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

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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 reestablished. 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 been 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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			Air Tem	perature			H2O Ter	nperature	
Dates	Week	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

			Sali	nity			Dissolve	d Oxygen	
Dates	Week	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

Mean Air Temperature (deg. C)

Week	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	28.7	27.9	30.4	28.7	23.6	27.4	27.4	22.2	28.4	24.6	27.9	24.1	24.0	30.1	28.2	28.2		31.3	27.9	26.5		34.9
2	29.3	26.8	31.4	28.0	33.0	25.3	22.8	23.1	27.6	27.7	30.3	27.0	28.2	27.6	26.1	31.7	26.9	33.9	25.0	26.5	30.3	35.7
3		24.2	28.2	31.1	24.5	22.5	22.6	23.2	24.0	23.6	26.8	26.2	29.3	26.4	27.0	26.5	28.4	31.2	30.7	23.9	29.2	28.1
4	25.0	24.1	22.1	20.5	24.7	23.4	20.6	19.0	25.4	20.0	24.4	27.1	24.7	27.1	25.1	25.1	25.2	27.9	15.0	22.2	30.1	23.5
5	21.4	23.0	24.8	21.7	19.7	27.4	16.4	21.0	20.8	20.2	20.2	16.2	20.8	23.4	22.2	20.3	24.5	28.2	22.6	21.2	27.3	24.1
6	17.6	23.0	22.1	24.1	22.0	20.8	16.9	10.8	13.2	16.5	16.8	17.9	18.5	25.8	20.2	20.6	18.0	21.7	13.8	20.6	25.2	20.5
7	18.9	20.0	15.7	15.2	18.3	19.9	9.2	10.2	13.9	12.6	15.6	18.9	23.2	14.7	15.5	13.7	12.2	15.6	15.1	14.8	18.9	12.8
8	13.3	16.7	13.4	13.5	14.1	15.8	4.6	9.9	13.0	12.9	11.8	13.1	14.3	14.4	12.9	13.0	20.0	8.2	11.2	14.6	9.5	12.3
9	13.1	4.4	11.0	11.5	13.8	12.5	8.2	5.6	7.1	16.2	3.6	9.1	14.4	9.2	12.2	6.1	9.9	7.5	3.8	10.3	9.1	16.2

Mean Water Temperature (deg. C)

Week	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	26.5	25.2	28.0	26.5	24.3	27.2	28.0	25.5	26.9	27.9	26.9	24.0	24.5	25.1	28.5	24.6	26.0	26.0	26.8	26.0	27.0	27.9
2	27.0	26.1	28.4	26.9	27.2	26.3	26.4	24.5	26.7	29.7	29.4	26.4	25.8	26.5	27.6	27.0	27.2	27.5	27.0	26.8	27.4	30.1
3	27.9	25.4	28.4	27.4	25.5	25.8	25.0	24.0	26.1	28.0	28.0	25.8	25.8	26.5	27.5	23.8	27.9	27.4	28.5	26.4	28.6	26.3
4	25.6	23.9	23.6	22.2	25.2	25.4	24.7	23.4	26.0	25.3	25.4	26.3	24.0	26.8	24.8	23.3	27.0	26.8	23.6	25.5	27.6	24.3
5	22.3	22.6	24.0	21.5	23.6	24.5	21.1	23.0	25.3	21.1	23.0	20.8	23.0	20.4	24.7	19.6	25.1	25.0	23.7	21.4	26.2	23.5
6	19.8	21.5	21.1	22.0	22.1	19.6	19.5	16.5	18.5	21.7	20.3	20.6	20.9	25.1	20.4	19.5	20.5	23.1	20.6	20.2	25.9	21.1
7	19.0	19.1	14.4	17.7	17.4	18.8	15.1	13.9	17.2	18.1	19.8	15.9	20.1	19.0	15.5	16.1	14.4	20.1	18.1	15.6	16.0	16.7
8	15.6	15.9	13.2	14.0	16.4	18.2	12.3	12.6	14.9	16.5	17.2	11.5	13.2	16.0	13.8	12.1	17.6	15.6	14.1	14.6	12.0	12.9
9	13.7	11.5	9.6	11.0	13.4	13.7	10.0	10.0	11.3	16.2	12.7	8.1	13.8	11.6	11.8	8.8	12.3	11.0	9.5	9.3	11.3	11.2

Mean Salinity (ppt)

Week	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	5.8	4.5	6.0	7.4	4.4	11.9	7.5	3.0	6.2	6.0	5.6	0.6	6.1	4.0	5.1	1.6	4.2	8.3	3.9	6.5	3.5	1.9
2	4.5	4.8	6.8	6.5	7.4	5.8	8.4	3.9	9.3	3.9	5.5	2.2	6.7	3.3	8.6	1.2	7.1	8.0	3.7	2.6	4.9	1.1
3	3.7	2.6	7.2	6.1	5.9	4.9	7.7	8.0	6.1	7.0	6.2	4.2	5.3	6.8	8.1	2.0	7.5	9.7	1.1	1.3	6.1	5.3
4	3.9	2.5	6.9	6.3	8.6	3.4	7.8	4.7	6.9	3.9	8.8	3.7	7.2	4.8	9.6	1.7	8.5	9.5	5.9	0.7	7.7	5.3
5	7.1		4.5	5.8	7.1	6.7	8.1	5.8	5.1	6.2	9.1	4.7	6.9	7.9	8.6	3.5	9.0	10.9	3.2	0.4	6.8	4.0
6	6.0	4.3	3.8	5.0	7.4	5.1	6.4	6.3	4.4	5.5	9.6	2.6	6.2	6.3	1.5	2.9	8.3	9.2	1.6	0.2	7.7	5.1
7	2.6	5.0	3.5	5.0	3.2	6.0	6.8	5.1	4.5	4.0	8.0	5.3	6.6	5.6	3.3	6.7	9.6	8.7	1.7	5.1	0.2	3.0
8	3.8	4.6	5.8	5.4	5.4	2.4	7.0	3.1	4.7	5.4	2.3	1.5	8.2	4.8	3.9	7.1	8.0	7.3	0.7	4.2	8.0	0.6
9	5.7	5.4	2.2	6.4	3.7	3.7	6.4	4.4		6.8	0.6	0.3	6.1	5.6	1.9	6.5	9.1	5.0	0.6	5.0	1.0	0.2

Mean Dissolved Oxygen (mg/L)

WEEK 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1		7.1	7.4	9.9	7.4	8.6	9.1	9.2		8.3			8.4	6.2		5.8	6.3	6.8	6.5	7.2	6.7
2		9.3	8.1	8.1	8.0	8.9	8.2	7.6	7.2				7.4	6.5	6.5	5.2	6.3	5.9	7.6	8.16	8.0
3		7.4	10.2	8.7	7.9	6.3	7.6	9.0	7.7	8.3			6.7	5.6	7.4	4.8	6.8	8.7	7.7	7.12	6.9
4		7.6		8.3	7.4	8.5	9.1	7.0	7.8	7.5			7.2	5.2	7.4	5.4	6.9	5.5	6.7	8.08	5.5
5		8.6	8.0	8.2		7.8	8.9	7.2	7.9	8.9			7.1	4.4	6.5	6.1	6.1	7.3	11.4	6.2	6.3
6		8.6	9.6	7.4	9.6	9.3	9.4	8.5	7.7	6.3				4.8	7.3	4.6	6.0	7.0	9.4	7.29	6.8
7		9.7	9.9	8.5	8.4	9.2	9.8	9.0	8.3	5.1				4.1	6.9		6.0	7.0	8.5	7.8	7.4
8		7.8	9.3	8.3	9.1	9.6	9.2	8.7	8.2	5.9				4.5	9.0	5.6	7.4	7.9	9.5	8.22	8.3
9		8.3	9.4	9.1	8.8	10.2	9.3		8.0	6.2				5.0	8.8	7.2	8.2	9.0	10.5		8.9

		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Total	Total	CPUE	CPUE
		Jul	Aug	Aug	Aug	Sep	Sep	Oct	Oct	Nov	Weeks	Weeks	Weeks	Weeks
Species	Age*	18	1	17	30	19	27	17	25-26	8	4 - 9	1 - 9	1 - 9	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	050	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 bullead 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
	•													0.20
Total Invertebrate Catch	l	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

