# Nearshore fish communities of the mid-Hudson River estuary, 1985-2002

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# MARINE SCIENCES RESEARCH CENTER

STATE UNIVERSITY OF NEW YORK

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#### Abstract

Two hundred-ten seine hauls were completed in the 2002 young-of-the-year (YOY) striped bass survey in the Hudson River. A total of 4662 YOY striped bass were captured, resulting in a geometric mean catch per unit effort (CPUE) of 13.21 fish/haul. The Hudson River index of YOY striped bass abundance, based on the geometric mean CPUE of the 6-week survey, was 13.32 fish/haul. This catch rate was slightly below the average historical geometric mean CPUE of 14.26. YOY striped bass grew at an estimated 0.78 mm/day between mid-July and the beginning of October. Catch rates of American Shad, alewife and blueback herring, continued from last year, to be below average in comparison with the historical records. Atlantic silverside catch rates were similar to the historical average. However, catch rates of both YOY and older white perch were respectively among the fifth and fourth highest recorded since data collection began in 1980. Composition of the catch was similar to previous years with Atlantic silversides, striped bass and white perch being the most abundant species in the catch. Air and water temperatures through the summer and autumn were near average, while salinities in the time period between sample week 1 and 8 were more than 2 ppt above average. In week 9 the salinity returned back to the historic level.

#### 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). Spawning occurs in the region above the salt wedge in the spring when river temperatures rise above 12 °C. Semibuoyant 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 overwintering 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 coastwide commercial fishery reached a peak in 1973 at 5.98 metric tonnes (mt), declining rapidly thereafter, falling 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 yearclass (1982) in the Chesapeake Bay from harvest. Moratoria on commercial harvest of striped bass were issued for Maryland and Delaware waters. Following a strong recruitment event into the

Chesapeake Bay population in 1989, a limited fishery was re-established. Continued improvement in recruitment to the Chesapeake Bay population has allowed increases in harvest levels in recent years (Richards and Rago 1999). 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. The commercial fishery within the Hudson River remains closed (NMFS 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). Recent estimates indicate that Chesapeake Bay populations contribute 75% of the coastwide stock, with the Hudson River and Delaware Bay contributing 15 and 10% respectively (K. McKown, NYS DEC, personal communication).

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). However, a more recent analysis, incorporating a longer time series, found that the abundance of age-1 fish was more closely related to the severity of winter than to the abundance of YOY fish in the previous summer (Hurst and Conover 1998). Mortality of overwintering 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.

Here we present the results of the 2001 young-of-the-year survey for the Hudson River population of striped bass and compare the results to previous years. We also include catch data on all species captured during the survey, and detailed catch data, including size-distributions, for a number of resource species.

#### 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 2002, 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, 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 subsampling procedure was used to estimate catches of individual species. Young-of-the-year and older blue crab 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 coastwide tagging program. Tags were individually numbered floy type tags with 6.5 x 19.25 mm oval anchor and 91 mm streamer. Several 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 2002 sampling season, 9 sampling trips were conducted between July 15 and November 8. During this sampling, a total of 48232 fish and 1034 decapods were captured in 210 gear sets. This total included 4717 young-of-the-year striped bass and 179 older striped bass.

### Environmental conditions

Weekly average water temperatures generally decreased through the sampling season, from a high of 27.5 °C on July 29-30 to a low of 11.0 °C on November 8 (Table 1). Air temperatures also generally decreased during the sampling season, ranging from 34 to 7.5 °C. River salinity fluctuated between 3 and 14 ppt through the sampling season. The highest average salinity on 10.9 ppt was recorded on September 9-10 while the lowest average salinity on 5.0 ppt was recorded on November 5-8. Weekly average of dissolved oxygen levels were relatively high throughout the sampling season ranging from 6.05-8.36 mg/L and did not show any distinct seasonal pattern.

The environmental conditions during the 2002 sampling season are compared to historical patterns in Table 2 and Figure 2. In 2002 the river temperature was only slightly higher than the recorded historical mean temperature for the middle 6 sampling weeks (week 3-8). However, compared to the historical data the salinity in 2002 was unusually high (Figure 2). In the weeks 1 to 8, salinities were consistently more than 8 ppt, which was approximately 2 ppt higher than historical records. At the end of the sampling season, week 9 (November 5-8), the salinity in 2002 fell back to historical mean

levels.

#### Species composition

Fifty-two species of fish were captured in the Hudson River during the 2002 sampling season. Fish catches varied from a peak of 9240 in week 3 (August 12-13) to a minimum of 2272 in week 8 (October 21). The most abundant species captured during the 2002 sampling season were silverside spp. (21943 fish), followed by white perch (6607), striped bass (4896), bay anchovies (2805), Atlantic menhaden (2011), killifish (1158) and bluefish (609; Table 3). In 2002 there were no species that occurred in unusually large abundances nor were there any species that were notably absent from the beach seine survey. Catch composition during the 2002 sampling season is compared to historical catch composition in Tables 4 and 5. Detailed catch information is presented below for selected species.

#### Striped bass Morone saxatilis

During the 2002 sampling season 4662 YOY striped bass were captured in 210 hauls, a mean CPUE of 22.2 and a geometric mean CPUE of 13.21 (Table 6). Between 1990 and 1985 catch data was collected in a period corresponding the last 6 weeks of the 2002 sampling season. In order to compare 2002 catch data with results obtained before 1985 the statistics on the final 6 weeks of catch data for 2002 is presented in table 6 together with historical records. In the final six weeks 2978 YOY striped bass were captured in 137 hauls, resulting in a mean CPUE of 21.74 and a geometric mean CPUE

of 13.32 (Figure 3). The 6-week geometric mean CPUE, used as the index of recruitment to the striped bass population was slightly below the historical average of 14.26. However in contrast to the 6-week geometric mean CPUE, the 9-week geometric mean CPUE (13.21) was lower than the historical annual average of 20.64 (average since 1985).

