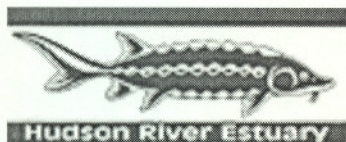


Nearshore fish communities of the mid-Hudson River estuary, 1985-2006

Keith J. Dunton
Adrian Jordaan
David O. Conover

Marine Sciences Research Center
State University of New York
Stony Brook, New York 11794-5000

Participating Agencies:



*NYS Department of
Environmental Conservation*

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D. Conover
Dean and Director

Abstract

In the 2006, 221 seine hauls were completed in the young-of-the-year (YOY) striped bass survey in the Hudson River. A total of 2,265 YOY striped bass were captured, resulting in a geometric mean catch per unit effort (CPUE) of 8.32 fish/haul. The Hudson River index of YOY striped bass abundance, based on the geometric mean CPUE of the 6-week survey, was 3.82 fish/haul. This catch rate was lower than the average historical geometric mean CPUE of 13.87 fish/haul. YOY striped bass grew at an estimated 0.67 mm/day between mid-July and the beginning of September. Catches of bluefish, American shad, and blueback herring were the lowest recorded within the historical records, while catches of American eel, winter flounder, and silversides sp. were the second lowest CPUE within the historical record. YOY white perch, alewife, and blue crabs were near historical lows. Bay anchovies were the most abundant fish, followed by silverside sp. and white perch. Air and water temperatures during the survey were near the historical average. Salinity was below normal in weeks 1, 2, 8 and 9.

Introduction

The striped bass (*Morone saxatilis*) is an anadromous species spawning in large river systems. Its native range extends from the St. Lawrence River, Nova Scotia, Canada to the St. Johns River, Florida (Scott and Scott 1988). Recent estimates indicate that Chesapeake Bay populations contribute 75% of the coast-wide stock, with the Hudson River and Delaware Bay contributing 15 and 10% respectively (K. McKown, NYS DEC, personal communication). Spawning occurs in the region above the salt wedge in the spring when river temperatures rise above 12 °C. The semi-buoyant eggs and larvae drift down into the low salinity regions of the estuary. During the first summer of life, Hudson River striped bass reside in nearshore regions throughout the estuary and in coastal marine embayments (Boreman et al. 1988; McKown and Gelardi 2000). In the autumn, striped bass migrate to higher salinities in the lower estuary, the only known concentration area for over-wintering YOY fish (Dovel 1992). Striped bass were introduced to the Pacific coast in the late 1800's, where several sustaining populations have become established. Striped bass have also been introduced as a sport fish into reservoirs throughout the southern United States (Smith 1985).

Historically, this species has supported important commercial and recreational fisheries along the east coast of North America (Merriman 1941; Boreman and Austin 1985). Catches in the coast-wide commercial fishery reached a peak in 1973 at 5.98 metric tons (mt), declining rapidly thereafter to below 2 mt/year by the late 1970's (NMFS 1999). The Atlantic States Marine Fisheries Commission implemented a management strategy aimed at protecting the last successful year class (1982) in the Chesapeake Bay from harvest. Moratoria on commercial harvest of striped bass were issued for Maryland and Delaware waters. Following a strong recruitment event into the Chesapeake Bay population in 1989, a limited fishery was re-established. Continued improvement in recruitment to the Chesapeake Bay population has allowed increases in harvest levels in recent years (Richards and Rago 1999). Since the late 1970's improvements in water quality in the Delaware River have allowed the increased production of striped bass in that system (Weisberg et al. 1996). The commercial fishery in the Hudson River was closed and recreational harvest restricted in 1976 due to concerns over high levels of poly-chlorinated biphenols (PCBs) in fish flesh (NMFS 1999). An initiative to allow a

limited commercial harvest of striped bass as part of the American shad fishery has been discussed, but not implemented (DEC 1999).

Indices of the abundance of early life stages of striped bass, to monitor annual recruitment patterns, have been developed for several east coast populations, including the main tributaries to the Chesapeake Bay and the Hudson River (Goodyear 1985; McKown 1991; Heimbuch et al. 1992). The use of these indices as predictors of future population size is based on the assumption that recruitment level is determined prior to the life-stage surveyed (Bradford 1992). Goodyear (1985) validated the Maryland Department of Natural Resources YOY index based on its relationship to fishery harvests when those year-classes entered the fishery. Based on this result, a number of studies have been conducted to determine the factors regulating survival during the larval phase in the Chesapeake Bay population (Uphoff 1989; Secor and Houde 1995; McGovern and Olney 1996). The index of YOY abundance in the Hudson River population was correlated with the abundance of age-1 fish, indicating its utility in predicting recruitment (McKown 1991).

A more recent analysis, which incorporates a longer time series, found that the abundance of age-1 fish is influenced by the severity of winter (Hurst and Conover 1998). Mortality of over-wintering YOY striped bass in the Hudson River and Miramichi populations has been shown to be size-selective against smaller fish (Bradford and Chaput 1997; Hurst and Conover 1998). These analyses suggest that the first winter of life may play an important role in the recruitment dynamics of these northern populations. We will provide the CPUE data for age-1 striped bass as to assist with determining overall recruitment trends.

Here we present the results of the 2006 young-of-the-year survey for the Hudson River population of striped bass and compare the results to previous years. Because of the advancement of ecosystem-based management, catch data for all species captured during the survey is included. Detailed catch data and size-distributions are included for a number of other commercially valuable species as well.

Methods

The survey is conducted between mid-July and early November in the Haverstraw-Tappan Zee region of the Hudson River (river miles 23-42; Figure 1). Within this stretch of river,

25 sites are sampled bi-weekly, 9 times. The 25 sites sampled during each bi-weekly survey, are chosen from 36 potential fixed stations based on prevailing conditions (wind direction, speed and tide stage). Prior to 1985, stations were sampled 6 times between late August and early November. A subset of data from 1985 to 2006, covering the same period, is used to compare with data from 1980 to 1984.

Fish collections are made with a 200 foot x 10 foot (12 foot depth in the bag) beach seine with 1/4 inch square mesh in the wings and 3/16 inch square mesh in the bag (61 m x 3 m with 6 mm wing mesh and 5 mm bag mesh), set by boat. The performance of the sampling gear and representation of the catch was rated for each set of the gear. Following each collection, measurements of air temperature, water temperature, dissolved oxygen, and salinity were made in the immediate vicinity of the gear set, using a YSI Model 85 probe. Environmental parameters such as wind direction and speed, tidal stage, wave height, cloud cover, and precipitation were recorded. The types of any aquatic vegetation in the vicinity of the sampling site were recorded and the spatial coverage of vegetation at the site was estimated. While some sites were generally sampled at a particular tidal stage or time of day, due to accessibility, others were sampled at all tidal stages and times of day.

All fish captured were sorted by species (where feasible young-of-the-year fish were counted separately from older fish) counted and returned to the water. In the case of extremely high catch rates, a volumetric sub-sampling procedure was used to estimate catches of individual species. Young-of-the-year and older blue crabs were the only invertebrates counted. The occurrence of shrimp and gelatinous zooplankton captured in each set of the net was noted, with a visual estimate of abundance. Up to 50 YOY striped bass, and all older striped bass, were measured from each haul. In addition, up to 30 individuals each of bluefish, crevalle jack, weakfish, summer flounder, winter flounder, Atlantic tomcod, American eel, American shad, alewife, blueback herring, and Atlantic menhaden were measured (mm TL) from each collection. Atlantic silversides and YOY white perch were measured periodically throughout sampling. All measurements were made in the field and fish were returned to the water at the site of capture.

Scales were removed from above the lateral line between the first and second dorsal fins, from all striped bass larger than 110 mm TL. These scales were pressed into acetate at 180 °C and 2000 lbs./foot². The age of all fish larger than 110 mm was determined by visual analysis of

the acetate impression of multiple scales, under magnification.

All captured striped bass larger than 170 mm TL were tagged as part of the United States Fish and Wildlife Service coast-wide tagging program. Tags were individually numbered floy type tags with 6.5 x 19.25 mm oval anchor and 91 mm streamer. A few scales were removed from the fish, half way between the pectoral and anal fin, an incision was made through the body wall, and the tag anchor was inserted into the body cavity.

Results and Discussion

During the 2006 sampling season, 221 beach seines were collected in 9 sampling trips conducted between July 18th and November 8th. During this sampling, a total of 22,265 fish were collected (Figure 2). This was 1,206 greater than the lowest catch of 2,1449 in 1980, making it the second lowest catch on record. In the survey years with 9 sampling weeks, this was the lowest annual year. Striped bass have not experienced the same decline as the other species (Figure 2). The number of blue crabs increased to 406, compared to 314 in 2005. Of the 22,265 fish caught 2,233 were young-of-the-year striped bass and only 60 were older striped bass.

Environmental conditions

Weekly average water temperatures increased in the first two weeks of the sampling season, with a high of 30.1 °C on August 1 (Table 1; Figure 3). Water temperatures after the second week declined throughout the sampling season with a low of 11.2 °C on November 8 (Table 1; Figure 3). Air temperatures also generally decreased during the sampling season, ranging from 35.7 to 12.3°C. Both air and water temperatures followed the historical averages (Table 1; Figure 3). Salinity in the Lower Hudson River started out on July 11th near the historic average of 5.4 ppt, with an average of 3.5 ppt. Salinity subsequently remained near the historic average for the first 6 weeks of sampling where it declined suddenly in week 7, where the lowest salinity of 0.8 ppt was recorded after a significant rainfall event. Salinity was lower than historical averages for weeks 1, 2, 8 and 9 (Table 1; Figure 3). Weekly average of dissolved oxygen levels ranged between 5.53 and 8.92 mg/L throughout the sampling season, and did not show any distinct seasonal pattern.

Species composition

Forty-two different species of fish were captured in the Hudson River during the 2006 sampling season. Fish catches varied throughout the sampling period without a seasonal trend. Catches peaked in sampling week 3 (August 17) with 5,769 fish and week 5 (September 19) with 4,919 fish. The large catch from sampling week 3 was dominated by bay anchovies, while the catch from sampling week 5 was dominated by bay anchovies and silversides. The lowest catches were observed in sampling weeks 8 (October 25-26) and 9 (November 8) with 681 and 120 fish caught in those sampling weeks respectively. Bay Anchovy (9,120), silversides (3,453 fish), white perch (2,801), Atlantic menhaden (2,636), and striped bass (2,293 fish) were the most abundant species in 2006. These five species represented a total of 89.61% of the total catch. Catch composition during the 2006 sampling season is compared to historical catch composition in Tables 3, 4, and 5. Detailed catch information on selected species is presented below.

Striped bass, *Morone saxatilis*

During the 2006 sampling season 2,233 YOY striped bass were captured in 221 hauls, with a mean CPUE of 10.10 and a geometric mean CPUE of 4.84 (Table 6). Between 1980 and 1985, catch data was collected in a period corresponding to the last 6 weeks of the 2006 sampling season. In order to compare 2006 catch data with results obtained previous to 1985, the statistics on the final 6 weeks of catch data for 2006 is presented in Table 6 together with historical records. In the final six weeks, 1,232 YOY striped bass were captured in 148 hauls, resulting in a mean CPUE of 8.32 and a geometric mean CPUE of 3.82 (Figure 4). The 6-week geometric mean CPUE, used as the young-of-the-year striped bass index of relative abundance, was low in 2006 compared to previous years. It was much lower than the historical average of 13.87, is the lowest value within the last five years and the fourth lowest value on record. The 2006, 9-sampling week geometric mean of 4.84 was also much lower than the historical average of 19.16 (Table 6). This is lowest value within the last nineteen years and the third lowest value on record.

Catch-per-unit-effort of YOY striped bass peaked during the second week of the survey

at 23.04 fish/haul, which was similar to 2003. The lowest catch rate of 1.88 fish/haul was reached during the final week of the survey. In 2001, 2002, 2004, and 2005 catch rates peaked late in weeks 4 and 5. Catch patterns similar to that of 2001, 2002, 2004 and 2005 with peak catch rates in week 4 or 5 of the survey, were also observed in 1987, 1997, and 1999. The reason for the late peak in catch rate observed during some years is unknown. It has been hypothesized that YOY striped bass, recruiting to the western Long Island bays early in the summer migrate back to the Hudson River nursery area later in the year. However, when comparing catch records in the western Long Island bays and the Hudson River, this hypothesis is not supported by observations. Only after 2001 have YOY striped bass been observed in sufficient numbers from the Western Long Island Beach Seine Survey to potentially affect the abundance of striped bass in the Hudson River survey. Furthermore, years of high abundance recorded in western Long Island bays does not correspond to the years in the Hudson River with peak catch rates occurring late in the year (Brischler, 2004).

Catch-per-unit-effort of YOY striped bass varied considerably across sites in 2006 (Table 7). The sites with the highest CPUE, 7EW and 7W captured 38.7 fish/haul and 22.9 fish/haul respectively. Station 11E, had the lowest catch rates of 1.3 fish/haul (Table 7). The distribution of catch among sites observed in 2006, was generally consistent with previous years. Annual catch-per-unit-effort data for the full 9-week survey and the 6-week subset, are shown in Tables 8 and 9.

Total length measurements were made on 1,984 YOY striped bass during the 9-week survey. Striped bass ranged in size from 22 to 140 mm. The bi-weekly size-frequency distributions of YOY striped bass are shown in Table 10. Mean bi-weekly lengths of YOY striped bass, captured during the 2006 sampling season are compared to previous years in Table 11. Mean lengths of measured fish increased through the first five sampling weeks, and were relatively stable thereafter (Figure 5). The apparent cessation of growth in YOY striped bass, based on observed fish lengths has been observed in most years of the study, and may in part be due to a size-dependent emigration from the nursery area to the lower estuarine wintering grounds. The alternative explanation is that growth ceases because of limited availability of food. Growth rate of YOY striped bass in the 2006 cohort, estimated from the regression of mean total length against date, was 0.67 mm/day through the first 5 weeks of the survey. This is in the

lower range of the mean growth rates observed. Annual cohort growth rates ranged from 0.46 mm/day in 1990 to 0.90 mm/day in 1999 (Figure 6). In an analysis of historical data, Hurst (2000) found that body sizes of YOY striped bass in August and October were negatively related to density in the nursery area suggesting density dependent growth.

The age composition of striped bass captured between 1985 and 2006 is shown in Table 12. During the 9-week survey, 60 striped bass aged 1 to 2 were captured and ranged in length from 100-245 mm TL (Table 13). Older striped bass were most abundant at site 7W where CPUE was 0.6 (Table 14). Eight of the yearling striped bass, ranging in length from 174 to 245 mm, were tagged with internal anchor tags as part of the United States Fish and Wildlife Service coast-wide tagging program. The age 1+ striped bass CPUE was the fourth lowest value in the past 21 years and the last 4 years of data have been all well below the long-term running average (Figure 7).

White perch, *Morone americana*

In 2006, a total of 2,891 white perch were captured. White perch were classified as either young-of-the-year or older, based on observed size-distribution among the catch. Of the white perch captured, 793 were YOY and 2,098 were age-1 or older. Young-of-the-year white perch were most abundant at sites 12W (Table 15). Catch-per-unit-effort of YOY white perch was highest in week 2 (11.64 fish per haul), and lowest in week 9 (0.13 fish per haul). Older white perch were most abundant at site 8E (Table 16). This was mainly due to an isolated catch of 659 older white perch. During the sampling season catch-per-unit-effort of older white perch was highest in week 6 (30.64 fish per haul; due to reasons stated above) and lowest in weeks 8 and 9 (0.25 fish per haul; Table 16), a trend that is also shown in the length frequency distribution (Table 17).

Through the entire study period, the highest mean catch rates of YOY white perch were 75.75 fish per haul in 1988 and 37.89 fish per haul in 1986 (Figure 8). Catch rates of less than 2 fish per haul occurred in 1995 and 1997. In 2006, mean catch rates of YOY white perch were 3.59 fish per haul. This catch rate is equivalent to historically low catch rates found from 1990 to 1998. The reasons for the low catch rates are unknown. Catch rate has slightly increased from last year but catches still remain well below the historical average of 13.56 fish per haul (Figure

5). Catch rates of older white perch increased in 2006 to 9.49 fish per haul (Figure 8). This value is much higher than the two previous reported years and is just below the historical average of 12.56 fish per haul (Figure 8).

Atlantic tomcod, *Microgadus tomcod*

During the 2006 sampling season, a total of 2 Atlantic tomcod were captured for a CPUE of 0.01 fish per haul (Table 18a,b; Figure 8). The CPUE was also low in 1991, 1993, 1994, 1995, 1999 and 2002. In those years, catch rates were as low as 0.019 fish per haul. High catches of 2.64 and 2.30 fish per haul were observed in 1988 and 1998 respectively (Figure 8).

American eel, *Anguilla rostrata*

In 2006, a total of 24 American eel were captured during sampling. The highest catch rate of nine fish was observed at site 12W (Table 19). The catch rate of 0.10 eels per haul was the second lowest recorded catch per unit effort within the historical records (Figure 9), with last year being the lowest on record. The highest catches (0.78 fish per haul) occurred in 1988. American eel ranged in length from 92 to 665 mm TL, with an overall mean length of 209.5 mm. The bi-weekly size-frequency distributions of American eel are shown in Table 20.

Bluefish, *Pomatomus saltatrix*

In 2006, 221 YOY bluefish were captured. The bluefish spring-spawned cohort was present in the catches from week 1 to week 8, while the summer-spawned cohort was only observed in weeks 3,5, and 6 (Table 22). The mean CPUE was 0.46 fish per haul in 2006 (Table 21, Figure 6). This was the lowest CPUE on record (Figure 9). Catch rates of YOY bluefish have been declining since 2001 (Figure 8). CPUE in 2001 (4.14 fish per haul) was the 4th highest CPUE effort recorded, CPUE in 2002, 2003, 2004, and 2005 were 2.9, 1, 0.79 and, 0.66 fish per haul, respectively (Figure 9). The highest bluefish abundances ever observed was in 1999 (Figure 8) with a CPUE of 13.76 fish per haul. Bluefish captured in 2006 ranged in length from 54 to 270 mm TL (Table 22). Based on the size-frequency distributions (Table 22), spring spawned bluefish were more abundant than the summer spawned bluefish. The spring cohort is spawned in the South Atlantic Bight in March-April, and the summer cohort is spawned in the

Mid-Atlantic Bight in June-July (Munch and Conover 2000).

