of Individua Mass	als: <u>4</u> Individual Sample No. 031 032 033 034 035 036	Length	Mass
ndividual mple No. 001 002 003 004 005 006 007	Length (mm) 60 54 60	2-71. Mass (g) 3.0 2.4 1.7	05 [07 - 73] Individual Sample No. 016 017 018 019 020 021	_ Number of Length (mm)	of Individua Mass	Individual Sample No. 031 032 033 034 035 036 037	Length	Mass
ndividual mple No. 001 002 003 004 005 006 007 008	Length (mm) 60 54 60	2-71. Mass (g) 3.0 2.4 1.7	05 [07 - 73] 2 - 0 } Individual Sample No. 016 017 018 019 020 021 022 023	_ Number of Length (mm)	of Individua Mass	als: <u>4</u> Individual Sample No. 031 032 033 034 035 036 037 038	Length	Mass
ndividual mple No. 001 002 003 004 005 006 007 008 009	Length (mm) 60 54 60	2-71. Mass (g) 3.0 2.4 1.7	D 5 [07 - 73] 2 - 0) Individual Sample No. 016 017 018 019 020 021 022 023 024	_ Number of Length (mm)	of Individua Mass	als: <u>4</u> Individual Sample No. 031 032 033 033 034 035 036 037 038 039	Length	Mass
ndividual mple No. 001 002 003 004 005 006 007 008 009 010	Length (mm) 60 54 60	2-71. Mass (g) 3.0 2.4 1.7	DS [07 - 73] Individual Sample No. 016 017 018 019 020 021 022 023 024 025	_ Number of Length (mm)	of Individua Mass	Als: 4 Individual Sample No. 031 032 033 033 034 035 036 037 038 039 040	Length	Mass
dividual mple No. 001 002 003 004 005 006 005 006 007 008 009 010 011	Length (mm) 60 54 60	2-71. Mass (g) 3.0 2.4 1.7	D S [07 - 73] Individual Sample No. 016 017 018 019 020 021 022 023 024 025 026	_ Number of Length (mm)	of Individua Mass	als: <u>4</u> Individual Sample No. 031 032 033 034 035 036 037 038 039 040 041	Length	Mass
ndividual mple No. 001 002 003 004 005 006 007 008 009 010	Length (mm) 60 54 60	2-71. Mass (g) 3.0 2.4 1.7	Sample No. Individual Sample No. 016 017 018 019 020 021 022 023 024 025 026 027	_ Number of Length (mm)	of Individua Mass	Individual Sample No. 031 032 033 034 035 036 037 038 039 040 041 042	Length	Mass
ndividual ample No. 001 002 003 004 005 006 007 008 009 010 011 012	Length (mm) 60 54 60	2-71. Mass (g) 3.0 2.4 1.7	D S [07 - 73] Individual Sample No. 016 017 018 019 020 021 022 023 024 025 026	_ Number of Length (mm)	of Individua Mass	als: <u>4</u> Individual Sample No. 031 032 033 034 035 036 037 038 039 040 041	Length	Mass

Notes (eg. morphological abnormalities):______ (use reverse side for more room)

	Field	Sheet fo	r Finfish/Inv					
Project Nur	nber: <u>1436</u>	8.10	Sampli	ing Date an	d Time:	5-2-07		
Site Name:	Tidal reac	h of Wappin	ger Creek, Wapp	ingers Falls	NY			
Station: [] FSA-1	[ン] FSA-	2 []WBS-	.1 []V	VBS-2	[] WBS-3	[]WBS-4	Ļ
Collection I	Wethod:		m Trawl rofishing	[)] Beach [] Minnov	Seine v trap	[]Hand ([]Gill net		
Collector(s) (Print and si) Name(s): gn)							
FINFISH/SH Species Nar	me:	[]Large []Spott	mouth bass ail Shiner					
		2-74		Number	of Individua	als: <u>5</u>	<u></u>	
Individual Sample No.	Length (mm)	Mass (g)	Individual Sample No.	Length	Mass	Individual	Length	Mass
	()	(3)	oumpic no.	(mm)	(g)	Sample No.	(mm)	(a)
001		1.1	016	· · · · · ·	(g)	Sample No. 031	(mm)	<u>(g)</u>
001 002	51			· · · · · ·	(g)		(mm)	(g)
002 003	51 60 64	1.1	016	· · · · · ·	(g)	031	(mm)	(g)
002 003 004	51 60 64 57	1.1 2.0 1.4 1.1	016 017	· · · · · ·	(g) 	031 032	(mm)	(g)
002 003 004	51 60 64	1.1 2.0 1.4	016 017 018	· · · · ·	- (g)	031 032 033	(mm)	(g)
002 003 004 005 006	51 60 64 57	1.1 2.0 1.4 1.1	016 017 018 019	· · · · ·	- -	031 032 033 034	(mm)	(g)
002 003 004 005 006 007	51 60 64 57	1.1 2.0 1.4 1.1	016 017 018 019 020 021 022	· · · · ·	- -	031 032 033 034 035	(mm)	(g)
002 003 004 005 006 007 008	51 60 64 57	1.1 2.0 1.4 1.1	016 017 018 019 020 021 022 023	· · · · ·	-	031 032 033 034 035 036	(mm)	(g)
002 003 004 005 006 007 008 009	51 60 64 57	1.1 2.0 1.4 1.1	016 017 018 019 020 021 022 023 023 024	· · · · ·	- -	031 032 033 034 035 035 036 037 038 039	(mm)	(g)
002 003 004 005 006 007 008 009 010	51 60 64 57	1.1 2.0 1.4 1.1	016 017 018 019 020 021 022 023 023 024 025	· · · · ·	-	031 032 033 034 035 036 037 038 039 040	(mm)	(g)
002 003 004 005 006 007 008 009 010 011	51 60 64 57	1.1 2.0 1.4 1.1	016 017 018 019 020 021 022 023 023 024 025 026	· · · · ·	-	031 032 033 034 035 036 037 038 039 040 041	(mm)	(g)
002 003 004 005 006 007 008 009 010 011 012	51 60 64 57	1.1 2.0 1.4 1.1	016 017 018 019 020 021 022 023 024 025 026 027	· · · · ·	- -	031 032 033 034 035 036 037 038 039 040 041 042	(mm)	(g)
002 003 004 005 006 007 008 009 010 011 012 013	51 60 64 57	1.1 2.0 1.4 1.1	016 017 018 019 020 021 022 023 024 025 026 027 028	· · · · ·	(g) -	031 032 033 034 035 036 037 038 039 040 041 042 043	(mm)	(g)
002 003 004 005 006 007 008 009 010 011 012	51 60 64 57	1.1 2.0 1.4 1.1	016 017 018 019 020 021 022 023 024 025 026 027	· · · · ·	-	031 032 033 034 035 036 037 038 039 040 041 042	(mm)	(g)

Notes (eg. morphological abnormalities):_____

		Field Shee	Field Sheet for Finfish Fillet Collection	Collection	_	
Project Number: 14368.10	<u>38.10</u>					
SITE LOCATION						
Site Name: <u>Tidal reac</u> Collection Methods	Site Name: <u>Tidal reach of Wappinger Creek, Wappingers Falls, NY</u> Collection Methods: <u>Flactofiching P.u.</u>	<u>pingers Falls, NY</u>	Station: MFS44	(UBS-3 F8A-1	1.185-4	
Collector(s) Name(s): (Print and sign)	PAUL Muessig, Bur an Avolevent, Other (specify) Haws	wi, Gill net, Beact Biri au	l, Gill net, Beach Seine, Rod and Reel, Oth Bri an Ancleven	er (specify)	MAND	
		Brie	Brian angleren			
FINFISH/SHELLFISH COLLECTED	OLLECTED					
Sample No	Species	Sample Date	Collection Method	-Length-	Whole +	Remarks (e.g. morphological
				(mm)	Mass (g)	abnormalities, use reverse side for more room)
10AWC-06/07-	Zebra Mussels	6/21/07	MaNO	44	626	
Wess-mus-el						> / > /vueral < 12
TSAWC-OLO7 -	Zebra musseis	10/1E/9	HAUN	VIV	4.48 1	
10-32- Mus-03						> c mmguh < /2
TSAWC-06/07-	Zebra mascels	(01 12)g	LA N		2	
			へくざし	- て て	8	

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Smallmouth bass SMB Spottail shiner SS