Catch-per-unit-effort of YOY striped bass peaked during the fifth week of the survey at 46.44 fish/haul, where after the CPUE exponentially declined throughout the remaining sampling season. The lowest catch rate of 5.39 fish/haul was reached during the final week of the survey. This year's catch rate peaked unusually late in the sampling season (week 5). Also, in 2001 the catch rate peaked late in the season (week 4), but in most other years between 1985 and 2000, peak catch rates were observed in the first or second week of the survey. Catch patterns similar to that of 2001 and 2002, with peak catch rates in week 4 or 5 of the survey, were however 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 Sound 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 Sound and the Hudson River Survey this hypothesis is not supported by observations. YOY striped bass has not been consistently observed in Western Long Island survey. In fact, the Western Long Island Sound catch records show that only in recent years (2000 and 2001) has YOY striped bass been observed in sufficient number to potentially affect the abundance of striped bass in the Hudson River survey. The years of high abundance recorded in the

Western Long Island Sound does not correspond to the years in the Hudson River with peak catch rates occurring late in the year.

Catch-per-unit-effort of YOY striped bass varied considerably across sites in 2002 (Table 7). The sites with the highest CPUE (> 38 fish/haul) were 8E, 7EE, and 7W, while the sites 21E, 16E, and 12E had the lowest catches (<10 fish/haul). The distribution of catch among sites observed in 2002, is generally consistent with previous years, as the sites 8E, 7EE and 7EW are commonly among those sites with the highest catch rates of YOY striped bass. 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 4250 YOY striped bass during the 9 week survey, with fish ranging from 20 to 170 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 2002 sampling season are compared to previous years in table 11. Mean lengths of measured fish increased through the first six sampling weeks, and were relatively stable thereafter (Figure 4). 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. Growth rate of YOY striped bass in the 2002 cohort, estimated from the regression of mean total length against date, was 0.78 mm/day through the first 6 weeks of the survey. This is the highest annual growth rate ever observed. Annual cohort growth rates ranged from 0.45 mm/day in 1990 to 0.72 mm/day in 1995. 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 2002 is shown in Table 12. During the 9 week survey, 190 striped bass aged 1 to 3 were captured ranging in length from 80-379 mm TL (Table 13). Older striped bass were most abundant at site 12E, where CPUE was 2.43 followed by site 7EE with a CPUE of 2.38 (Table 14).

115 older striped bass ranging in length from 170 to 371 mm were tagged with internal anchor tags as part of the United States Fish and Wildlife Service coastwide tagging program. The majority of these (n=100) were age 1.

## White perch Morone americana

dentified as either young-of-the-year or older based on observed size-distribution among the catch. Of the white perch captured, 2397 were YOY and 4156 were age-1 and older. Young-of-the-year white perch were most abundant at sites 8E and 10W (Table 15). Catch-per-unit-effort of YOY white perch was highest in week 3 (28.48 fish/haul), and lowest in week 7, when only 37 fish were captured in 22 hauls. Older white perch were most abundant at same sites as the YOY which were site 8E, and 10W (Table 16). During the sampling season catch-per-unit-effort of older white perch declined from 52.32 fish/haul in week 2, to less than 5 fish/haul in the final three weeks of sampling. Mean catch rates of YOY and older white perch combined were 15.32 fish per haul.

Subsamples of YOY white perch were measured during weeks 1-6. The observed

mean lengths increased from 46.39 mm TL in week 2 to 76.93 mm TL in week 6 (Table 17). YOY white perch have not been systematically measured in the survey, precluding comparison of growth rates from previous years. Mean lengths of YOY white perch were consistently below those of their congener YOY striped bass. Older white perch were not measured during the survey.

Combined mean catch rates of YOY and older white perch in 2001 were 20.21 fish per haul. This rate was almost the same in 2000. In this year the combined catch rates were 21.44 fish per haul. These catch rates in 2002 were 15.32 which was well below the catch rates observed in the last two years. Through the entire study period, the highest catch rates of YOY white perch were 75.75 fish per haul in 1988 and 36.97 fish per haul in 1986 (Figure 5). Catch rates of less than 2 fish per haul occurred in 1995 and 1997. Catch rates of older perch were the highest observed since 1989. Two consecutive years of high catches of older perch may indicate a recovery of the white perch population in the Hudson that declined markedly during the 1980's (Wells et al. 1992).

#### Atlantic tomcod Microgadus tomcod

During the 2002 sampling, 4 Atlantic tomcod were captured ranging in length from 95-154 mm. The bi-weekly size-frequency distribution of captured Atlantic tomcod is presented in Table 19. The CPUE of Atlantic tomcod in 2002 was 0.02 fish/haul. This was very low compared to the previous year where the CPUE was 0.65 fish/haul. Similar low catch rates have been observed in previous years. In 1993 and 1999 catches of 0.03 fish/haul were observed. High catches of 2.64 and 2.30 fish/haul were observed in 1988

and 1998 respectively (Figure 5).

#### American eel Anguilla rostrata

We captured 35 American eel during sampling in 2002. The highest catch rates (0.2-1.2 fish/haul) were observed at sites 11W, 10W, 8W, 16E, 13E, 4E and 12W, (Table 20). The catch rate of 0.17 fish/haul was the lowest since 1985 but similar to that observed in 2000 (Figure 6). The highest catches (0.78 fish/haul) occurred in 1988.

American eel ranged in length from 100to 640 mm TL, with an overall mean length of 332.09 mm. The bi-weekly size-frequency distributions of American eel are shown in Table 21.

#### Bluefish Pomatomus saltatrix

through the first 8 weeks of the survey (Table 22). The bluefish spring cohort was present in the catches from week 1 to week 5 while the bluefish summer cohort was first observed in week 3 and was present in the catches until week 8 (Table 23). Bluefish CPUE was highest at sites 16E, 8E and 10W. The mean CPUE was 2.83 fish/haul in 2002 (Table 22). Catch rates of YOY bluefish in 2002 were high, but lower than observed in 2001 (4.4 fish/haul). The highest bluefish abundances ever observed was in 1999 (figure 6). Bluefish captured in 2002 ranged in length from 60-240 mm TL (Table 23). Based on the size-frequency distributions (presented in Table 23), bluefish appeared to be relatively evenly split between the spring and summer cohorts spawned in the South

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

#### Winter flounder Pleuronectes americanus

Mean catch rate of winter flounder in 2002 was 0.25 fish/haul. These tended to be captured in the southern half of the sampling region with peak catch rates occurring in the final weeks of the sampling season (Table 24). Historical extreme low and high catch rates in this survey were 0.17 and 2.51 fish/haul observed in 1987 and 1985 respectively (Figure 6). Winter flounder ranged in length from 45 to 179 mm, with a mean length of 93.13 mm. The bi-weekly size-frequencies are shown in table 25.