Winter flounder, *Pleuronectes americanus*

In 2006, a total of eight winter flounder were caught during week 4-7. This was the second lowest CPUE (0.03 fish per haul) on record for the history of this survey (Figure 9). The previous historical extreme low CPUE (0.01 fish per haul) was observed last year (Figure 9). The highest catch rates recorded were observed in 1985 with a CPUE of 2.52 fish per haul (Figure 9). The winter flounder lengths ranged from 62-106mm TL. The bi-weekly size-frequencies are shown in Table 24.

American shad, *Alosa sapidissima*

In 2006, 14 American shad were captured. This is the lowest CPUE (0.06 fish/haul) on record for the history of this survey. Weekly CPUE of American shad was highest (0.25 fish per haul) in week 2 of sampling. The CPUE of American shad in 2005 (0.67 fish per haul) was the second lowest CPUE recorded for American shad (Figure 10). The highest catch rate (22.3 fish per haul) was observed in 1986 while the lowest catch rate (0.439 fish per haul) was recorded in 1998 (Figure 10). American shad ranged from 73-125 mm TL, with a mean length of 93.2 mm (Table 26).

Alewife, *Alosa pseudoharengus*, and Blueback herring, *Alosa aestivalis*

During the 2006 sampling, 30 alewife and 86 blueback herring were captured (Table 27 and 29). Alewife ranged in length from 43-113 mm TL, with a mean of 76.73 mm (Table 28). Blueback herring measured 30-115 mm TL with a mean length of 55.16 mm TL (Table 30). Catches of blueback herring are the lowest CPUE on record, yielding 0.39 fish/haul (Figure 10). Catches of Alewife were also well below the average CPUE of 0.93 fish/haul and the fifth lowest CPUE on record, 0.14 fish per haul (Figure 10).

Atlantic menhaden, *Brevoortia tyrannus*

During the 2006 sampling, 3,170 Atlantic menhaden were captured with a mean CPUE of

14.34 fish per haul (Table 31, Figure 11). One high catch of 2,194 Atlantic menhaden occurred within week one at station 7EE (Table 31). Measured Atlantic menhaden ranged from 29 to 335 mm TL with a mean of 91.79 mm TL (Table 32).

Silverside species, *Menidia sp.*

During the 2006 sampling, 3,175 silversides were caught. The mean CPUE of 2005 was 14.37 fish per haul. This CPUE is the second lowest in the history of this survey (Figure 11.) Annual catch rates of Atlantic silversides in the survey have been extremely variable, ranging from 7.9 fish per haul in 1989 to 191.9 fish per haul in 1994. In 2006, 1,589 silversides were measured and they ranged in length from 30 to 116 mm TL with a mean of 80.58 mm (Table 35). It should also be noted that one Rough silverside (*Membras martinica*) was captured and properly identified.

Blue crab, *Callinectes sapidus*

During sampling in 2006, 406 blue crabs were captured. Of the total crabs captured 287 were YOY blue crabs while 119 were older blue crabs. YOY blue crabs were most abundant at sites 11W and while older blue crabs were most abundant at 12E (Tables 35 and 36). Catch rates peaked in weeks 5 and 1 for YOY and older blue crab respectively. Prior to 1998, no distinction was made between YOY and older crabs, so the time trend of catch rates is presented for the total numbers of blue crabs. Catch rate in 2006 was 1.83 crabs per haul, which is below the average of the 22 year time series. The 2006 catch rate was slightly higher than the catch rate of 1.42 crabs per haul recorded in the 2005 season and 0.90 crabs per haul recorded in the 2004 season (Figure 11).

Conclusions

Catch composition during the 2006 Hudson River beach seine sampling season was generally consistent with previous years. Bay anchovies were the most abundant fish, followed by silverside sp. and white perch. The 6-week YOY striped bass index of relative abundance was 3.82, which was significantly lower than the historical average of 13.87. Growth rates of

YOY striped bass, based on length frequency progression, was 0.67 mm/day. Catches of bluefish, American shad, and blueback herring were the lowest recorded within the historical records, while catches of American eel, winter flounder, and silversides sp. were the second lowest CPUE within the historical record. YOY white perch, alewife, and blue crabs were near historical lows. Possible causes and correlates to the low abundances of many species will be investigated over the next year.

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TABLE 1

2006 HUDSON RIVER ENVIRONMENTAL DATA

Dates	Week	Air Temperature				H2O Temperature			
		Avg	Std	Min	Max	Avg	Std	Min	Max
Jul. 18	1	34.93	3.04	30.00	42.00	27.86	4.60	7.90	32.80
Aug. 1	2	35.71	4.26	29.00	44.00	30.06	1.40	27.80	33.30
Aug.17	3	28.06	6.20	4.00	35.00	26.27	5.37	2.00	29.90
Aug. 30	4	23.46	3.23	19.00	28.00	24.28	0.84	22.20	25.50
Sept. 19	5	24.10	2.27	20.00	28.00	23.48	0.59	22.10	24.40
Sept. 27	6	20.50	3.90	14.50	30.00	21.07	0.89	18.80	22.90
Oct. 17	7	12.80	0.41	12.00	13.00	16.68	0.93	14.10	18.00
Oct.25-26	8	12.33	3.75	7.00	19.00	12.94	1.56	9.70	15.00
Nov.8	9	16.21	0.41	16.00	17.00	11.21	0.16	10.90	11.60

Dates	Week	Salinity				Dissolved Oxygen			
		Avg	Std	Min	Max	Avg	Std	Min	Max
Jul. 18	1	1.90	1.27	0.50	4.60	6.70	1.74	5.25	12.12
Aug. 1	2	1.06	0.77	0.30	2.70	7.95	2.04	5.53	13.30
Aug.17	3	5.32	2.04	1.00	9.10	6.94	2.36	1.00	12.60
Aug. 30	4	5.27	1.53	3.90	8.60	5.53	0.87	4.00	7.97
Sept. 19	5	4.02	1.07	2.50	6.90	6.30	1.22	3.42	8.69
Sept. 27	6	5.14	1.96	3.10	9.10	6.79	1.03	5.24	9.80
Oct. 17	7	2.96	1.19	1.70	5.30	7.43	0.40	6.86	8.19
Oct.25-26	8	0.62	0.56	0.20	2.00	8.32	1.79	0.70	10.02
Nov.8	9	0.17	0.12	0.10	0.50	8.92	0.40	8.30	9.82

TABLE 3

2006 HUDSON RIVER SPECIES COMPOSITION

Species	Age*	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Total	Total	CPUE	CPUE
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	Weeks 4 - 9	Weeks 1 - 9	Weeks 1 - 9	Weeks 4 - 9
Diadromous														
Alewife	99	3	0	16	0	0	0	0	10	1	11	30	0.14	0.07
American eel	99	6	5	3	0	2	3	3	2		10	24	0.11	0.07
American shad	99	0	6	2	0	4	0	0	1	1	6	14	0.06	0.04
Atlantic tomcod	99	0	0	0	0	0	2	0	0		2	2	0.01	0.01
Blueback herring	99	0	37	16	0	0		4	25	6	35	88	0.40	0.24
Striped bass	0	214	211	576	344	448	258	89	48	45	1232	2233	10.10	8.32
Striped bass	1	13	6	10	13	9	6	1	1	1	31	60	0.27	0.21
Estuarine														
Fourspine stickleback	99	0	0	0	0	1	0	0	1	1	3	3	0.01	0.02
Hogchoker	99	9	6	13	0	9	1	0	0	0	10	38	0.17	0.07
Killifish spp.	99	45	53	10	7	4	272	194	9	5	491	599	2.71	3.32
Threespine stickleback	99	0	0	0	1	0	0	0	0	0	1	1	0.00	0.01
White perch	0	28	43	291	162	158	71	24	13	3	431	793	3.59	2.91
White perch	1	313	210	397	190	155	766	47	6	14	1178	2098	9.49	7.96
Freshwater														
Bluegill	99	1	0	0	0	0	0	0	1	0	1	2	0.01	0.01
Brown bullhead catfish	99	1	1	4	0	0	0	1	0	0	1	7	0.03	0.01
Carp	99	1	0	0	0	0	2	0	1	2	5	6	0.03	0.03
Gizzard shad	99	0	0	0	2	0	0	0	1	0	3	3	0.01	0.02
Largemouth bass	99	0	0	0	0	0	1	0	0	0	1	1	0.00	0.01
Pumpkinseed	99	1	0	8	1	2	0	1	0	0	4	13	0.06	0.03
Smallmouth bass	99	0	0	3		2	0	1	0	1	4	7	0.03	0.03
Spottail shiner	99	3	2	4	1	4	0	2	3	30	40	49	0.22	0.27
Tesselated darter	99	1	0	0	1	0	0	0	0	0	1	2	0.01	0.01
White catfish	99	0	0	3	2	1	0	0	0	0	3	6	0.03	0.02
White crappie	99	2	0	0	0	0	0	0	0	0	0	2	0.01	0.00
Yellow perch	99	0	0	2	0	0	0	0	0	0	0	2	0.01	0.00
Marine														
Atlantic croaker	99	110	28	3	1	1	1	0	0	0	3	144	0.65	0.02
Atlantic menhaden	0	22	21	278	74	39	64	4	30	2	213	534	2.42	1.44
Atlantic menhaden	1	2305	0	139	2	190	0	0	0	0	192	2636	11.93	1.30
Atlantic needlefish	99	8	8	11	3	4	0	0	0	0	7	34	0.15	0.05
Bay anchovy	99	163	2	3267	1135	2646	1429	27	451	0	5688	9120	41.27	38.43
Bluefish	0	11	4	19	18	36	15	1	1	0	71	105	0.48	0.48
Crevalle jack	99	1	0	0	0	7	0	0	0	0	7	8	0.04	0.05
Naked Goby	99	0	0	1	0	2	0	0	0	0	2	3	0.01	0.01
Northern kingfish	99	0	0		2	2	0	2	0	0	6	6	0.03	0.04
Northern pipefish	99	6	1	3	5	12	20	11	3	0	51	61	0.28	0.34
Silverside spp.	99	44	13	679	536	1045	806	289	38	3	2717	3453	15.62	18.36
Spot	99	5	6	0	0	0	0	0	0	0	0	11	0.05	0.00
Striped mullet	99	0	7	0	7	0	0	0	0	0	7	14	0.06	0.05
Striped searobin	99	0	0	0	1	0	0	0	0	0	1	1	0.00	0.01
Summer flounder	99	1	0	0	0	0	0	0	0	1	1	2	0.01	0.01
White mullet	99	26	0	0	1	0	0	2	0	0	3	29	0.13	0.02
Winter flounder	0	0	0	0	2	3	1	2	0	0	8	8	0.04	0.05
Total Fish Catch		3343	670	5758	2511	4786	3718	705	645	116	12481	22252		
Invertebrate														
Blue crab	0	16	2	9	36	119	33	32	36	4	260	287	1.30	1.76
Blue crab	1	44	32	2	14	14	10	3	0	0	41	119	0.54	0.28
Total Invertebrate Catch		60	34	11	50	133	43	35	36	4	301	406	1.84	
Number of seines (n)		24	24	25	25	25	25	25	24	24	148	221		

* 0=Young-of-the-year; 1=Older; 99=age unknown

TABLE 6

HUDSON RIVER YOY STRIPED BASS ABUNDANCE INDEX

6 week survey

Year	Hauls	Catch	CPUE	StDev	Range	Zeros	Index	Confidence Intervals
1980	150	3586	23.91	57.47	0-547	34	6.10	4.53 - 8.11
1981	132	2830	21.44	42.37	0-346	11	8.71	6.81 - 11.08
1982	143	4362	30.50	48.02	0-285	8	14.13	11.32 - 17.57
1983	148	7108	48.03	110.69	0-1178	8	16.25	12.56 - 20.93
1984	146	5418	37.11	89.85	0-906	6	15.00	12.03 - 18.65
1985	146	562	3.85	5.72	0-31	53	1.85	1.42 - 2.36
1986	147	902	6.14	8.98	0-55	35	2.89	2.26 - 3.64
1987	150	9100	60.67	157.77	0-1333	13	15.90	11.98 - 21.01
1988	145	7584	52.30	45.10	0-205	2	33.46	27.89 - 40.10
1989	150	6291	41.94	57.84	0-537	4	21.35	17.23 - 26.41
1990	142	5392	37.97	43.50	0-240	2	19.08	15.31 - 23.72
1991	140	959	6.85	7.95	0-41	30	3.60	2.84 - 4.52
1992	146	2525	17.29	15.51	0-83	5	11.43	9.62 - 13.55
1993	150	3974	26.49	34.32	0-230	7	12.59	10.08 - 15.67
1994	146	4159	28.49	31.73	0-246	4	17.64	14.74 - 21.09
1995	147	4027	27.39	45.16	0-389	2	16.23	13.72 - 19.16
1996	134	1964	14.66	18.40	0-143	6	8.93	7.41 - 10.72
1997	139	6998	50.35	63.58	0-328	6	22.31	17.42 - 28.50
1998	127	2910	22.91	24.07	0-135	5	13.47	10.95 - 16.53
1999	104	5464	52.54	76.86	1-474	0	26.61	21.11 - 33.49
2000	136	1064	7.82	16.57	0-120	31	3.18	2.45 - 4.06
2001	135	12317	91.24	220.33	0-1711	11	22.97	16.94 - 31.01
2002	137	2949	21.53	26.74	0-203	5	12.26	10.08 - 14.88
2003	147	5141	34.97	39.16	0-209	9	17.34	13.75 - 21.79
2004	145	2078	14.33	16.47	0-121	9	8.81	7.31 - 10.59
2005	148	5181	35.01	90.24	0-797	21	8.48	6.34 - 11.25
2006	148	1232	8.30	182.31	0-448	28	3.82	3.02 - 4.78

9 week survey

Year	Hauls	Catch	CPUE	StDev	Range	Zeros	Index	Confidence Intervals
1985	216	984	4.56	6.60	0-32	73	2.15	1.73 - 2.62
1986	222	1940	8.74	11.30	0-57	39	4.27	3.53 - 5.13
1987	225	18649	82.88	184.57	0-1432	13	25.12	20.09 - 31.34
1988	220	15488	70.40	85.38	0-869	2	42.16	36.33 - 48.89
1989	225	13397	59.54	86.16	0-642	4	28.42	23.79 - 33.92
1990	217	12591	58.02	64.65	0-473	2	29.80	24.90 - 35.63
1991	215	3275	15.23	22.57	0-160	32	6.56	5.35 - 7.99
1992	221	5874	26.58	25.50	0-142	5	16.93	14.67 - 19.52
1993	225	12587	55.94	74.18	0-402	7	23.32	19.13 - 28.38
1994	221	9624	43.55	50.38	0-367	4	25.71	22.10 - 29.89
1995	221	7457	33.74	44.64	0-389	2	20.23	17.59 - 23.25
1996	204	4346	21.30	25.83	0-188	6	12.76	10.94 - 14.85
1997	194	11452	59.03	71.07	0-412	7	27.93	22.80 - 34.17
1998	198	6674	33.71	34.46	0-183	5	19.26	16.25 - 22.79
1999	173	9981	57.69	67.47	1-474	0	33.80	28.63 - 39.88
2000	211	4830	22.89	51.89	0-416	31	7.19	5.75 - 8.94
2001	208	16103	77.42	179.92	0-1711	12	26.36	21.22 - 32.70
2002	210	4656	22.17	25.60	0-203	6	13.30	11.44 - 15.44
2003	222	16116	72.59	99.03	0-626	10	31.24	25.56 - 38.13
2004	220	3613	16.42	18.48	0-121	11	9.86	8.45 - 11.47
2005	221	7727	34.96	80.27	0-797	26	10.26	8.20 - 12.79
2006	221	2233	10.1	182.31	0-576	35	4.84	4.02 - 5.79

TABLE 7

2006 HUDSON RIVER YOY STRIPED BASS CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	Weeks 4 - 9	Weeks 1 - 9
East												
18E	23	9	1	2	14	5	5	0	8	5	6.2	5.4
21E	23	10	2	9	16	7	1	0	1	6	5.2	5.8
17E	24	20	2	7	5	13	14	1	0	0	5.5	6.9
16E	25	4	5	6	7	2	0	4	1	2	2.7	3.4
12E	29	4	13	4	12	24	7	0	0	2	7.5	7.3
14E	29	15	20	8	8	6	3	0	0		3.4	7.5
19E	33	0	11	50	5	6	9	2	1	4	4.5	9.8
11E	34	0	0	0	0	0	1	10	0	1	2.0	1.3
9E	34	7	15	36	23	12	15	0		2	10.4	13.8
7EE	35	28	9	21	3	24	21	9	2	0	9.8	13.0
7EW	35	11	0	66	35	128	99	7	1	1	45.2	38.7
8E	35			40	47	5	12	8	3	1	12.7	16.6
3E	39											
4E	39	24	10	8	4	29	6	5	2	0	7.7	9.8
West												
15WS	27	6	3	6	0	24	0	0	1	5	5.0	5.0
16WN	27	1	5	9	5	8	3	0	2	2	3.3	3.9
14W	29	9	5	21	24	5	4	2	0	0	5.8	7.8
12W	30	21	46	25	31	17	10	11	6	1	12.7	18.7
11W	32	8	8	8	3	22	1	0	1	1	4.7	5.8
10W	35	9	4	15	6	14	1	3	0	3	4.5	6.1
9W	35	11	24	22	13	5	4	3	1	4	5.0	9.7
8W	36	11	10	51	14	20	10	7	17	0	11.3	15.6
7W	37	3	6	124	29	36	5	1	0	2	12.2	22.9
3W	39	3	8	10	10	10	7	5	0	2	5.7	6.1
4W	39	0	2	20	22	15	17	8	1	0	10.5	9.4
5W	39	0	2	8	8	11	3	3	0	1	4.3	4.0
Effort		24	24	25	25	25	25	25	24	24	148	221
Catch		214	211	576	344	448	258	89	48	45	1232	2233
C/E		8.92	8.79	23.04	13.76	17.92	10.32	3.56	2.00	1.88	8.32	10.10