< 1/2

morelle

38

5,33

54

TAUD

10 1E/9

2

5 ν

Druch

14

5.08

せん

HALD

6/21/07

SNG?(

W253-SW--01 154WC-06/07-

101353 - MUS-03

\$

< 1/4

chulls

2 9

5.29

S 4

MAND

C0/12/0

Snail

10-1NS-25-5NL-02 TSAWL- OLON -

			FIEIG SUBEL TOF FINTISH FILLET COLLECTION	ollection		
Project Number: <u>14368.10</u>	8.10					
SITE LOCATION Site Name: <u>Tidal reac</u> t Collection Methods:	SITE LOCATION Site Name: <u>Tidal reach of Wappinger Creek, Wappingers Falls, NY</u> Station: KES3 WS3 WS Collection Methods: Electrofishing, Bottom Trawl Gill net Reach Seine Dod and Dod Dod Dod Other (1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	ppingers Falls, NY awl. Gill net. Reach	Station: KES3	u8S3 84-1	UBS-4	
Collector(s) Name(s): אוגע אער אער איז	Paul Muessig	Breau F	Brian Anderrey	ar (specify)	GNAH	
FINFISH/SHELLFISH COLLECTED	OLLECTED					
Sample No	Species	Sample Date	Collection Method	Length (mm)	Wirote Body Mass (g)	Remarks (e.g. morphological abnormalities, use reverse side for more room)
TSAWC- 0607-	Shail	(0/3-1/07	dwah	NA	5.65	59 Smarth < 1/4"

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Smallmouth bass SMB Spottail shiner SS

Field Sheet for Finfish Fillet Collection

•

		Field Sheet	Field Sheet for Finfish Fillet Collection	ollection			
Project Number: 14368.10	<u>3.10</u>						
SITE LOCATION Site Name: <u>Tidal reach</u>	SITE LOCATION Site Name: <u>Tidal reach of Wappinger Creek, Wappingers Falls, NY</u>	pingers Falls, NY	LUBS D WES-4 Station: [] FSA-1	URS B	WES-4		
Collection Methods:	Electrofishing, Bottom Trawl,	÷	Gill net, Beach Seine, Rod and Reel, Other (specify) - Huw	r (specify) —	Anah		
Collector(s) Name(s): (Print and sign)	Calul Muessis	\simeq	Brien Midera				
FINFISH/SHELLFISH COLLECTED	DLLECTED						
Sample No	Species	Sample Date	Collection Method	Length (mm)	Whote Body Mass (g)	Remarks (e.g. morphological abnormalities, use reverse side for more room)	
75AWC-06607 WBS4-MUS-01	. Zebra Mussels	6/21/07	CompH	NA	Q'S	31 masel < 16"	
12460-06/07-	Srail	20/12/0	HAND	NA	5.09	57 prail < 1/4"	

.

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Odonates OD Smallmouth bass SMB Spottail shiner SS



Project Number: 14368.10	.10					
SITE LOCATION						
Site Name: <u>Tidal reach</u>	Site Name: Tidal reach of Wappinger Creek, Wappingers Falls, NY	<u>ingers Falls, NY</u>	Station:		HEAL2 U	HFSALZ WBS-3
Collection Methods:	Electrofishing, Bottom Trawl, Gill net, Beach Seine, Rod and Reel, Other (specify) ガタハひ/ Diのが毛ブ	I, Gill net, Beach S	seine, Rod and Reel, Othe	r (specify) 🤌	I/CNE	MPWET'
Collector(s) Name(s): (Print and sign)	MUL H	MUESSIC	Ś			
	(Jan	All and a second s	(Cerri			
FINFISH/SHELLFISH COLLECTED	DLLECTED					
Sample No	Species	Sample Date	Collection Method	Length (mm)	Whole Body	Remarks (e.g. morphological abnormalities, use reverse side for
75AWC-58/07-W33					Mass (g)	more room)
SNL-OY	SNAIL	8/29/07	CNOH		5.13	58 enails = 1/4 "
TSAWC-08/07-W123						
SNL. OS	SMIL	8/29/07	(INUK)		5.17	55 anarb - 14 "
TSANC-08/07-W123						
SNL-06	Salpic	8/29/07	CINE A		6.62	65 anach -1/4 "
TSAME - 08/07.683						
to shut &	ZERED MUSCEL	8/24/07	CNON		5.14	34 mussels 1/3/8 1
75AWC-08/07-4282		,,			-	
Nuseos	ZEDRO MUSSEL	20/12/8	CINAH		5.00	37 muralla - 3/8 "

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Odonates OD Smallmouth bass SMB Spottail shiner SS

Field Sheet for Finfish Fillet Collection

÷

		Field Sheet	Field Sheet for Finfish Fillet Collection	ollection		
Project Number: <u>14368.10</u>	10			-		
SITE LOCATION						
Site Name: <u>Tidal reach</u>	Site Name: Tidal reach of Wappinger Creek, Wappingers Falls, NY	pingers Falls, NY	Station: [_]ESA4		TFSA-2 U	LIFSAR UNSB-3
Collection Methods: Collector(s) Name(s):	Electrofishing, Bottom Trawl, Gill net, Beach Seine, Rod and Reel, Other (specify) $1/3\pi/\Delta$	wl, Gill net, Beach Seine, R. \mathcal{H} , $\mathcal{M}\mathcal{URSS2}$	beine, Rod and Reel, Othe <u>ら</u> くん	r (specify)	1 ABA B	
(Print and sign)	(Jan	and the				
FINFISH/SHELLFISH COLLECTED)LLECTED					
Sample No	Species	Sample Date	Collection Method	Length (mm)	Whole Body Mass (g)	Remarks (e.g. morphological abnormalities, use reverse side for more room)
TSAWE-OSPOT-WRJ						
nus- oc	ZEBER MISCEL	20162/8	Ham		4,23	32 1188415 - 3/8"
		-				
yyym fafad da ar yn						
			141-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1			

Recommendations for Sample Abbreviation and Numbering (see FSP Section 5.4.1 for details) Largemouth bass LMB Odonates OD Smallmouth bass SMB Spottail shiner SS

Appendix B

Chain-of-Custody Forms

	(Please	(Please Print Clearly) 🚽		[]	\int			UPPER MIDWEST REGION	REGION	Page	je 1 of 👉
Company Name:	and a	A ENCHAGE & W	1. K			5	œ	MN: 612-607-1700	MN: 612-607-1700 WI: 920-469-2436		
Branch/Location:		Newsers 4			1 act	Anai	Pace Analytical			COC No.	017004
Project Contact:	***av	ul Muessia		<u> </u>			100.000		Quote #:		
Phone:	845	5	1006		CHA	Z	OF CUSTODY	Dγ	Mail To Contact:	-	
Project Number:	- exe	4368.10		A=None E	B=HCL, C=	C=H2SO4 ["Preservation Codes D=HNO3 E=D) Water F=Methanol	ianol G=NaOH	Mail To Company:		
Project Name:	: Three	22 Star Amilizing	24	H=Sodium Bisulfate Solution	sulfate Solu		l=Sodium Thiosulfate J≖Other		Mail To Address:		
Project State:		tore K)	FILTERED? (YES/NO)	X/N	2					
Sampled By (Print):		Rrian Anderen	⊊ter ∼b	PRESERVATION (CODE)*	N Pick Letter	¢,			Invoice To Contact:		
Sampled By (Sign):		Enni Churlein	ć,			Ť.			Invoice To Company:		
₽O₩			Regulatory Program:	>	oətsə	90			Invoice To Address:		
Data Package Options	ige Options		Ň	Matrix Codes		12 12/2					
	(billable) EPA Level III	(billabte)	A = Air B = Biota C = Charcoal	A = Air W = Water B = Blota DW = Drinking Water C = Charcoal GW = Ground Water	4 S95	' 11 191			Invoice To Phone:		
	EPA Level IV	NOT needed on vour sample	0 = 0i S = Soil S = Sindoo	SW = Surface Water WW = Waste Water		v 72				I AR COMMENTS	=NTS Profile #
PACE LAB #	CLIE		or - Studye COL	LLECTION MATRIX		6н (5Н			COMMENTS	(Lab Use Only)	
	7 20-2 40-2 - 20-2-2	2010-05/27-220-1	21/10			×		(Lee Regent	a first for all		
	15040C - 05	75AUX - 05107 - F5 A -1	5/1/02	<		*					
	750-2057	5/07-158-1-	511/07			*			Anader and		
· · · · · · · · · · · · · · · · · · ·	15405-05107-		31107	7		7		· ····	MSIMSD-JUN EN		
	TAUX-COTO7-		51/62								
	75441C-05707		511/07	Q 2		÷			Malicale-USC		
	1	05107-F54-1-	110	2		mp.					
	TSHURC - 05	· 05/07 - 654 -1 -	5/1/07	0		, z					
 -	ry Ro- must	150 - 2 - 8 - 10 - 7 - 1952 - 6.0/90 -	2/1/2	2		- 7					
	- 20150 - 701451	1- 1- 15- 1- 100 - 12- 10 -	5/1/07	0		メ		· · · · · · · · · · · · · · · · · · ·	- -		
	90-200421	-1-25-295	3/1/02	0		>					
ne a senar or y all some y artiste or	Service of the servic	102	194/2	or and the former and have a second the second s	ALT A CONTRACTOR OF A CONTRACT	17. State and the state of the	mm NOSANPIC RA	- -		-	
P Neutron Lange Part	951-3769-32	and the second	24.167	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		The second se	AS SAWER BY	- Contraction of the second			
Rush Tu (Rush T	Irnaround Tir FAT subiect t	Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)	S	Retinquished By:	No.		12 10 T 1 340	Received By:	Date/Time:		PACE Project No.
	Date Needed:	Jed:	21	Relinquished By:		(m) (m)	ate/Time:	Received By:	Date/Time:		
Transmit Pre	elim Rush Resul	Transmit Prelim Rush Results by (complete what you want): ait #1.	Î	Dationichad Bu	2		Data Time:	December Du	Date (Theorem	Receipt Temp =	Temp = °C
Email #2:			2						01111		Sample Receipt pH
Telephone:			Rei	Relinquished By:			Date/Time:	Received By:	Date/Time:		OK / Adjusted
S E	Samples on HOLD are subject to	0 are subject to	Re	Relinquished By:			Date/Time:	Received By:	Date/Time:		Cooler Custody Seal Present / Not Present
ads	scial pricing and	special pricing and release of liability									Intact / Not Intact
										Version 6.	Versian 6.0 06/14/06