Seminorization of the properties of the properti	ADLE 4												JIE C		OL	190													
Seminorization of the properties of the properti		Age*	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Seminate Networks and Market Networks and Mark	Diadromous Alewife	99	1.1	55.6	1.1	1.1	0.3	0.8	1.6	0.4	2.8	0.4	0.4	0.1	0.0		0.4	0.0	0.0	0.5	0.1	4.4	0.4	0.1	0.1	1.1	0.3	0.1	0.1
Temper series of the proper se	American eel	99	0.2	0.5	0.9	8.0	8.0	0.4	0.2	0.5	0.6	0.4	0.4	0.4	0.2		0.2	0.2	0.2	0.5	0.1	0.3	0.1	0.1	0.2	0.2	0.1	0.1	0.1
Propose propose of the propose of th	Atlantic tomcod																											0.3	
The propose propose of the propose o	Blueback herring																												
The series of th	Striped bass	1					0.5		0.3	0.1	8.0	0.6				0.6	0.2												
Semigranismin and Semi Property of the propert	Striped bass (hatchery) Striped bass (hatchery)					0.1	0.3					0.6			0.3		0.1		0.0										
Segregation of the segretary of the segr	Estuarine																												
Telemental properties of the content	Fourspine stickleback Hogchoker															0.7		0.7				0.0	0.1	0.0	0.6		0.2		
Progression for the content of the c	Killifish spp.	99			16.1				8.8		19.8			0.7	0.7	0.1	2.2	1.4	0.1						6.8	2.3			
This primary implement of the content of the conten	Threespine stickleback		0.1		0.5	0.0			0.0	0.3	0.0			0.0	0.2	0.0	0.0	0.0	0.0						0.0		0.2	0.0	0.0
Semicrophise content of the content	White perch White perch																												
Semily Se	Freshwater																												
Super-placementales of the property of the pro	Black crappie Bluegill		0.1		0.0	0.1	0.4	0.1	0.6	0.4	0.2		0.1	0.0		0.0	0.1	0.1	0.0	0.2			0.3	0.0	0.7	0.0	0.0	0.1	0.0
The purpose of the pu	Brown bullead catfish						0.0			0.0	0.0		0.0		0.4	0.4		0.4	0.0		0.4	0.1	0.0		0.4	0.0		0.0	0.0
Signate plane of the property	Chain pickerel			0.1	0.2	0.0	0.1	0.1	0.1	0.2	0.1				0.1		0.2	0.1	0.1	0.0	0.1	0.1		0.0	0.1	0.1	0.0	0.0	0.0
Selective Heave 19	Fallfish Gizzard shad		0.0	0.1		0.1	0.1	0.0		0.3	0.0	0.0		0.1			0.0	0.1		0.2		0.1	0.2		0.1	0.1	0.1	0.0	0.0
	Golden shiner	99	0.3		0.1	0.1	0.2	0.0		0.5								0.1		0.2			0.2	0.1	0.1	0.1		0.0	0.0
Internet plantery and the property and t	Goldfish Hickory shad		0.0			0.0	0.0				0.0	0.0			0.0												0.5		
Seminate of the seminate of th	Johnny darter	99											0.0				0.0	0.0		0.0						0.0			
Reference partial part of the properties of the	Longnose sucker		0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0						0.0			0.0
Seedles would be a consider of the content of the c	Pumpkinseed Redbreast sunfish													0.0		0.0	0.1	0.0	0.0		0.0	0.1	0.1		0.0		0.1	0.1	0.0
Special submitted 69 03 02 02 08 19 0 00 00 00 00 00 00 00 00 00 00 00 00	Redear sunfish	99	0.7		0.4	0.5	0.2	0.0	0.0	0.0	0.0	0.1												0.0					
Fine Fine Fine Fine Fine Fine Fine Fine			0.3	0.2	0.8	1.9	1.9		0.0	0.0	0.3	0.5		0.0	0.0		0.2	0.0	0.1		0.5		0.1	0.0	0.0				
Mishe capping 99	Tesselated darter	99	0.0	0.0	0.1		0.2		0.0	0.4	0.0	0.1	0.2	0.0	0.0		0.1	0.0	0.1	0.9		0.0	0.0				0.1		0.0
Part	White catrish White crappie		0.0	0.1	0.2	0.8	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		0.0		0.0		
Singer cache	White sucker Yellow perch								0.0		0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Silsing silsin	Invertebrates																												
Silse cand 96 96 10 05 05 02 00 05 05 02 00 05 05 03 03 05 05 05 05 05 05 05 05 05 05 05 05 05	Blue crab					0.0							0.0																
Michical Mic	Blue crab	99	0.0				0.5		0.3	1.9		2.7	2.2	8.2								1.0	0.5	0.5		0.1	0.2	0.2	0.5
Mainten condender 1 02 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Clam Mudcrab													0.2	0.0		0.0			0.0		0.1			0.7				
Mismice consider of the content of t																													
Attantion menhanishame of 1 of 2 of 1 of 1 of 1 of 1 of 1 of 1	Atlantic croaker	99																								0.0	0.4		0.0
Attantione membandamenhame and seed the series of the seri	Atlantic menhaden		0.2	0.0			0.2						0.0							0.0			50.8	0.2			63.6	3.6	
Attanic themselfine	Atlantic menhaden	99	0.5		0.3											0.1						117.3							
Separation	Atlantic needletish Atlantic threadfin		0.3	0.3	0.7	0.1	0.0	1.1	0.1	0.3	0.3		0.6	0.1	0.1		0.1	0.1	0.0	1.9	0.1	0.0	0.0		0.0	0.0	0.0	0.1	0.0
Silverfield 1	Bay anchovy																												38.4
Substimything 99 99 10 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	Bluefish	1			3.0	0.0	1.2	2.4	2.2	0.9	3.0			0.6	0.7	0.7	0.6			1.3	1.2	13.0	0.2	4.0		0.6	0.3	0.5	0.5
Camerian, Busesported Section	Butterfish Butterflyfish		0.0	0.0		0.0						0.1							0.0				0.0		0.0				
Content Part	Cornetfish, bluespotted	99		0.4	0.4	0.4	0.0		0.4			0.4	0.0		0.0		0.4	0.4							0.0	0.0	0.0		
-loundfish	Cunner		0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.0		0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1		0.1	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Inshericizardish 99 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Grey snapper		0.0					0.0				0.0					0.0	0.0											
Naked Coby Saked	Inshore lizardfish	99		0.0								0.0		0.1	0.1					0.0	0.0			0.0	0.0				
Northern kinglish 99 0.0 0.0 0.1 0.0 0.0 0.1 0.0 0.0 0.0 0.0	Lookdown Naked Goby		0.0		0.0				0.1	0.3	0.1		0.2	0.2	0.1		0.0	0.1		0.1	0.1		0.0	0.2	0.1		0.0	0.0	0.0
Northern purifier	Northern kingfish	99						0.3	0.0	0.0	0.2	0.1	0.0	0.2		0.2	0.1	0.1		0.4	0.3	0.0		0.1	0.3	0.0		0.0	0.0
Northern senters 99 9	Northern puffer		0.5				1.1		0.9		4.4	1.9	1.4	1.2	0.6		0.4		0.2				0.1		1.2	0.4	0.0		0.3
Northern stargazer Northern stargazer Northern tongeles	Northern searobin																												
Oyset roadfish 99	Northern stargazer	99						0.0			0.0					0.0				0.1		0.0			0.0			0.0	
Permit 99	Northern tonguefish Oyster toadfish													0.0						0.0									
Finish 99	Permit	99																			0.0								
Silverside spp. 99 6.5 14.4 9.9 9.0 2.2 24.1 98.2 16.9 152.2 8.1 73.4 41.2 54.5 69.7 146.1 198.0 62.9 148.7 127.6 72.1 60.2 91.3 85.2 22.9 41.0 94.7 18.4 50.5 50.5 50.5 50.5 50.5 50.5 50.5 50	Pigfish Pinfish																			0.0									
Smallmouth flounder 99	Silver perch		6.5	111		9.0	22		08.2	16.0		Ω 1	73.4									72 1		01.3	85.2	22.0		04.7	18.4
Spott of the property of the p	Smallmouth flounder	99	0.5	14.4	3.3	3.0	2.2	24.1	30.2	10.5	102.2	0.1	75.4		54.5	0.0	140.1	130.0	02.5		127.0	12.1	00.2	31.3	00.2	22.5	41.0	34.1	10.4
Sportin butterflyfish 99 Sportin mojarra 99 Striped mullet 99 Sportin mojarra 99 Striped searobin 99 Sportin mojarra 99 Striped searobin 99 Sportin mojarra 99 Sportin mojarra 99 Striped searobin 99 Sportin mojarra 99 Striped searobin 99 Sportin mojarra 99 Sportin mojarra 99 Striped searobin 99 Sportin mojarra 99 Sportin mojarra 99 Sportin mojarra 99 Striped searobin 99 Sportin mojarra 90 Sportin mojarra 90	Spanish mackerel Spot				0.3	0.0		0.0	0.0		1.1						0.0		0.0			0.0	0.0			0.0		0.0	0.0
Spotted hake 99	Spotfin butterflyfish	99																							0.0				
Striped mullet 99 0.0 0.0 0.3 0.4 0.2 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.0	Spotfin mojarra Spotted hake													0.0	0.0		0.0			0.0									
Summer flounder 99 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.3 0.0 0	Striped mullet	99		0.0					0.1	0.0				0.0										0.0		0.0			
Tautog 1 1	Summer flounder			0.0					0.3	0.0			0.0				0.1		0.1	0.4			0.0			0.0	0.1	0.0	
Tautog 99 0.0 0.3 0.1 0.0 0.0 0.0 0.1 Weekfish 99 0.0 0.0 0.1 0.0 0.4 0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.0 0.0 0.0	Tautog									0.0			0.0	0.4	0.0						0.0							0.0	
White mullet 99 0.1 0.0 0.1 0.1 0.1 0.0 0.1 0.1 0.1 0.1	Tautog	99								0.0	0.1													U. I					
Windowpane flounder 99 0.0 0.0 0.0 0.0 0.0 Winter flounder 1 0.0 0.3 0.2 2.7 0.0	Weakfish White mullet														0.0	0.1						0.0				0.0	0.0		0.0
Winter flounder 1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Windowpane flounder	99		5.0		5.1	5.5	5.1			0.0		0.0				0.0												
Winter flounder 99 0.0 0.3 0.9 0.3 0.2 2.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Winter flounder Winter flounder		0.0						8.0	0.3	1.0			0.5						1.6		0.2	0.2						0.1
Diamondback terrapin 99 0.0 0.0 0.0 0.0 0.0	Winter flounder		0.0	0.3		0.3	0.2	2.7	0.0		0.0			0.0						0.0		0.0							
Painted turtle 99 0.0	Reptiles Diamondback terrapin	99						0.0	0.0				0.0						0.0										
	Painted turtle							5.5	5.5		0.0		5.5						5.5										

