

THE UNIVERSITY OF THE STATE OF NEW YORK  
THE STATE EDUCATION DEPARTMENT  
CULTURAL EDUCATION CENTER  
ALBANY, NEW YORK 12230

Robert ...  
...  
r 9/25

STATE MUSEUM, SCIENCE SERVICE

BIOLOGICAL SURVEY

29 August 1986

Dr. Jon C. Cooper  
Hudson River Foundation  
122 East 42nd Street, Suite 1901  
New York, New York 10168

Dear Jon,

I am pleased to report that the project of cataloguing all specimens of Hudson River fishes at the New York State Museum is now complete. Enclosed are several tables which accurately portray the status of the Hudson River fishes in the collection at the NYSM. The collection is composed of approximately 100,000 lots of fish. To date, 24785 lots have been catalogued. Another 2,000 lots have been sorted, identified and numbered, but the data have not been entered into the computer catalogue. Of the 25,000 lots now in the catalogue, 10,520 are of specimens collected from the Hudson River (Table 1) and 15,210 are of samples from the Hudson River drainage. Of the 157 species reported from the lower Hudson River, 139 collected from the Hudson River are included in the collection. The additional 18 are represented, but the capture locality was outside of the Hudson River drainage.

All of the fishes donated to NYSM by Lawler, Matusky and Skelley, Engineers (LMS) have been organized, sorted, identified and catalogued. The number of species-site-date lots actually catalogued is 9698 (Table 2). It became apparent toward the end of the sorting that yet another lot of certain species would not serve to increase the value of the entire collection. I ultimately directed the technicians to discard approximately 250 lots of eight very common species. Before a lot was discarded, however, the file was checked to see if the month and site was well represented.

Specimens of fishes taken during the 1936 watershed survey of the lower Hudson River system are also sorted and catalogued. I believe this work to be near completion with 638 specimens from the main channel (Table 3) and 2511 from tributaries (Table 4). Undoubtedly additional specimens from the Hudson River system will continue to be found as the rest of the collection is organized, sorted and catalogued.

I believe this to be the largest collection of Hudson River fishes and this catalogue the most complete and accurate data base available on this group. The NYSM continues to increase its

holdings in this group of fishes and is continuing its effort to attract important collections. NYSM also is continuing to increase use of the collection and data base. In light of this, I would encourage Hudson River Foundation to suggest to its grant recipients the possibility of housing voucher collections at NYSM and to use the collection if historical records are important to their projects.

As requested, the \$12,000.00 was used to fund the salaries of technicians. In fact, three individuals were employed during the course of the grant. They were Diane Plura, Steve Wisniewski and Tom Herendeen. All were competent and hard-working. Each came to the project with some knowledge of fishes; all increased their knowledge of New York fishes manyfold. Steve is pursuing a graduate degree in fisheries biology at SUNY-ESF; Diane plans to return to Cornell University in a fisheries/wildlife program. Tom, having now completed his BA, is taking a break in his studies. The experience that each had while working on this project will advance their own careers and, in some way, the goals of environmental research, the NYSM and the Hudson River Foundation.

I thank you and the Hudson River Foundation for the support provided me on this project this past year. I now request final payment be made to The University of the State of New York on grant number 3/85A/17. I would like to continue my (somewhat distant) relationship with the Foundation over the next years. If I can help you as a grant-reviewer or in any other way, please let me know.

Sincerely,



Robert A. Daniels  
Curator of Ichthyology

Table 1. Specimens of Hudson River drainage fishes now catalogued into the collection of the New York State Museum, Albany. There are approximately 100,000 lots of fish in the collection; 25,000 have been catalogued to date.