	(Please Print Clearly)) (ſ			UPPER MIDWEST REGION	r region		Page 🎘 of 🕤	ł,
Company Name:	ad MIGNER & S :a	e wik C			q	6	MN: 612-607-170	MN: 612-607-1700 WI: 920-469-2436	436		
Branch/Location:	No			120	eAnal	Pace Analytical			COC No.	. 017005	LO
Project Contact:	Paul Mues.	575	<u> </u>			62805.5081		Quote #:	#:		
Phone:	845-565 Sta	5 × 1006	-	CH/	AIN	IN OF CUSTODY	DY	Mail To Contact:	intact:		
Project Number:	r: 14.368.15		A=None B	B=HCL C	2SO4	er	ool G=NaOH	Mail To Company:	npany:		
Project Name:	Times Ston A	Ancelizinc	H≖Sodium Bisulfate Solutior	sulfate Sol		I=Sodium Thiosulfate J=Other		Mail To Address:	dress:		
Project State:	1 Carl	<i>6</i>	FILTERED? (YES/NO)	N/X							
Sampled By (Print):	Brian	Andersen	PRESERVATION (CODE)*	Letter	¢.			Invoice To Contact:	contact:		
Sampled By (Sign):	Barriel	de boure have active.			1 52			Invoice To Company:	ompany:		
PO #:		Regulatory Program:	<u>ہ ج</u>	oəşsə I	"~~ 10			Invoice To Address:	ddress:		
Data Package Options	e Options MS/MSD		1	enbə	12 20						
	(billable) Con your sample EPA Level III (billable)	ample A = Air B = Biota c = Charcoal		A 298	''' Sug			Invoice To Phone:	Phone:		
EPA L	EPA Level IV Diveded on	O = Oil S = Soil	SW = Surface Water WW = Waste Water	ja j	ν (Γ ₁ 02					A D CONSENTS	1
PACE LAB #		Studge	1-11		°₩ >'s{			COMMENTS	~		Protile #
~ '	ł				×			are really	Kell and		
	1 (6	(- 5/167			- You				P		
	1- NS - 22/07- F3 M-1	- 5/1/2	0		**************************************						
	15 Auc Stor- Febru	- 51m			**						
2005	50	- 3- 51/07	8		Interference				· .		
	5. 5	3 - 31100	3		. 4						
~	TSAWC -05/07 -F5 A- 2	3 5/107			*						
and the second		2- 51167	6		4						
	136WC-05/07 - FSA-2	. 10			n de la compañía de			-			
	15042 - 05107 - 150- 34	19/15 - ve	2		, ×						
	Tone - oslor - Far-	-2- M/07	2		, X.						
1	LEWAR - CELES - LEVE	~ 15/107	21 V		1			->-			
in. + Labor	75400- 05707 - 758-32 1 24 0 2 - 2 0	- 5/10	ol		5			BARNER FIL	in the second se		
Rush Turn (Rush TA	Rush Turnaround Time Requested - Prelims (Rush TAT subject to annroval/surcharge)		Relinquished By:	the second second	л. Л-	Jate/Time:	Received By:		Date/Time:	PACE Project No.	
	Date Needed:	3				ie ie	Received By:		Date/Time:		
Transmit Prelin	Transmit Prelim Rush Results by (complete what you want):		a.C. Letterious	/	_	Data (Times				Receipt Temp =	ပ
Email #1:		32	zka pausinbullax			Date/ I me:	Received by:		Date/Hime:	Samnle Receint nH	
Telephone:			Relinquished By:			Date/Time:	Received By:		Date/Time:	OK / Adjusted	•
Fax:										Cooler Custody Seal	eal
San specia	Samples on HOLD are subject to special pricing and release of liability	<u>8</u>	Relinquished By:			Date/Time:	Received By:		Date/Time:	Present / Not Present Intact	ent
1										Version 6.0 06/14/06	

	(Please Print Clearly)		ſ	_		UPPER MIDWEST REGION	REGION	Page	of
Company Name:	ER Eagingoring	2		e	٩	MN: 612-607-1700	MN: 612-607-1700 WI: 920-469-2436	- 1 00000 - 47 - 1947	4
Branch/Location:	New		120	eAna	Pace Analytical		0	COC No. 01 7006	200
Project Contact:	Rawl Mussia						Quote #:		
Phone:	245-545-8100 × 1006		CHAI		IN OF CUSTODY	DY	Mail To Contact:		
Project Number:	14368.10	A≖None B	B=HCL C	C=H2SO4	Preservation Codes D=HNO3 E=DI Water F=Methanol	nol G=NaOH	Mail To Company:		
Project Name:	Three Ster Amodizin	ę.,	sulfate Solt	tion	I=Sodium Thiosulfate J=Other		Mail To Address:		
Project State:	New York	FILTERED? (YES/NO)	N1X	N					
Sampled By (Print):	Merzen	PRESERVATION (CODE)*	l Pick Letter	V.			Invoice To Contact:		
Sampled By (Sign):	Brien Oreken			70			Invoice To Company:		
PO #:		Regulatory Program:)ejsa	ر ^۲ ر		:	Invoice To Address:		
Data Package Options	MS/MSD	Matrix Codes	Side II I	N 2'.					
	On your sample (billable)	W = Water a DW = Drinking Water arcoal GW = Ground Water		Z (. 171			Invoice To Phone:		
		SW = Surface Water WW = Waste Water		!N 77					
PACE LAB #				694 154	•		CLIENT	LAB COMMENTS (Lab Use Only)	Profile #
<u> </u>	C)	STAT 67 TIME 0.					www. washt feder for		
	-52-3-			x. V			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	S.	
	the from the fight			× ×					
*		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		j.					
2 August				· *					
	2	5/2/0 8		×.			>>		
5.2	and the	512/07 3		- Mer			NOINED WEAT	and the second	
The second secon	a and	5/107 ES		X			•		
A Start	75Auc-05/07 158-1 - 3	51/107 8		X					
1.51	TSAUK- 25/07 - 554 -1 - 51	5/107 8		X					
13	TSANC - OSIOT - FSA-1- S	31107 3		×					
15	Emeroslor est-1- 52	5110 8		×			(CSW/SW)		
	· .			X					
Rush Turna (Rush TAT	Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)	Retinguished By:			Pate/Time: 51/21/04-1546	Received By:	Date/Time:	PACE Project No	ject No.
	Date Needed:	Refinquished By:				Received By:	Date/Time:		
Transmit Prelim F	Transmit Prelim Rush Results by (complete what you want):	Balinanishod Du			Detertime	Dominad Bur	Data Hima.	Receipt Temp =	ပွ
Email #2:		veintansted by.			Date/ LILLIS:	received by.	Date/ IIIIIe:	Sample Receipt pH	ceipt pH
Telephone:		Relinquished By:			Date/Time:	Received By:	Date/Time:	OK / Adjusted	usted
Fax:		Doffson to be a Dare			1			Cooler Custody Seal	t Dresent
samp special [samples on HOLU are subject to special pricing and release of liability	Kelinquished by:			Uate/ Lime:	Keceived by:	Date/ lime:	Intact / Not Intact	ot Intact
								Version 6.0 06/14/06	