Number of samples (n) 150 132 143 148 146 146 147 150 145 150 142 140 146 150 146 147 134 139 127 104 136 135 137 147 145 148 148 18

0 :		100	4000	4007	4000	4000		- 0.		1000			4000			4000						0005	
-	Age*	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Diadromous Alewife	99	1.3	1.4	0.8	2.5	0.5	0.7	0.1	0.0		0.4	0.4	0.2	3.3	0.1	2.7	0.3	0.3	0.7	2.0	0.4	2.2	0.1
American eel American shad	99 99	0.6 10.1	0.3 22.3	0.5 6.8	0.8 11.5	0.5 11.9	0.6 11.2	0.5 1.0	0.4 12.0	0.2 2.2	0.3 10.3	0.3 2.2	0.2 8.3	0.4 11.0	0.2	0.3 3.9	0.2	0.2 1.9	0.2 3.3	0.2 4.4	0.3 1.8	0.1 0.7	0.1
Atlantic sturgeon	1																			0.0		0.7	
Atlantic tomcod Blueback herring	99 99	1.9 28.3	1.7 6.2	1.2 32.2	2.6 27.8	1.6 38.0	1.3 139.8	0.1 35.1	1.4 104.6	0.0 10.7	0.1 6.3	0.0 104.2	0.5 29.7	0.2 19.1	2.3 0.1	0.0 59.9	0.6 1.4	0.6 1.5	0.0 7.9	1.4 8.0	0.2 1.2	43.8	0.0
Striped bass	0	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	57.7	22.9	77.4	22.2	72.6	16.4	35.0	10.1
Striped bass Striped bass (hatchery)	1 0	0.9	0.2 1.2	0.1 0.6	0.7	0.7 0.4	0.4	8.0	0.8	0.6	0.3	1.2 0.9	0.5	0.5	0.7	0.7	8.0	8.0	0.9	0.3	0.5	0.1	0.3
Striped bass (hatchery)	1	0.0	0.0	0.0	0.0	0	0.0		0.2	0.0	0.0	0.0	0.0										
Estuarine																							
Fourspine stickleback Hogchoker	99 99	1.3 6.1	0.9 3.7	2.0	1.1 4.0	0.2 7.0	0.2 2.4	0.2 1.6	0.1 3.1	0.0	0.0 2.4	0.0 2.5	0.1	0.3	0.1	0.4	0.0	0.3	1.7	0.2 1.5	0.1	0.0	0.0
Killifish spp.	99	14.1	6.8	15.3	18.8	3.8	5.0	2.4	0.7	0.8	1.6	3.6	0.3	4.9	2.4	1.8	0.6	2.4	5.5	10.1	9.2	3.7	2.7
Rainbow smelt Striped anchovy	99 99		0.0	0.0	0.0			0.0	0.1	0.0	0.0	0.0	0.0						0.1	0.0			
Threespine stickleback	99			0.2										0.0						0.0	0.1	0.0	0.0
White perch White perch	0 1	8.9 20.5	37.9 28.9	11.5 15.7	75.8 20.2	33.8 26.7	7.5 10.8	2.3 9.8	5.5 6.4	3.7 7.7	6.1 7.8	1.9 11.1	2.9 7.3	1.5 5.6	4.1 9.7	22.5 7.0	6.3 16.2	21.8 20.3	11.4 20.1	25.6 8.2	2.0 3.7	1.9 1.4	3.6 9.5
Freshwater																							
Black crappie	99					0.0				0.0						0.0							
Bluegill Brown bullead catfish	99 99	0.0	0.4	0.3	0.3	0.2	0.1 0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.3	0.0	1.4 0.0	0.1	0.0	0.1	0.0
Carp	99	0.2	0.2	0.2	0.2	0.3	0.3	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Chain pickerel Fallfish	99 99					0.0	0.0	0.0		0.0							0.0						
Gizzard shad Golden shiner	99 99	0.0	0.0	0.2	0.0	0.0	0.0	0.1			0.0	0.1	0.0	0.1		0.1	0.3	0.1	0.1	0.1	0.1	0.0	0.0
Goldfish	99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.1			0.0		
Green sunfish Hickory shad	99 99		0.0			0.0														0.0	0.3	0.0	
Largemouth bass	99		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Longnose sucker Pumpkinseed	99 99	0.3	0.2	0.1	0.1	0.1	0.1	0.0		0.0	0.1	0.2	0.0	0.3	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.1	0.1
Redbreast sunfish	99	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0		0.0	0.0		0.4			0.0	0.0	0.0	0.0			
Smallmouth bass Spottail shiner	99 99	0.0	0.0	0.0	0.3	1.3	0.0	0.1	0.0	0.0	0.2	0.1	0.2	0.0 1.9	0.6	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Tesselated darter	99	0.0	0.0	0.3	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.0	0.2	3.5	0.8	0.0	0.2	0.4	0.1	0.5	0.5	0.0	0.0
White catfish White crappie	99 99	0.1	2.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
White sucker Yellow perch	99 99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
	33	0.0	0.0	0.0	0.0	0.0	0.0	0.0					0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Invertebrate Blue crab	0	0.1			1.4		0.0	0.3		0.3	0.4	0.2	0.4	11.8	24.6	14.1	0.3	1.8	2.0	0.4	0.4	1.2	1.3
Blue crab	1	0.1			0.0			0.1		0.0	0.2	0.1	0.2	0.4	2.9	2.1	0.9	0.5	1.5	0.4	0.5	0.2	0.5
Blue crab Clam	99 99	1.5	0.3	1.4	3.3	3.0	2.7	6.1 0.1	5.5 0.0	8.0	0.6	1.8	0.0	1.4	0.0				1.1				
Marsh crab Mudcrab	99 99										0.0	0.0	0.0	0.0	0.0	0.1			0.0				
	99										0.0	0.0	0.0	0.0	0.0	0.1			0.0				
Marine Atlantic croaker	99																			0.0	0.3		0.7
Atlantic menhaden	0	0.0					0.0						0.0	0.0	0.0	9.5	48.8	0.5	0.7	3.6	44.6	5.8	2.4
Atlantic menhaden Atlantic menhaden	1 99	20.9	23.5	4.8	0.9	0.8	7.8	2.8	5.7	0.1	3.5	0.3	1.9	0.3	14.7	0.0 84.0	0.0		9.6	0.1			11.9
Atlantic needlefish	99	1.0	0.2	0.8	0.4	0.7	0.7	0.5	0.2	0.1	0.3	0.2	0.1	1.5	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2
Atlantic threadfin Bay anchovy	99 99	52.9	5.3	60.4	37.3	0.0 244.4	11.0	34.0	40.3	7.6	184.5	88.3	42.6	47.4	34.5	9.2	14.0	1.8	13.3	11.7	1.1	24.7	41.3
Bluefish Bluefish	0 1	6.1 0.0	3.5	3.5	5.0 0.0	2.0	3.1 0.0	1.3	1.3	2.6	1.1	1.5 0.0	8.0	1.7	1.1	13.8	0.9	4.1	2.9 0.0	1.0	8.0	0.7	0.5
Bonefish	99	0.0			0.0		0.0				0.0	0.0							0.0				
Butterfish Butterflyfish	99 99					0.0				0.0	0.0		0.0		0.0		0.0		0.0				
Crevalle jack	99	0.3	0.1	0.0	0.2	0.3	0.2	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0		0.0
Cunner Grey snapper	99 99	0.0		0.0	0.0						0.0	0.0									0.0		
Houndfish	99					0.0																	
Inshore lizardfish Lookdown	99 99	0.0				0.0	0.1	0.1	0.1	0.1	0.0			0.1	0.1	0.0		0.0	0.1	0.0			
Naked Goby Northern kingfish	99 99	0.0	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.2	0.1	0.0	0.1	0.0	0.0
Northern pipefish	99	2.5	0.9	1.7	3.7	1.5	1.7	2.6	0.8	0.7	0.5	2.1	0.2	3.6	1.3	1.2	0.2	1.8	1.1	0.6	0.6	0.5	0.3
Northern puffer Northern searobin	99 99	0.0	0.0	0.0	0.0	0.0	0.0	0.1		0.0	0.0	0.0		0.0	0.0	0.1		0.1	0.0	0.0	0.0	0.0	
Northern sennet	99	0.0				0.0				0.7	0										0	0	
Northern stargazer Northern tonguefish	99 99			0.0	0.0		0.0	0.0	0.0	0.0				0.1		0.0		0.0	0.1		0.0	0.0	
Oyster toadfish Permit	99 99													0.0	0.0		0.0						
Pigfish	99										0.0			0.0	0.0		0.0						
Pinfish Scup	99 99										0.0					0.0							
Silver perch	99	0.0			0.0	_		0.1	0.1	0.3	0.4	0.8	0.1	0.1	0.0	0.0	0.0				0.0		
Silverside spp. Smallmouth flounder	99 99	21.3 0.0	69.9	20.0	116.6	7.9	55.8	147.4 0.0	50.2	90.7	191.7	171.4	65.8	126.8 0.0	120.6 0.0	90.8	68.5	93.8	104.4	20.7	65.0	105.9	15.6
Spanish mackerel	99					0.0	0.0	0.0		0.0	0.0					0	0	
Spot Spotfin butterflyfish	99 99	0.6	3.2	0.3	8.0	0.0	1.7	0.0	0.0	1.0	0.3	0.0	0.4	0.0	0.1	0.2	0.1	0.0	0.3	0.0	0.0	0.0	0.0
Spotfin mojarra Spotted hake	99 99							0.0	0.0		0.0			0.0	0.0								
Striped mullet	99	0.0	0.3	0.0				0.0								0.0	0.0	0.0	0.1	0.0		0.0	0.1
Striped searobin Summer flounder	99 99	0.1	0.1	0.0	0.0	0.0	0.1	0.4	0.0	0.1	0.0	0.0	0.1	0.7	0.5	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0
Tautog	0		0.0	0.0	0.2		0.0	0.0	0.0					0.1	0.0	0.0		0.1			0.0	0.0	
Tautog Tautog	1 99	0.0	0.0	0.0	0.3		0.0	0.1						0.0				0.1					
Triggerfish	99	0.0			0.0	0.0		0.4	0.0	0.0	0.0		0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	
Weakfish White mullet	99 99	0.0	0.0	0.0	0.0 0.1	0.0 0.1	0.0 0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Windowpane flounder Winter flounder	99		0.9	0.2	0.0	0.3	0.0	0.7	0.0	0.0	0.0	0.6	0.2	1.8	0.6	0.2	0.4	0.4	0.2	0.5	0.4	0.0	0.0
Winter flounder	1			0.2		0.0	0.0		0.0	0.0	0.4	0.0	0.0		0.0		0.4	0.4	0.2	0.0	0.4	0.0	0.0
Winter flounder	99	2.5	0.0		0.1	0.0	0.0	0.0				0.0	0.0	0.0		0.0							
Reptiles			0.0			0.0	0.0						0.0										
Diamondback terrapin Painted turtle	99 99	0.0	0.0		0.0						0.0		0.0			0.0							
Diamondback terrapin		216	222	225	0.0 220	225	217	215	221	225	0.0	221	204	194	198	173	211	208	210	222	220	221	221