#### American shad Alosa sapidissima

In 2002, 695 American shad were captured. American shad were most abundant at sites 21E, 18E, and 8E (Table 26). Weekly CPUE of American shad was highest in week 8 of sampling. Historically, peak CPUE of American shad occurs most commonly in weeks 1-2 or 8-9. Although higher than observed in 2000, the CPUE of American shad in 2001 of 3.22 fish/haul was the fifth lowest since 1985 (catch rates in 1998 were 0.43 fish/haul). The highest catch rates of 22.18 fish/haul were observed in 1986 (Figure 7). American shad ranged from 55 to 109 mm with a mean length of 79.6 mm (Table 27).

#### Alewife Alosa pseudoharengus and Blueback herring Alosa aestivalis

During sampling in 2002, we captured 155 alewife and 1658 blueback herring (Table 28 and 30). Alewife ranged in length from 51 to 122 mm TL with a mean of 80.78 mm TL (Table 29). Blueback herring measured 45 to 94 mm TL with a mean length of 73 20 mm TL (Table 31). The mean CPUE of alewife and blueback herring were 0.73 and 7.96 fish/haul respectively (Table 28 and 30). Catches of blueback herring were higher than observed in 2001 but still below the 16 year average CPUEs, with catch of blueback herring being the sixth lowest since 1985.

#### Atlantic menhaden Brevoortia tyrannus

We captured 2164 Atlantic menhaden during sampling in 2002 (Table 32).

Measured Atlantic menhaden ranged from 36 to 165 mm with a mean length of 83.89 mm TL (Table 33). The 2002 catch rate of 10.30 fish/haul was much higher than in 2001 where the catch rate was as low as 0.47 fish/haul (Figure 8 and Table 32).

#### Atlantic silversides Menidia menidia

Atlantic silversides were the most abundant species captured during sampling in 2002 (21943 fish captured). Atlantic silversides were most abundant at sites 11E, 15WS and 7EW where catch rates exceeded 200 fish/haul (Table 34). Catch rates exceeded 100 fish/haul at 5 additional sites. Catch rates peaked during the third week of sampling at 218.72 fish/haul, decreasing to 23.42 fish/haul in the eighth week of sampling. 1366 silversides were measured in 2002, ranging in length from 25 to 125 mm TL with a mean

of 77.25 mm (Table 35). Annual catch rates of Atlantic silversides in the survey are extremely variable, ranging from 7.9 fish/haul in 1989 to 191.9 fish/haul in 1994. The overall catch rate of silversides was 102.22 fish/haul, higher than observed in 2000 and 2001 (Figure 8).

#### Blue crab Callinectes sapidus

We captured 427 blue crab during sampling in 2002. The majority of these (53%) were young-of-the-year. YOY blue crab were most abundant at sites 13E, 17E and 16WN while older blue crab were most abundant at 14W, 13E and 17E (Tables 36 and 37). Catch rates peaked in week 5 for both YOY and older blue crab. Prior to 1998, no distinction in was made between YOY and older crab, so the time trend in catch rates are presented for the total numbers of blue crab. Catch rates in 2002 were 3.79 crab/haul, an intermediate level in the 17 year time series and similar to the catch rate of 2.32 crab/haul observed 2001 (Figure 8).

#### Conclusions

Catch composition during the 2002 Hudson River beach seine sampling season was generally consistent with previous years. The most abundant species were Atlantic silversides, striped bass and white perch. Salinities in the sampling region were above the historical average except in November.

The abundance of striped bass was above those in recent years with peak catches occurring in the fifth week of sampling. The 6-week YOY striped bass index of

abundance was 12.32; just below the historical average of 14.18. However, growth rates of YOY striped bass, based on length frequency progression, was 0.78 mm/day, the highest ever observed with fish reaching 112 mm by early-October.

Catch rates of American Shad, alewife and blueback herring, were below average in comparison with previous years. Atlantic silverside catch rates were similar to the historical average. Catch rates of both YOY and older white perch were the among fifth and fourth highest observed since recording began in 1980.

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Table 1. Biweekly environmental conditions, Hudson River 2002

		A	IR TEMI	PERATUI	RE	Н	20 TEMI	PERATU	RE
Dates	WEEK	AVG	STD	MIN	MAX	AVG	STD	MIN	MAX
July 15-16	1	31.27	3.86	23	36	26.04	0.93	25	28
July 29-30	2	33.92	3.68	28	41	27.52	1.26	25	30
Aug 12-13	^ 3	31.21	3.56	24	38	27.40	1.19	26	30
Aug 26-27	4	27.88	3.11	22	33	26.79	0.93	25	29
Sept 9-10	5	28.16	4.61	20	36	25.04	0.84	24	26
Sept 23-24	6	21.74	5.28	12	33	23.05	0.78	21	24
Oct 8-10	7	15.60	2.35	10	18	20.14	1.28	18	22
Oct 21-22	8	8.17	3.38	4	16	15.58	1.06	14	17
Nov 5-8	9	7.47	3.15	2	12	10.96	0.88	9	12

			SAL	INITY		D	ISSOLVI	ED OXYG	EN
Dates	WEEK	AVG	STD	MIN	MAX	AVG	STD	MIN	MAX
July 15-16	i	8.30	1.49	6	12	6.35	1.50	5	12
July 29-30	2	8.04	1.65	6	10	6.24	1.27	5	11
Aug 12-13	3	9.68	1.57	8	13	6.80	2.12	4	13
Aug 26-27	4	9.46	1.86	7	14	6.92	1.79	5	11
Sept 9-10	5	10.92	1.38	7	13	6.08	1.32	5	11
Sept 23-24	6	9.21	2.18	3	13	6.05	0.52	5	7
Oct 8-10	7	8.73	1.32	7	11	6.27	0.46	6	7
Oct 21-22	8	7.25	1.11	6	10	7.44	0.53	7	8
Nov 5-8	9	5.00	1.91	3	10	8.36	0.66	7	9