Species	Number in Collection	
	Main Channel	Total Drainage
<u>Ichthyomyzon unicuspis</u> , Silver lamprey	2	2
<u>Petromyzon marinus</u> , Sea lamprey	5	7
<u>Acipenser brevirostrum</u> , Shortnose sturgeon	23	23
<u>Acipenser oxyrhynchus</u> , Atlantic sturgeon	37	37
<u>Anguilla rostrata</u> , American eel	428	428
<u>Conger oceanicus</u> , conger eel	4	4
<u>Alosa aestivalis</u> , blueback herring	577	605
<u>Alosa mediocris</u> , hickory shad	14	15
<u>Alosa pseudoharengus</u> , alewife	608	639
<u>Alosa sapidissima</u> , American shad	524	555
<u>Alosa</u> sp.	20	24
<u>Brevoortia tyrannus</u> , Atlantic menhaden	58	62
<u>Clupea harengus harengus</u> , Atlantic herring	0	6
<u>Dorosoma cepedianum</u> , gizzard shad	161	163
<u>Etrumeus teres</u> , round herring	1	2
<u>Anchoa hepsetus</u> , striped anchovy	1	1
<u>Anchoa mitchilli</u> , bay anchovy	211	227
<u>Anchoa</u> sp.	1	24
<u>Coregonus clupeaformis</u> , lake whitefish	0	19
<u>Oncorhynchus tshawytscha</u> , chinook salmon	0	1
<u>Salmo gairdneri</u> , rainbow trout	0	19
<u>Salmo salar</u> , Atlantic salmon	0	3
<u>Salmo trutta</u> , brown trout	3	88
<u>Salvelinus fontinalis</u> , brook trout	1	122
<u>Salvelinus namaycush</u> , lake trout	0	19
<u>Osmerus mordax</u> , rainbow smelt	323	331
<u>Umbra limi</u> , central mudminnow	6	7
<u>Umbra pygmaea</u> , eastern mudminnow	3	19
<u>Esox americanus americanus</u> , redbreast pickerel	9	135
<u>Esox lucius</u> , northern pike	3	40
<u>Esox niger</u> , chain pickerel	11	164
<u>Snyodus foetens</u> , inshore lizardfish	2	2
<u>Campostoma anomalum</u> , central stoneroller	0	22
<u>Carassius auratus</u> , goldfish	293	300
<u>Cyprinus carpio</u> , common carp	79	114
<u>Exoglossum maxillingua</u> , cutlips minnow	9	250
<u>Hybognathus hankinsoni</u> , brassy minnow	1	8
<u>Hybognathus regius</u> , eastern silvery minnow	19	48
<u>Notemigonus crysoleucas</u> , golden shiner	247	383
<u>Notropis amoenus</u> , comely shiner	0	1
<u>Notropis analostanus</u> , satinfish shiner	3	11
<u>Notropis atherinoides</u> , emerald shiner	4	6
<u>Notropis bifrenatus</u> , bridle shiner	1	5
<u>Notropis cornutus</u> , common shiner	5	325
<u>Notropis hudsonius</u> , spottail shiner	667	740
<u>Notropis rubellus</u> , rosyface shiner	0	24
<u>Notropis spilopterus</u> , spotfin shiner	19	77
<u>Phoxinus eos</u> , northern redbelly dace	0	5