TABLE 8

HUDSON RIVER YOY STRIPED BASS
CPUE BY STATION 1985 - 2006, WEEKS 1 - 9

STATION	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
East																						
18E	0.1	3.3	64.2	56.0	30.5	35.8	7.3	21.5	66.5	39.5	34.7	18.3	41.4	26.8	22.2	13.2	45.9	21.3	115.5	11.3	58.7	5.4
21E		1.0	70.3	23.5	111.8	70.0	1.0	24.6	89.8	42.3	59.4	46.1	26.1	44.4	38.6	12.2	27.3	9.6	106.4	22.6	54.2	5.8
17E	0.1	8.3	45.7	96.4	157.7	97.6	13.8	21.7	61.8	61.6	34.2	18.0	27.5	48.6	48.2	12.3	30.1	18.0	81.8	16.2	44.9	6.9
16E		3.0	135.0	50.1	34.5	42.6	4.7	17.0	50.7	26.6	38.7	14.3	23.2	38.8	37.8	4.6	30.1	6.2	44.1	13.2	14.6	3.4
15E		8.0	29.0	38.0	51.3	45.6	6.3		73.6				48.0	80.0	126.0	7.0						
12E	1.9	1.9	35.4	49.7	36.5	39.8	0.9	18.4	57.3	29.9	31.1	11.3	10.9	21.0	51.9	11.0	9.6	8.0	50.6	7.8	18.1	7.3
13E	3.7	4.5	93.3	14.5	12.5	31.0	24.2	19.7	55.6	14.3	82.3	13.0	44.4	22.3	47.5	4.6	24.5	26.4	58.5	61.0		
14E	0.1	9.1	37.0	78.4	96.6	67.6	2.7	37.7	35.1	44.0	33.4	20.0	41.1	58.5	48.8	22.7	36.5	27.8	126.1	8.8	17.0	7.5
19E	1.6	6.0	259.5	88.8	67.6	33.1	7.0	19.8	33.1	59.7	31.8	16.5	100.4	30.4	15.2	16.0	57.8	12.8	70.8	12.0	58.5	9.8
10E	1.0																					
11E	6.0	9.8	319.9	128.3	45.3	28.0	36.0	37.3	73.3	51.0	129.4	29.3	124.8	69.6	79.5	79.1	159.2	25.8	115.6	23.0	28.1	1.3
9E	1.0	6.0	47.4	37.0	42.9	57.3	17.0	35.5	73.0	55.8	14.8	23.2	54.1	40.7	92.5	18.2	50.3	15.9	124.2	24.1	53.9	13.8
7E1		10.0	54.0		1.0	17.5				149.0												
7EC	15.5																					
7EE	4.9	12.9	222.0	54.3	58.0	30.1	9.0	13.9	65.1	26.4	17.1	19.0	54.1	11.8	35.1	34.8	193.3	50.5	41.8	19.3	76.6	13.0
7EW	5.7	10.8	358.7	66.3	99.7	52.5	7.9	26.5	57.3	28.1	42.7	12.3	31.6	27.7	35.6	51.7	231.0	21.3	39.5	15.1	188.4	38.7
8E	1.2	5.0		29.0		15.3	7.0		85.3	90.0	13.3	34.7	122.4	54.0	85.3	131.1	266.3	51.9	168.0	14.8	45.3	16.6
6E	1.3	1.8	38.9	51.8	31.0																	
3E	4.3	4.9	46.9	29.9	24.4	21.9	6.7	13.1	17.4	46.8	17.8	8.9	96.6	22.1	60.0	12.9	118.1	18.5	43.0	9.0	38.2	
4E	7.9	6.4	38.0	42.3	30.4	40.3	15.0	27.8	33.2	21.6	13.3	16.7	78.6	18.3	47.3	7.8	213.4	25.4	40.0	8.5	8.3	9.8
5E	5.0	18.3	9.0	25.8	26.0	34.0	16.0	13.5	186.0	11.0	10.5	22.3	28.0									
20E	8.0																					
West																						
15WN	0.7		63.3	32.3	53.3	53.5	3.0	32.5	11.0	105.0												
15WS	3.9	7.1	145.8	109.8	63.0	159.6	45.8	32.4	80.6	57.9	22.8	8.1	153.8	56.6	149.0	13.9	48.3	17.0	98.1	3.8	42.2	5.0
16WN	3.9	15.3	53.1	89.6	62.2	162.4		22.2	48.4	11.0	20.2	5.1	79.5	15.0	81.6	5.2	63.8	12.8	60.1	9.1	20.0	3.9
16WS	3.0	16.3	20.0	149.5	25.3	82.4		6.0														
13W		16.0	25.3	21.0		3.5	20.7	13.7														
14W	4.4	10.0	93.0	65.1	55.6	64.9	40.6	20.0	76.9	24.4	26.6	12.2	36.9	29.2	54.2	19.8	70.8	19.3	75.2	10.2	21.3	7.8
12W	3.0	3.4	46.4	36.7	36.6	83.1	15.8	22.4	53.3	41.8	21.7	14.6	26.2	25.0	100.5	7.8	37.0	17.9	35.4	8.3	14.2	18.7
11W	2.6	4.9	18.7	42.8	11.2	7.0	11.6	11.9	28.7	39.9	31.1	37.4	4.0	22.0	78.6	20.4	39.2	16.9	35.7	18.2	11.9	5.8
10W	4.0	2.8	24.3	37.1	41.5	47.9	14.0	25.6	55.1	29.0	18.3	18.2	53.4	16.3	33.6	18.3	34.6	21.7	61.8	29.1	6.9	6.1
9W	5.1	6.4	25.4	96.5	37.4	39.5	6.6	21.1	20.9	32.3	20.3	12.3	41.3	30.1	26.6	11.2	20.0	12.8	44.6	14.9	5.2	9.7
8W	8.4	15.8	35.6	127.8	137.9	95.3	26.1	69.0	87.3	83.2	34.5	34.1	42.9	28.6	44.7	6.0	34.2	29.7	77.1	41.4	18.4	15.6
7W	10.6	15.7	65.7	114.1	56.6	71.0	20.9	59.5	43.2	74.2	35.6	54.3	68.3	14.3	45.8	17.5	52.0	37.6	121.1	32.0	37.1	22.9
3W		5.7																			22.6	6.1
4W	15.8	20.1	71.4	93.9	143.8	80.6	23.4	28.6	38.8	27.8	35.1	31.3	97.7	37.3	51.8	33.7	87.0	30.8	33.0	25.0	16.9	9.4
4WN																						
5W	10.6	18.1	43.1	64.8	63.8	54.1	27.1	26.2	46.8	33.2	34.6	25.3	78.0	42.7	49.5	22.6	46.9	18.2	42.0	18.0	24.8	4.0
20W	11.0																					
Annual C/E	4.6	8.7	82.9	70.4	59.5	58.0	15.2	26.6	55.9	43.5	33.7	21.3	59.0	33.7	58.0	22.9	77.4	22.2	72.6	16.4	35.0	10.1

TABLE 10

2006 HUDSON RIVER YOY STRIPED BASS
TOTAL LENGTH FREQUENCY

TL (mm)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	Weeks 4 - 9	Weeks 1 - 9
<10	0	0	0	0	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0	0	0	0
20-24	1	2	0	1	0	0	0	0	0	1	4
25-29	12	4	1	0	0	0	0	0	0	0	17
30-34	32	6	5	0	0	0	0	0	0	0	43
35-39	35	21	14	2	2	0	0	0	0	4	74
40-44	26	32	23	3	1	0	0	0	0	4	85
45-49	33	38	33	7	1	0	0	0	0	8	112
50-54	17	29	62	14	6	1	1	1	0	23	131
55-59	25	32	76	30	10	5	3	0	0	48	181
60-64	3	27	83	60	28	20	2	4	1	115	228
65-69	2	10	70	63	46	31	7	8	0	155	237
70-74	0	8	57	61	54	35	15	5	2	172	237
75-79	0	0	37	46	50	29	18	6	5	154	191
80-84	0	1	14	37	58	28	7	2	7	139	154
85-89	0	0	6	14	39	23	10	4	7	97	103
90-94	0	0	0	5	29	13	8	5	2	62	62
95-99	0	1	0	1	17	12	4	6	5	45	46
100-104	0	0	0	0	15	8	6	3	4	36	36
105-109	0	0	0	0	7	1	5	1	5	19	19
110-114	0	0	0	0	4	2	1	1	3	11	11
115-119	0	0	1	0	3	0	0	0	1	4	5
120-124	0	0	0	0	0	0	0	0	2	2	2
125-129	0	0	0	0	0	1	1	1	1	4	4
130-134	0	0	0	0	0	0	1	0	0	1	1
135-139	0	0	0	0	0	0	0	0	0	0	0
140-144	0	0	0	0	0	0	0	1	0	1	1
>144	0	0	0	0	0	0	0	0	0	0	0
# Measured	186	211	482	344	370	209	89	48	45	1105	1984
Mean	42.16	50.34	60.49	71.43	78.57	77.89	82.72	83.29	93.11	79.00	68.84
StdDev	9.62	11.20	11.68	10.07	13.56	12.42	15.14	17.69	15.05	23.65	23.92

TABLE 11

AVERAGE TOTAL LENGTH (mm) OF HUDSON RIVER
YOY STRIPED BASS, 1985 - 2006

YEAR		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
1985	Mean	54.23	63.53	81.55	85.44	93.37	100.91	103.68	99.84	101.39
	StdDev	7.53	11.04	12.03	12.06	13.26	11.64	16.35	12.45	16.08
1986	Mean	58.03	67.05	75.98	87.92	92.65	99.67	96.49	98.55	98.58
	StdDev	7.14	10.68	13.39	12.47	12.23	14.77	13.24	21.18	16.78
1987	Mean	47.84	59.77	67.12	72.23	80.56	85.62	84.95	87.52	84.96
	StdDev	9.51	9.56	10.40	10.59	10.70	12.04	13.37	13.59	15.29
1988	Mean	41.72	50.15	59.48	74.08	80.98	84.06	86.67	85.74	86.92
	StdDev	10.65	15.40	14.60	15.61	16.32	15.80	15.77	18.42	16.43
1989	Mean	36.02	46.20	57.37	65.27	72.37	81.12	81.05	82.14	85.05
	StdDev	9.35	9.64	10.85	11.32	11.02	12.16	12.43	12.61	14.17
1990	Mean	48.96	46.03	57.55	65.08	71.64	76.35	77.49	78.35	74.82
	StdDev	23.58	15.72	14.98	13.46	13.95	13.87	13.96	14.34	16.01
1991	Mean	62.57	71.49	82.01	89.96	97.58	100.96	101.95	93.76	97.59
	StdDev	15.53	14.33	15.01	18.51	18.52	22.94	27.32	27.56	22.76
1992	Mean	46.89	57.76	65.38	72.50	82.08	85.46	91.01	89.59	89.89
	StdDev	10.82	12.46	12.31	12.61	12.12	14.47	15.23	15.26	15.57
1993	Mean	38.13	52.73	62.11	68.62	75.84	82.95	83.99	87.50	88.59
	StdDev	8.13	11.67	12.30	13.09	12.86	14.55	12.90	15.29	19.19
1994	Mean	41.26	54.55	62.12	71.21	75.99	84.03	83.97	87.26	88.74
	StdDev	8.77	10.84	11.79	13.68	14.37	15.55	13.17	14.14	13.32
1995	Mean	42.00	62.39	69.85	77.87	87.50	94.73	100.04	99.84	90.78
	StdDev	8.94	11.21	11.39	11.81	13.15	16.24	17.97	20.31	20.11
1996	Mean	44.43	51.79	58.60	66.78	81.48	86.36	88.09	84.31	83.25
	StdDev	12.02	12.45	13.49	12.25	17.56	19.53	16.02	17.03	16.46
1997	Mean	41.50	52.29	73.30	72.88	79.14	83.51	87.66	87.71	87.16
	StdDev	9.19	11.10	10.00	12.99	13.48	13.61	13.61	12.23	15.10
1998	Mean	39.28	47.88	60.56	70.51	79.73	81.81	84.88	98.30	91.93
	StdDev	11.93	12.68	11.81	14.20	11.85	15.03	13.15	15.23	15.21
1999	Mean	52.53	62.91	75.34	93.44	101.45	95.64	89.42	91.13	88.49
	StdDev	11.43	10.90	14.86	20.11	18.39	22.37	21.01	24.39	23.93
2000	Mean	41.66	47.55	53.04	62.40	71.50	73.03	79.30	71.55	70.71
	StdDev	9.93	10.77	11.76	13.27	14.35	15.40	17.53	8.06	4.92
2001	Mean	44.29	54.78	67.15	75.74	85.94	93.95	92.62	92.62	104.57
	StdDev	10.00	13.21	12.80	12.65	13.10	15.92	16.49	17.59	10.80
2002	Mean	43.74	54.62	66.58	76.66	88.13	93.25	112.83	100.98	104.25
	StdDev	12.56	15.14	17.68	19.61	17.46	18.38	22.27	21.38	21.12
2003	Mean	39.78	48.20	56.30	63.21	67.28	72.11	72.49	74.48	71.67
	StdDev	10.79	12.24	12.26	11.12	11.21	12.73	13.99	14.94	14.08
2004	Mean	52.23	68.84	75.31	82.17	90.13	85.06	86.85	86.73	86.91
	StdDev	13.47	15.97	18.56	15.36	17.83	16.61	18.42	17.24	16.78
2005	Mean	40.89	51.78	61.75	71.38	82.00	85.25	92.11	82.35	85.71
	StdDev	9.54	9.95	10.09	10.11	14.82	12.87	18.80	15.24	18.34
2006	Mean	42.16	50.34	60.49	71.43	78.57	77.89	82.72	83.29	93.11
	StdDev	9.62	11.20	11.68	10.07	13.56	12.42	15.14	17.69	15.05

TABLE 12

HUDSON RIVER STRIPED BASS AGE FREQUENCIES 1985 - 2006

AGE	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
0	984	1940	18649	15488	13397	12591	3275	5874	12587	9624	7457	4346	11452	6674	9981	4830	16103	4656	16116	3613	7727	2233
1	179	41	25	149	145	57	154	156	104	56	240	93	88	128	118	150	168	174	63	102	21	57
2	10	3	2	6	11	9	11	7	23	5	23	4	10	15	4	11	7	12	7	4	1	2
3	0	4	0	1	0	2	3	2	6	0	4	3	2	1	0	1	0	2	1	0	0	1
4	0	3	0	1	0	0	1	4	1	3	3	0	0	1	0	0	1	0	0	0	0	0
5	1	0	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
6	0	0	0	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	1	0	0	0	0	2	2	0	0	1	0	0	0	0	0	0	0
9	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1174	1991	18678	15646	13555	12661	3444	6044	12721	9689	7730	4449	11552	6819	10106	4992	16279	4844	16187	3719	7749	2293

Tagged with USFWS Internal Anchor Tags

AGE	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
0				0	0	0	0	0	1	0	4	0	0	0	13	0	0	0	0	0	0	0
1				50	41	27	80	83	43	13	68	40	29	46	57	33	63	97	28	20	4	8
2				4	11	8	10	6	21	4	18	3	9	14	3	6	6	12	7	4	0	2
3				1	0	2	2	2	5	0	3	2	1	1	0	1	0	2	1	0	0	1
4				1	0	0	1	4	1	3	2	0	0	1	0	0	1	0	0	0	0	0
5				0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
6				1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
7				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8				0	0	1	0	0	0	0	2	1	0	0	1	0	0	0	0	0	0	0
9				0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10				0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
UNK				0	0	6	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0
Tagged	0	0	0	57	54	45	93	95	71	21	98	49	39	62	77	40	70	111	36	24	4	11

TABLE 13

2006 HUDSON RIVER OLDER STRIPED BASS
LENGTH FREQUENCY

TL	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	Weeks 4 - 9	Weeks 1 - 9
<110	4	3	3	2	0	0	0	0	0	2	12
110-114	3	2	2	3	0	0	0	0	0	3	10
115-119	4	0	1	0	0	0	0	0	0	0	5
120-124	2	0	1	1	0	0	0	0	0	1	4
125-129	0	0	1	1	2	0	0	0	0	3	4
130-134	0	0	1	1	0	1	1	0	0	3	4
135-139	0	0	0	0	0	0	0	0	0	0	0
140-144	0	0	0	0	1	0	0	0	0	1	1
145-149	0	1	0	1	0	0	0	0	0	1	2
150-154	0	0	0	0	1	1	0	0	0	2	2
155-159	0	0	0	1	0	0	0	0	0	1	1
160-164	0	0	0	0	0	0	0	0	1	1	1
165-169	0	0	0	0	0	0	0	0	0	0	0
170-174	0	0	0	2	0	1	0	0	0	3	3
175-179	0	0	0	0	1	0	0	0	0	1	1
180-184	0	0	1	0	0	0	0	0	0	0	1
185-189	0	0	0	1	0	0	0	0	0	1	1
190-194	0	0	0	0	1	1	0	0	0	2	2
195-199	0	0	0	0	0	0	0	0	0	0	0
200-204	0	0	0	0	0	0	0	0	0	0	0
205-209	0	0	0	0	0	0	0	1	0	1	1
210-214	0	0	0	0	0	0	0	0	0	0	0
215-219	0	0	0	0	0	1	0	0	0	1	1
220-224	0	0	0	0	0	0	0	0	0	0	0
225-229	0	0	0	0	1	0	0	0	0	1	1
230-234	0	0	0	0	1	0	0	0	0	1	1
235-239	0	0	0	0	0	0	0	0	0	0	0
240-244	0	0	0	0	0	0	0	0	0	0	0
245-249	0	0	0	0	0	1	0	0	0	1	1
>249	0	0	0	0	1	0	0	0	0	1	1
Total	13	6	10	13	9	6	1	1	1	31	60