Table 2. Comparison of Physical data, 1985-2002

								Mean A	Air tem	peratur	e							
Week	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
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
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
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
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
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
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
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
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
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
								Mean	Water	Tempe	rature							
Week	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994		1996	1997	1998	1999	2000	2001	2002
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
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
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			27.4
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
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
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
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	
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
9	13.7		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
									•	~								
Week	1985	1986	1987	1988	1989	1990	1991	1992	1993	Salinity 1994	1995	1996	1997	1998	1999	2000	2001	2002
-	-	17,000,000			_					- Alberta						-		
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	8.30
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	8.04
3	3.7	2.6	7.2	6.1	5.9	4.9	7.7	0.8	6.1	7.0	6.2	4.2	5.3	6.8	8.1	2.0	7.5	9.68
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	9.46
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	10.92
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	9.21
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	8.73
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	7.25
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	5.00

Table 3. Species Composition of Catch in the Hudson River, 2002

Species	Age	week 1 July 15-16	week 2 July 29- 30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	Weeks 4-9 Total	Weeks 1-9 Total
Diadromous												
Alewife	999	3	9	133	10						10	155
American eel	999	3	4	2	3	4	4	5	4	6	26	35
American shad	999	37	5	48	16	9		7	512	61	605	695
Atlantic tomcod	999			2	1	1					2	4
Blueback herring	999				1				235	1422	1658	1658
Striped bass	0	454	641	639	577	1161	416	444	261	124	2983	4717
Striped bass	1	8	8	19	18	39	22	39	15	11	144	179
Estuarine											0	0
Hogchoker	999	150	81	57	49	21	2		4		76	364
Killifish spp.	999	9	21	185	323	200	41	43	284	52	943	1158
Striped anchovy	999			10	1	2					3	13
White perch	0	103	494	712	561	206	115	37	73	96	1088	2397
White perch	1	354	1308	1013	307	630	340	103	60	95	1535	4210
Freshwater												.210
Bluegill	999	1	36	157	56	26	9			2	93	287
Brown bullead catfish	999	1									0	1
Carp	999	1	5	1			1			6	7	14
Gizzard shad	999	6	14	1	1	4	2				7	28
Hickory shad	999					6					6	6
Largemouth bass	999		2								0	2
Pumpkinseed	999						1				1	1
Red Finned Pickerel	999			1							0	1
Redbreast sunfish	999		2	1							0	3
Smallmouth bass	999									1	1	1
Spottail shiner	999		1								Ô	1
Tesselated darter	999	10	3		1	2					3	16
White catfish	999		5	1	1						1	7
Yellow perch	999				1		1				2	2

Table 3. Species Composition of Catch in the Hudson River, 2002 (Cont.)

Species	Age	week 1 July 15-16	week 2 July 29- 30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	Weeks 4-9 Total	Weeks 1-9 Total	
Marine													
Atlantic menhaden	0	25		9	19	45	35		8	12	119	153	
Atlantic menhaden	1	627	254	25		3	1102				1105	2011	
Atlantic needlefish	999	1	2	5		3					3	11	
Bay anchovy	999	60		489	173	5	243	1451	221	163	2256	2805	
Bluefish	0	80	44	181	167	80	40	16	1		304	609	
Bluefish	1	1	1								0	2	
Butterfish	999									1	Ĩ	1	
Crevalle jack	999			13	1	1		1			3	16	
Inshore lizardfish	999		8	2	2	2			2		6	16	
Lookdown	999		1								0	1	
Naked Goby	999			2	1	15				1	17	19	
Northern kingfish	999		30	13	20	8	4	2			34	77	
Northern pipefish	999	17	16	34	25	40	29	41	23	11	169	236	
Northern puffer	999	1	5								0	6	
Northern searobin	999	1									0	ĺ	
Northern stargazer	999	4	12	4	1	1		1			3	23	
Reef Butterflyfish	999					1					1	1	
Silverside spp.	999	2477	2291	5468	3453	3862	1492	1778	562	560	11707	21943	
Spot	999	40	15								0	55	
Striped mullet	999			4	3	4	5				12	16	
Striped searobin	999		6	2	3	1					4	12	
Summer flounder	999	11	3	3			3	9	2		14	31	
Weakfish	999	2	1	2	2	1	1				4	9	
White mullet	999							4			4	4	
Winter flounder	999	Î.	14	2	2	3	1	11	5	15	37	54	
Total Fish Catch	200	4488	5342	9240	5799	6386	3909	3992	2272	2639	24997	44067	

Table 3. Species Composition of Catch in the Hudson River, 2002 (Cont.)

Nation 3	Invertebrate	Age	week 1 July 15-16	week 2 July 29- 30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	Weeks 4-9 Total	Weeks 1-9 Total
	Bluecrab	0	92	87	46	40	76	23	28	27	8	202	427
	Bluecrab	1	43	85	74	30	88	10	18	14	6	166	368
	Muderab	999	5									0	5
	Rangia	999	27	40	68	3	34		3	19	40	99	234
	Total Invert. Ca	itch	167	212	188	73	198	33	49	60	54	467	1034

Table 4. Catch per unit of effort of all species in Hudson River survey, 1985-2002 weeks 4-9