<u>Pimephales notatus</u> , bluntnose minnow	1	46
<u>Pimephales promelas</u> , fathead minnow	4	32
<u>Rhinichthys atratulus</u> , blacknose dace	7	160
<u>Rhinichthys cataractae</u> , longnose dace	2	124
<u>Rhodeus sericeus</u> , bitterling	0	4
<u>Scardinius erythrophthalmus</u> , rudd	1	5
<u>Semotilus atromaculatus</u> , creek chub	6	170
<u>Semotilus corporalis</u> , fallfish	9	141
<u>Semotilus margarita</u> , pearl dace	0	3
<u>Catostomus catostomus</u> , longnose sucker	0	17
<u>Catostomus commersoni</u> , white sucker	65	329
<u>Erimyzon oblongus</u> , creek chubsucker	1	61
<u>Hypentelium nigricans</u> , northern hog sucker	2	20
<u>Ictalurus catus</u> , white catfish	432	448
<u>Ictalurus natalis</u> , yellow bullhead	2	21
<u>Ictalurus nebulosus</u> , brown bullhead	188	455
<u>Noturus gyrinus</u> , tadpole madtom	0	11
<u>Percopsis omiscomaycus</u> , trout-perch	3	36
<u>Enchelyopus cimbrius</u> , fourbeard rockling	3	3
<u>Merluccius bilinearis</u> , silver hake	3	3
<u>Microgadus tomcod</u> , Atlantic tomcod	471	475
<u>Urophycis chuss</u> , red hake	7	8
<u>Urophycis regia</u> , spotted hake	2	2
<u>Strongylura marina</u> , Atlantic needlefish	32	39
<u>Fundulus diaphanus</u> , banded killifish	462	589
<u>Fundulus heteroclitus</u> , mummichog	66	79
<u>Fundulus majalis</u> , striped killifish	0	2
<u>Membras martinica</u> , rough silverside	11	13
<u>Menidia beryllina</u> , inland silverside	11	24
<u>Menidia menidia</u> , Atlantic silverside	39	41
<u>Apeltes quadracus</u> , fourspine stickleback	78	92
<u>Culaea inconstans</u> , brook stickleback	1	20
<u>Gasterosteus aculeatus</u> , threespine stickleback	67	68
<u>Pungitius pungitius</u> , ninespine stickleback	0	1
<u>Fistularia tabacaria</u> , bluespotted cornetfish	1	1
<u>Hippocampus erectus</u> , lined seahorse	1	1
<u>Syngnathus fuscus</u> , northern pipefish	23	28
<u>Morone americana</u> , white perch	1302	1347
<u>Morone chrysops</u> , white bass	17	17
<u>Morone saxatilis</u> , striped bass	490	507
<u>Centropristis striata</u> , black sea bass	3	3
<u>Ambloplites rupestris</u> , rock bass	15	168
<u>Enneacanthus gloriosus</u> , bluespotted sunfish	1	20
<u>Lepomis auritus</u> , redbreast sunfish	167	407
<u>Lepomis cyanellus</u> , green sunfish	0	2
<u>Lepomis gibbosus</u> , pumpkinseed	624	884
<u>Lepomis gulosus</u> , warmouth	1	3
<u>Lepomis macrochirus</u> , bluegill	188	246
<u>Lepomis sp.</u>	21	28
<u>Micropterus dolomieu</u> , smallmouth bass	6	166
<u>Micropterus salmoides</u> , largemouth bass	69	87
<u>Pomoxis annularis</u> , white crappie	5	5
<u>Pomoxis nigromaculatus</u> , black crappie	37	43
<u>Etheostoma olmstedi</u> , tessellated darter	391	496
<u>Perca flavescens</u> , yellow perch	157	261
<u>Percina caprodes</u> , logperch	3	14

<u>Percina peltata</u> , shield darter	1	10
<u>Stizostedion vitreum</u> , walleye	0	6
<u>Pomatomus saltatrix</u> , bluefish	65	80
<u>Echeneis naucrates</u> , sharksucker	1	1
<u>Caranx hippos</u> , crevalle jack	20	20
<u>Decapterus macarellus</u> , mackerel scad	1	1
<u>Selene setapinnis</u> , Atlantic moonfish	2	2
<u>Selene vomer</u> , lookdown	7	7
<u>Stenotomus chrysops</u> , scup	1	1
<u>Bairdiella chrysoura</u> , silver perch	1	1
<u>Cynoscion regalis</u> , weakfish	50	50
<u>Leiostomus xanthurus</u> , spot	17	17
<u>Menticirrhus saxatilis</u> , northern kingfish	1	1
<u>Micropogonias undulatus</u> , Atlantic croaker	5	5
<u>Tautoga onitis</u> , tautog	1	1
<u>Mugil cephalus</u> , striped mullet	6	7
<u>Mugil curema</u> , white mullet	15	15
<u>Astroscopus guttatus</u> , northern stargazer	1	1
<u>Pholis gunnellus</u> , rock gunnel	1	1
<u>Ammodytes americanus</u> , American sand lance	1	1
<u>Dormitator maculatus</u> , fat sleeper	3	3
<u>Scomber scombrus</u> , Atlantic mackerel	1	1
<u>Peprilus triacanthus</u> , butterfly	2	2
<u>Prionotus carolinus</u> , northern searobin	4	4
<u>Prionotus evolans</u> , striped searobin	13	13
<u>Cottus cognatus</u> , slimy sculpin	0	30
<u>Myoxocephalus aeneus</u> , grubby	2	2
<u>Dactylopterus volitans</u> , flying gurnard	0	1
<u>Etropus microstomus</u> , smallmouth flounder	3	3
<u>Paralichthys dentatus</u> , summer flounder	31	31
<u>Paralichthys oblongus</u> , foruspot flounder	1	1
<u>Scophthalmus aquosus</u> , window pane	1	1
<u>Pseudopleuronectes americanus</u> , winter flounder	10	10
<u>Trinectes maculatus</u> , hogchoker	361	363
<u>Sphoeroides maculatus</u> , northern puffer	1	1
<u>Legocephalus laevigatus</u> , smooth puffer	1	1

Table 2. Specimens of Hudson River drainage fishes donated to the New York State Museum, Albany by Lawler, Matusky, Skelly Engineers.