TABLE 14

2006 HUDSON RIVER OLDER STRIPED BASS CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	Weeks 4 - 9	Weeks 1 - 9
East												
18E	23	0	0	0	0	1	0	0	0	0	0.2	0.1
21E	23	0	0	0	0	0	1	0	0	0	0.2	0.1
17E	24	0	0	0	2	1	2	0	0	0	0.8	0.6
16E	25	0	0	0	1	0	0	0	0	1	0.3	0.2
12E	29	3	0	0	0	0	0	0	0	0	0.0	0.3
14E	29	0	1	3	0	2	0	0	0	0	0.3	0.7
19E	33	0	0	0	0	0	0	0	0	0	0.0	0.0
11E	34	0	0	1	0	0	0	0	0	0	0.0	0.1
9E	34	5	0	1	1	0	0	0	0	0	0.2	0.9
7EE	35	0	0	2	0	0	0	0	0	0	0.0	0.2
7EW	35	1	1	3	1	0	0	0	0	0	0.2	0.7
8E	35			2	0	0	3	1	0	0	0.7	0.9
3E	39											
4E	39	0	0	0	0	0	0	0	0	0	0.0	0.0
West												
15WS	27	0	0	0	0	0	0	0	0	0	0.0	0.0
16WN	27	0	0	0	0	0	0	0	1	0	0.2	0.1
14W	29	2	0	0	1	0	0	0	0	0	0.2	0.3
12W	30	0	0	0	0	0	0	0	0	0	0.0	0.0
11W	32	0	0	0	0	2	0	0	0	0	0.3	0.2
10W	35	0	0	0	0	0	0	0	0	0	0.0	0.0
9W	35	2	3	0	1	2	0	0	0	0	0.5	0.9
8W	36	0	0	0	2	0	0	0	0	0	0.3	0.2
7W	37	0	0	0	0	0	0	0	0	0	0.0	0.0
3W	39	0	0	1	1	0	0	0	0	0	0.2	0.2
4W	39	0	0	0	0	0	0	0	0	0	0.0	0.0
5W	39	0	1	0	0	1	0	0	0	0	0.2	0.2
Effort		24	24	25	25	25	25	25	24	24	148	221
Catch		13	6	13	10	9	6	1	1	1	28	60
C/E		0.54	0.25	0.52	0.40	0.36	0.24	0.04	0.04	0.04	0.19	0.27

TABLE 15

2006 HUDSON RIVER YOY WHITE PERCH CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	0	0	0	0	0	0	0	0	0	0.0
21E	23	0	0	0	0	0	1	0	0	0	0.1
17E	24	0	0	0	0	0	0	0	0	0	0.0
16E	25	0	0	0	0	0	0	0	0	0	0.0
12E	29	0	0	0	0	0	0	0	0	0	0.0
14E	29	0	0	0	0	0	0	0	0	1	0.1
19E	33	0	0	0	0	0	1	0	0	0	0.1
11E	34	0	0	0	0	0	0	0	0	0	0.0
9E	34	0	0	0	1	0	6	0		0	0.9
7EE	35	28	0	1	0	0	0	0	0	0	3.2
7EW	35	0	5	17	4	9	24	9	0	0	7.6
8E	35			13	0	0	0	0	0	0	1.9
3E	39										
4E	39	0	2	0	0	7	0	6	3	0	2.0
West											
15WS	27	0	1	0	6	0	0	0	0	0	0.8
16WN	27	0	0	0	2	1	0	0	0	0	0.3
14W	29	0	4	5	50	4	15	0	1	0	8.8
12W	30	0	25	136	70	39	15	6	7	0	33.1
11W	32	0	0	20	0	0	0	0	0	0	2.2
10W	35	0	0	16	0	28	9	0	0	0	5.9
9W	35	0	0	1	0	0	0	1	0	0	0.2
8W	36	0	6	4	26	14	0	1	2	0	5.9
7W	37	0	0	74	2	42	0	1	0	0	13.2
3W	39	0	0	1	0	0	0	0	0	1	0.2
4W	39	0	0	0	1	0	0	0	0	0	0.1
5W	39	0	0	3	0	14	0	0	0	1	2.0
Effort		24	24	25	25	25	25	25	24	24	221
Catch		28	43	291	162	158	71	24	13	3	793
C/E		1.17	1.79	11.64	6.48	6.32	2.84	0.96	0.54	0.13	3.59

TABLE 16 2006 HUDSON RIVER OLDER WHITE PERCH CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	1	3	0	0	4	1	0	0	0	1.0
21E	23	2	3	0	1	0	0	0	0	0	0.7
17E	24	0	0	5	0	1	0	1	1	1	1.0
16E	25	0	0	1	0	0	0	3	0	0	0.4
12E	29	10	8		1	0	1	0	0	0	2.5
14E	29	8	15	9	9	0	0	0	0		5.1
19E	33	5	0	0	0	0	0	1	0	2	0.9
11E	34	0	3	0	0	0	0	0	0	0	0.3
9E	34	60	28	0	0	0	0	0		3	11.4
7EE	35	0	51	190	0	1	0	0	0	0	26.9
7EW	35	4	0	0	0	0	0	0	0	0	0.4
8E	35			19	0	0	659	0	0	0	96.9
3E	39										
4E	39	37	0	33	0	15	0	4	0	0	9.9
West											
15WS	27	0	6	0	2	10	1	0	0	2	2.3
16WN	27	54	19	44	62	6	6	6	0	0	21.9
14W	29	8	13	18	76	0	35	2	0	0	16.9
12W	30	32	19	35	5	6	60	9	2	0	18.7
11W	32	13	5	0	1	3	0	0	0	0	2.4
10W	35	17	0	14	14	11	2	1	0	0	6.6
9W	35	3	8	3	0	2	0	0	0	0	1.8
8W	36	12	0	0	7	3	0	0	0	1	2.6
7W	37	8	1	10	5	41	1	1	1	0	7.6
3W	39	7	2	4	2	0	0	8	1	0	2.7
4W	39	32	3	6	3	0	0	10	0	0	6.0
5W	39	0	23	6	2	52	0	1	1	5	10.0
Effort		24	24	25	25	25	25	25	24	24	221
Catch		313	210	397	190	155	766	47	6	14	2098
C/E		13.04	8.75	16.54	7.60	6.20	30.64	1.88	0.25	0.58	9.49

TABLE 17

2006 HUDSON RIVER WHITE PERCH
LENGTH FREQUENCY

TL (mm)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	Weeks 4 - 9	Weeks 1 - 9
< 20	0	0	0	0	0	0	1	0	0	1	1
21-25	0	2	0	0	0	1	0	0	0	1	3
25-29	0	5	2	0	0	0	0	0	0	0	7
30-34	0	7	7	1	1	0	0	0	0	2	16
35-39	0	7	17	6	3	2	0	0	0	11	35
40-44	0	8	20	9	9	5	0	0	0	23	51
45-49	0	0	18	15	13	2	0	0	0	30	48
50-54	0	1	19	15	18	10	0	0	0	43	63
55-59	0	0	9	17	14	7	2	1	0	41	50
60-64	0	0	1	15	20	16	7	2	0	60	61
65-69	0	0	2	8	14	7	3	3	0	35	37
70-74	0	0	3	0	10	13	3	0	0	26	29
75-79	0	0	1	0	4	6	4	6	0	20	21
80-84	0	0	0	0	0	2	3	1	0	6	6
85-89	0	1	0	0	0	0	1	0	0	1	2
90-94	0	1	0	1	1	0	0	0	0	2	3
95-99	4	13	4	2	1	0	0	0	0	3	24
100-104	9	12	21	6	5	1	1	0	0	13	55
105-109	19	35	35	10	7	0	0	0	0	17	106
110-114	14	25	39	13	15	8	2	0	0	38	116
115-119	5	24	40	12	9	14	3	0	0	38	107
120-124	0	6	13	8	15	22	1	0	0	46	65
125-129	0	2	2	12	7	20	2	2	0	43	47
130-134	0	6	5	6	4	22	3	0	0	35	46
135-139	0	3	3	4	7	14	4	0	1	30	36
140-144	0	2	3	4	8	5	1	0	0	18	23
145-149	0	8	7	5	3	6	2	0	0	16	31
150-154	2	8	7	2	4	7	6	0	0	19	36
155-159	2	1	8	7	9	5	5	1	0	27	38
160-164	0	4	9	3	8	3	0	0	0	14	27
165-169	2	3	4	6	7	9	2	0	0	24	33
170-174	2	4	7	5	5	5	2	1	0	18	31
175-179	0	6	11	5	3	8	5	0	0	21	38
180-184	0	5	9	7	5	8	0	0	0	20	34
185-189	1	1	2	5	4	6	2	1	0	18	22
190-194	0	2	4	6	3	5	1	0	0	15	21
195-199	0	2	2	6	2	2	1	0	0	11	15
200-204	0	0	1	3	3	3	1	0	0	10	11
205-209	0	0	5	1	2	6	1	0	0	10	15
210-214	0	0	2	2	3	2	1	0	0	8	10
215-219	0	0	0	3	1	2	1	0	0	7	7
220-224	0	1	2	1	0	1	0	0	0	2	5
225-229	0	0	0	0	0	0	0	0	0	0	0
230-234	0	1	0	0	0	0	0	0	0	0	1
235-239	0	0	0	0	0	0	0	0	0	0	0
240-244	0	1	0	0	0	0	0	0	0	0	1
Measured	60	207	344	231	247	255	71	18	1	823	1434
Mean	118.02	115.15	109.16	112.68	108.57	126.37	126.63	95.11	127.65	116.17	115.48
StDev	21.46	42.76	48.02	53.27	50.02	48.34	48.54	41.17	26.02	50.36	47.99

TABLE 18

2006 HUDSON RIVER ATLANTIC TOMCOD LENGTH FREQUENCY AND CATCH BY STATION

TL (mm)	A										B														
	Week 1 Jul 11	Week 2 Jul 25	Week 3 Aug 8	Week 4 Aug 22	Week 5 Sep 7	Week 6 Sep 19	Week 7 Oct 19	Week 8 Oct 27	Week 9 Nov 9	C/F Weeks 4 - 9	C/F Weeks 1 - 9	Station	River Mile	Week 1 Jul 18	Week 2 Aug 1	Week 3 Aug 17	Week 4 Aug 30	Week 5 Sep 19	Week 6 Sep 27	Week 7 Oct 17	Week 8 Oct 25-26	Week 9 Nov 8	C/E		
5-10						0					0	0	East												
10-15						0					0	0	18E	23	0	0	0	0	0	0	0	0	0	0	0.0
15-20						0					0	0	21E	23	0	0	0	0	0	0	0	0	0	0	0.0
20-25						0					0	0	17E	24	0	0	0	0	0	0	0	0	0	0	0.0
25-30						0					0	0	16E	25	0	0	0	0	0	0	0	0	0	0	0.0
30-35						0					0	0	12E	29	0	0	0	0	0	0	0	0	0	0	0.0
35-40						0					0	0	14E	29	0	0	0	0	0	0	0	0	0	0	0.0
40-45						0					0	0	19E	33	0	0	0	0	0	0	0	0	0	0	0.0
45-50						0					0	0	11E	34	0	0	0	0	0	0	0	0	0	0	0.0
50-55						0					0	0	9E	34	0	0	0	0	0	0	0	0	0	0	0.0
55-60						0					0	0	7EE	35	0	0	0	0	0	0	0	0	0	0	0.0
60-65						0					0	0	7EW	35	0	0	0	0	0	0	0	0	0	0	0.0
65-70						0					0	0	8E	35			0	0	0	0	0	0	0	0	0.0
70-75						0					0	0	3E	39											
75-80						0					0	0	4E	39	0	0	0	0	0	0	0	0	0	0	0.0
80-85						0					0	0	West												
85-90						0					0	0	15WS	27	0	0	0	0	0	0	0	0	0	0	0.0
90-95						0					0	0	16WN	27	0	0	0	0	0	0	0	0	0	0	0.0
95-100						0					0	0	14W	29	0	0	0	0	0	1	0	0	0	0	0.1
100-105						0					0	0	12W	30	0	0	0	0	0	1	0	0	0	0	0.1
105-110						0					0	0	11W	32	0	0	0	0	0	0	0	0	0	0	0.0
110-115						1					1	1	10W	35	0	0	0	0	0	0	0	0	0	0	0.0
115-120						0					0	0	9W	35	0	0	0	0	0	0	0	0	0	0	0.0
120-125						0					0	0	8W	36	0	0	0	0	0	0	0	0	0	0	0.0
125-130						0					0	0	7W	37	0	0	0	0	0	0	0	0	0	0	0.0
130-135						1					1	1	3W	39	0	0	0	0	0	0	0	0	0	0	0.0
135-140						0					0	0	4W	39	0	0	0	0	0	0	0	0	0	0	0.0
140-145						0					0	0	5W	39	0	0	0	0	0	0	0	0	0	0	0.0
>145						0					0	0													
Measured	0	0	0	0	0	2	0	0	0		2	2	Effort		24	24	25	25	25	25	25	24	24	221	
Mean	0.0	0.0	0.0	0.0	0.0	122.5	0.0	0.0	0.0		0.0	0.0	Catch		0	0	0	0	0	2	0	0	0	2	
StdDev	0.0	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0		0.0	0.0	C/E		0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.01	

TABLE 19

2006 HUDSON RIVER AMERICAN EEL CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	0	0	0	0	0	0	0	0	0	0.0
21E	23	0	0	0	0	0	0	0	0	0	0.0
17E	24	0	0	0	0	0	0	0	0	0	0.0
16E	25	1	0	0	0	0	0	0	0	0	0.1
12E	29	0	0	0	0	0	0	0	0	0	0.0
14E	29	0	0	0	0	0	0	0	0	0	0.0
19E	33	0	0	0	0	0	0	0	0	0	0.0
11E	34	0	0	0	0	0	0	0	0	0	0.0
9E	34	0	0	0	0	0	0	0	0	0	0.0
7EE	35	0	0	0	0	0	0	0	0	0	0.0
7EW	35	0	0	0	0	0	0	0	0	0	0.0
8E	35			0	0	0	0	1	2	0	0.4
3E	39										
4E	39	0	0	0	0	1	0	0	0	0	0.1
West											
15WS	27	0	0	0	0	0	0	0	0	0	0.0
16WN	27	0	0	0	0	0	0	0	0	0	0.0
14W	29	0	1	0	0	0	1	0	0	0	0.2
12W	30	3	3	1	0	0	2	0	0	0	1.0
11W	32	2	0	0	0	0	0	0	0	0	0.2
10W	35	0	1	0	0	1	0	0	0	0	0.2
9W	35	0	0	0	0	0	0	0	0	0	0.0
8W	36	0	0	0	0	0	0	2	0	0	0.2
7W	37	0	0	2	0	0	0	0	0	0	0.2
3W	39	0	0	0	0	0	0	0	0	0	0.0
4W	39	0	0	0	0	0	0	0	0	0	0.0
5W	39	0	0	0	0	0	0	0	0	0	0.0
Effort		24	24	25	25	25	25	25	24	24	221
Catch		6	5	3	0	2	3	3	2	0	24
C/E		0.25	0.21	0.12	0.00	0.08	0.12	0.12	0.08	0.00	0.11

TABLE 20

2006 HUDSON RIVER AMERICAN EEL LENGTH FREQUENCY

TL (mm)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F Weeks 4 - 9	C/F Weeks 1 - 9
	Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8		
< 60	0	0	0	0	0	0	0	0	0	0	0
60 - 79	0	0	0	0	0	0	0	0	0	0	0
80 - 99	0	0	0	0	0	0	0	1	0	1	1
100 - 119	0	2	0	0	1	0	2	1	0	4	6
120 - 139	1	1	1	0	0	1	0	0	0	1	4
140 - 159	1	1	0	0	0	0	0	0	0	0	2
160 - 179	0	0	0	0	0	1	0	0	0	1	1
180 - 199	1	0	0	0	0	0	0	0	0	0	1
200 - 219	2	0	1	0	0	0	0	0	0	0	3
220 - 239	0	0	0	0	0	0	0	0	0	0	0
240 - 259	0	0	0	0	1	0	0	0	0	1	1
260 - 279	0	0	0	0	0	0	0	0	0	0	0
280 - 299	0	0	0	0	0	0	0	0	0	0	0
300 - 319	0	0	0	0	0	0	0	0	0	0	0
320 - 339	1	0	1	0	0	0	0	0	0	0	2
340 - 359	0	0	0	0	0	1	0	0	0	1	1
360 - 379	0	0	0	0	0	0	0	0	0	0	0
380 - 399	0	0	0	0	0	0	0	0	0	0	0
400 - 419	0	0	0	0	0	0	0	0	0	0	0
420 - 439	0	0	0	0	0	0	0	0	0	0	0
440 - 459	0	0	0	0	0	0	0	0	0	0	0
460 - 479	0	0	0	0	0	0	0	0	0	0	0
480 - 499	0	0	0	0	0	0	0	0	0	0	0
500 - 519	0	0	0	0	0	0	0	0	0	0	0
520 - 539	0	0	0	0	0	0	0	0	0	0	0
540 - 559	0	0	0	0	0	0	0	0	0	0	0
560 - 579	0	0	0	0	0	0	0	0	0	0	0
580 - 599	0	0	0	0	0	0	0	0	0	0	0
600 - 619	0	1	0	0	0	0	0	0	0	0	1
620 - 639	0	0	0	0	0	0	0	0	0	0	0
640 - 659	0	0	0	0	0	0	0	0	0	0	0
660 - 679	0	0	0	0	0	0	1	0	0	1	1
680 - 699	0	0	0	0	0	0	0	0	0	0	0
> 699	0	0	0	0	0	0	0	0	0	0	0
Measured	6	5	3	0	2	3	3	2	0	10	24
Mean	198.3	217.4	222.0	0	177.0	215.0	294.7	101.5	0.0	208.6	209.5
StDev	69.1	214.4	101.6	0	93.3	320.7	320.7	13.4	0.0	179.8	150.5