	(Please Print Clearly)		ſ		UPPER MIDWEST REGION	REGION		Page 🗄 of 🕤
Company Name:	ne: En Ensingoria			© ;;	MN: 612-607-170(MN: 612-607-1700 WI: 920-469-2436		Landa
Branch/Location:	Nev		aceAr	Pace Analylical			COC No.	017007
Project Contact:	ot: PAUI Muzsia					Quote #:		
Phone:	845-525-8100 K	100%	CHAI	IN OF CUSTODY) DY	Mail To Contact:		
Project Number:	er: 14368.10	A=None B=HCL	ICL C=H2SO4	* 1	anol G≓NaOH	Mail To Company:		
Project Name:	174.02	H=Sodium Bisulfate Solution	ate Solution	I≖Sodium Thiosulfate J=Other		Mail To Address:		
Project State:	Ners Car	<pre> FILTERED? (YES/NO) </pre>	V NIX					
Sampled By (Print):	Print): Bry an Anderen	RESERVATION 것은 고 (CODE)	Pick A			Invoice To Contact:	-	
Sampled By (Sign):	No.	and the second second				Invoice To Company:		
PO #:	ц. Э	Regulatory Program:	0300000			Invoice To Address:		
Data Package Options	<u>MS/MSD</u>		226349 G					
	evel III On your sample (billable)	A - Air w = water B = Biota DW = Drinking Water C = Charcoal GW = Ground Water O = Oil SW = Surface Water	۲ <u>۱۲ (م</u> ۲ <u>۲ (م</u> Ases F			Invoice To Phone:		
	your sample	S = Soil WW = Waste Water SI = Sludge WP = Wipe	846-4469 846-4469	- 51		CLIENT	LAB COMMENTS	MENTS Profile #
PACE LAB #	CLIENT FIELD ID	COLLECTION MATRIX DATE TIME				COMMENTS	(Lab Use Only)	: Only)
<u>r</u>	15402 - 05/07 - F52-1	51107 8						
	-1-653-20153-7145L	5/107 3	*					
i daje	12144X - 255107 - 128 - 1-	Shiby B						
4	75 Mill - Late 2 men 100 - 1 -	5/10 6	¥]∰@					
	-1-452-2015 -20142	5/101 8	7					
1.4.2	-1- VS-1- Edito - Jongesh	6460 8	≁ 333	I				
Loom V.	5442-05/07-159 -1-	SINOT B	×					
	750WL - 25-107- F59 -1-	5/1/07						
Carlo Carlos	15AUG 255/07 1 258-1-	31107 23	×			The marky t		
<u>}</u>	20107-6	5/10 8	*					
3 %	2567-558	5/2407 B				Duplicate +		
بەر بر	754146-505107-258-3-	- Staton 6				•		
5%	75446- 25/07-259 2-	5/20 - 15						
Rush Tur	Rush Turnaround Time Requested - Prelims //bush TAT sublect to approval/surcharde)	ms Relinquished By:	Charles and	Date/Time:	Received By:	Date/Time:		PACE Project No.
	Date Needed:	Relinquished By:		ne:	Received By:	Date/Time:		
Transmit Preli	Transmit Prelim Rush Results by (complete what you want):	T					Rece	Receipt Temp = °C
Email #1: Email #2·		Relinquished By:		Date/Time:	Received By:	Date/Time:		Receipt pH
Telephone:		Relinquished By:		Date/Time:	Received By:	Date/Time:		OK / Adjusted
Fax:				1				Cooler Custody Seal
S; spec	Samples on HOLD are subject to special pricing and release of liability	Refinquished By:		Date/Time:	Received By:	Date/Time:		Present / Not Present Intact / Not Intact
							Versio	Version 6.0 06/14/06

	(Please Print Clearly)		$\left(\right)$			UPPER MIDWEST REGION	T REGION		Page 🚯 of 🕉	
Company Name:	ICA Engineerin			-	6	MN: 612-607-17(MN: 612-607-1700 WI: 920-469-2436			
Branch/Location:	on: Niewiewie h		<i>Fac</i>	Anai	Pace Analytical			COC No.	07020	İ
Project Contact:	# Paul Muessig						Quote #:			
Phone:	5 × 3	101	CHAI		IN OF CUSTODY	700Y	Mail To Contact:			
Project Number:	n: /436.70	A=None B	B=HCL C	C=H2SO4 [*Preservation Codes D=HNO3 E=DI Water F=	F=Methanol G=NaOH	Mail To Company:			
Project Name:	Three Stur Anadrai	2	sulfate Solu				Mail To Address:			
Project State:	KRUN KORK	FILTERED? (YES/NO)	Y/N	anne ann						
Sampled By (Print):	rint): Brican Andersen	ā	A Pick Letter	6			Invoice To Contact:			
Sampled By (Sign):	Brin ander	- Toro					Invoice To Company:			
PO #:	Re Pr	Regulatory Program:)əjsə	∩ ₹ø`			Invoice To Address:			
Data Package Options	<u>OSW/SM</u>	Matrix Codes	nbəչ	ng (ng						
	(billable)	B = Biota DW = Drinking Water C = Charcoal GW = Ground Water C = Cli SW = Surface Water	səs/	'۱۱۰ 'در- '			Invoice To Phone:			1
L	EPA Level IV NUI needed on S=S your sample Si=S		2033A	6H 70			CLIENT	LAB CO	LAB COMMENTS Profile #	71:
PACE LAB #	CLIENT FIELD ID		2444). 1	'SH			COMMENTS	(Lab Us		
5 m	- KS4 - 2 -	~		*						
~	54406-02/07-558-3-	8 <i>coles</i> s		×						
1	-83.02-88-2-	\$3 <i>b7</i>		4						
	• (J. vore	2/07		×.						
2000 E 2000		5/2/07 8		Ą						ľ
j en		5/67 3		÷.			MSMISD			
~		512/07 8	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	s.f.						
K	- 15/07 - 158-3-	5/200 3		Ý						
10. y	-05/07 - PSK-2 -	stan e		チ						
	- 2- 25-5- 20/50-	5/107 6		zh.						ľ
the second secon	75AWC-05107-05A-2-	512/07 8		safa,						ſ
										ľ
Rush Turr (Rush T⊅	Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)	Relinguished By:			5/7/07 1340	ĺ	Date/Time:		PACE Project No.	
Transmit Prelin	Date Needed: Transmit Prelim Rush Results by (comolete what you want):	Relinquished By:	\bigvee		Date/Time:	Received By:	Date/Time:			
Email #1:		Relinquished By:			Date/Time:	Received By:	Date/Time:			ပ
Email #2:									Sample Receipt pH	
Fax:		Relinquished By:			Date/Time:	Received By:	Date/Time:	<u> </u>	OK / Adjusted Cooler Custody Seal	
Sar	Samples on HOLD are subject to	Reiinquished By:			Date/Time:	Received By:	Date/Time:		Present / Not Present	*******
loads.								- 97	Intract / NOL Intact ersion 6.0 06/14/06	-

.

į

.

-	(Please Print Clearly)		ſ		UPPER MIDWEST REGION	EGION	Page 1 of	
Company Name:	EN ENGNIERCONC	×.		8	MN: 612-607-1700 WI: 920-469-2436	WI: 920-469-2436		
Branch/Location:	: NENEURCH		aceAn	Pace Analytical		J	coc No. 017132	[
Project Contact:	PAUL MUESSIC			20032000		Quote #:		
Phone:	845-565-2100-64/6	00 P	CHAIN	IN OF CUSTODY) D X D	Mail To Contact:	PAUL MASSIE	
Project Number:		A=None B=HCL	HCL C=H2SO4	*Preservation Codes D=HNO3 E=DI Water F=Methanol	noi G=NaOH	Mail To Company:	ES ENGINERENC.	
Project Name:	THEE SAR - WARINGE	<u>.</u>	fate Solution	1 1		Mail To Address:	3 WASAINGTON OCT	CVEN FRA
Project State:	NY	FILTERED? (YES/NO)	VIN XJ				NEWRUZCES NY 12	12557
Sampled By (Print):	#1 FANL MUESSIE	PRESERVATION (CODE)*	Pick Letter			Invoice To Contact:		
Sampled By (Sign):	Login Contractor		۲۹, ۱			Invoice To Company:	:	[
PO #:	C Regúlatory Program:	atory ram:				Invoice To Address:		<u> </u>
Data Package Options	MS/WSD	Matrix Codes		t	*****			
	(billable)	B = A-Au W = Watel B = Biota DW = Drinking Water C = Charcoal GW = Grundwater D = Dri SW = S. Hirdran Water	י <u>לי) (1</u> ין səs/			Invoice To Phone:		
	your sample	WW = Waste Water Be WP = Wipe	9978 Aug	20		CLIENT	LAB COMMENTS Profile #	*
PACE LAB #		COLLECTION MATRIX DATE TIME	58 1			COMMENTS	(Lab Use Only)	
12	TSAUC-OUDE-WESS-MUS-DI	SH 1200 715	×			4010 EX123		
	SAUC- OWOF - WESZ ANS- PL	212 0021 12/0	×			MALLISTAT W		
NA I	Mus-od	217 0051 19	\times			EVENT NOOR		
2	15 AVL- 010/07-11/853-544-01 61	6141 1200 TIS.	X			REQUESTS		
	ERWE-EGOTINESS-BAR-OP	21 0021 /20	\times			FUEDRA		
- FSA	54WC-00, 62 NRS3-SNL-03 6	654 1200 TIS	X			ANDLYSUS		
	Sand Or 102-10854-115-01 [0]	while the TIS	\times					,
	- CUCP-WRS4-SAL-01	217 Orzi falmin	\times					
Rush Turna (Rush TAT	Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)	Relinquished By:	and the second	Batessin: 1430	Received By:	Date/Time:	PACE Project No.	
	Date Needed:	Relinquished By:		Date/Time:	Received By:	Date/Time:		Ĩ
Email #1:	Iransmit Prelim Kush Kesuits by (complete what you want): ail #1:	Relinquíshed By:	×174	Date/Time:	Received By:	Date/Time:	Receipt Temp =	ပ္
Email #2:					•		Sample Receipt pH	1
Telephone:		Relinquished By:		Date/Time:	Received By:	Date/Time:	OK / Adjusted	Ī
Fax: Same	Samalar on MOLD and riblart to	Dalimuùthad Dur		DataTimor	Docoitod D.v.	Data	COOIET CUSTOOY Seal	
special	compression traces are subject to special pricing and release of liability		8		iverceived by.		Intact / Not Intact	
							Version 6.0 Uer14/06	