Species	Number in Collection
<u>Petromyzon marinus</u> , Sea lamprey	3
<u>Acipenser brevirostrum</u> , Shortnose sturgeon	1
<u>Acipenser oxyrhynchus</u> , Atlantic sturgeon	6
<u>Anguilla rostrata</u> , American eel	360
<u>Alosa aestivalis</u> , blueback herring	566
<u>Alosa mediocris</u> , hickory shad	8
<u>Alosa pseudoharengus</u> , alewife	573
<u>Alosa sapidissima</u> , American shad	470
<u>Alosa</u> sp.	7
<u>Brevoortia tyrannus</u> , Atlantic menhaden	37
<u>Dorosoma cepedianum</u> , gizzard shad	160
<u>Anchoa mitchilli</u> , bay anchovy	206
<u>Anchoa</u> sp.	1
<u>Salmo trutta</u> , brown trout	1
<u>Osmerus mordax</u> , rainbow smelt	310
<u>Umbra limi</u> , central mudminnow	1
<u>Esox americanus americanus</u> , redfin pickerel	2
<u>Esox niger</u> , chain pickerel	2
<u>Carassius auratus</u> , goldfish	278
<u>Cyprinus carpio</u> , common carp	74
<u>Notemigonus crysoleucas</u> , golden shiner	254
<u>Notropis atherinoides</u> , emerald shiner	2
<u>Notropis hudsonius</u> , spottail shiner	661
<u>Notropis spilopterus</u> , spotfin shiner	1
<u>Pimephales promelas</u> , fathead minnow	1
<u>Catostomus commersoni</u> , white sucker	52
<u>Ictalurus catus</u> , white catfish	423
<u>Ictalurus natalis</u> , yellow bullhead	2
<u>Ictalurus nebulosus</u> , brown bullhead	157
<u>Merluccius bilinearis</u> , silver hake	1
<u>Microgadus tomcod</u> , Atlantic tomcod	449
<u>Urophycis chuss</u> , red hake	3
<u>Urophycis regia</u> , spotted hake	1
<u>Strongylura marina</u> , Atlantic needlefish	30
<u>Fundulus diaphanus</u> , banded killifish	435
<u>Fundulus heteroclitus</u> , mummichog	44
<u>Membras martinica</u> , rough silverside	9
<u>Menidia beryllina</u> , inland silverside	14
<u>Menidia menidia</u> , Atlantic silverside	16
<u>Apeltes quadracus</u> , fourspine stickleback	47
<u>Gasterosteus aculeatus</u> , threespine stickleback	64
<u>Syngnathus fuscus</u> , northern pipefish	21
<u>Morone americana</u> , white perch	1280
<u>Morone chrysops</u> , white bass	13
<u>Morone saxatilis</u> , striped bass	447
<u>Ambloplites rupestris</u> , rock bass	6
<u>Lepomis auritus</u> , redbreast sunfish	168
<u>Lepomis gibbosus</u> , pumpkinseed	627
<u>Lepomis gulosus</u> , warmouth	1
<u>Lepomis macrochirus</u> , bluegill	193
<u>Lepomis</u> sp.	24
<u>Micropterus dolomieu</u> , smallmouth bass	1

<u>Micropterus salmoides</u> , largemouth bass	64
<u>Pomoxis annularis</u> , white crappie	2
<u>Pomoxis nigromaculatus</u> , black crappie	34
<u>Etheostoma olmstedii</u> , tessellated darter	395
<u>Perca flavescens</u> , yellow perch	149
<u>Pomatomus saltatrix</u> , bluefish	72
<u>Caranx hippos</u> , crevalle jack	16
<u>Selene vomer</u> , lookdown	2
<u>Cynoscion regalis</u> , weakfish	46
<u>Leiostomus xanthurus</u> , spot	14
<u>Micropogonias undulatus</u> , Atlantic croaker	1
<u>Mugil cephalus</u> , striped mullet	2
<u>Mugil curema</u> , white mullet	8
<u>Scomber scombrus</u> , Atlantic mackerel	1
<u>Prionotus evolans</u> , striped searobin	1
<u>Paralichthys dentatus</u> , summer flounder	26
<u>Pseudopleuronectes americanus</u> , winter flounder	8
<u>Trinectes maculatus</u> , hogchoker	344

Table 3. Specimens of fishes collected from the Hudson River during the 1936 watershed survey of the New York State Conservation Department now kept at the New York State Museum.