TABLE 21

2006 HUDSON RIVER YOY BLUEFISH CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	0	0	1	0	0	2	0	0	0	0.3
21E	23	0	0	2	0	4	0	0	1	0	0.8
17E	24	3	0	6		3	0	0	0	0	1.5
16E	25	1	1	0	0	0	0	0	0	0	0.2
12E	29	1	0	0	0	0	6	0		0	0.9
14E	29	0	0	0	0	0	0	0	0		0.0
19E	33	2	0	0	0	0	2	0	0	0	0.4
11E	34	0	0	2	0	0	1	0	0	0	0.3
9E	34	0	0	0	0	0	0	0		0	0.0
7EE	35	0	0	1	1	0	0	0	0	0	0.2
7EW	35	0	0	0	0	0	0	0	0	0	0.0
8E	35			3	7	4	0	0	0	0	2.0
3E	39										
4E	39	0	0	0	0	5	0	0	0	0	0.6
West											
15WS	27	0	0	0	0	3	0	0	0	0	0.3
16WN	27	1	1	0	0	1	0	0	0	0	0.3
14W	29	0	0	0	0	3	0	0	0	0	0.3
12W	30	2	0	0	0	0	4	0	0	0	0.7
11W	32	0	2	0	0	4	0	0	0	0	0.7
10W	35	0	0	1	0	1	0	1	0	0	0.3
9W	35	0	0	1	0	1	0	0	0	0	0.2
8W	36	0	0	0	0	0	0	0	0	0	0.0
7W	37	0	0	0	1	3	0	0	0	0	0.4
3W	39	1	0	1	3	1	0	0	0	0	0.7
4W	39	0	0	1	3	0	0	0	0	0	0.4
5W	39	0	0	0	0	3	0	0	0	0	0.3
Effort		24	24	25	25	25	25	25	24	24	221
Catch		11	4	19	15	36	15	1	1	0	102
C/E		0.46	0.17	0.76	0.63	1.44	0.60	0.04	0.04	0.00	0.46

TABLE 22

2006 HUDSON RIVER BLUEFISH LENGTH FREQUENCY

TL (mm)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul 11	Jul 25	Aug 8	Aug 22	Sep 7	Sep 19	Oct 19	Oct 27	Nov 9	Weeks 4 - 9	Weeks 1 - 9
< 65	0	0	2	0	0	0	0	0	0	0	2
65 - 69	0	0	0	0	0	0	0	0	0	0	0
70 - 74	0	0	0	0	0	1	0	0	0	1	1
75 - 79	0	0	0	0	0	0	0	0	0	0	0
80 - 84	1	0	1	0	2	0	0	0	0	2	4
85 - 89	2	0	0	0	3	0	0	0	0	3	5
90 - 94	0	0	0	0	4	0	0	0	0	4	4
95 - 99	1	0	0	0	5	0	0	0	0	5	6
100 - 104	2	0	0	0	3	0	0	0	0	3	5
105 - 109	1	2	0	0	1	1	0	0	0	2	5
110 - 114	2	0	0	0	1	2	0	0	0	3	5
115 - 119	0	0	0	0	0	1	0	0	0	1	1
120 - 124	1	0	0	1	0	0	1	0	0	2	3
125 - 129	1	1	0	0	0	0	0	0	0	0	2
130 - 134	0	1	1	2	0	0	0	0	0	2	4
135 - 139	0	0	3	1	0	1	0	0	0	2	5
140 - 144	0	0	4	1	1	1	0	0	0	3	7
145 - 149	0	0	1	1	0	0	0	0	0	1	2
150 - 154	0	0	1	0	1	0	0	1	0	2	3
155 - 159	0	0	3	0	0	0	0	0	0	0	3
160 - 164	0	0	2	1	1	1	0	0	0	3	5
165 - 169	0	0	0	1	0	1	0	0	0	2	2
170 - 174	0	0	1	2	0	0	0	0	0	2	3
175 - 179	0	0	0	1	1	0	0	0	0	2	2
180 - 184	0	0	0	2	1	2	0	0	0	5	5
185 - 189	0	0	0	1	0	1	0	0	0	2	2
190 - 194	0	0	0	0	1	1	0	0	0	2	2
195 - 199	0	0	0	1	0	0	0	0	0	1	1
200 - 204	0	0	0	0	1	0	0	0	0	1	1
205 - 209	0	0	0	0	1	0	0	0	0	1	1
210 - 214	0	0	0	0	2	0	0	0	0	2	2
215 - 219	0	0	0	0	1	0	0	0	0	1	1
220 - 224	0	0	0	0	1	0	0	0	0	1	1
225 - 229	0	0	0	0	3	0	0	0	0	3	3
230 - 234	0	0	0	0	1	0	0	0	0	1	1
235 - 239	0	0	0	0	0	0	0	0	0	0	0
240 - 244	0	0	0	0	0	0	0	0	0	0	0
245 - 249	0	0	0	0	0	0	0	0	0	0	0
250 - 254	0	0	0	0	0	1	0	0	0	1	1
255 - 259	0	0	0	0	0	0	0	0	0	0	0
260 - 264	0	0	0	0	0	0	0	0	0	0	0
265 - 269	0	0	0	0	0	0	0	0	0	0	0
>269	0	0	0	0	1	1	0	0	0	0	2
Measured	11	4	19	15	36	15	1	1	0	66	102
Mean	103.6	118.0	135.2	161.3	145.9	159.4	122.0	150.0		152.0	142.3
StDev	13.9	14.3	34.0	23.7	59.7	54.0				51.5	47.4

TABLE 23

2006 HUDSON RIVER WINTER FLOUNDER CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	0	0	0	0	0	0	2	0	0	0.2
21E	23	0	0	0	1	0	0	0	0	0	0.1
17E	24	0	0	0	0	1	1	0	0	0	0.2
16E	25	0	0	0	0	1	0	0	0	0	0.1
12E	29	0	0	0	1	0	0	0	0	0	0.1
14E	29	0	0	0	0	0	0	0	0	0	0.0
19E	33	0	0	0	0	0	0	0	0	0	0.0
11E	34	0	0	0	0	0	0	0	0	0	0.0
9E	34	0	0	0	0	0	0	0	0	0	0.0
7EE	35	0	0	0	0	0	0	0	0	0	0.0
7EW	35	0	0	0	0	0	0	0	0	0	0.0
8E	35			0	0	0	0	0	0	0	0.0
3E	39										
4E	39	0	0	0	0	0	0	0	0	0	0.0
West											
15WS	27	0	0	0	0	0	0	0	0	0	0.0
16WN	27	0	0	0	0	0	0	0	0	0	0.0
14W	29	0	0	0	0	0	0	0	0	0	0.0
12W	30	0	0	0	0	0	0	0	0	0	0.0
11W	32	0	0	0	0	1	0	0	0	0	0.1
10W	35	0	0	0	0	0	0	0	0	0	0.0
9W	35	0	0	0	0	0	0	0	0	0	0.0
8W	36	0	0	0	0	0	0	0	0	0	0.0
7W	37	0	0	0	0	0	0	0	0	0	0.0
3W	39	0	0	0	0	0	0	0	0	0	0.0
4W	39	0	0	0	0	0	0	0	0	0	0.0
5W	39	0	0	0	0	0	0	0	0	0	0.0
Effort		24	24	25	25	25	25	25	24	24	221
Catch		0	0	0	2	3	1	2	0	0	8
C/E		0.00	0.00	0.00	0.08	0.12	0.04	0.08	0.00	0.00	0.04

TABLE 24

2006 HUDSON RIVER WINTER FLOUNDER LENGTH FREQUENCY

TL (mm)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul 11	Jul 25	Aug 8	Aug 22	Sep 7	Sep 19	Oct 19	Oct 27	Nov 9	Weeks 4 - 9	Weeks 1 - 9
< 25	0	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	0	0	0	0	0	0	0	0
30 - 34	0	0	0	0	0	0	0	0	0	0	0
35 - 39	0	0	0	0	0	0	0	0	0	0	0
40 - 44	0	0	0	0	0	0	0	0	0	0	0
45 - 49	0	0	0	0	0	0	0	0	0	0	0
50 - 54	0	0	0	0	0	0	0	0	0	0	0
55 - 59	0	0	0	0	0	0	0	0	0	0	0
60 - 64	0	0	0	1	0	0	0	0	0	1	1
65 - 69	0	0	0	1	1	0	0	0	0	2	2
70 - 74	0	0	0	0	1	1	0	0	0	2	2
75 - 79	0	0	0	0	1	0	0	0	0	1	1
80 - 84	0	0	0	0	0	0	0	0	0	0	0
85 - 89	0	0	0	0	0	0	0	0	0	0	0
90 - 94	0	0	0	0	0	0	0	0	0	0	0
95 - 99	0	0	0	0	0	0	0	0	0	0	0
100 - 104	0	0	0	0	0	0	1	0	0	1	1
105 - 109	0	0	0	0	0	0	1	0	0	1	1
110 - 114	0	0	0	0	0	0	0	0	0	0	0
115 - 119	0	0	0	0	0	0	0	0	0	0	0
120 - 124	0	0	0	0	0	0	0	0	0	0	0
125 - 129	0	0	0	0	0	0	0	0	0	0	0
130 - 134	0	0	0	0	0	0	0	0	0	0	0
135 - 139	0	0	0	0	0	0	0	0	0	0	0
140 - 144	0	0	0	0	0	0	0	0	0	0	0
145 - 149	0	0	0	0	0	0	0	0	0	0	0
150 - 154	0	0	0	0	0	0	0	0	0	0	0
155 - 159	0	0	0	0	0	0	0	0	0	0	0
160 - 164	0	0	0	0	0	0	0	0	0	0	0
165 - 169	0	0	0	0	0	0	0	0	0	0	0
170 - 174	0	0	0	0	0	0	0	0	0	0	0
175 - 179	0	0	0	0	0	0	0	0	0	0	0
180 - 184	0	0	0	0	0	0	0	0	0	0	0
185 - 189	0	0	0	0	0	0	0	0	0	0	0
190 - 194	0	0	0	0	0	0	0	0	0	0	0
195 - 199	0	0	0	0	0	0	0	0	0	0	0
> 199	0	0	0	0	0	0	0	0	0	0	0
Measured	0	0	0	2	3	1	2	0	0	8	8
Mean	58.67	0.0	0.0					0.0	0.0	77.5	77.5
StDev	32.87	0.0	0.0					0.0	0.0	17.2	17.2

TABLE 25

2006 HUDSON RIVER AMERICAN SHAD CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	0	0	0	0	0	0	0	0	0	0.0
21E	23	0	0	0	0	0	0	0	0	0	0.0
17E	24	0	0	0	0	0	0	0	0	0	0.0
16E	25	0	0	0	0	0	0	0	0	0	0.0
12E	29	0	0	0	0	0	0	0	0	0	0.0
14E	29	0	0	0	0	0	0	0	0	0	0.0
19E	33	0	0	0	0	0	0	0	0	0	0.0
11E	34	0	0	0	0	0	0	0	0	0	0.0
9E	34	0	6	0	0	0	0	0	0	0	0.8
7EE	35	0	0	0	0	0	0	0	0	0	0.0
7EW	35	0	0	0	0	0	0	0	0	0	0.0
8E	35			0	0	0	0	0	0	0	0.0
3E	39										
4E	39	0	0	0	0	0	0	0	0	1	0.1
West											
15WS	27	0	0	0	0	0	0	0	0	0	0.0
16WN	27	0	0	0	0	0	0	0	0	0	0.0
14W	29	0	0	0	0	0	0	0	0	0	0.0
12W	30	0	0	0	0	0	0	0	0	0	0.0
11W	32	0	0	0	0	0	0	0	0	0	0.0
10W	35	0	0	0	0	0	0	0	0	0	0.0
9W	35	0	0	0	0	4	0	0	0	0	0.4
8W	36	0	0	0	0	0	0	0	0	0	0.0
7W	37	0	0	0	0	0	0	0	0	0	0.0
3W	39	0	0	0	0	0	0	0	0	0	0.0
4W	39	0	0	0	0	0	0	0	0	0	0.0
5W	39	0	0	2	0	0	0	0	1	0	0.3
Effort		24	24	25	25	25	25	25	24	24	221
Catch		0	6	2	0	4	0	0	1	1	14
C/E		0.00	0.25	0.08	0.00	0.16	0.00	0.00	0.04	0.04	0.06

TABLE 26

2006 HUDSON RIVER AMERICAN SHAD LENGTH FREQUENCY

TL (mm)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F Weeks 4 - 9	C/F Weeks 1 - 9
	Jul 11	Jul 25	Aug 8	Aug 22	Sep 7	Sep 19	Oct 19	Oct 27	Nov 9		
< 25	0	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	0	0	0	0	0	0	0	0
30 - 34	0	0	0	0	0	0	0	0	0	0	0
35 - 39	0	0	0	0	0	0	0	0	0	0	0
40 - 44	0	0	0	0	0	0	0	0	0	0	0
45 - 49	0	0	0	0	0	0	0	0	0	0	0
50 - 54	0	0	0	0	0	0	0	0	0	0	0
55 - 59	0	0	0	0	0	0	0	0	0	0	0
60 - 64	0	0	0	0	0	0	0	0	0	0	0
65 - 69	0	0	0	0	0	0	0	0	0	0	0
70 - 74	0	1	0	0	0	0	0	0	0	0	1
75 - 79	0	1	0	0	0	0	0	0	0	0	1
80 - 84	0	2	1	0	0	0	0	0	0	0	3
85 - 89	0	2	1	0	0	0	0	0	0	0	3
90 - 94	0	0	0	0	0	0	0	0	0	0	0
95 - 99	0	0	0	0	0	0	0	0	0	0	0
100 - 104	0	0	0	0	3	0	0	0	0	3	3
105 - 109	0	0	0	0	1	0	0	0	0	1	1
110 - 114	0	0	0	0	0	0	0	1	0	1	1
115 - 119	0	0	0	0	0	0	0	0	0	0	0
120 - 124	0	0	0	0	0	0	0	0	0	0	0
125 - 129	0	0	0	0	0	0	0	0	1	1	1
130 - 134	0	0	0	0	0	0	0	0	0	0	0
135 - 139	0	0	0	0	0	0	0	0	0	0	0
140 - 144	0	0	0	0	0	0	0	0	0	0	0
145 - 149	0	0	0	0	0	0	0	0	0	0	0
> 149	0	0	0	0	0	0	0	0	0	0	0
Measured	0	6	2	0	4	0	0	1	1	6	14
Mean		81.2	83.5		104.0			110.0	125.0	108.5	93.2
StDev		6.0	3.5		2.4					8.6	15.3

TABLE 27

2006 HUDSON RIVER ALEWIFE CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	0	0	0	0	0	0	0	0	0	0.0
21E	23	0	0	0	0	0	0	0	1	0	0.1
17E	24	0	0	0	0	0	0	0	7	0	0.8
16E	25	0	0	0	0	0	0	0	0	0	0.0
12E	29	0	0	0	0	0	0	0	0	1	0.1
14E	29	0	0	0	0	0	0	0	0		0.0
19E	33	0	0	0	0	0	0	0	0	0	0.0
11E	34	0	0	0	0	0	0	0	0	0	0.0
9E	34	0	0	0	0	0	0	0		0	0.0
7EE	35	0	0	0	0	0	0	0	0	0	0.0
7EW	35	0	0	0	0	0	0	0	0	0	0.0
8E	35			8	0	0	0	0	0	0	1.1
3E	39										
4E	39	0	0	0	0	0	0	0	0	0	0.0
West											
15WS	27	0	0	0	0	0	0	0	0	0	0.0
16WN	27	0	0	0	0	0	0	0	0	0	0.0
14W	29	0	0	0	0	0	0	0	0	0	0.0
12W	30	0	0	8	0	0	0	0	0	0	0.9
11W	32	0	0	0	0	0	0	0	0	0	0.0
10W	35	1	0	0	0	0	0	0	0	0	0.1
9W	35	0	0	0	0	0	0	0	2	0	0.2
8W	36	0	0	0	0	0	0	0	0	0	0.0
7W	37	0	0	0	0	0	0	0	0	0	0.0
3W	39	1	0	0	0	0	0	0	0	0	0.1
4W	39	0	0	0	0	0	0	0	0	0	0.0
5W	39	1	0	0	0	0	0	0	0	0	0.1
Effort		24	24	25	25	25	25	25	24	24	221
Catch		3	0	16	0	0	0	0	10	1	30
C/E		0.13	0.00	0.64	0.00	0.00	0.00	0.00	0.42	0.04	0.14