	(Please Print Clearly)		$\left(\right)$		UPPER MIDWEST REGION	. REGION	Page 1	of
Company Name:	· EA ENGINGERING			6	MN: 612-607-1700	MN: 612-607-1700 WI: 920-469-2436		
Branch/Location:	" NEWRORGH		Pace An	Pace Analytical			сос No. 017	017021
Project Contact:	-DISSBUN JURSSIG		1. ALA AL	hansions.com		Quote #:		
Phone:	845-595-8100 EX100	_	CHAIN	IN OF CUSTODY	DV DV	Mail To Contact:	PAUL H MUESSIC	57.52
Project Number:	: 14386,10 0002	A=None B=H	B=HCL C=H2SO4	*Preservation Codes D=HNO3 E=DI Water F=Methanol	anol G=NaOH	Mail To Company:	VGJA	2NC
Project Name:	THREE STAR ANDDIZING		lfate Solution	I=Sodium Thiosulfate J=Other		Mail To Address:	3 WASHINGTON) CENTER
Project State:	λÝ	FILTERED? (YES/NO)	VIN X			1	MEWZURCH X	NY 12250
Sampled By (Print):	INDE PAUL MURSSIC	PRESERVATION (CODE)*	Pick Letter			Invoice To Contact:	1 N S	
Sampled By (Sign):	In / an cherry term		4 1			Invoice To Company:		
PO #:	Regulatory Program:	atory am:	ر م بر م	. 7		Invoice To Address:	SAM 9	
Data Package Options (biliable)	OSW/SW	11 75 1						<u></u>
	<u> </u>		יע' <u>ה' (</u> ה' נפפג	~~~~		Invoice To Phone:		
	your sample	-	adibalik	<u> </u>		CLIENT	LAB COMMENTS	Profile #
PACE LAB #		DATE TIME MATRIX	sŀ/			COMMENTS	(Lab Use Only)	
	28mc-08/02-MB3-2MT-04/8/2	18/07/0750 B	\times			HOLD RX7824		
54	rsame oslot. UB3. SNL-OCRIE	S/02/02/02/20/62/8	\times			J-412R2LOW		
12	159426-05107-12183-5242-06 1812	States ozsa R	א 100			IN EVENT		
154	SAWC-0867-NV23-MUS-0486	824/24 050 R	×			CLITANT		
12	JEANC-OSPEZ-UB3-AUS-OSTA2	82462 0750 Z	X			(NYSDEC)		-
TX TX	TEAWC- 08/07. WRJ. MUS. 06/8/2	8/57/67 0250 B	\times			REQUESTS		
						FUCTHER		
						ろうちんつどん		
		-						
		<u>د</u> ر						
Rush Tumi (Rush TA)	Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)	Retirquisped By A.	- river	S/2407 1545	Received By:	Date/Time:	PACE Project No.	ect No.
L Transmit Prelim	Date Needed: 6	Relinquished By:	an a	Ďate/Time:	Received By:	Date/Time:		
Email #1:	function of which condition to support the	Relinquished By:		Date/Time:	Received By:	Date/Time:	Receipt Temp =	ပွ
Email #2:							Sample Receipt pH	ceipt pH
Telephone: Fax:		Relinquished By:		Date/Time:	Received By:	Date/Time:	OK / Adjusted Cooler Custody Seal	usted odv Seal
	Samples on HOLD are subject to	Relinquished By:		Date/Time:	Received By:	Date/Time:	Present / Not Present	t Present
special	special pricing and release of liability						Version 6.0 06/14/06	t Intact

Appendix C

Laboratory Data Package (provided on CD)

Appendix D

Data Usability Summary Report (provided on CD) Appendix E

Field Photo Log



Date: 4 May 2007

Comments: Electrofishing boat used as primary gear for fish collections in Wappinger Creek. Preparing to sample area FSA-1.



Date: 4 May 2007

Comments: Beach seine on sand bar along south shore used for fish collections in FSA-2.



Date: 4 May 2007

Comments: Setting beach seine used for fish collections along north shore in FSA-2.



Date: 4 May 2007

Comments: Experimental multi-panel gill net used for fish collections.



Date: 4 May 2007

Comments: Bass collected by electrofishing in area FSA-2 near County Route 28 bridge.



Date: 4 May 2007

Comments: Measuring length and weight of specimens in field.



Date: 4 May 2007

Comments: Processing, labeling, and data recording in field.



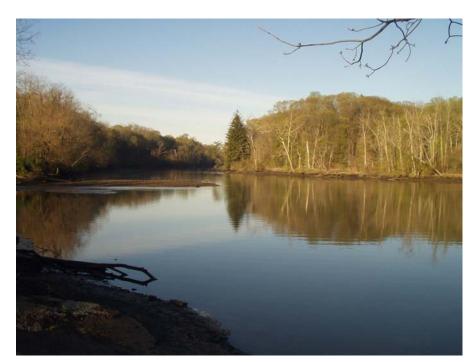
Date: 4 May 2007

Comments: Gravel bar at mouth of tributary to Wappinger Creek downstream of boat launch in area FSA-1.



Date: 4 May 2007

Comments: Looking across peninsula into cove in area FSA-1.



Date: 4 May 2007

Comments: View west (downstream) from boat launch in area FSA-1; gravel bar at tributary visible in middle ground.



Date: 4 May 2007

Comments: View east (upstream) from boat launch in area FSA-1.



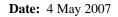
Date: 4 May 2007

Comments: Productive area for fish collections with woody debris along north shore in area FSA-2.



Date: 4 May 2007

Comments: Area FSA-2 upstream of County Route 28 bridge; orange gill net float markers near shore in middle ground.



Comments: Sampling in cove (area FSA-1) for invertebrates at low tide.





Date: 4 May 2007

Comments: Cove at low tide with remnants of vegetation from previous growing season.



Date: 4 May 2007

Comments: Bug net used to sample surficial sediment for invertebrates.



Date: 4 May 2007

Comments: Petite ponar dredge and wash pan used to sample for invertebrates.



Date: 4 May 2007

Comments: Sieve bucket used to wash down sediment material used to collect invertebrates



Date: 21 June 2007

Comments: Invertebrate sampling area WBS-4 to the north and east of County Route 28 bridge.



Date: 21 June 2007

Comments: Invertebrate sampling area along derelict timber bulkhead adjacent to WBS-3.



Date: 21 June 2007

Comments: Invertebrate sampling area along derelict timber bulkhead adjacent to WBS-3.



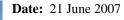
Comments: Cove (WBS-2) with summer vegetation at high tide.





Date: 4 May 2007

Comments: Cove (WBS-2) prior to growing season viewed from Wappinger Creek.



Comments: Point and timber bulkhead (in middle ground) where invertebrate samples were collected for area WBS-3.





Date: 21 June 2007

Comments: Root mass and stems of water chestnut inspected for clinging invertebrates.



Date: 29 August 2007

Comments: Inspecting waterlogged woody debris for invertebrates.



Date: 29 August 2007

Comments: Mud/silt substrate characteristic of intertidal shoreline.