6 week sur	vev							
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
) week sur	vev							
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		12587	55.94	74.18	0-402	7	23.32	19.13 - 28.38
1993 1994	225	12587 9624	55.94 43.55	74.18 50.38	0-402 0-367	7 4	23.32 25.71	19.13 - 28.38 22.10 - 29.89
1994	225 221	9624	43.55	50.38	0-367	4	25.71	22.10 - 29.89
1994 1995	225 221 221	9624 7457	43.55 33.74	50.38 44.64		4 2	25.71 20.23	
1994	225 221	9624 7457 4346	43.55 33.74 21.30	50.38 44.64 25.83	0-367 0-389	4 2 6	25.71 20.23 12.76	22.10 - 29.89 17.59 - 23.25
1994 1995 1996 1997	225 221 221 204 194	9624 7457 4346 11452	43.55 33.74 21.30 59.03	50.38 44.64 25.83 71.07	0-367 0-389 0-188 0-412	4 2 6 7	25.71 20.23 12.76 27.93	22.10 - 29.89 17.59 - 23.25 10.94 - 14.85 22.80 - 34.17
1994 1995 1996 1997 1998	225 221 221 204 194 198	9624 7457 4346 11452 6674	43.55 33.74 21.30 59.03 33.71	50.38 44.64 25.83 71.07 34.46	0-367 0-389 0-188 0-412 0-183	4 2 6 7 5	25.71 20.23 12.76 27.93 19.26	22.10 - 29.89 17.59 - 23.25 10.94 - 14.85 22.80 - 34.17 16.25 - 22.79
1994 1995 1996 1997 1998 1999	225 221 221 204 194 198 173	9624 7457 4346 11452 6674 9981	43.55 33.74 21.30 59.03 33.71 57.69	50.38 44.64 25.83 71.07 34.46 67.47	0-367 0-389 0-188 0-412 0-183 1-474	4 2 6 7 5	25.71 20.23 12.76 27.93 19.26 33.80	22.10 - 29.89 17.59 - 23.25 10.94 - 14.85 22.80 - 34.17 16.25 - 22.79 28.63 - 39.88
1994 1995 1996 1997 1998 1999 2000	225 221 221 204 194 198 173 211	9624 7457 4346 11452 6674 9981 4830	43.55 33.74 21.30 59.03 33.71 57.69 22.89	50.38 44.64 25.83 71.07 34.46 67.47 51.89	0-367 0-389 0-188 0-412 0-183 1-474 0-416	4 2 6 7 5 0 31	25.71 20.23 12.76 27.93 19.26 33.80 7.19	22.10 - 29.89 17.59 - 23.25 10.94 - 14.85 22.80 - 34.17 16.25 - 22.79 28.63 - 39.88 5.75 - 8.94
1994 1995 1996 1997 1998 1999 2000 2001	225 221 221 204 194 198 173 211 208	9624 7457 4346 11452 6674 9981 4830 16103	43.55 33.74 21.30 59.03 33.71 57.69 22.89 77.42	50.38 44.64 25.83 71.07 34.46 67.47 51.89 179.92	0-367 0-389 0-188 0-412 0-183 1-474 0-416 0-1711	4 2 6 7 5 0 31 12	25.71 20.23 12.76 27.93 19.26 33.80 7.19 26.36	22.10 - 29.89 17.59 - 23.25 10.94 - 14.85 22.80 - 34.17 16.25 - 22.79 28.63 - 39.88 5.75 - 8.94 21.22 - 32.70
1994 1995 1996 1997 1998 1999 2000	225 221 221 204 194 198 173 211	9624 7457 4346 11452 6674 9981 4830	43.55 33.74 21.30 59.03 33.71 57.69 22.89	50.38 44.64 25.83 71.07 34.46 67.47 51.89	0-367 0-389 0-188 0-412 0-183 1-474 0-416	4 2 6 7 5 0 31	25.71 20.23 12.76 27.93 19.26 33.80 7.19	22.10 - 29.89 17.59 - 23.25 10.94 - 14.85 22.80 - 34.17 16.25 - 22.79 28.63 - 39.88 5.75 - 8.94

0-797

0-576

26

35

10.26

4.84

8.20 - 12.79

4.02 - 5.79

80.27

182.31

221

221

2005

2006

7727

2233

34.96

10.1

	ъ.	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/E	C/E
Station	River	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	IVIIIC		'	17	30	13		17	20-20		 3	1 - 3
18E	23	9	1	2	14	5	5	0	8	5	6.2	5.4
21E	23	10		9	16	7				6	5.2	5.8
17E	24	20		7	5	13	14		0		5.5	6.9
16E	25	4		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			4	4.5	9.8
11E	34	0		0		0	1				2.0	1.3
9E	34	7		36	23	12	15			2	10.4	13.8
7EE	35	28		21	3	24		9			9.8	13.0
7EW	35	11	0	66	35	128	99				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		15	6	14	1	3		3	4.5	6.1
9W	35	11	24	22	13	5	4		1	4	5.0	9.7
W8	36	11	10	51	14	20	10				11.3	15.6
7W	37	3		124	29	36	5		0		12.2	22.9
3W	39	3		10		10	7			2	5.7	6.1
4W	39	0		20		15	17			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
-, -		U.U_	J J					0.00			0.0_	

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
W8	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