Diadromous	Age	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Alewife	0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alewife	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alewife	999	1.0	54.9	1.0	1.1	0.3	0.8	1.7	0.4	2.8	0.4	0.4	0.1	0.0	0.0	0.4	0.0	0.0	0.5	0.1	4.4	0.4	0.1	0.1
American eel	999	0.2	0.6	0.9	0.8	0.8	0.4	0.2	0.5	0.6	0.4	0.4	0.4	0.2	0.1	0.2	0.2	0.2	0.5	0.1	0.3	0.1	0.1	0.2
American shad	0	0.0	0.0	0.9	0.2	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	0.0	0.0
American shad	1	0.0	0.3	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	0.0	0.0	0.0	0.0	0.0	0.0
American shad	999	4.0	21.6	8.0	10.7	9.0	10.5	27.0	8.0	8.8	11.5	7.7	1.1	10.5	1.6	11.9	3.1	2.8	2.3	0.2	5.4	1.0	2.2	4.4
Atlantic tomcod	999	0.2	1.8	5.6	1.0	1.3	1.8	2.2	1.8	3.8	2.3	1.3	0.1	0.8	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0
Blueback herring	999	27.2	0.2	20.0	37.8	12.6	41.0	7.7	44.7	33.6	46.8	196.5	53.6	155.6	16.1	9.0	156.7	3.0	26.4	0.1	98.4	2.1	1.9	12.1
Striped bass	0	24.0	21.5	30.5	48.1	37.1	3.9	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	53.0	7.8	91.4	21.8
Striped bass	1	0.5	0.3	0.8	0.2	0.5	0.5	0.3	0.1	0.8	0.6	0.4	0.7	0.8	0.6	0.2	1.0	0.4	0.5	0.9	0.5	0.7	0.6	1.1
Striped bass	999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Striped bass (hatchery)	0	0.0	0.0	0.0	0.1	0.3	1.1	1.7	0.5	0.4	0.6	0.0	0.0	0.3	0.5	0.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Striped bass (hatchery)	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Striped bass (hatchery)	2	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	0.0	0.0	0.0	0.0	0.0	0.0
Estuarine																								
Fourspine stickleback	999	0.2	0.5	0.6	0.7	0.4	1.8	1.2	2.6	1.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0
Hogchoker	999	0.3	0.4	2.2	4.6	1.4	2.5	2.3	0.9	1.8	1.9	1.2	0.6	0.8	0.7	1.5	0.7	0.3	0.6	0.4	0.0	0.1	0.0	0.6
Killifish spp.	999	4.3	9.7	16.0	11.1	5.6	18.4	8.8	18.9	19.8	2.8	4.9	0.7	0.7	0.1	2.2	1.4	0.1	5.1	1.9	0.3	0.9	3.4	6.9
Striped anchovy	999	0.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Threespine stickleback	999	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	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
White perch	0	0.8	49.9	71.4	40.4	28.0	11.0	39.1	11.4	80.3	33.2	7.0	2.0	3.8	2.3	6.3	2.3	2.4	2.0	4.0	20.6	3.1	26.1	7.9
White perch	1	0.1	12.8	71.8	45.3	41.3	11.3	12.9	8.0	12.3	9.8	7.8	6.4	4.6	6.7	4.2	3.7	4.4	6.9	10.2	2.5	4.9	2.8	11.2
White perch	999	55.7	0.2	30.6	0.2	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	0.0	0.0
Freshwater															8			7.8-100	144.40	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		010	0.0	0.0
Black crappie	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Bluegill	999	0.0	0.0	0.0	0.1	0.4	0.1	0.6	0.4	0.2	0.2	0.1	0.0	0.0	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.3	0.0	0.7
Brown bullead catfish	999	0.0	0.0	0.0	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	0.0	0.0	0.1	0.0	0.0	0.0
Carp	999	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0
Chain pickerel	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Fallfish	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Gizzard shad	999	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.0	0.0
Golden shiner	999	0.2	0.1	0.1	0.1	0.2	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	0.1	0.0
Goldfish	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Hickory shad	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Largemouth bass	999	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	0.0	0.0	0.0	0.0	0.0	0.0

Table 4. Catch per unit of effort of all species in Hudson River survey, 1985-2002 weeks 4-9 (Cont.)

Marine	Age	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Cunner	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Grey snapper	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Inshore lizardfish	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Lookdown	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Naked Goby	999	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.2	0.2	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.0	0.2	0.1
Northern kingfish	999	0.0	0.0	0.1	0.1	0.0	0.3	0.0	0.0	0.2	0.1	0.0	0.2	0.2	0.2	0.1	0.1	0.0	0.4	0.3	0.0	0.0	0.1	0.2
Northern pipefish	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	0.0	0.0	0.0	0.0	0.0	0.0
Northern pipefish	999	0.4	1.0	1.5	1.0	1.1	2.3	0.9	1.7	4.4	1.9	2.0	1.2	0.6	0.8	0.4	1.5	0.2	4.0	1.5	0.7	0.1	2.4	1.2
Northern puffer	999	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	0.0	0.0	0.0	0.0	0.1	0.0
Northern sennet	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Northern stargazer	999	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	0.1	0.0	0.0	0.0	0.0	0.0
Northern tonguefish	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Permit	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Pigfish	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Reef Butterflyfish	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Silver perch	999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.5	16.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Silverside spp.	999	5.7	14.5	10.0	9.1	2.2	23.9	98.2	16.9	157.7	8.1	73.0	40.8	54.7	69.7	146.0	197.8	63.1	147.7	126.6	71.4	60.1	91.7	85.5
Smallmouth flounder	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Spanish mackerel	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Spot	999	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spotfin mojarra	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Spotted hake	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Striped mullet	999	0.1	0.0	0.3	0.4	0.2	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	0.1
Striped searobin	999	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0
Summer flounder	999	0.0	0.0	0.1	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Tautog	999	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3	0.0
Weakfish	999	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
White mullet	999	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Windowpane flounder	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Winter flounder	999	0.1	0.3	0.9	0.3	0.2	2.8	0.7	0.2	1.0	0.4	0.7	0.5	0.9	0.9	0.6	0.3	0.2	1.6	0.6	0.2	0.2	0.4	0.3

Table 4. Catch per unit of effort of all species in Hudson River survey, 1985-2002 weeks 4-9 (Cont.)