Date: 29 August 2007

Comments: Mud/silt substrate with submerged aquatic vegetation characteristic of intertidal shoreline.



Date: 29 August 2007

Comments: Inspecting stems of emergent aquatic vegetation for invertebrates.



Date: 29 August 2007

Comments: Dense beds of submerged water chestnut which choke all but the deepest portion of the channel of Wappinger Creek during the summer growing season; emergent wetland vegetation in the cove visible at shoreline in middle ground.

EA Project No. 14368.10 Revision: DRAFT Appendix E, Page 16 of 19 October 2007

PHOTOGRAPHIC RECORD



Date: 29 August 2007

Comments: Invertebrate sampling location WBS-3 looking toward north shore of Creek; water chestnut beds in background.



Date: 4 May 2007

Comments: Osprey observed in tree near cove.



Date: 29 August 2007

Comments: Beaver swimming from lodge along edge of wetland at cove.



Date: 29 August 2007

Comments: Green heron in middle of photo fishing from woody debris along shoreline.



Date: 29 August 2007

Comments: Great blue heron fishing from woody debris near WBS-4 sampling area.



Date: 21 June 2007

Comments: Great blue heron fishing in cove wetland.



Date: 29 August 2007

Comments: Great blue heron fishing near sampling areas WBS-1 and FSA-1.

Appendix F

Summary of Field and Validated Analytical Data

1819.1 sore on mandible 893.4 sore on mandible 1047.8 sore on mandible 1094.7 1218.5 sore on mandible Observations Field 2600 MS/MSD Weight (g) 624.1 747.6 657.8 331.4 278.5 293.7 416.2 278.5 612.3 378.3 1123.1 378.3 444.0 1577.5 909.9 501.2 489.9 718.4 1819.1 1597.2 1343.7 1018.4 558.4 792 2125 344.9 269.0 465.0 Length (mm) 368 336 364 465 390 410 397.1 296.0 509.0 64.2 419 447 447 350 296 440 375 391 498 341 289 284 278 269 62.3 335 318 324 407 435 509 7.9 U 6.9 U 6.9 U 6.9 U 8.5 U 8.1 U 7.7 U 6.9 U 6.9 U 11.0 U 9.4 U 8.9 U 5.8 U 7.0 5.3 9.2 1.2 8.0 5.4 11.0 Ni 0.34 UJ 0.34 UJ 0.34 UJ 0.34 UJ 0.34 UJ 0.34 UJ 0.33 UJ 0.33 UJ 0.34 U 0.34 0.34 0.34 0.00 0.34 0.34 0.34 0.00 0.1596 0.0740 0.4100 0.0968 0.2403 0.0620 0.6000 0.1813 Pb 0.024 U 0.024 U 0.024 U 0.024 U 0.024 U 0.0224 U 0.0224 U 0.0224 U 0.024 U 0.024 U 0.024 U 0.024 U 0.024 U 0.0224 U 0.024 0.024 0.024 0.000 0.024 0.024 0.024 0.000 0.19 J 0.29 J 0.23 J 0.21 J 0.24 J 0.24 J 0.26 J 0.28 J 0.28 J 0.28 J 0.28 J 0.28 J 0.28 J 0.26 J 0.28 J 0.26 J 0.27 J 0.26 J 0.27 J 0.26 J 0.27 J 0. Cu 0.30 J 0.19 J 0.22 J 0.22 J 0.22 J 0.23 J 0.22 J 0.22 J 0.22 J 0.22 J 0.22 J 0.22 J 0.44 . 0.25 0.19 0.41 0.06 0.24 0.05 0.08 0.08 0.20 J 0.21 J 0.22 J 0.22 J 0.22 J 0.23 U 0.23 U 0.23 U 0.22 J 0. Cr 0.22 J 0.22 J 0.23 J 0.23 J 0.23 J 0.22 J 0.21 0.19 0.24 0.01 0.23 0.21 0.24 0.01 Cd 0.0090 J 0.0110 J 0.0081 U ⊃ ⊃ $\supset \supset$ ⊃ ⊃ ~ ⊃ ⊃ ⊃ ⊃ ⊃ ⊃ ⊃ ⊃ ⊃ ⊃ ~ 0.0190 0.0081 0.0081 **MAY 2007** 0.0081 0.0081 0.0081 0.0081 0.0081 0.0081 0.0081 0.0081 0.0081 0.0081 0.0094 0.0081 0.0200 0.0034 0.0081 0.0081 0.0081 0.0095 0.0081 0.0200 0.0039 0.0081 As 0.066 (0.038 (0.038 (0.038 (0.031 (0.038 (0.038 (0.026 (0.026 (0.028 () 0.018 0.029 0.035 0.035 0.034 0.046 0.048 0.027 0.025 0.025 0.025 0.028 0.028 0.028 0.028 0.028 0.028 0.028 0.032 0.039 0.025 0.066 0.013 0.036 0.018 0.053 0.010 Sample Type fillet Largemouth bass Min Max Std Dev Taxon Std Dev Mean Mean Min Max 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 Date 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/1/2007 5/2/2007 5/2/2007 5/3/2007 5/2/2007 5/2/2007 Location FSA-1 FSA-2 TSAWC-05/07-FSA-1-LMB-F-01 TSAWC-05/07-FSA-1-LMB-F-02 TSAWC-05/07-FSA-1-LMB-F-03 TSAWC-05/07-FSA-1-LMB-F-04 TSAWC-05/07-FSA-1-LMB-F-06 TSAWC-05/07-FSA-1-LMB-F-06-DUP TSAWC-05/07-FSA-1-LMB-F-08 TSAWC-05/07-FSA-1-LMB-F-09 TSAWC-05/07-FSA-1-LMB-F-10 TSAWC-05/07-FSA-1-LMB-F-11 TSAWC-05/07-FSA-2-LMB-F-12 TSAWC-05/07-FSA-2-LMB-F-13 TSAWC-05/07-FSA-2-LMB-F-14 TSAWC-05/07-FSA-2-LMB-F-15 TSAWC-05/07-FSA-2-LMB-F-09-DUP TSAWC-05/07-FSA-2-LMB-F-03 TSAWC-05/07-FSA-2-LMB-F-04 TSAWC-05/07-FSA-2-LMB-F-05 TSAWC-05/07-FSA-2-LMB-F-06 TSAWC-05/07-FSA-2-LMB-F-07 TSAWC-05/07-FSA-2-LMB-F-08 TSAWC-05/07-FSA-2-LMB-F-09 TSAWC-05/07-FSA-1-LMB-F-05 TSAWC-05/07-FSA-1-LMB-F-07 FSAWC-05/07-FSA-2-LMB-F-02 TSAWC-05/07-FSA-2-LMB-F-10 TSAWC-05/07-FSA-2-LMB-F-11 TSAWC-05/07-FSA-2-LMB-F-01 Sample No.

J = Analyte detected between the MDL and the reporting limit; concentration estimated U = The analyte was not detected at or above the reporting limit

2600.0

641.3

TABLE F-1. VALIDATED RESULTS OF METALS ANALYSES FOR FILETS FROM LARGEMOUTH BASS COLLECTED FROM TIDAL REACH OF WAPPINGER CREEK BELOW THREE STAR ANODIZING SITE,

R ANODIZING SITE,		Field Observations	0	2		424.4 sore on lower body	0	4		10
EE STAI	Weight	(g)	970.2	998.7	1002.8	424.4		424.4	`	
W THRI	-ength	(mm)	407	406	402	344	389.8	344.0	407.0	30.6
k Belo	%	Solids	21.0	21.6	20.4	18.7	20.4	18.7	21.6	1.3
R CREE		Zn	6.2 U	5.6 U	6.3 U	6.4 U	6.1	5.6	6.4	0.4
NAPPINGE		īŻ	0.34 UJ	0.34 UJ	0.34 UJ	0.34 UJ	0.34	0.34	0.34	0.00
REACH OF V						0.1300	0.1975	0.0900	0.3400	0.1118
OM TIDAL F						0.024 U	-	0.024	0.024	0.000
ICTED FRO						0.25 J	0.29	0.25	0.36	0.05
BASS COLLE MAY 2007.		ບັ	0.22 J	0.22 J	0.21 J	0.19 J	0.21	0.19	0.22	0.01
OUTH BAS		Cd	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081	0.0081	0.0081	0.0000
A SMALLM		As	0.120	0.095 J	0.180	0.170	0.141	0.095	0.180	0.040
'S FROM	Sample	Type	fillet	fillet	fillet	fillet				
ALYSES FOR FILET		Taxon	Smallmouth bass	Smallmouth bass	Smallmouth bass	Smallmouth bass	Mean	Min	Max	Std Dev
ETALS AN		Location Date	5/1/2007	5/1/2007	5/1/2007	5/1/2007				
LTS OF MI		Location	FSA-1	FSA-1	FSA-1	FSA-1				
TABLE F-2. VALIDATED RESULTS OF METALS ANALYSES FOR FILETS FROM SMALLMOUTH BASS COLLECTED FROM TIDAL REACH OF WAPPINGER CREEK BELOW THREE STAR ANODIZING SITE, MAY 2007.		Sample No.	TSAWC-05/07-FSA-1-SMB-F-01 FSA-1	TSAWC-05/07-FSA-1-SMB-F-02	TSAWC-05/07-FSA-1-SMB-F-03 FSA-1	TSAWC-05/07-FSA-1-SMB-F-04				