STATION	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
East																											
18E	13.5	30.8	24.2	36.7	23.1	0.2	2.6	27.8	68.3	36.0	15.0	2.6	17.3	39.0	23.4	31.2	12.0	31.7	7.8	23.7	3.2	41.0	7.4	74.2	12.3	18.5	4.1
21E	10.0	00.0		00.1	20.1	0.2	1.0	65.5	00.0	60.5	50.5	0.8	15.7	18.5	30.0	30.8	16.3	10.5	17.3	36.3	2.0	10.2	5.0	61.3	28.0	24.2	3.4
17E	9.5	17.6	35.3	91.7	36.8	0.2	7.0	46.5	96.3	73.3	57.6	5.8	13.0	31.7	60.3	14.0	12.3	19.2	35.5	18.3	1.0	22.2	14.5	61.0	15.2	44.0	3.7
16E	6.3	4.0	19.8	21.4	11.0		3.0		48.7	15.2	22.3	1.3	12.8	30.8	16.8	13.0	7.2	12.2	15.2	31.7	1.7	20.2	6.2	31.5	17.5	10.7	1.8
15E	24.0			302.4	52.8		8.0	29.0	38.0	10.0	10.0	6.3		12.5							5.0	44.0		39.5			
12E	2.7	3.5	8.4	24.3	10.4	2.6	1.8	17.5	29.0	20.0	21.8	1.0	17.6	13.7	8.2	14.0	10.5	9.5	12.7	60.3	3.5	10.7	9.8	23.5	6.5	7.7	5.0
13E	6.3	4.0	45.0	40.0	11.0	4.5	4.5	46.3	17.0	12.5	31.0	8.5	12.0	12.2	9.4	18.0	8.0	20.8	11.0	33.7	0.6	26.5	29.4	31.3	0.0	10.0	2.4
14E 19E	35.5	10.4	15.0	42.2	11.8 20.7	2.0	4.3 2.8	30.2 121.8	51.0 21.3	42.3 34.2	28.0 22.8	2.0 4.8	15.7 11.5	26.8 14.8	20.0 30.5	16.0 25.4	12.0 11.3	29.3 50.0	27.4 24.2	42.0 21.7	2.2 5.8	34.0 54.3	15.8 11.2	27.2 25.7	8.6 12.2	16.8 73.2	2.1 3.0
10E					20.1	2.0	2.0	121.0	21.0	34.2	22.0	4.0	11.5	14.0	30.3	25.4	11.5	30.0	24.2	21.7	5.0	54.5	11.2	25.7	12.2	13.2	1.3
11E		22.5	9.6	26.4	7.3	2.8	2.5	163.8	62.4	59.0	22.4	22.2	33.8	19.8	44.8	146.0	31.4	114.8	50.5	61.6	39.3	205.0	24.0	35.8	12.7	20.5	6.5
9E	3.1	6.7	8.8	5.2	6.2	0.3	0.8	33.4	33.8	22.3	50.6	7.6	17.8	21.8	16.6	14.3	20.3	52.8	44.2	76.6	18.0	62.5	22.0	62.8	29.6	44.8	
7E1							10.0			1.0	17.5					52.0											
7EC			94.0																								
7EE	40.7	22.0	88.5	-	146.0	0.7	6.6	274.7	41.5	50.3	28.8	6.8	6.8	90.0	16.8	16.0	12.5	61.7	10.0	30.2	8.2	286.8	63.2	35.2	11.5	98.5	6.6
7EW	19.7	10.0	66.0		215.3	2.2	5.0	406.6	37.5	106.3	54.6	8.0	23.2	57.3	25.6	47.0	10.5	36.7	33.2	27.0	17.3	327.8	12.5	39.5	13.4	219.8	30.1
8E 6E	38.2 12.7	11.0 5.5	103.3	45.0 147.0	48.2	1.5 0.5	5.0 2.3	39.7	16.3 18.5	34.8	15.3	3.5		70.7	70.8	11.3	34.3	130.0	56.6	48.4	36.2	345.7	34.2	38.0	9.3	49.5	10.9
3E	12.7	12.0	41.5	147.0	109.5	3.6	2.0	37.2	36.3	28.0	17.7	4.0	9.7	9.6	55.6	20.2	8.0	87.0	22.3	76.0	9.4	153.8	23.4	42.0	7.3	70.7	
4E	29.0	14.3	27.8	22.2	41.8	6.5	6.3	32.7	36.6	31.5	30.7	5.5	16.2	9.3	16.0	14.8	13.3	94.2	14.8	93.0	4.6	339.0	36.0	36.3	5.7	11.8	5.1
5E	28.5	29.8	20.7	14.5	53.0	5.0		9.0	26.0	21.0	17.0	9.2	13.5		11.0	18.0	19.0		24.0					11.5			•••
1E				5.0																							
West																											
15WN	39.0	9.4	16.7	36.3	42.7			21.0	28.5	53.4	47.6	3.0	16.2	11.0		26.7		16.0									
15WS	20.4	10.2	8.4	82.8	26.2	2.4	5.5	9.8	67.7	22.0	77.5	15.6	17.4	56.4	55.0	16.3	6.5	78.3	22.5	176.8	3.2	56.6	27.0	48.3	4.4	10.7	0.0
16WN	68.2	32.0	11.0	17.5	15.2	3.5	12.3	27.8	64.8	82.7	93.0		15.8	21.7	11.0	21.0	4.2	100.5	12.8	99.3	2.0	83.0	15.8	31.7	12.3	17.3	2.2
16WS	59.3	29.2	8.5	49.7	11.0	2.6	15.2	3.7	50.7	32.8	44.0		6.0														
13W	10.2	14.7	17.3					25.3	21.0	~~ =	3.5	2.3	6.0	~~ =	400	400				40 =		40.0	40 =	400			
14W	45.3	55.5	17.8	33.3	4.2	5.3	4.4	71.5	58.2	36.7	39.6	9.5	8.3	30.7	16.8	18.2	8.8	25.5	23.3	48.5	6.7	48.8	18.7	16.3	11.3	20.8	3.9
12W 11W	8.3 137.0	9.5 9.4	12.0 12.2	10.8 8.0	7.0 5.0	2.7 2.5	1.4 2.2	35.8 12.5	40.7 45.6	36.8 13.2	65.2 6.6	9.5 7.5	10.2 13.2	8.0 17.2	37.2 32.3	12.0 23.3	8.3 10.5	14.8		124.8 101.8	3.8 5.3	28.0 37.5	21.6 18.4	23.8 19.0	8.3 16.2	9.8 11.0	8.4 3.1
10W	21.0	22.0	12.2	15.4	7.5	3.0	2.0	20.7	37.2	24.2	29.5	9.0	16.4	24.3	17.0	14.2	11.7	47.7	17.2	13.0	5.4	47.4	14.6	40.8	15.6	1.3	3.0
9W	27.7	61.3	13.3	16.3	12.0	5.2	5.0	24.4	86.8	30.3	36.0	4.7	18.6	15.3	13.8	21.4	6.8	45.6	5.5	15.2	3.2	20.2	11.3	26.0	13.7	5.0	3.3
8W	19.5	26.8	15.0	29.7	18.2	10.5	15.5	23.5	99.2	47.8	29.8	8.2	42.8	35.8	38.5	24.4	17.7	38.3	13.5	16.2	5.5	53.7	20.2	26.2	37.2	24.8	7.6
7W	4.0	46.3	51.0	46.5	34.3	11.3	10.0	13.2	97.2	61.5	74.6	8.5	42.8	13.8	36.8	31.5	36.5	60.2	13.7	23.0	13.0	37.3	35.8	47.7	34.5	51.8	8.1
3W	12.2	10.3	23.4	8.0			2.0																		11.2	30.2	3.8
4W	15.0	26.2	41.8	37.5	38.0	17.8	15.8	52.0	95.0	69.0	73.0	12.5	20.0	15.5	17.8	40.8	24.3	71.8	19.0	103.0	8.0	90.8	38.8	10.0	11.0	21.0	7.0
4WN	7.0	20.4	20.0	44.0	20.0	0.0	45.0	07.0	20.4	22.0	40.0	0.5	40.0	110	440	17.0	47.5	CO C	20.0	70.0	4.0	25.0	20.5	24.0	0.5	20.0	2.0
5W	7.8	20.4	38.6	44.0	39.8	8.3	15.0	27.3	39.4	33.0	40.6	9.5	19.0	14.2	14.8	35.2	17.5	69.8	39.0	72.0	4.3	35.8	20.5	21.0	8.5	20.0	2.9
Annual C/E	23.9	21.4	30.7	48.4	37.1	3.8	6.1	60.7	52.3	41.9	38.0	6.9	17.3	26.5	28.5	27.4	14.7	50.3	22.9	52.5	7.8	91.2	21.5	35.0	14.3	35.0	8.27

2006 HUDSON RIVER YOY STRIPED BASS TOTAL LENGTH FREQUENCY

	Week 1 Jul	Week 2 Aug	Week 3 Aug	Week 4 Aug	Week 5 Sep	Week 6 Sep	Week 7 Oct	Week 8 Oct	Week 9 Nov	C/F Weeks	C/F Weeks
TL (mm)	18	1	17	30	19	27	17	25-26	8	4 - 9	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

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

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
hanneT	0	0	0	57	54	15	03	95	71	21	08	40	30	62	77	40	70	111	36	24	1	11