Freshwater	Age	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Pumpkinseed	999	3.1	1.3	3.7	1.7	1.5	0.3	0.2	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.1	0.1	0.3	0.0
Redbreast sunfish	999	0.7	0.2	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Smallmouth bass	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Spottail shiner	999	0.3	0.2	0.9	1.8	1.9	0.0	0.0	0.0	0.3	0.5	0.3	0.0	0.0	0.0	0.2	0.0	0.1	2.0	0.5	0.0	0.1	0.0	0.0
Tesselated darter	999	0.0	0.0	0.1	0.5	0.5	0.0	0.0	0.4	0.0	0.1	0.2	0.0	0.0	0.1	0.1	0.0	0.1	0.9	0.4	0.0	0.1	0.3	0.0
White catfish	999	0.0	0.1	0.1	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	0.0	0.0
White sucker	999	0.1	0.3	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	0.0	0.0	0.0	0.0
Yellow perch	999	0.2	0.1	0.2	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	0.0	0.0	0.0	0.0	0.0	0.0
Invertebrate																								
Bluecrab	0	0.0	0.0	0.2	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	30.1	17.3	0.2	2.5	1.5
Bluecrab	1	0.0	0.0	0.2	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	1.8	1.0	0.3	0.3	1.2
Bluecrab	999	0.0	0.5	0.2	0.1	0.5	1.1	0.2	1.9	5.2	2.6	2.2	8.3	2.9	1.4	1.3	1.7	0.5	13.8	0.0	0.0	0.0	0.0	0.0
Mudcrab	999	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	0.0	0.0	0.1	0.0	0.0	0.0
Rangia	999	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	0.0	0.0	0.0	0.0	0.0	0.7
Теггірап	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Marine																								
Atlantic menhaden	<b>-</b> 0	0.0	0.0	0.6	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	50.8	0.2	0.9
Atlantic menhaden	1	0.2	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	8.1
Atlantic menhaden	999	0.5	7.1	0.3	4.0	0.1	1.3	8.6	6.3	0.1	0.2	0.0	0.2	4.2	0.1	4.2	0.1	0.5	0.1	21.7	128.6	0.0	0.0	0.0
Atlantic needlefish	999	0.2	0.3	0.7	0.1	0.0	1.1	0.1	0.3	0.3	0.7	0.6	0.1	0.1	0.0	0.1	0.1	0.0	1.8	0.1	0.0	0.0	0.0	0.0
Bay anchovy	999	5.2	2.0	7.2	51.3	111.6	26.1	0.9	53.6	33.5	94.7	6.5	11.2	35.1	6.7	40.8	76.1	30.9	34.9	32.5	6.4	15.5	2.3	16.5
Bluefish	0	2.0	2.7	3.0	2.5	1.2	2.4	2.1	0.9	3.6	1.3	1.5	0.6	0.7	0.7	0.8	1.6	0.4	1.4	1.2	15.0	0.2	4.8	2.2
Bluefish	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Butterfish	999	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Butterflyfish	999	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	0.0	0.0	0.0	0.0	0.0	0.0
Cornetfish, bluespotted	999	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	0.0	0.0	0.0	0.0	0.0	
Crevalle jack	999	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.2	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0

Table 5. Catch per unit of effort of all species in Hudson Survey, 1985-2002 weeks 1-9

Species	Age	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Diadromous																			
Alewife	999	1.3	1.4	0.8	2.5	0.5	0.7	0.1	0.0	0.0	0.4	0.4	0.2	3.3	0.1	2.7	0.3	0.3	0.7
American eel	999	0.6	0.3	0.5	0.8	0.5	0.6	0.5	0.4	0.3	0.3	0.3	0.2	0.4	0.2	0.3	0.2	0.2	0.2
American shad	999	10.1	22.2	6.8	11.5	11.9	11.2	1.0	12.0	2.1	10.3	2.2	8.3	11.0	0.4	3.9	0.8	1.9	3.3
Atlantic tomcod	999	1.9	1.6	1.2	2.6	1.6	1.3	0.1	1.4	0.0	0.1	0.0	0.5	0.2	2.3	0.0	0.6	0.7	0.0
Blueback herring	999	28.4	6.2	32.2	27.8	38.0	139.8	35.1	104.6	10.7	6.2	104.2	29.7	19.1	0.1	59.9	1.4	1.5	7.9
Striped bass	0	4.6	8.7	82.9	70.4	59.5	58.0	15.2	26.6	55.9	43.5	33.8	21.3	59.0	33.7	58.0	22.9	77.5	22.5
Striped bass	1	8.0	0.2	0.1	0.7	0.7	0.4	0.8	0.8	0.6	0.3	1.2	0.5	0.5	0.7	0.7	0.8	0.8	0.9
Striped bass	999	0.0	0.0	0.0	0.0	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Striped bass (hatchery)	0	0.9	1.2	0.6	0.3	0.4	0.0	0.0	0.2	0.3	0.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Striped bass (hatchery)	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	0.0	0.0	0.0	0.0	0.0
Striped bass (hatchery)	2	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	0.0
Estuarine																			
Fourspine stickleback	999	1.2	0.9	2.0	1.1	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.3	0.1	0.0	0.0	0.0	0.0
Hogchoker	999	5.8	3.7	2.5	4.0	7.0	2.4	1.6	3.1	1.3	2.4	2.4	0.5	0.7	0.3	0.4	0.1	0.3	1.7
Killifish spp.	999	14.1	6.8	15.3	18.8	3.8	5.0	2.3	0.7	0.8	1.6	3.7	0.3	5.0	2.4	1.8	0.6	2.4	5.5
Rainbow smelt	999	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	0.0
Striped anchovy	999	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Threespine stickleback	999	0.0	0.0	0.2	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
White perch	0	8.8	37.0	11.5	75.8	33.8	7.5	2.3	5.5	3.7	6.1	1.9	3.0	1.5	4.1	22.3	6.2	22.0	11.4
White perch	1	20.5	28.9	15.7	20.2	26.6	10.7	9.8	6.4	7.7	7.8	11.1	7.0	5.6	9.7	6.9	16.1	20.1	20.0
Freshwater																			
Black crappie	999	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	0.0
Bluegill	999	0.0	0.4	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.3	0.0	1.4
Brown bullead catfish	999	0.0	0.0	0.0	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Carp	999	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	0.0	0.1
Chain pickerel	999	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	0.0
Fallfish	999	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	0.0
Gizzard shad	999	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.3	0.0	0.1
Golden shiner	999	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	0.1	0.0
Goldfish	999	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	0.0

Table 5. Catch per unit of effort of all species in Hudson Survey, 1985-2002 weeks 1-9 (cont.)