J = Analyte detected between the MDL and the reporting limit; concentration estimated U = The analyte was not detected at or above the reporting limit

MO-	Mean	Weight	(g)	12.9	11.0	10.7	13.2	10.2	10.1	10.5	10.0	9.6	7.8	10.8	9.6	8.6	9.2	11.5							7.8	13.1		10.9	12.4	11.9	4.9	11.1					
EEK BEI	Mean	_		111.5	103.5	105.0	109.0	102.8	102.0	106.0	106.0	102.7	99.7	107.5	102.0	100.5	102.7	105.8							91.0	113.0		103.0	109.0	106.0	81.3	105					
GER CR	Number	_	Sample	2	0	2	2	9	2	2	2	ო	ო	2	2	2	e	4							2	7		0	2	2	e	-					
WAPPING	ź	%	Solids Sa	26.0	23.1	24.0	24.5	26.0	25.0	28.1	22.1	22.3	24.7	23.1	23.9	25.5	26.0	24.0	24.0	2	24.5	22.1	28.1	1.6	26.1	24.9	24.9	22.8	24.7	23.5	22.9	25.3		24.4	22.8	1.2	
EACH OF			Z	48.0	31.0 U	41.0 R	31.0 R	66.0 R	33.0 R	35.0 R	32.0 R	18.0 R	28.0 R	24.0 R	36.0 R	18.0 R	24.0 R	78.0 J	20.0 R		35.2	18.0	78.0	16.6	34.0 R	27.0	25.0	26.0	41.0	31.0	41.0	36.0		32.0	25.0	4 I.0 6.4	
TIDAL R			ïz	0.34 UJ	0.34 UJ	0.34 U		0.34 U	0.34 U	0.34 U	0.36 J	0.34 U		0.34	0.34	0.36	0.00				0.34 U		0.34	0.34	0.00												
ED FROM			Рg	0.0300	0.0340	0.0450	0.0480	0.0330	0.0430	0.0230	0.0330	0.0340	0.0280	0.0320	0.0490	0.0380	0.0430	0.0380	0.0370	0.000	0.0368	0.0230	0.0490	0.0073	0.0230	0.0550 J	0.0510 J	0.0280 J	0.0290 J	0.0670 J	0.0160 J	0.0520 J		0.0401	0.0160	0.0183	
COLLECT			Pb	0.190	0.100	0.140	0.220	0.180	0.056 J	0.400	0.130	0.044 J	0.091 J	0.130	0.270	0.065 J	0.160	0.700 J	0.096 J		0.186	0.044	0.700	0.164	0.350	0.480 J	0.092 J	0.270 J	0.170 J	0.120 J	0.049 J	0.075 J		1.02.0	0.049	0.153 0.153	
SHINER (. 2007 .		Cu		0.71 J	0.57 J			0.80 J						1.00	0.75 J	0.64 J	0.53 J	0.55 J	0000	0.67	0.06	1.40	0.28								0.52 J		0.80	0.50	3. 10 0.91	
OTTAIL 8	911 E, IVIA		ς	0.26 U	I 0.29 U	I 0.25 U	I 0.28 U	I 0.27 U	I 0.22 U	0.31 U	I 0.27 U	I 0.22 U	I 0.23 U	I 0.27 U	0.30 U	I 0.19 U	I 0.25 U	I 0.62 U	0.24 U		0.28	0.19	0.62	0.10	I 0.35 U	I 0.45 U	0.17 U	I 0.26 U	I 0.22 U	I 0.24 U	I 0.20 U	0.20 U		0.20	0.17	0.09	
DLE BODY SAMPLE OF SPOTTAIL SHINEF			S	0.1100	0.0140	0.0420	0.0420	0.0440	0.0130	0.0230	0.0140	0.0170	0.0160	0.0250	0.0430	0.0100	0.0190	0.0420	0.0130	0000	0.0304	0.0100	0.1100	0.0248	0.0250	0.0620	0.0240	0.0190	0.0150	0600.0	0.0210	0.0170		0.0240	0.0090	0.0162	
Y SAMPI			As	0.086 J	0.075 J	0.120	0.081 J	0.160	0.120	0.100	0.066 J	0.078 J	0.076 J	0.079 J	0.100	0.073 J	0.110	0.150 J	0.082 J	100.0	0.097	0.066	0.160	0.028	0.210	0.120 J	0.067 J	0.083 J	0.075 J	0.110	0.073 J	0.067 J		0.101	0.067	0.048	
		Sample	Type	whole						whole	whole	whole	whole	whole	whole	whole	whole																				
YSES FOR WHC	-		Taxon	Spottail shiner		Mean	Min	Max	Std Dev	Spottail shiner	Spottail shiner	Spottail shiner	Spottail shiner	Spottail shiner	Spottail shiner	Spottail shiner	Spottail shiner	:	Mean	MIN	Std Dev																
LS ANAL'			Date	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/1/2007	00410					5/1/2007	5/2/2007	5/2/2007	5/2/2007	5/2/2007	5/2/2007	5/2/2007	5/3/2007					
OF META			Location	FSA-1			FSA-1	FSA-1	FSA-1	FSA-1	FSA-1						FSA-2	FSA-2				FSA-2	FSA-2	FSA-2													
TABLE F-3. VALIDATED RESULTS OF METALS ANALYSES FOR WHOLE BODY SAMPLE OF SPOTTAIL SHINER COLLECTED FROM TIDAL REACH OF WAPPINGER CREEK BELOW			Sample No.	TSAWC-05/07-FSA-1-SS-W-01	TSAWC-05/07-FSA-1-SS-W-02	TSAWC-05/07-FSA-1-SS-W-03	TSAWC-05/07-FSA-1-SS-W-04	TSAWC-05/07-FSA-1-SS-W-05	TSAWC-05/07-FSA-1-SS-W-06	TSAWC-05/07-FSA-1-SS-W-07	TSAWC-05/07-FSA-1-SS-W-08	TSAWC-05/07-FSA-1-SS-W-09	TSAWC-05/07-FSA-1-SS-W-10	TSAWC-05/07-FSA-1-SS-W-11	TSAWC-05/07-FSA-1-SS-W-12	TSAWC-05/07-FSA-1-SS-W-13	TSAWC-05/07-FSA-1-SS-W-14	TSAWC-05/07-FSA-1-SS-W-15	TSAWC-05/07-FSA-1-SS-W-15-DUP						TSAWC-05/07-FSA-2-SS-W-01	TSAWC-05/07-FSA-2-SS-W-02	TSAWC-05/07-FSA-2-SS-W-02-DUP	TSAWC-05/07-FSA-2-SS-W-03	TSAWC-05/07-FSA-2-SS-W-04	TSAWC-05/07-FSA-2-SS-W-05	TSAWC-05/07-FSA-2-SS-W-06	TSAWC-05/07-FSA-2-SS-W-08					

R = Analysis rejected because of low recovery percentage for MS/MSD sample J = Analyte detected between the MDL and the reporting limit; concentration estimated U = The analyte was not detected at or above the reporting limit