TABLE 28

2006 HUDSON RIVER ALEWIFE LENGTH FREQUENCY

TL (mm)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul 11	Jul 25	Aug 8	Aug 22	Sep 7	Sep 19	Oct 19	Oct 27	Nov 9	Weeks 4 - 9	Weeks 1 - 9
< 25	0	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	0	0	0	0	0	0	0	0
30 - 34	0	0	0	0	0	0	0	0	0	0	0
35 - 39	0	0	0	0	0	0	0	0	0	0	0
40 - 44	0	0	1	0	0	0	0	0	0	0	1
45 - 49	0	0	0	0	0	0	0	0	0	0	0
50 - 54	2	0	1	0	0	0	0	0	0	0	3
55 - 59	1	0	1	0	0	0	0	0	0	0	2
60 - 64	0	0	1	0	0	0	0	0	0	0	1
65 - 69	0	0	1	0	0	0	0	0	0	0	1
70 - 74	0	0	2	0	0	0	0	1	0	1	3
75 - 79	0	0	6	0	0	0	0	1	0	1	7
80 - 84	0	0	3	0	0	0	0	2	0	2	5
85 - 89	0	0	0	0	0	0	0	1	0	1	1
90 - 94	0	0	0	0	0	0	0	0	0	0	0
95 - 99	0	0	0	0	0	0	0	2	0	2	2
100 - 104	0	0	0	0	0	0	0	0	0	0	0
105 - 109	0	0	0	0	0	0	0	3	0	3	3
110 - 114	0	0	0	0	0	0	0	0	1	1	1
115 - 119	0	0	0	0	0	0	0	0	0	0	0
120 - 124	0	0	0	0	0	0	0	0	0	0	0
125 - 129	0	0	0	0	0	0	0	0	0	0	0
130 - 134	0	0	0	0	0	0	0	0	0	0	0
135 - 139	0	0	0	0	0	0	0	0	0	0	0
140 - 144	0	0	0	0	0	0	0	0	0	0	0
145 - 149	0	0	0	0	0	0	0	0	0	0	0
> 149	0	0	0	0	0	0	0	0	0	0	0
Measured	3	0	16	0	0	0	0	10	1	11	30
Mean	52.00	0.00	70.13	0.00	0.00	0.00	0.00	91.10	113.00	93.09	76.73
StDev	2.65		11.71					12.34		13.44	17.96

TABLE 29

2006 HUDSON RIVER BLUEBACK HERRING CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	0	0	0	0	0	0	0	9	0	1.0
21E	23	0	0	0	0	0	0	0	10	1	1.2
17E	24	0	0	0	0	0	0	0	0	0	0.0
16E	25	0	0	0	0	0	0	0	0	0	0.0
12E	29	0	0	0	0	0	0	0	0	0	0.0
14E	29	0	0	0	0	0	0	0	1		0.1
19E	33	0	0	0	0	0	0	0	0	0	0.0
11E	34	0	0	0	0	0	0	0	2	3	0.6
9E	34	0	0	0	0	0	0	0		2	0.3
7EE	35	0	0	0	0	0	0	0	1	0	0.1
7EW	35	0	0	0	0	0	0	0	0	0	0.0
8E	35			2	0	0	0	0	0	0	0.3
3E	39										
4E	39	0	0	0	0	0	0	0	0	0	0.0
West											
15WS	27	0	1	0	0	0	0	0	0	0	0.1
16WN	27	0	2	0	0	0	0	0	0	0	0.2
14W	29	0	1	0	0	0	0	1	0	0	0.2
12W	30	0	21	0	0	0	0	0	0	0	2.3
11W	32	0	0	0	0	0	0	0	0	0	0.0
10W	35	0	0	1	0	0	0	0	0	0	0.1
9W	35	0	5	0	0	0	0	0	1	0	0.7
8W	36	0	5	13	0	0	0	0	1	0	2.1
7W	37	0	0	0	0	0	0	0	0	0	0.0
3W	39	0	0	0	0	0	0	0	0	0	0.0
4W	39	0	0	0	0	0	0	1	0	0	0.1
5W	39	0	2	0	0	0	0	0	0	0	0.2
Effort		24	24	25	25	25	25	25	24	24	221
Catch		0	37	16	0	0	0	2	25	6	86
C/E		0.00	1.54	0.64	0.00	0.00	0.00	0.08	1.04	0.25	0.39

TABLE 30

2006 HUDSON RIVER BLUEBACK HERRING LENGTH FREQUENCY

TL (mm)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul 11	Jul 25	Aug 8	Aug 22	Sep 7	Sep 19	Oct 19	Oct 27	Nov 9	Weeks 4 - 9	Weeks 1 - 9
< 25	0	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	0	0	0	0	0	0	0	0
30 - 34	0	13	1	0	0	0	0	0	0	0	14
35 - 39	0	14	6	0	0	0	0	0	0	0	20
40 - 44	0	8	5	0	0	0	0	0	0	0	13
45 - 49	0	2	3	0	0	0	0	0	0	0	5
50 - 54	0	0	0	0	0	0	0	0	0	0	0
55 - 59	0	0	0	0	0	0	0	0	0	0	0
60 - 64	0	0	0	0	0	0	0	1	0	1	1
65 - 69	0	0	1	0	0	0	0	0	0	0	1
70 - 74	0	0	0	0	0	0	0	5	1	6	6
75 - 79	0	0	0	0	0	0	2	5	2	9	9
80 - 84	0	0	0	0	0	0	0	11	1	12	12
85 - 89	0	0	0	0	0	0	0	3	2	5	5
90 - 94	0	0	0	0	0	0	0	0	0	0	0
95 - 99	0	0	0	0	0	0	0	0	0	0	0
100 - 104	0	0	0	0	0	0	0	0	0	0	0
105 - 109	0	0	0	0	0	0	0	0	0	0	0
110 - 114	0	0	0	0	0	0	1	0	0	1	1
115 - 119	0	0	0	0	0	0	1	0	0	1	1
120 - 124	0	0	0	0	0	0	0	0	0	0	0
125 - 129	0	0	0	0	0	0	0	0	0	0	0
130 - 134	0	0	0	0	0	0	0	0	0	0	0
135 - 139	0	0	0	0	0	0	0	0	0	0	0
140 - 144	0	0	0	0	0	0	0	0	0	0	0
145 - 149	0	0	0	0	0	0	0	0	0	0	0
> 149	0	0	0	0	0	0	0	0	0	0	0
Measured	0	37	16	0	0	0	4	25	6	35	88
Mean	0	36.68	41.63	0	0	0	94.75	78.76	80.50	80.89	55.16
StDev	0	4.07	7.26	0	0	0	21.70	6.41	5.54	10.05	22.38

TABLE 31

2006 HUDSON RIVER ATLANTIC MENHADEN CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	0	0	1	0	0	0	0	17	0	2.0
21E	23	0	0	0	0	0	0	0	6	0	0.7
17E	24	0	0	0	0	0	0	0	0	0	0.0
16E	25	0	0	0	0	0	0	0	0	0	0.0
12E	29	0	0	0	0	0	0	0	1	0	0.1
14E	29	0	0	0	0	0	0	0	0		0.0
19E	33	0	0	0	0	190	0	0	1	0	21.2
11E	34	0	0	0	0	3	0	0	0	0	0.3
9E	34	0	0	1	0	0	0	0		0	0.1
7EE	35	2194	9	3	0	0	0	0	0	0	245.1
7EW	35	0	0	0	5	0	0	0	0	0	0.6
8E	35			19	30	1	0	3	0	0	7.6
3E	39										
4E	39	2	0	0	5	3	5	1	0	0	1.8
West											
15WS	27	0	0	54	6	1	55	0	0	0	12.9
16WN	27	105	0	2	0	25	0	0	0	0	14.7
14W	29	0	0	3	0	0	0	0	0	2	0.6
12W	30	1	12	46	1	0	4	0	0	0	7.1
11W	32	5	0	16	0	0	0	0	0	0	2.3
10W	35	7	0	6	0	0	0	0	0	0	1.4
9W	35	2	0	6	0	2	0	0	3	0	1.4
8W	36	4	0	8	26	3	0	0	2	0	4.8
7W	37	0	0	208	2	1	0	0	0	0	23.4
3W	39	0	0	39	0	0	0	0	0	0	4.3
4W	39	0	0	2	0	0	0	0	0	0	0.2
5W	39	7	0	3	1	0	0	0	0	0	1.2
Effort		24	24	25	25	25	25	25	24	24	221
Catch		2327	21	417	76	229	64	4	30	2	3170
C/E		96.96	0.88	16.68	3.04	9.16	2.56	0.16	1.25	0.08	14.34

TABLE 32

2006 HUDSON RIVER ATLANTIC MENHADEN LENGTH FREQUENCY

TL (mm)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul 11	Jul 25	Aug 8	Aug 22	Sep 7	Sep 19	Oct 19	Oct 27	Nov 9	Weeks 4 - 9	Weeks 1 - 9
< 25	0	0	0	0	0	0	0	0	0	0	0
25 - 29	1	0	0	0	0	0	0	0	0	0	1
30 - 34	19	0	1	0	0	0	0	0	0	0	20
35 - 39	2	8	9	1	0	0	0	0	0	1	20
40 - 44	0	3	10	1	1	0	0	0	0	2	15
45 - 49	0	0	21	1	0	0	0	0	0	1	22
50 - 54	0	0	34	2	0	0	0	0	0	2	36
55 - 59	1	0	33	5	2	0	0	0	0	7	41
60 - 64	1	0	17	8	2	0	0	1	0	11	29
65 - 69	0	0	17	5	4	0	0	2	0	11	28
70 - 74	1	0	5	17	3	3	1	14	1	39	45
75 - 79	3	0	7	15	6	0	1	6	0	28	38
80 - 84	7	1	5	9	6	2	0	3	1	21	34
85 - 89	16	0	1	6	7	2	0	0	0	15	32
90 - 94	15	0	0	2	2	0	0	0	0	4	19
95 - 99	7	5	0	1	2	1	0	0	0	4	16
100 - 104	11	3	0	0	3	0	1	0	0	4	18
105 - 109	0	0	0	0	1	0	0	2	0	3	3
110 - 114	1	0	0	0	0	0	0	1	0	1	2
115 - 119	0	1	2	0	0	0	1	0	0	1	4
120 - 124	0	0	3	1	0	0	0	0	0	1	4
125 - 129	0	0	0	0	0	0	0	0	0	0	0
130 - 134	0	0	0	0	0	2	0	0	0	2	2
135 - 139	0	0	0	1	0	2	0	0	0	3	3
140 - 144	0	0	0	1	6	2	0	1	0	10	10
145 - 149	2	0	0	0	10	5	0	0	0	15	17
> 149	0	0	34	0	14	20	0	0	0	34	68
Measured	87	21	199	76	69	39	4	30	2	220	527
Mean	76.43	66.62	94.72	74.24	109.83	136.95	92.50	79.57	77.50	97.60	91.79
StDev	28.90	31.17	82.65	16.30	36.22	30.46	20.21	16.16	6.36	35.51	57.89

TABLE 33

2006 HUDSON RIVER SILVERSIDE CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	1	0	11	30	3	30	30	9	0	12.7
21E	23	2	0	18	24	23	30	9	3	1	12.2
17E	24	30	0	20	20	30	0	0	0	1	11.2
16E	25	1	0	11	30	35	9	10	4	0	11.1
12E	29	0	2	30	18	30	30	30	0	0	15.6
14E	29	0	0	0	3	21	0	0	0		3.0
19E	33	0	0	30	10	6	31	12	0	0	9.9
11E	34	0	6	0	30	26	30	25	1	0	13.1
9E	34	0	1	30	0	13	30	0		0	9.3
7EE	35	0	0	0	2	30	17	0	0	0	5.4
7EW	35	0	0	2	30	34	22	0	0	0	9.8
8E	35			22	30	2	0	30	0	0	12.0
3E	39										
4E	39	0	0	1	0	1	1	0	0	0	0.3
West											
15WS	27	0	0	30	1	30	10	4	13	0	9.8
16WN	27	0	1	30	16	14	6	0	0	0	7.4
14W	29	0	0	11	16	30	3	0	0	0	6.7
12W	30	0	1	30	27	30	30	2	4	0	13.8
11W	32	0	1	2	10	0	1	0	0	0	1.6
10W	35	0	1	0	0	3	1	1	0	0	0.7
9W	35	0	0	0	8	0	3	0	0	1	1.3
8W	36	0	0	17	0	5	0	0	4	0	2.9
7W	37	0	0	2	0	2	0	0	0	0	0.4
3W	39	0	0	0	6	28	1	1	0	0	4.0
4W	39	0	0	0	1	0	11	1	0	0	1.4
5W	39	1	0	0	30	12	0	2	0	0	5.0
Effort		24	24	25	25	25	25	25	24	24	221
Catch		35	48	310	639	750	704	453	195	41	3175
C/E		1.46	0.54	11.88	13.68	16.32	11.84	6.28	1.58	0.13	14.37

TABLE 34 2006 HUDSON RIVER ATLANTIC SILVERSIDE LENGTH FREQUENCY

TL (mm)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul 11	Jul 25	Aug 8	Aug 22	Sep 7	Sep 19	Oct 19	Oct 27	Nov 9	Weeks 4 - 9	Weeks 1 - 9
< 25	0	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	1	0	0	0	0	0	1	1
30 - 34	0	2	4	5	0	1	0	0	1	7	13
35 - 39	1	0	5	4	2	0	1	0	0	7	13
40 - 44	2	4	3	14	9	1	0	1	0	25	34
45 - 49	2	1	13	13	4	0	5	2	1	25	41
50 - 54	10	1	14	8	4	0	13	0	0	25	50
55 - 59	13	0	14	14	7	1	2	4	0	28	55
60 - 64	6	1	12	24	5	0	7	2	0	38	57
65 - 69	0	2	11	22	15	2	20	4	0	63	76
70 - 74	0	0	25	8	20	11	22	3	0	64	89
75 - 79	0	0	67	34	32	18	2	1	0	87	154
80 - 84	0	1	72	78	49	37	5	2	0	171	244
85 - 89	0	0	39	71	81	43	6	1	1	203	242
90 - 94	0	0	18	36	93	51	11	3	0	194	212
95 - 99	0	0	0	9	57	75	16	5	0	162	162
100 - 104	0	0	0	1	26	51	16	5	0	99	99
105 - 109	1	1	0	0	4	4	17	4	0	29	31
110 - 114	0	0	0	0	0	1	12	1	0	14	14
115 - 119	0	0	0	0	0	0	2	0	0	2	2
120 - 124	0	0	0	0	0	0	0	0	0	0	0
125 - 129	0	0	0	0	0	0	0	0	0	0	0
130 - 134	0	0	0	0	0	0	0	0	0	0	0
135 - 139	0	0	0	0	0	0	0	0	0	0	0
140 - 144	0	0	0	0	0	0	0	0	0	0	0
145 - 149	0	0	0	0	0	0	0	0	0	0	0
> 149	0	0	0	0	0	0	0	0	0	0	0
Measured	35	13	297	342	408	296	157	38	3	1244	1589
Mean	55.60	54.92	73.88	75.18	84.75	90.64	83.08	81.92	56.33	83.16	80.58
StDev	11.01	21.64	13.94	15.89	13.39	9.93	20.51	20.45	28.43	15.86	16.49

TABLE 35

2006 HUDSON RIVER YOY BLUE CRAB CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	0	0	0	0	0	0	4	0	1	0.6
21E	23	9	0	2	0	2	0	4	2	0	2.1
17E	24	0	0	0	5	0	2	0	0	2	1.0
16E	25	0	0	0	0	12	1	2	0	0	1.7
12E	29	0	0	0	0	2	0	0	12	0	1.6
14E	29	0	0	1	0	0	0	0	0		0.1
19E	33	0	0	0	0	0	3	0	5	0	0.9
11E	34	0	0	0	6	15	4	1	0	0	2.9
9E	34	0	0	0	0	0	1	0		0	0.1
7EE	35	0	0	0	0	1	1	2	0	0	0.4
7EW	35	0	0	0	0	6	1	1	0	0	0.9
8E	35			0	0	0	2	7	0	0	1.3
3E	39										
4E	39	0	0	0	2	0	1	7	0	0	1.1
West											
15WS	27	0	2	0	23	0	0	0	0	0	2.8
16WN	27	1	0	0	0	0	0	0	1	1	0.3
14W	29	0	0	0	0	8	6	0	6	0	2.2
12W	30	3	0	0	0	1	8	4	10	0	2.9
11W	32	0	0	6	0	50	2	0	0	0	6.4
10W	35	2	0	0	0	0	1	0	0	0	0.3
9W	35	1	0	0	0	0	0	0	0	0	0.1
8W	36	0	0	0	0	20	0	0	0	0	2.2
7W	37	0	0	0	0	2	0	0	0	0	0.2
3W	39	0	0	0	0	0	0	0	0	0	0.0
4W	39	0	0	0	0	0	0	0	0	0	0.0
5W	39	0	0	0	0	0	0	0	0	0	0.0
Effort		24	24	25	25	25	25	25	24	24	221
Catch		16	2	9	36	119	33	32	36	4	287
C/E		0.67	0.08	0.36	1.44	4.76	1.32	1.28	1.50	0.17	1.30

TABLE 36

2006 HUDSON RIVER OLDER BLUE CRAB CATCH BY STATION

Station	River Mile	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E
		Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	
East											
18E	23	3	0	0	1	0	0	0	0	0	0.4
21E	23	0	1	0	0	1	0	0	0	0	0.2
17E	24	3	1	0	0	0	1	0	0	0	0.6
16E	25	0	1	0	0	0	0	0	0	0	0.1
12E	29	3	9	2	0	0	0	0	0	0	1.6
14E	29	2	1	0	0	0	0	0	0	0	0.4
19E	33	0	0	0	0	0	1	0	0	0	0.1
11E	34	3	4	0	2	0	0	0	0	0	1.0
9E	34	0	0	0	0	0	2	0	0	0	0.3
7EE	35	1	5	0	2	1	3	0	0	0	1.3
7EW	35	1	3	0	3	0	0	0	0	0	0.8
8E	35			0	0	0	0	3	0	0	0.4
3E	39										
4E	39	2	0	0	2	6	0	0	0	0	1.1
West											
15WS	27	0	3	0	2	0	0	0	0	0	0.6
16WN	27	0	0	0	0	0	0	0	0	0	0.0
14W	29	2	0	0	0	0	0	0	0	0	0.2
12W	30	0	2	0	0	0	0	0	0	0	0.2
11W	32	4	0	0	0	6	1	0	0	0	1.2
10W	35	0	0	0	0	0	2	0	0	0	0.2
9W	35	2	0	0	0	0	0	0	0	0	0.2
8W	36	16	0	0	0	0	0	0	0	0	1.8
7W	37	0	1	0	0	0	0	0	0	0	0.1
3W	39	2	0	0	0	0	0	0	0	0	0.2
4W	39	0	0	0	2	0	0	0	0	0	0.2
5W	39	0	1	0	0	0	0	0	0	0	0.1
Effort		24	24	25	25	25	25	25	24	24	221
Catch		44	32	2	14	14	10	3	0	0	119
C/E		1.83	1.33	0.08	0.56	0.56	0.40	0.12	0.00	0.00	0.54