2006 HUDSON RIVER OLDER STRIPED BASS LENGTH FREQUENCY

	Week 1	Week 2		Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
Τι	Jul	Aug	Aug	Aug	Sep	Sep	Oct	Oct	Nov	Weeks	Weeks
TL	18	1	17	30	19	27	17	25-26	8	4 - 9	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 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 Weeks 4 - 9	C/E Weeks 1 - 9
East										<u></u>		
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	8.0	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	0.2	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
W8	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
J, L		0.0-	0.20	0.02	0.70	0.50	U.Z T	0.0-	0.0-	0.0-	0.13	0.21

TABLE 15 2006 HUDSON RIVER YOY WHITE PERCH CATCH BY STATION

	River	Week 1 Jul	Week 2 Aug	Week 3 Aug	Week 4 Aug	Week 5 Sep	Week 6 Sep	Week 7 Oct	Week 8 Oct	Week 9 Nov	
Station	Mile	18	1	17	30	19	27	17	25-26	8	C/E
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
□ Cffort		24	24	0.5	25	25	0.5	0.5	0.4	24	201
Effort		24	24	25 201	25 162	25 450	25 71	25	24	24	221
Catch C/E		28	43	291	162	158	71	24	13	3	793
U/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

Ota ii a	River	Week 1 Jul	Week 2 Aug	Week 3 Aug	Week 4 Aug	Week 5 Sep	Week 6 Sep	Week 7 Oct	Week 8 Oct	Week 9 Nov	0/5
Station	Mile	18	1	17	30	19	27	17	25-26	8	C/E
East	- 00		•	•	•			•	•	•	4.0
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 3	1	1	1.0
16E 12E	25	0	0 8	1	0	0	0	0	0 0	0	0.4
12E 14E	29	10	o 15	0	1	0	1			0	2.5
14E 19E	29 33	8 5	0	9 0	9 0	0	0 0	0	0	2	5.1
19E 11E	33 34	0	3	0	0	0 0	0	1 0	0	2	0.9
9E	34 34	60	3 28	_	0	0	0		0	0 3	0.3
9⊑ 7EE	35	0	20 51	0 190	0		0	0 0	0	0	11.4
7EE 7EW	35 35	4	0	0	0	1 0	0	0	0	0	26.9
7 E VV 8 E	35 35	4	U	19	0	0	659	0	0	0	0.4
3E	39			19	U	U	659	U	U	U	96.9
4E	39 39	37	0	33	0	15	0	4	0	0	9.9
46	39	31	U	33	U	15	U	4	U	U	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

2006 HUDSON RIVER WHITE PERCH LENGTH FREQUENCY

	Week 1 Jul	Week 2 Aug	Week 3 Aug	Week 4 Aug	Week 5 Sep	Week 6 Sep	Week 7 Oct	Week 8 Oct	Week 9 Nov	C/F Weeks	C/F Weeks
TL (mm)	18	1	17	30	19	27	17	25-26	8	4 - 9	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
moun											

					Α												E	3					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F			Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	
	Jul	Jul	Aug	Aug	Sep	Sep	Oct	Oct	Nov	Weeks	Weeks		River	Jul	Aug	Aug	Aug	Sep	Sep	Oct	Oct	Nov	
TL (mm)	11	25	8	22	7	19	19	27	9	4 - 9	1 - 9	Station	Mile	18	1	17	30	19	27	17	25-26	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
15-20						0				0	0	21E	23	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
25-30						0				0	0	16E	25	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
35-40						0				0	0	14E	29	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
45-50						0				0	0	11E	34	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
55-60						0				0	0	7EE	35	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
65-70						0				0	0	8E	35			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
80-85						0				0	0												
85-90						0				0	0	West											
90-95						0				0	0	15WS	27	0	0	0	0	0	0	0	0	0	0.0
95-100						0				0	0	16WN	27	0	0	0	0	0	0	0	0	0	0.0
100-105						0				0	0	14W	29	0	0	0	0	0	1	0	0	0	0.1
105-110						0				0	0	12W	30	0	0	0	0	0	1	0	0	0	0.1
110-115						1				1	1	11W	32	0	0	0	0	0	0	0	0	0	0.0
115-120						0				0	0	10W	35	0	0	0	0	0	0	0	0	0	0.0
120-125						0				0	0	9W	35	0	0	0	0	0	0	0	0	0	0.0
125-130						0				0	0	8W	36	0	0	0	0	0	0	0	0	0	0.0
130-135						1				1	1	7W	37	0	0	0	0	0	0	0	0	0	0.0
135-140						0				0	0	3W	39	0	0	0	0	0	0	0	0	0	0.0
140-145						0				0	0	4W	39	0	0	0	0	0	0	0	0	0	0.0
>145						0				0	0	5W	39	0	0	0	0	0	0	0	0	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
Stabot	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0	U		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01

TABLE 19 2006 HUDSON RIVER AMERICAN EEL CATCH BY STATION

	River	Week 1 Jul	Week 2 Aug	Week 3 Aug	Week 4 Aug	Week 5 Sep	Week 6 Sep	Week 7 Oct	Week 8 Oct	Week 9 Nov	
Station	Mile	18	1	17	30	19	27	17	25-26	8	C/E
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
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			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

TL (mm)	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/F Weeks 4 - 9	C/F Weeks 1 - 9
< 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

		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	
	River	Jul	Aug	Aug	Aug	Sep	Sep	Oct	Oct	Nov	
Station	Mile	18	1	17	30	19	27	17	25-26	8	C/E
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
10/004											
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 5W	39 39	0	0	1	3	0 3	0	0	0	0 0	0.4
SVV	39	0	0	0	0	ა	0	0	0	U	0.3
Effort		24	24	25	25	25	25	25	24	24	221
Catch		24 11	24 4	∠5 19	25 15	25 36	25 15	∠5 1	2 4 1	0	102
Caten C/E		0.46	4 0.17	0.76	0.63	36 1.44	0.60	0.04	0.04	0.00	0.46
C/E		0.46	0.17	0.76	0.63	1.44	0.60	0.04	0.04	0.00	0.40

	Week 1 Jul	Jul	Aug	Aug	Week 5 Sep	Sep	Oct	Oct	Nov	C/F Weeks	C/F Weeks
TL (mm)	11	25	8	22	7	19	19	27	9	4 - 9	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	J	152.0	142.3
StDev	13.9	14.3	34.0	23.7	59.7	54.0		.00.0		51.5	47.4
3.501	. 5.0		J	_5		00				01.0	

TABLE 23 2006 HUDSON RIVER WINTER FLOUNDER CATCH BY STATION

		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	
	River	Jul	Aug	Aug	Aug	Sep	Sep	Oct	Oct	Nov	
Station	Mile	18	1	17	30	19	27	17	25-26	8	C/E
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
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			0	0	0	0	0	0	0	0.0
3E	39										
4E	39	0	0	0	0	0	0	0	0	0	0.0
10/											
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
W8	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	25 0	25 2	25 3	25 1	25 2	0	0	8
Caten C/E		0.00	0.00	0.00	0.08	ა 0.12	0.04	∠ 0.08	0.00	0.00	0.04
C/E		0.00	0.00	0.00	0.06	0.12	0.04	0.06	0.00	0.00	0.04

TABLE 24 2006 HUDSON RIVER WINTER FLOUNDER LENGTH FREQUENCY

	Week 1 Jul	Week 2 Jul	Week 3 Aug	Week 4 Aug	Week 5 Sep	Week 6 Sep	Week 7 Oct	Week 8 Oct	Week 9 Nov	C/F Weeks	C/F Weeks
TL (mm)	11	25	8	22	7	19	19	27	9	4 - 9	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 Mean StDev	0 58.67 32.87	0 0.0 0.0	0 0.0 0.0	2	3	1	2	0 0.0 0.0	0 0.0 0.0	8 77.5 17.2	8 77.5 17.2

	River	Week 1 Jul	Week 2 Aug	Week 3 Aug	Week 4 Aug	Week 5 Sep	Week 6 Sep	Week 7 Oct	Week 8 Oct	Week 9 Nov	
Station	Mile	18	Aug 1	7.ug 17	30	19	3 ε ρ 27	17	25-26	8	C/E
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
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	0.8
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 27	0	0	0	0	0	0	0	0	0	0.0
14W	27 29	0	0	0	0	0	0	0	0	0	0.0
14W	30	0	0	0	0	0	0	0	0	0	0.0
12VV 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	Ö	Ö	2	Ö	Ö	Ö	Ö	1	Ö	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

	Week 1	Week 2		Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul	Jul	Aug	Aug	Sep	Sep	Oct	Oct	Nov	Weeks	Weeks
TL (mm)	11	25	8	22	7	19	19	27	9	4 - 9	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	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

		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	
	River	Jul	Aug	Aug	Aug	Sep	Sep	Oct	Oct	Nov	
Station	Mile	18	1	17	30	19	27	17	25-26	8	C/E
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	8.0
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
		0.4	0.4	0.5	0.5	0.5	05	0.5	0.4	0.4	004
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