Species	Number in Collection
<u>Acipenser brevirostrum</u> , Shortnose sturgeon	2
<u>Acipenser oxyrhynchus</u> , Atlantic sturgeon	21
<u>Anguilla rostrata</u> , American eel	56
<u>Alosa aestivalis</u> , blueback herring	10
<u>Alosa mediocris</u> , hickory shad	5
<u>Alosa pseudoharengus</u> , alewife	35
<u>Alosa sapidissima</u> , American shad	72
<u>Alosa</u> sp.	13
<u>Brevoortia tyrannus</u> , Atlantic menhaden	21
<u>Clupea harengus harengus</u> , Atlantic herring	1
<u>Anchoa mitchilli</u> , bay anchovy	12
<u>Salmo trutta</u> , brown trout	1
<u>Osmerus mordax</u> , rainbow smelt	4
<u>Esox americanus americanus</u> , redfin pickerel	3
<u>Carassius auratus</u> , goldfish	3
<u>Cyprinus carpio</u> , common carp	4
<u>Hybognathus regius</u> , eastern silvery minnow	15
<u>Notemigonus crysoleucas</u> , golden shiner	7
<u>Notropis cornutus</u> , common shiner	1
<u>Notropis hudsonius</u> , spottail shiner	8
<u>Notropis spilopterus</u> , spotfin shiner	9
<u>Rhinichthys atratulus</u> , blacknose dace	1
<u>Semotilus atromaculatus</u> , creek chub	1
<u>Semotilus corporalis</u> , fallfish	4
<u>Catostomus commersoni</u> , white sucker	10
<u>Erimyzon oblongus</u> , creek chubsucker	1
<u>Ictalurus catus</u> , white catfish	8
<u>Ictalurus nebulosus</u> , brown bullhead	16
<u>Microgadus tomcod</u> , Atlantic tomcod	11
<u>Strongylura marina</u> , Atlantic needlefish	7
<u>Fundulus diaphanus</u> , banded killifish	47
<u>Fundulus heteroclitus</u> , mummichog	25
<u>Menidia beryllina</u> , inland silverside	5
<u>Menidia menidia</u> , Atlantic silverside	22
<u>Apeltes quadracus</u> , fourspine stickleback	29
<u>Gasterosteus aculeatus</u> , threespine stickleback	1
<u>Syngnathus fuscus</u> , northern pipefish	2
<u>Morone americana</u> , white perch	17
<u>Morone saxatilis</u> , striped bass	48
<u>Ambloplites rupestris</u> , rock bass	1
<u>Lepomis auritus</u> , redbreast sunfish	30
<u>Lepomis gibbosus</u> , pumpkinseed	20
<u>Lepomis macrochirus</u> , bluegill	2
<u>Micropterus dolomieu</u> , smallmouth bass	5
<u>Etheostoma olmstedii</u> , tessellated darter	8
<u>Perca flavescens</u> , yellow perch	5
<u>Percina peltata</u> , shield darter	1
<u>Pomatomus saltatrix</u> , bluefish	5
<u>Paralichthys dentatus</u> , summer flounder	1
<u>Trinectes maculatus</u> , hogchoker	1



Table 4. Specimens of fishes collected from the lower Hudson River drainage during the 1936 watershed survey of the New York State Conservation Department now kept at the New York State Museum.