TABLE F-4. VALIDATED RESULTS OF METALS ANALYSES FOR WHOLE BODY SAMPLE OF BANDED KILLIFISH COLLECTED FROM TIDAL REACH OF WAPPINGER CREEK BELOW THREE STAL VALIDATED RESULTS OF METALS ANALYSES FOR WHOLE BODY SAMPLE OF BANDED KILLIFISH COLLECTED FROM TIDAL REACH OF WAPPINGER CREEK BELOW THRE

lean	eight	(g)	0.8	3.1	1.2	1.7	0.8	0.7				
1ean N	ength W	mm)	44.3	68.3	49.5	57.8	44.5	40.9				
mber N	Ľ .u	imple (13	с	26	9	24	17				
Γ N								22.0	929	20.7	24.1	1.3
		Zn	28.0	26.0	26.0	34.0	31.0	34.0	29.8	26.0	34.0	3.7
		ïz	0.34 U	0.34	0.34	0.34	0.00					
		Hg	0.0170 J	0.0170 J	0.0160 J	0.0170 J	0.0190 J	0.0170 J	0 0172	0.0160	0.0190	0.0010
		РЬ	0.080 J	0.031 J	0.060 J	0.110 J	0.062 J	0.110 J	0.076	0.031	0.110	0.031
		S	0.84 J	1.10	0.71 J	1.60	0.94 J	0.87 J	101	0.71	1.60	0.32
		ъ	0.21 U	0.22 U	0.20 U	0.24 U	0.18 U	0.23 U	0.21	0.18	0.24	0.02
		g	0.0160 J	0.0100 J	0.0310 J	0.0350 J	0.0120 J	0.0150 J	0 0198	0.0100	0.0350	0.0105
		As	0.055 J	0.052 J	0.066 J	0.069 J	0.057 J	0.073 J	0.062	0.052	0.073	0.008
	Sample	Type	whole	whole	whole	whole	whole	whole				
		Taxon	Banded killifish	Mean	Min	Max	Std Dev					
		Date	5/2/2007	5/2/2007	5/3/2007	5/3/2007	5/3/2007	5/3/2007				
		Location	FSA-2	FSA-2	FSA-2	FSA-2	FSA-2	FSA-2				
		Sample No.	TSAWC-05/07-FSA-2-BKF-W-01	TSAWC-05/07-FSA-2-BKF-W-02	TSAWC-05/07-FSA-2-BKF-W-03	TSAWC-05/07-FSA-2-BKF-W-04	TSAWC-05/07-FSA-2-BKF-W-05	TSAWC-05/07-FSA-2-BKF-W-06				

 $\mathsf{J}=\mathsf{Analyte}$ detected between the MDL and the reporting limit; concentration estimated $\mathsf{U}=\mathsf{The}$ analyte was not detected at or above the reporting limit

TABLE F-5. VALIDATED RESULTS OF METALS ANALYSES FOR WHOLE BODY SAMPLE OF TESSELATED DARTERS COLLECTED FROM TIDAL REACH OF WAPPINGER CREEK BELOW THREE STAL WAY 2007. Number Mean Mean

Weight (a)	2.4	1.5				
Length (mm)	59.2	58				
in L Sample	. 4	5				
% Solids			24.5	23.9	25.1	0.8
Z	31.0	22.0	26.5	22.0	31.0	6.4
īZ	0.34 U	0.34 U	0.34	0.340	0.340	0.00
На	0.0220 J	0.0170 J	0.0195	0.017	0.022	0.0035
Po	0.094 J	0.063 J	0.079	0.063	0.094	0.022
Cu	0.59 J	0.54 J	0.57	0.540	0.590	0.04
Ċ	0.17 U	0.19 U	0.18	0.170	0.190	0.01
Cd	0.0081 U	0.0081 U	0.0081	0.008	0.008	0.0000
As	0.070 J	0.048 J	0.059	0.048	0.070	0.016
Sample Tvpe	whole	whole				
Taxon	Tesselated darter	Tesselated darter	Mean	Min	Max	Std Dev
Date	3/2007	5/3/2007				
Location						
Sample No.	-TD-W-C	TSAWC-05/07-FSA-2-TD-W-02 FSA-2				

 $\mathsf{J}=\mathsf{Analyte}$ detected between the MDL and the reporting limit; concentration estimated $\mathsf{U}=\mathsf{The}$ analyte was not detected at or above the reporting limit

TABLE F-6. VALIDATED RESULTS OF METALS ANALYSES FOR WHOLE BODY SAMPLE OF ZEBRA MUSSELS COLLECTED FROM TIDAL REACH OF WAPPINGER CREEK BELOW THREE STAR ANODIZING SITE, MAY 2007.

													z		Total
				Sample									%		Veight
Sample No.	Location	Date		Type	As	PO	ບັ	Cu	Pb	Hg	īŻ	•,	Solids S	Sample	(g)
TSAWC-06/07-WBS3-MUS-01	WBS-3	6/14/2007		Whole	0.360	0.0960 B	0.70	5.70	1.300	0.0080 B	39		59.3		5.26
TSAWC-06/07-WBS3-MUS-02		6/14/2007		Whole	0.260	0.0740 B	0.25	7.70	1.200	0.0090 B	34		27.2		4.98
TSAWC-06/07-WBS3-MUS-03	WBS-3	6/14/2007		Whole	0.290	0.0970 B	0.29	1.80 B	1.800	0.0110	6.8		41.2		5.33
TSAWC-08/07-WBS3-MUS-04	WBS-3	8/29/2007		Whole	0.260	0.0640 J	0.19 U	1.60 UJ	0.260	0.0065 J	1.8		34.9		5.14
TSAWC-08/07-WBS3-MUS-05	WBS-3	8/29/2007		Whole	0.250	L 0070.0	0.16 U	1.50 UJ	0.220	0.0062 J	1.9	5.8 U	36.3		5
TSAWC-08/07-WBS3-MUS-06	WBS-3	8/29/2007	Mussel	Whole	0.260	0.0810 J	0.20 U	1.40 UJ 0.240	0.240	0.0073 J	1.9		35.4		4.23
			Mean		0.280	0.0803	0.30	3.28	0.837		14.2		39.1		
			Min		0.250	0.0640	0.16	1.40	0.220		8.	5.4	27.2		
			Max		0.360	0.0970	0.70	7.70	1.800	0.0110	39.0	12.0	59.3		
			Std Dev		0.041	0.0137	0.20	2.72	0.685		17.4	2.5	10.9		
TSAWC-06/07-WBS4-MUS-01 WBS-4	WBS-4	6/14/2007	Mussel	Whole	0.270	0.0590 B	B 0.39	1.60	0.370	0.0060 B	20	5.4	43.3	31	5.1

B = The analyte was detected between the method detection limit (MDL) and the reporting limit. J = Analyte detected between the MDL and the reporting limit; concentration estimated U = The analyte was not detected at or above the reporting limit

KEE	rotal	/eight	(g)	5.08	5.29	5.65	5.13	5.17	6.62					5.09
LOW THF		in N		57	62	59	58	55	65					57
REEK BE	2		Solids S	39.7	31.9	30.1	35.8	32.2	34.6	34.1	30.1	39.7	3.4	46.9
PINGER C			Zn	25.0	16.0	16.0	15.0 U	14.0 U	12.0 U	16.3	12.0	25.0	4.5	15.0
OF WAPI			ïZ	24	7.8	5.4	1.4	1.5	1.5	69	4.6	24.0	8.8	58
IDAL REACH			Hg	0.0170	0.0180	0.0230	0.0130	0.0170	0.0120	0.0167	0.0120	0.0230	0.0039	0.0170
d From T			Pb	1.500	0.800	1.600	0.640	0.890	0.610	1 007	0.610	1.600	0.434	0.670
COLLECTE			Cu	56.00	26.00	24.00	27.00 J	24.00 J	17.00 J	20.00	17.00	56.00	13.68	20.00
E SNAILS (TE, MAY 2			ö	0.32	0.27	0.67	0.24 U	0.33 U	0.30 U	036	0.24	0.67	0.16	0.42
S ANALYSES FOR WHOLE BODY SAMPLE OF SNAILS COLLECTED FROM TIDAL REACH OF WAPPINGER CREEK BELOW THREE STAR ANODIZING SITE, MAY 2007.			Cd	0.1000	0.0740 B	0.0610 B	0.0710 J	0.0590 J	0.0760 J	0.0735	0.0590	0.1000	0.0147	0.0620 B
DLE BODY STAR AN			As	0.390	0.380	0.510	0.360	0.330	0.350	0 387	0.330	0.510	0.064	0.340
FOR WHO		Sample	Type	Whole	Whole	Whole	Whole	Whole	Whole					Whole
JALYSES			Taxon	Snail	Snail	Snail	Snail	Snail	Snail	Mean	Min	Max	Std Dev	Snail
METALS AN			Date	6/14/2007	6/14/2007			8/29/2007	8/29/2007					6/14/2007
SULTS OF			Location	WBS-3	WBS-3	WBS-3	WBS-3	WBS-3	WBS-3					WBS-4
TABLE F-7. VALIDATED RESULTS OF METAL			Sample No.	TSAWC-06/07-WBS3-SNL-01 WBS-3	TSAWC-06/07-WBS3-SNL-02	TSAWC-06/07-WBS3-SNL-03	TSAWC-08/07-WBS3-SNL-04	TSAWC-08/07-WBS3-SNL-05	TSAWC-08/07-WBS3-SNL-06					TSAWC-06/07-WBS4-SNL-01 WBS-4

B = The analyte was detected between the method detection limit (MDL) and the reporting limit. J = Analyte detected between the MDL and the reporting limit; concentration estimated U = The analyte was not detected at or above the reporting limit