	Week 1	Week 2		Week 4	Week 5	Week 6	Week 7		Week 9	C/F	C/F
TL (mm)	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 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
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											
	0.7	0	4	0	0	0	0	0	0	0	0.4
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 5W	39 39	0 0	0 2	0 0	0 0	0 0	0 0	1 0	0 0	0 0	0.1
SVV	39	U		U	U	U	U	U	U	U	0.2
Effort		24	24	25	25	25	25	25	24	24	221
Catch		0	2 4 37	25 16	0	0	0	25	2 4 25	6	86
Catch C/E		0.00	37 1.54	0.64	0.00	0.00	0.00	2 0.08	∠5 1.04	0.25	0.39
U/ □		0.00	1.54	0.04	0.00	0.00	0.00	0.06	1.04	0.23	0.39

TABLE 30 2006 HUDSON RIVER BLUEBACK HERRING LENGTH FREQUENCY

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul	Jul	Aug	Aug	Sep	Sep	Oct	Oct	Nov	Weeks	Weeks
TL (mm)	11	25	8	22	7	19	19	27	9	4 - 9	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

	D.'	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	
Station	River Mile	Jul 18	Aug 1	Aug 17	Aug 30	Sep 19	Sep 27	Oct 17	Oct 25-26	Nov 8	C/E
East	IVIIIE	10	ı	17	30	19	21	17	25-20	0	C/E
18E	23	0	0	1	0	0	0	0	17	0	2.0
21E	23 23	0	0	0	0	0	0	0	6	0	0.7
17E	23 24	0	0	0	0	0	0	0	0	0	0.7
17E 16E	2 4 25	0	0	0	0	0	0	0	0	0	0.0
10E	29	0	0	0	0	0	0	0	1	0	0.0
14E	29 29					0				U	
		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	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	Ō	3	1	0	0	Ō	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	80.0	14.34

TABLE 32 2006 HUDSON RIVER ATLANTIC MENHADEN LENGTH FREQUENCY

TL (mm)	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
< 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 Mean StDev	87 76.43 28.90	21 66.62 31.17	199 94.72 82.65	76 74.24 16.30	69 109.83 36.22	39 136.95 30.46	4 92.50 20.21	30 79.57 16.16	2 77.50 6.36	220 97.60 35.51	527 91.79 57.89

	River	Week 1 Jul	Week 2 Aug	Week 3 Aug	Week 4 Aug	Week 5 Sep	Week 6 Sep	Week 7 Oct	Week 8 Oct	Week 9 Nov	
Station	Mile	18	1	17	30	19	27	17	25-26	8	C/E
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
1471											
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 2	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		24 35	24 48	25 310	639	25 750	25 704	453	∠ 4 195	2 4 41	3175
C/E		აა 1.46	46 0.54	11.88	13.68	750 16.32	70 4 11.84	453 6.28	1.58	0.13	14.37
∪ / □		1.40	0.54	11.00	13.00	10.32	11.04	0.20	00.1	0.13	14.37

TABLE 34 2006 HUDSON RIVER ATLANTIC SILVERSIDE LENGTH FREQUENCY

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	C/F	C/F
	Jul	Jul	Aug	Aug	Sep	Sep	Oct	Oct	Nov	Weeks	Weeks
TL (mm)	11	25	8	22	7	19	19	27	9	4 - 9	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
SIDEV	11.01	21.04	10.94	10.03	10.03	3.33	20.01	20.43	20.40	13.00	10.43

		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	
	River	Jul	Aug	Aug	Aug	Sep	Sep	Oct	Oct	Nov	
Station	Mile	18	1	17	30	19	27	17	25-26	8	C/E
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
107											
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
W8	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
- "		0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	004
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	80.0	0.36	1.44	4.76	1.32	1.28	1.50	0.17	1.30

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
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		0.4
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	0.3
7EE	35	1	5	0	2	1	3	0	0	0	1.3
7EW	35	1	3	0	3	0	0	0	0	0	8.0
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	0.7	0	0	0	0	0	0	0	0	0	0.0
15WS 16WN	27	0	3	0	2	0	0	0	0	0	0.6
1600IN 14W	27 29	0 2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0.0 0.2
14VV 12W	29 30	0	2	0	0	0	0	0	0	0	0.2
12VV 11W	32	4	0	0	0	6	1	0	0	0	1.2
10W	32 35	0	0	0	0	0	2	0	0	0	0.2
9W	35 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	0.1
4W	39	0	0	0	2	0	0	0	0	0	0.2
5W	39	0	1	0	0	0	0	0	0	0	0.2
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

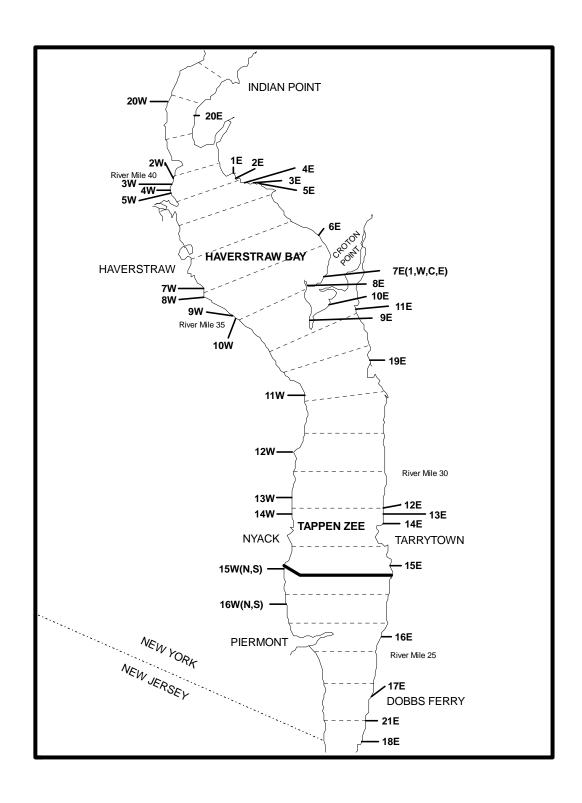


Figure 1. Hudson River striped bass survey map of station locations.

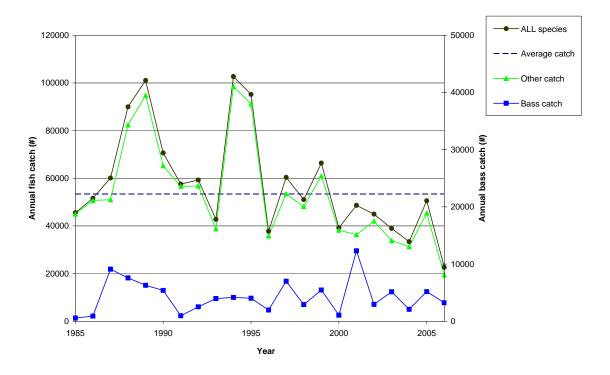
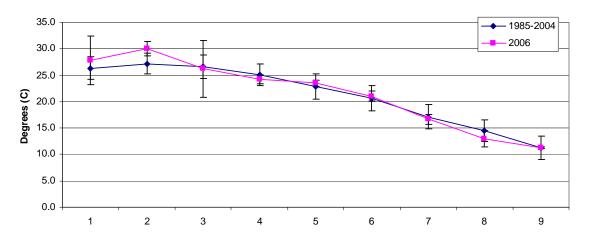


Figure 2. Catch of species from 1985 to 2006, using the 9-week survey period. The catch of striped bass (secondary y-axis) and the total catch with the bass catch subtracted are also included.

Biweekly Mean Water Temperature, 1985-2006



Biweekly Mean Salinity, 1985-2006

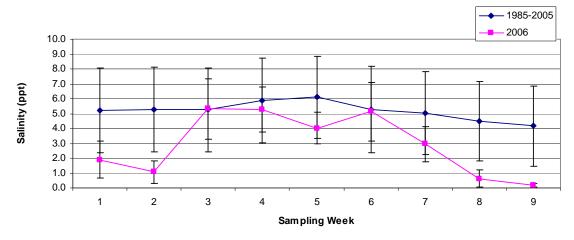


Figure 3. Biweekly mean temperature (top) and salinity (bottom) for each of the 9 sampling weeks. Data from present year (2006) and average conditions from full survey (1985-2005) are provided.

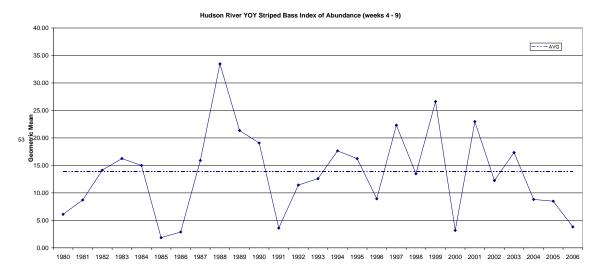


Figure 4. Striped bass YOY index of abundance (geometric mean) calculated for each survey year 1980-2006.