Species	Number in Collection
<u>Petromyzon marinus</u> , Sea lamprey	2
<u>Acipenser brevirostrum</u> , Shortnose sturgeon	2
<u>Acipenser oxyrhynchus</u> , Atlantic sturgeon	21
<u>Anguilla rostrata</u> , American eel	77
<u>Alosa aestivalis</u> , blueback herring	13
<u>Alosa mediocris</u> , hickory shad	5
<u>Alosa pseudoharengus</u> , alewife	41
<u>Alosa sapidissima</u> , American shad	73
<u>Alosa</u> sp.	17
<u>Brevoortia tyrannus</u> , Atlantic menhaden	21
<u>Clupea harengus harengus</u> , Atlantic herring	1
<u>Anchoa mitchilli</u> , bay anchovy	12
<u>Coregonus clupeaformis</u> , lake whitefish	1
<u>Salmo gairdneri</u> , rainbow trout	12
<u>Salmo trutta</u> , brown trout	34
<u>Salvelinus fontinalis</u> , brook trout	21
<u>Salvelinus namaycush</u> , lake trout	4
<u>Osmerus mordax</u> , rainbow smelt	5
<u>Umbra pygmaea</u> , eastern mudminnow	14
<u>Esox americanus americanus</u> , redfin pickerel	111
<u>Esox niger</u> , chain pickerel	77
<u>Carassius auratus</u> , goldfish	5
<u>Cyprinus carpio</u> , common carp	5
<u>Exoglossum maxilingua</u> , cutlips minnow	93
<u>Hybognathus regius</u> , eastern silvery minnow	32
<u>Notemigonus crysoleucas</u> , golden shiner	70
<u>Notropis analostanus</u> , satinfin shiner	1
<u>Notropis bifrenatus</u> , bridle shiner	3
<u>Notropis cornutus</u> , common shiner	86
<u>Notropis hudsonius</u> , spottail shiner	16
<u>Notropis spilopterus</u> , spotfin shiner	39
<u>Rhinichthys atratulus</u> , blacknose dace	62
<u>Rhinichthys cataractae</u> , longnose dace	61
<u>Rhodeus sericeus</u> , bitterling	4
<u>Scardinius erythrophthalmus</u> , rudd	3
<u>Semotilus atromaculatus</u> , creek chub	27
<u>Semotilus corporalis</u> , fallfish	95
<u>Catostomus commersoni</u> , white sucker	165
<u>Erimyzon oblongus</u> , creek chubsucker	60
<u>Ictalurus catus</u> , white catfish	8
<u>Ictalurus natalis</u> , yellow bullhead	13
<u>Ictalurus nebulosus</u> , brown bullhead	100
<u>Noturus gyrinus</u> , tadpole madtom	7
<u>Percopsis omiscomaycus</u> , trout-perch	4
<u>Microgadus tomcod</u> , Atlantic tomcod	11
<u>Strongylura marina</u> , Atlantic needlefish	7
<u>Fundulus diaphanus</u> , banded killifish	106
<u>Fundulus heteroclitus</u> , mummichog	30
<u>Menidia beryllina</u> , inland silverside	5
<u>Menidia menidia</u> , Atlantic silverside	24
<u>Apeltes quadracus</u> , fourspine stickleback	32

<u>Gasterosteus aculeatus</u> , threespine stickleback	1
<u>Syngnathus fuscus</u> , northern pipefish	2
<u>Morone americana</u> , white perch	17
<u>Morone saxatilis</u> , striped bass	49
<u>Ambloplites rupestris</u> , rock bass	57
<u>Enneacanthus gloriosus</u> , bluespotted sunfish	19
<u>Lepomis auritus</u> , redbreast sunfish	165
<u>Lepomis cyanellus</u> , green sunfish	1
<u>Lepomis gibbosus</u> , pumpkinseed	174
<u>Lepomis gulosus</u> , warmouth	1
<u>Lepomis macrochirus</u> , bluegill	29
<u>Lepomis</u> sp.	3
<u>Micropterus dolomieu</u> , smallmouth bass	72
<u>Micropterus salmoides</u> , largemouth bass	11
<u>Pomoxis nigromaculatus</u> , black crappie	3
<u>Etheostoma olmstedii</u> , tessellated darter	28
<u>Perca flavescens</u> , yellow perch	52
<u>Percina caprodes</u> , logperch	2
<u>Percina peltata</u> , shield darter	8
<u>Pomatomus saltatrix</u> , bluefish	5
<u>Cottus cognatus</u> , slimy sculpin	3
<u>Paralichthys dentatus</u> , summer flounder	1
<u>Trinectes maculatus</u> , hogchoker	1