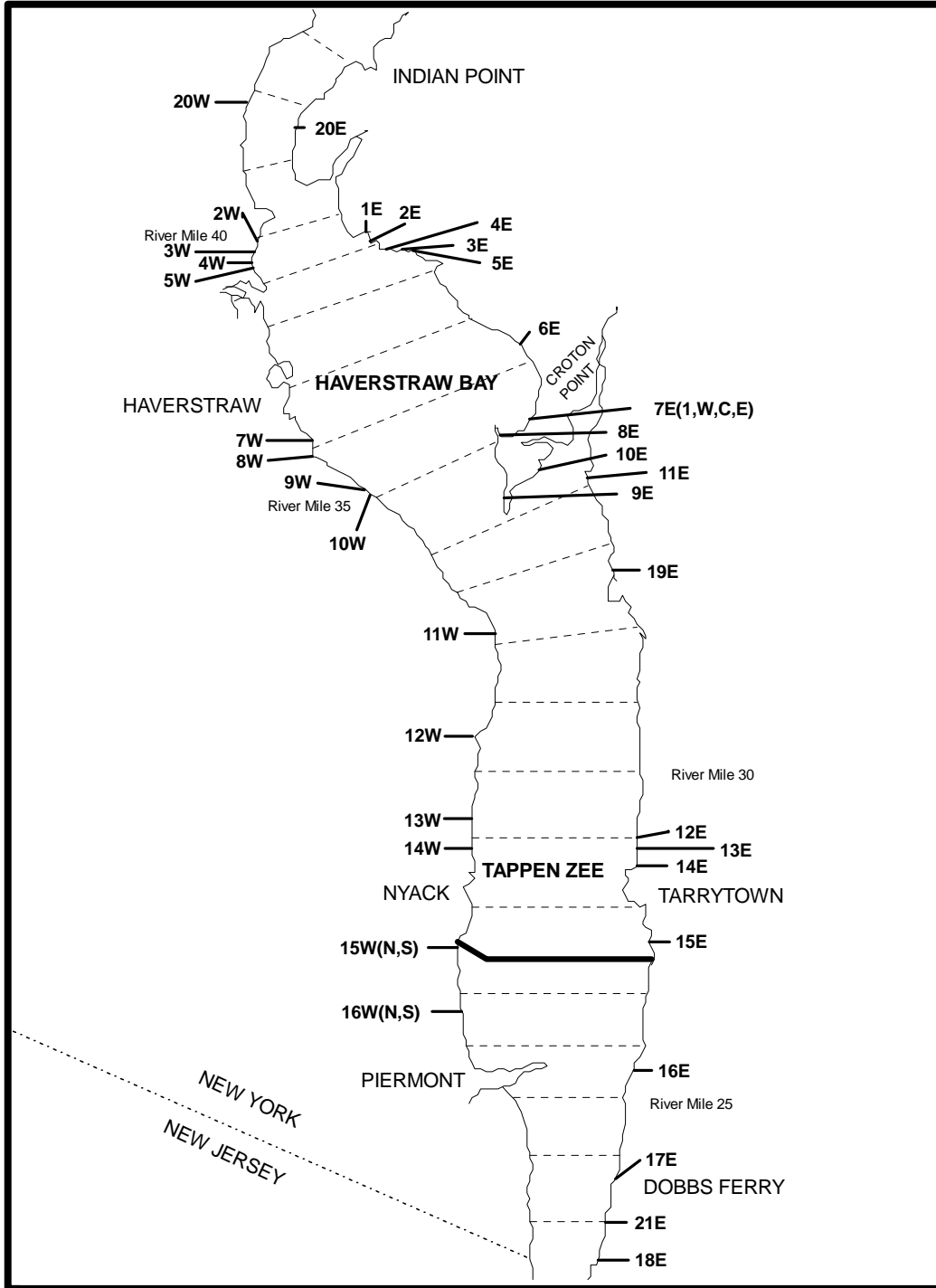


Figure 1. Hudson River striped bass survey map of station locations.

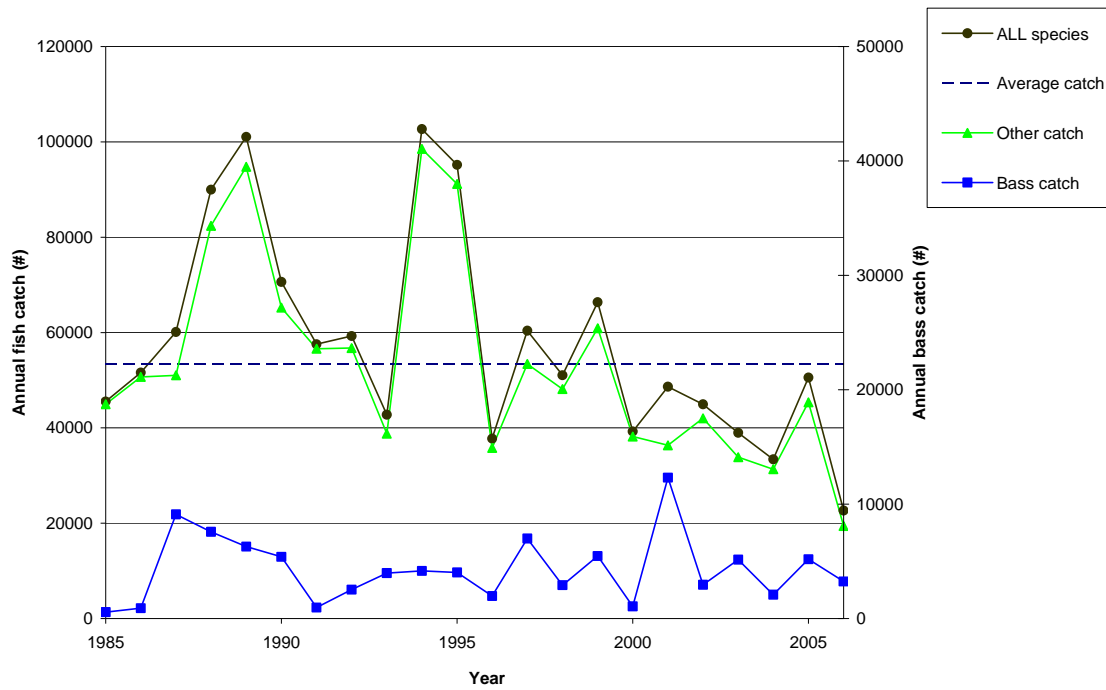


Figure 2. Catch of species from 1985 to 2006, using the 9-week survey period. The catch of striped bass (secondary y-axis) and the total catch with the bass catch subtracted are also included.

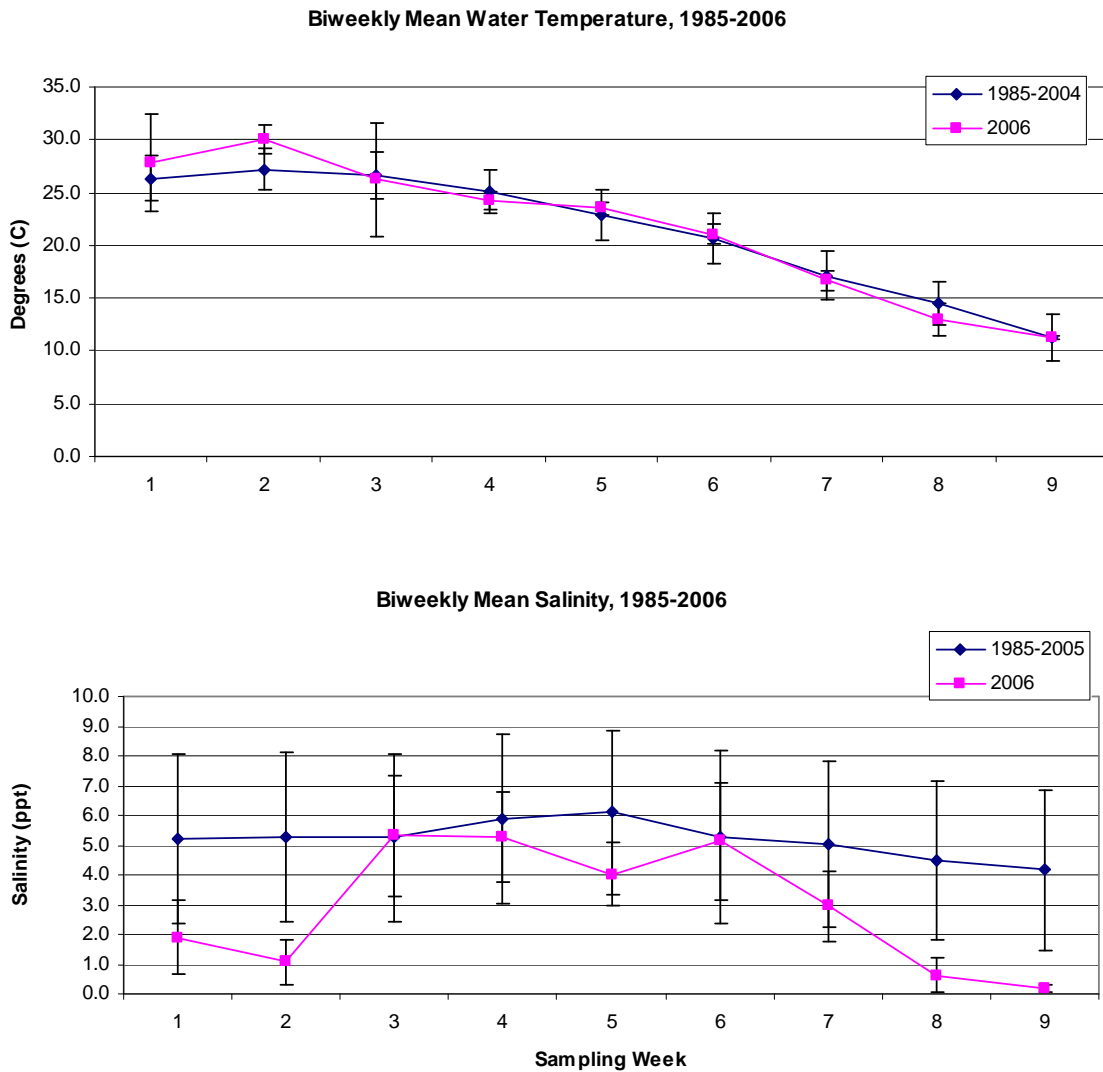


Figure 3. Biweekly mean temperature (top) and salinity (bottom) for each of the 9 sampling weeks. Data from present year (2006) and average conditions from full survey (1985-2005) are provided.

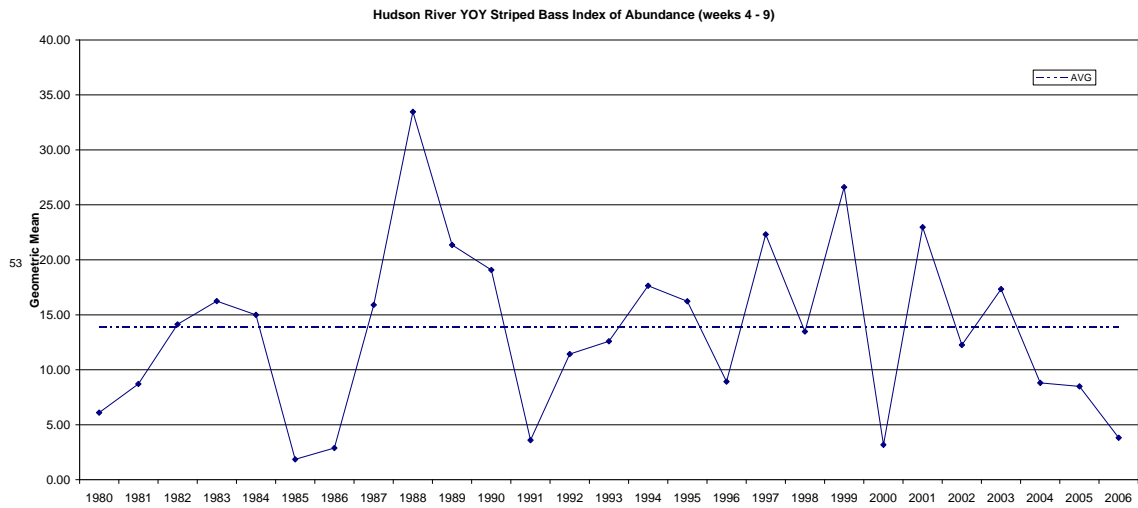


Figure 4. Striped bass YOY index of abundance (geometric mean) calculated for each survey year 1980-2006.

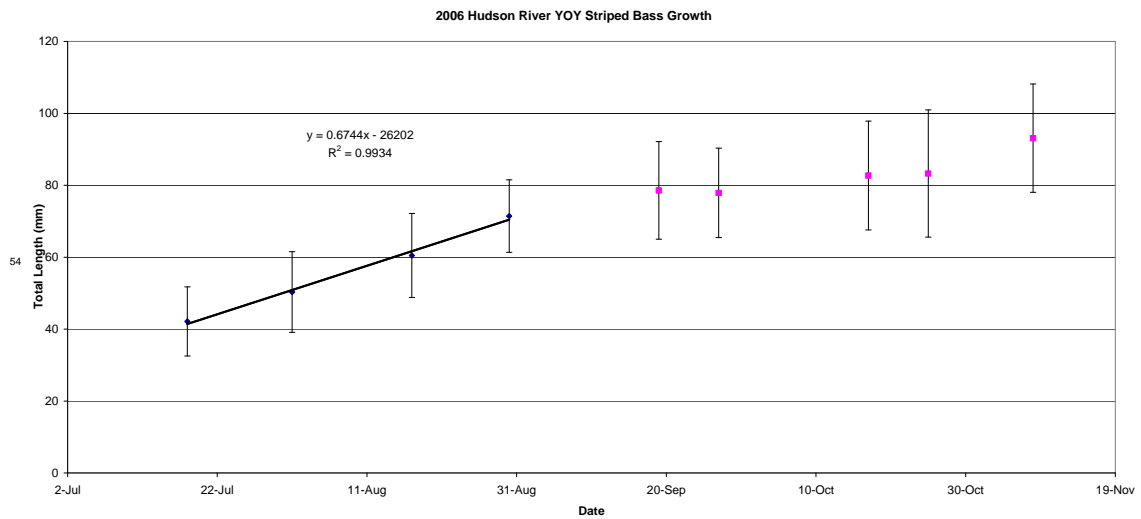


Figure 5. Striped bass YOY calculated growth rate for 2006.

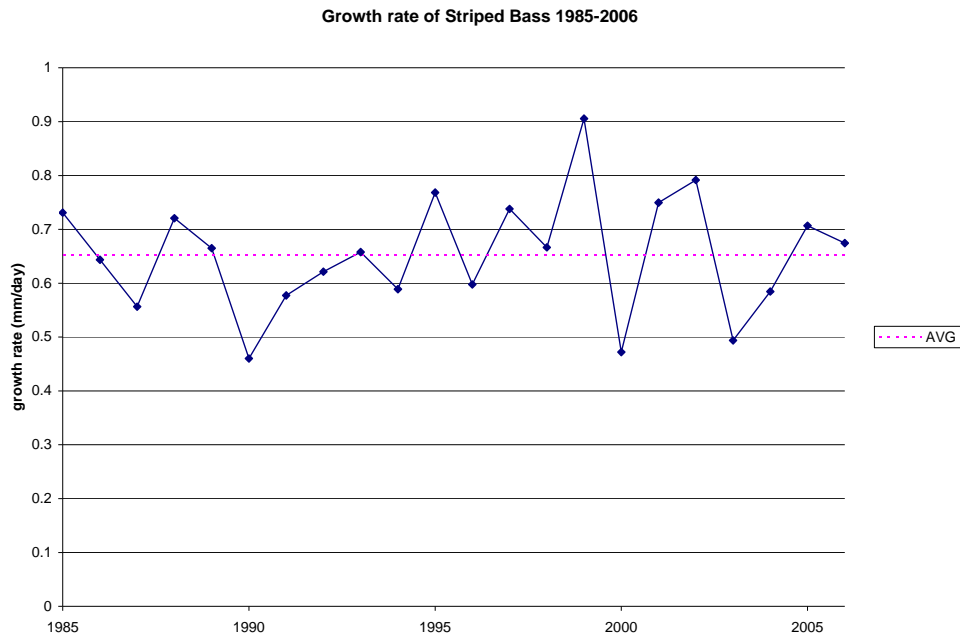


Figure 6. Striped bass YOY growth rate for each survey year 1980-2006.

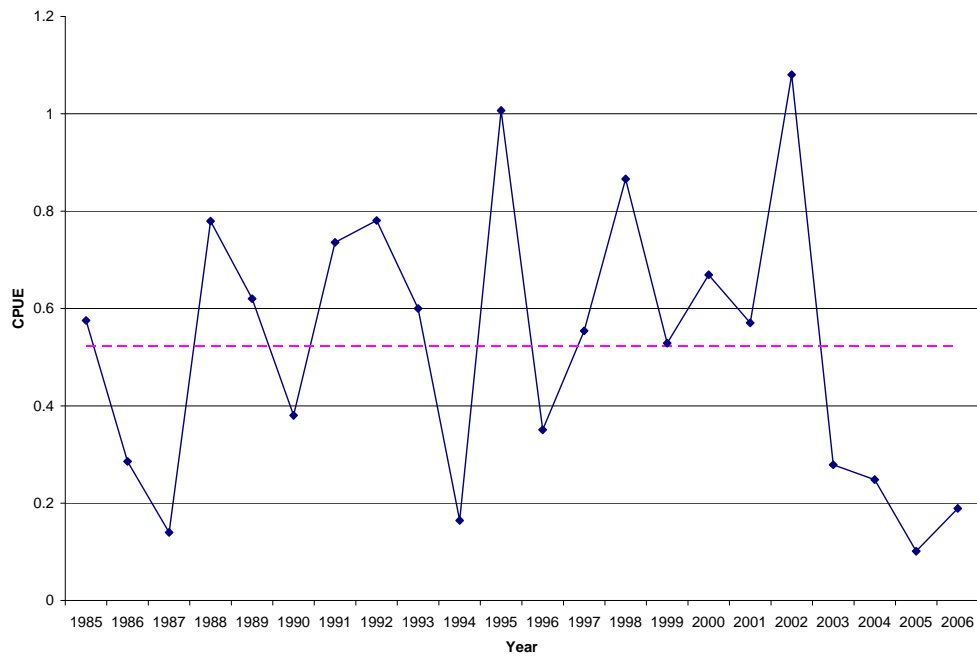


Figure 7. Older (1+) Striped bass catch per unit effort (CPUE) calculated for each survey year 1980-2006.