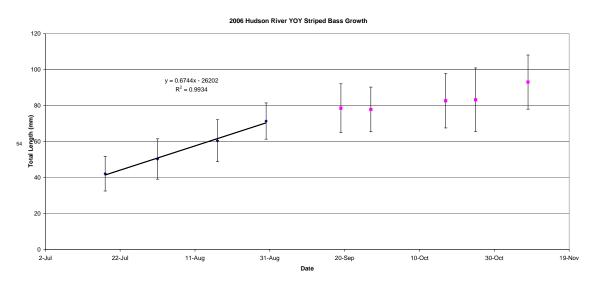


Figure 5. Striped bass YOY calculated growth rate for 2006.

Growth rate of Striped Bass 1985-2006

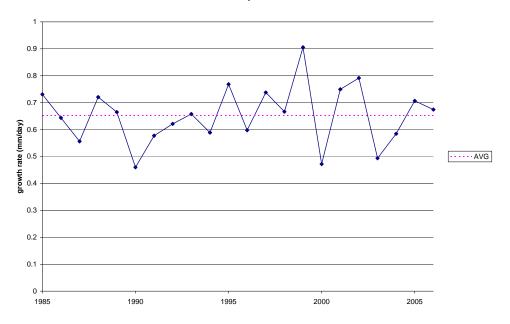


Figure 6. Striped bass YOY growth rate for each survey year 1980-2006.

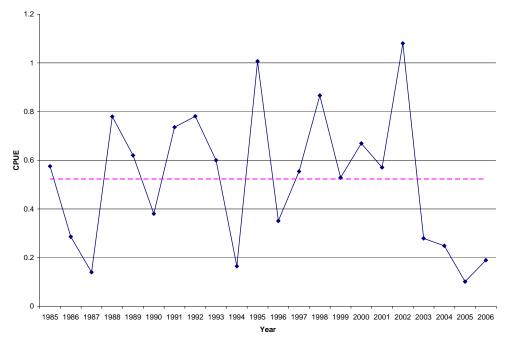


Figure 7. Older (1+) Striped bass catch per unit effort (CPUE) calculated for each survey year 1980-2006.

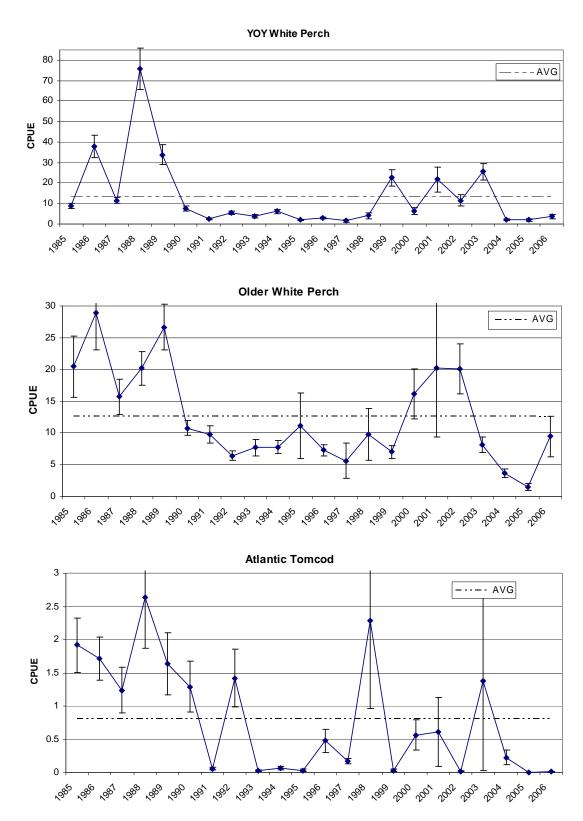


Figure 8. Catch per unit effort (CPUE) for each survey year for YOY white perch (top), older white perch (middle) and Atlantic tomcod (bottom).

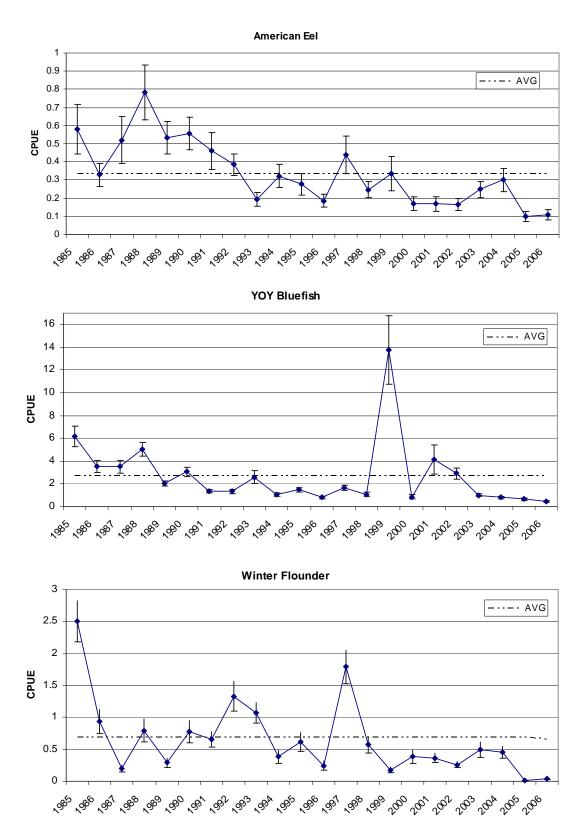


Figure 9. Catch per unit effort (CPUE) for each survey year for American eel (top), YOY bluefish (middle) and winter flounder (bottom).

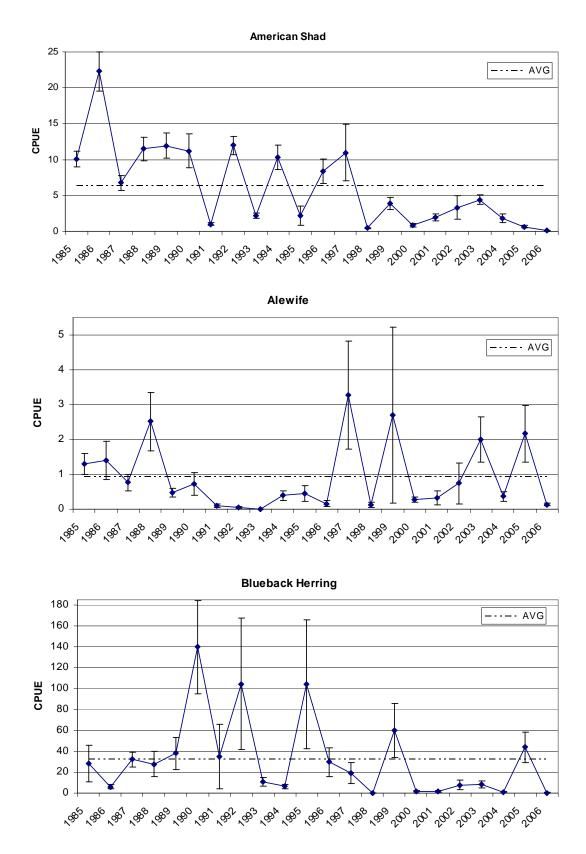


Figure 10. Catch per unit effort (CPUE) for each survey year for American shad (top), Alewives (middle) and blueback herring (bottom).

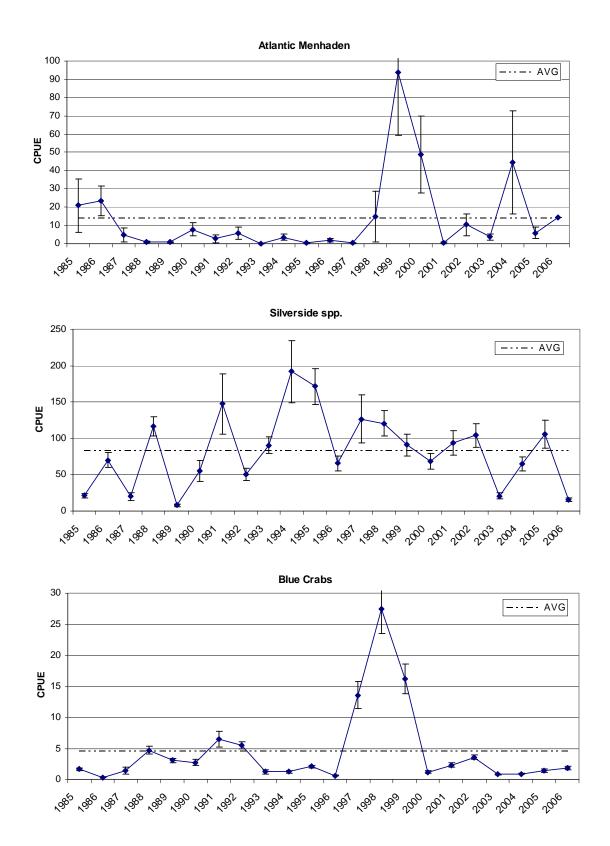


Figure 11. Catch per unit effort (CPUE) for each survey year for Atlantic menhaden (top), silversides (middle) and blue crabs (bottom).