Species		Age	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	
Hickory shad	999	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	0.0	
Largemouth bass	999	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	0.0	
Pumpkinseed	999	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.0	0.3	0.0	0.0	0.1	0.2	0.0	
Red Finned Pickerel	999	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	0.0	
Redbreast sunfish	999	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	
Smallmouth bass	999	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	0.0	
Spottail shiner	999	0.0	0.0	0.0	0.3	1.3	0.4	0.1	0.0	0.0	0.2	0.1	0.2	1.9	0.6	0.1	0.2	0.1	0.0	
Tesselated darter	999	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	
White catfish	999	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	
White sucker	999	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	0.0	
Yellow perch	999	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	0.0	0.0	0.0	0.0	
Invertebrate																				
Bluecrab	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	24.6	14.0	0.3	1.8	2.0	
Bluecrab	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	2.9	2.1	0.9	0.5	1.8	
Bluecrab	999	1.7	0.3	1.4	4.7	3.0	2.7	6.2	5.5	1.2	1.2	2.1	0.6	13.6	0.0	0.0	0.0	0.0	0.0	
Mudcrab	999	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	0.1	0.0	0.0	0.0	
Painted turtle	999	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	0.0	
Rangia	999	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	1.1	
Terripan Marine	999	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	0.0	
Atlantic menhaden	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	47.5	0.5	0.7	
Atlantic menhaden	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	0.0	0.0	0.0	0.0	9.6	
Atlantic menhaden	999	20.9	23.5	4.8	0.9	0.8	0.0	2.8	5.7	0.1	3.5	0.3	1.9	0.3	14.7	93.0	0.0	0.0	0.0	
Atlantic needlefish	999	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	
Bay anchovy	999	52.3	5.3	60.4	37.3	244.4	11.0	34.0	40.4	7.6	183.7	88.6	33.5	47.2	34.5	9.2	13.7	1.8	13.4	
Bluefish	0	6.2	3.2	3.5	5.0	2.0	3.1	1.3	1.3	2.6	1.1	1.5	0.8	1.7	1.1	13.8	0.9	4.1	2.9	
Bluefish	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	0.0	0.0	0.0	0.0	0.0	
Bonefish	999	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	0.0	
Butterfish	999	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	0.0	
Butterflyfish	999	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	0.0	
Crevalle jack	999	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	
Cunner	999	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	0.0	
Grey snapper	999	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	0.0	

Table 5. Catch per unit of effort of all species in Hudson Survey, 1985-2002 Weeks 1-9 (cont.)

Species	Age	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Inshore lizardfish	999	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1
Lookdown	999	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	0.0
Naked Goby	999	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
Northern kingfish	999	0.2	0.0	0.0	0.2	0.1	0.1	0.3	0.2	0.2	0.1	0.1	0.0	0.4	0.4	0.1	0.0	0.1	0.4
Northern pipefish	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	0.0
Northern pipefish	999	2.4	0.9	1.7	3.7	1.5	2.1	2.6	0.8	0.7	0.4	2.1	0.2	3.6	1.3	1.2	0.2	1.8	1.1
Northern puffer	999	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
Northern searobin	999	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	0.0
Northern sennet	999	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	0.0
Northern stargazer	999	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	0.0	0.0	0.0	0.0
Northern tonguefish	999	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	0.0
Permit	999	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	0.0
Pigfish	999	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	0.0
Reef Butterflyfish	999	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	0.0
Scup	999	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	0.0
Silver perch	999	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	11.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Silverside spp.	999	21.1	69.9	20.0	120.2	7.9	55.5	147.2	50.3	90.7	191.9	165.7	65.9	126.0	120.0	90.3	67.1	94.0	104.5
Smallmouth flounder	999	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	0.0
Spanish mackerel	999	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	0.0
Spot	999	0.5	3.1	0.3	0.8	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
Spotfin mojarra	999	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	0.0
Spotted hake	999	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	0.0
Striped mullet	999	0.0	0.3	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	0.1
Striped searobin	999	0.1	0.1	0.0	0.0	0.0	0.1	0.4	0.0	0.1	0.0	0.0	0.0	0.7	0.5	0.1	0.0	0.0	0.1
Summer flounder	999	0.2	0.4	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1
Tautog	999	0.0	0.1	0.0	0.5	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0
Triggerfish	999	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	0.0
Weakfish	999	0.3	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
White mullet	999	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Windowpane flounder	999	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	0.0
Winter flounder	999	2.5	0.9	0.2	0.8	0.3	0.8	0.7	1.3	1.1	0.4	0.6	0.2	1.8	0.6	0.0	0.4	0.4	0.0

Table 6. Hudson River YOY Striped bass index of abundance, 1980-2002

### 6 Week Survey

							Geo. Mea	n
year	hauls	catch	CPUE	stdev	range	zeros	Index	conf. Limits
1980	150	3597	23.98	57.63	0-547	34	6.08	4.51-8.1
1981	131	2823	21.55	42.53	0-346	9	8.86	6.95-11.24
1982	143	4363	30.51	47.98	0-285	8	14.17	11.37-17.62
1983	148	7112	48.05	110.71	0-1178	8	16.27	12.58-20.96
1984	146	5418	37.11	89.84	0-906	6	15	12.03-18.65
1985	146	574	3.93	5.76	0-31	51	1.91	1.47-2.43
1986	147	904	6.15	8.97	0-55	34	2.92	2.29-3.67
1987	150	9100	60.67	157.77	0-1333	13	15.9	11.98-21.01
1988	145	7584	52.3	45.1	0-205	2	33.46	27.89-40.1
1989	150	6291	41.94	57.84	0-537	4	21.35	17.23-26.41
1990	142	5393	37.98	43.51	0-240	2	19.08	15.31-23.72
1991	140	959	6.85	7.95	0-41	30	3.6	2.84-4.52
1992	146	2526	17.3	15.51	0-83	5	11.44	9.63-13.56
1993	150	3975	26.5	34.31	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	148	4035	27.26	45.03	0-389	2	16.15	13.67-19.06
1996	134	1964	14.66	18.4	0-143	6	8.93	7.41-10.72
1997	139	6989	50.28	63.53	0-328	6	22.3	17.41-28.48
1998	127	2909	22.91	24.09	0-135	6	13.39	10.85-16.47
1999	104	5514	53.02	79.63	1-524	0	26.64	21.12-33.54
2000	136	1064	7.82	16.57	0-120	32	3.16	2.43-4.05
2001	135	12345	91.44	220.55	0-1711	11	22.98	16.95-31.04
2002	137	2978	21.74	26.91	0-203	5	12.32	10.12-14.97