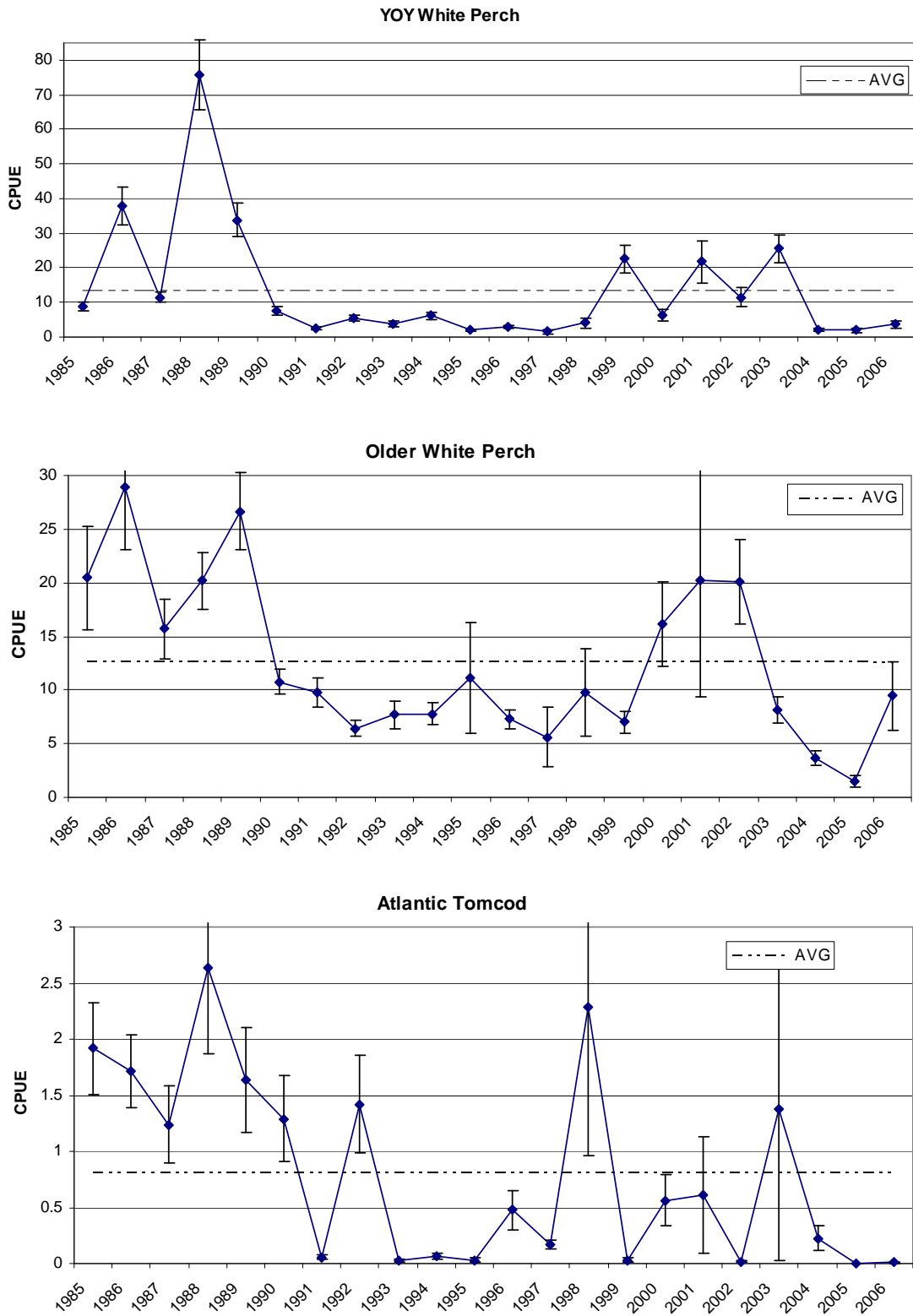


Figure 8. Catch per unit effort (CPUE) for each survey year for YOY white perch (top), older white perch (middle) and Atlantic tomcod (bottom).

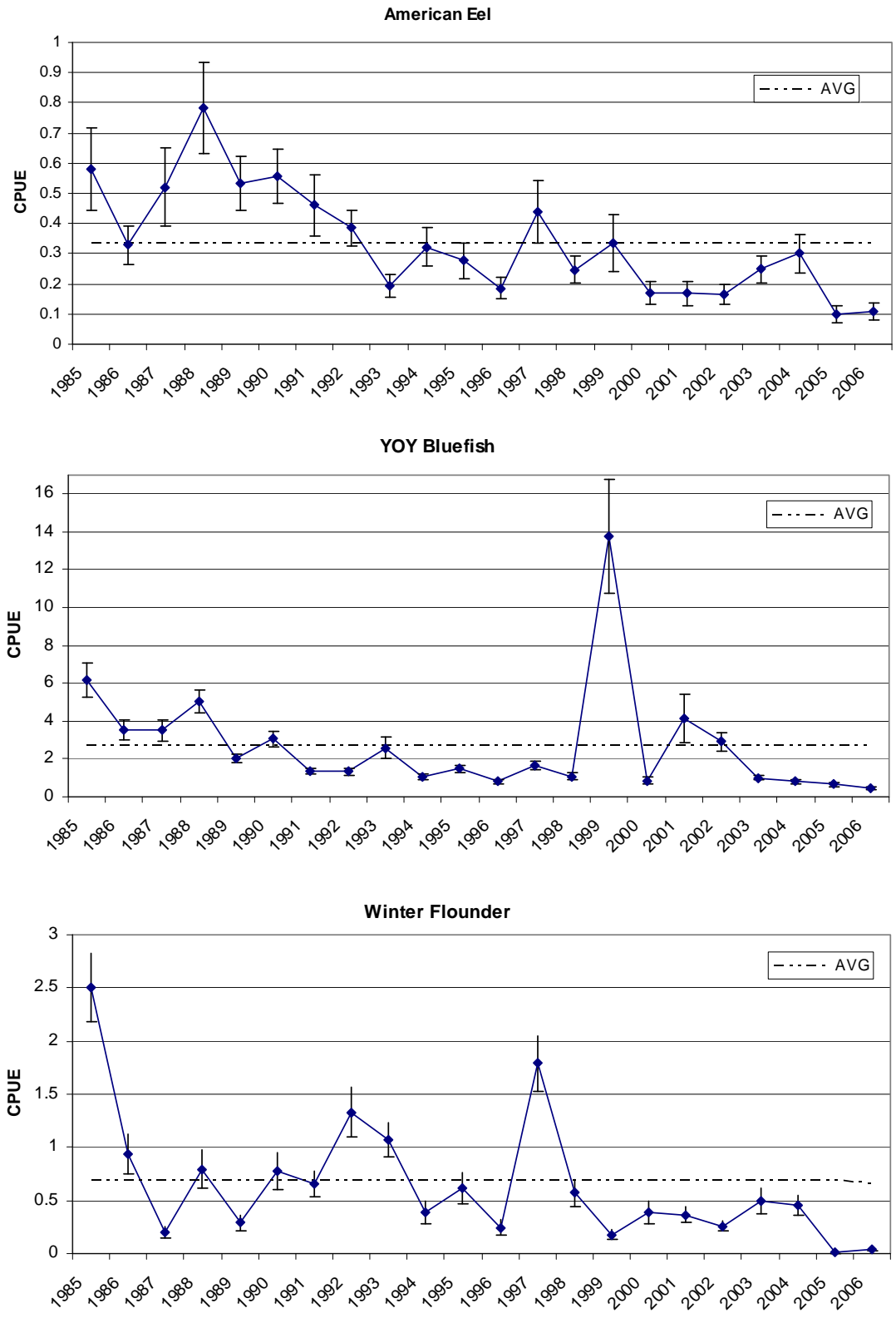


Figure 9. Catch per unit effort (CPUE) for each survey year for American eel (top), YOY bluefish (middle) and winter flounder (bottom).

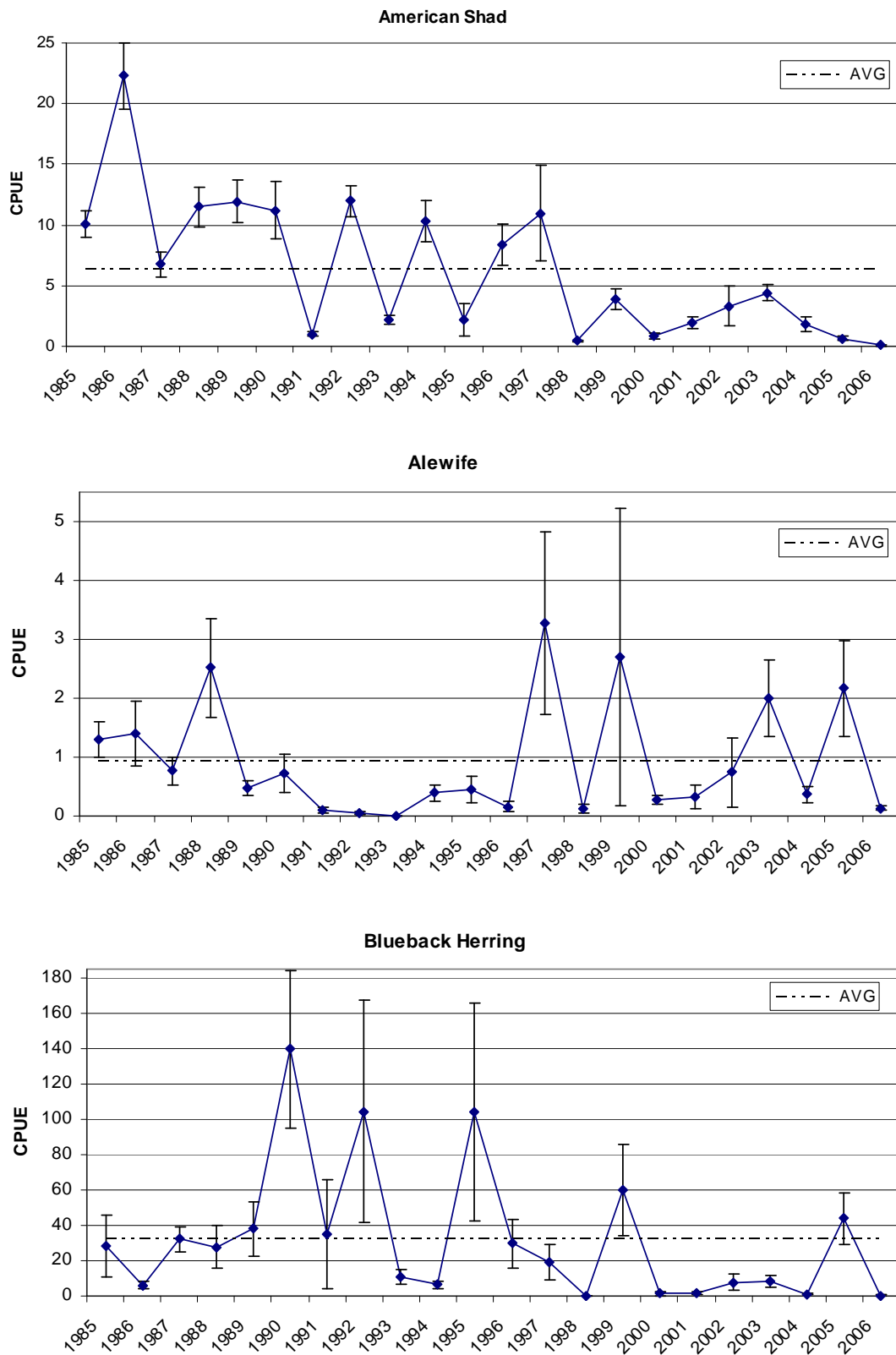


Figure 10. Catch per unit effort (CPUE) for each survey year for American shad (top), Alewives (middle) and blueback herring (bottom).

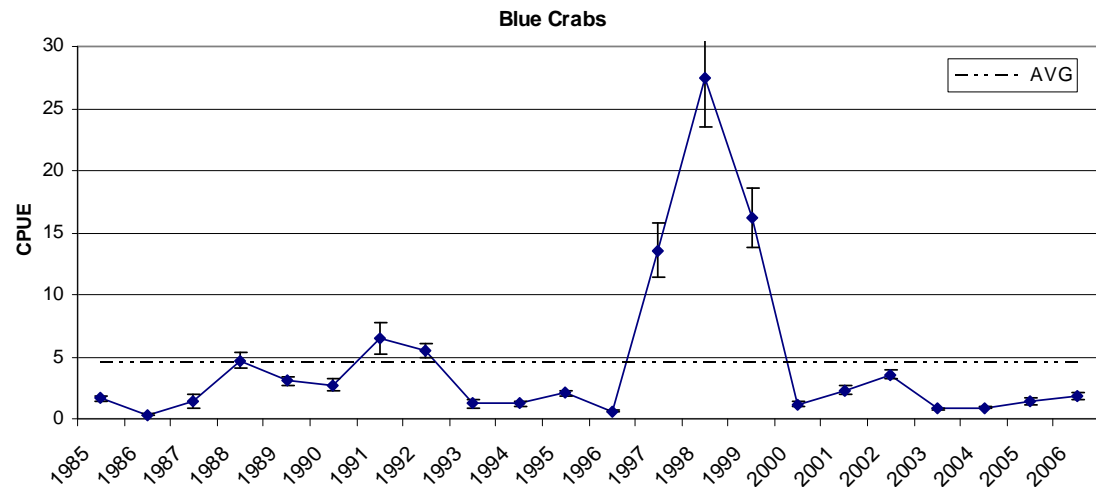
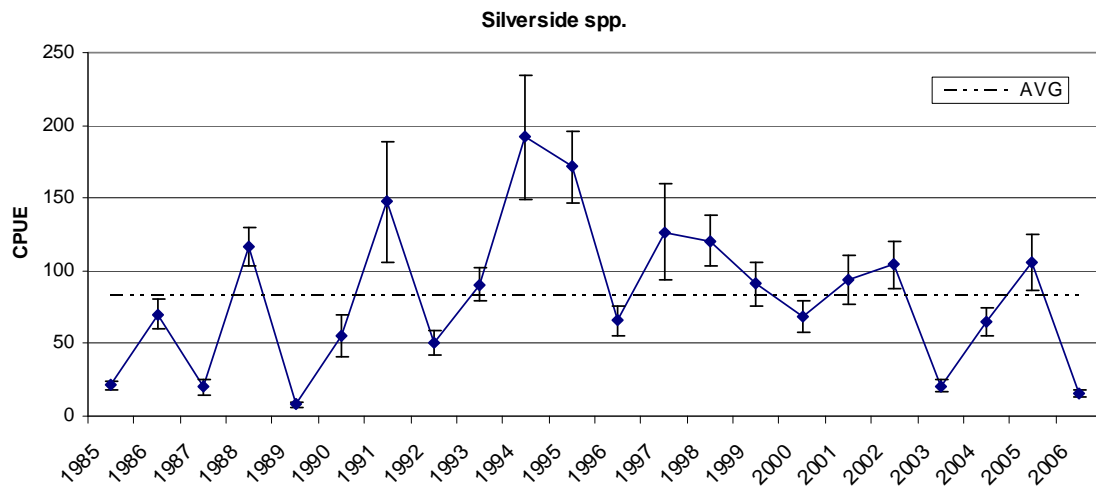
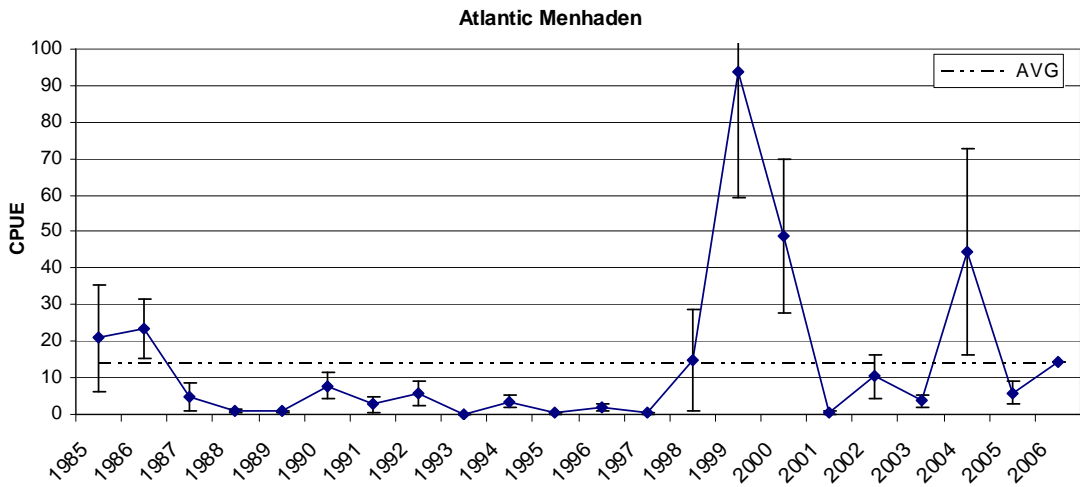


Figure 11. Catch per unit effort (CPUE) for each survey year for Atlantic menhaden (top), silversides (middle) and blue crabs (bottom).