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	121						Geo. Mea	n
year	hauls	catch	CPUE	stdev	range	zeros	Index	conf. Limits
1985	216	993	4.6	6.57	0-32	71	2.19	1.77-2.67
1986	222	1942	8.75	11.3	0-57	38	4.29	3.55-5.15
1987	225	18649	82.88	184.57	0-1432	13	25.12	20.09-31.34
1988	220	15488	70.4	85.38	0-869	2	42.16	36.33-48.89
1989	225	13398	59.55	86.16	0-642	4	28.42	23.79-33.92
1990	217	12592	58.03	64.66	0-473	2	29.8	24.9-35.63
1991	215	3275	15.23	22.57	0-160	32	6.56	5.35-7.99
1992	221	5875	26.58	25.5	0-142	5	16.94	14.67-19.53
1993	225	12588	55.95	74.17	0-402	7	23.32	19.13-28.39
1994	221	9624	43.55	50.38	0-367	4	25.71	22.1-29.89
1995	222	7465	33.63	44.57	0-389	2	20.15	17.53-23.15
1996	204	4346	21.3	25.83	0-188	6	12.76	10.94-14.85
1997	194	11444	58.99	71.05	0-412	7	27.92	22.8-34.15
1998	198	6673	33.7	34.47	0-183	6	19.18	16.16-22.73
1999	173	10031	57.98	69.34	1-524		33.82	28.64-39.91
2000	211	4830	22.89	51.89	0-416	32	7.17	5.73-8.92
2001	208	16130	77.55	180.11	0-1711	12	26.37	21.23-32.71
2002	210	4662	22.2	25.66	0-203	7	13.21	11.34-15.38

Table 7. YOY Striped bass catch by station, 2002

STATIO	N	riv mile	week 1 July 15-16	July	Week 3 Aug. 12-13	Aug.	week5 Sept. 9-10	week6 Sept. 23-24	Week 7 Oct. 8-10	Oct. 21-22	Nov. 5-8	C/F
EAST												
	18E	23	39	60	34	9	6		14	5	3	21.25
	21E	23	21	25	6	10	6	5		1	3	9.63
	17E	24	16	41	18	18	19	3	31	9	8	18.11
	16E	25	8	6	25	7	2	5	11	13	0	8.56
	15E	27										
	12E	29	6	4	7	3	26		8		3	8.14
	13E	29	32	8		35	60	38		11	3	26.71
	14E	29	73	50	20	14	26		10	13	15	27.63
	19E	33	8	21	20	10	13	5	21	17	1	12.89
	10E	34										
	11E	34	34	27	27	16	66	37	8	12	8	26.11
	9E	34	0	7	11	23	23		47	0	18	16.13
	7E1	35										
	7EC	35										
	7EE	35	7	32	49	57	203	26	16	14		50.50
	7EW	35	0	22	47	11	12	18	21	13	1	16.11
	8E	35		40	152	60		7	97	2	3	51.57
	6E	36										
	3E	39	5	20	6	17	81	8		4	8	18.63
	4E	39	3	5	5	20	110	43	31	13	0	25.56
	5E	39										
	20E	41										
WEST												
	15WN	27										
	15WS	27	9	6	7	21	8		51			17.00
	16WN	27	2	13	8	57	3		5	11	0	12.38
	16WS	27										
	13W	29										
	14W	29	30	17	15	30	38	7	18	19	0	19.33
	12W	30	5	6	24		77	5	11	6	9	17.88
	11W	32	1	25	17	11	43	26	12	2		17.13
	10W	35		40	39	19	32	13		6	3	21.71
	9W	35			19		43		11	9	3	17.00
	8W	36	55	41	50	34	28	48	3	4	4	29.67
	7W	37	33	79	11	38	76	38	8	49	10	38.00
	3W	39										
	4W	39	9	20	15	49	101	60	4	14	4	30.67
	4WN	39	1000	X2.36.75	-170	0.00 F000	are art. 17	1000	of.	2000	CHES	
	5W	39	8	26	7	8	59	24	1	14	17	18.22
	20W	42									Ē.	
	Effort		23	25	25	24	25	19	22	24	23	
	Catch		404	641	639	577	1161	416	439	261	124	
	C/E		17.57	25.64	25.56	24.04	46.44	21.89	19.95	10.88	5.39	

Table 8. CPUE of YOY Striped bass by station, weeks 1-9, 1985-2002

STATION	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
EAST										H H-Seed
18E	0.1	3.4	64.2	56.0	30.5	35.8	7.3	21.5	66.6	39.5
21E	0.0	1.0	70.3	23.5	111.8	70.2	1.0	24.6	89.8	42.3
17E	0.1	8.3	45.7	96.4	157.7	97.6	13.8	21.7	61.8	61.6
16E	12,090	3.0	135.0	50.1	34.5	42.6	4.7	17.0	50.7	26.6
15E		8.0	29.0	38.0	51.3	45.6	6.3		73.6	
12E	2.0	1.9	35.4	49.7	36.5	39.8	0.9	18.4	57.3	29.9
13E	3.7	4.5	93.3	14.5	12.5	31.0	24.2	19.7	55.6	14.3
14E	0.2	9.1	37.0	78.4	96.6	67.6	2.7	37.7	35.1	44.0
19E	1.7	6.0	259.5	88.8	67.6	33.1	7.0	19.8	33.1	59.7
10E	1.0									
11E	6.0	9.8	319.9	128.3	45.3	28.0	36.0	37.3	73.3	51.0
9E	1.0	6.0	47.4	37.0	42.9	57.3	17.0	35.5	73.0	55.8
7E1		10.0	54.0		1.0	17.5	1.0			
7EC	15.5									
7EE	5.0	12.9	222.0	54.3	58.0	30.1	10.1	13.9	65.1	26.4
7EW	5.9	10.8	358.7	66.3	99.8	52.5	7.9	26.5	57.3	28.1
8E	1.2	5.0	0.0	29.0		15.3	7.0		85.3	90.0
6E	1.3	1.9	38.9	51.8	31.0					
3E	4.1	4.9	46.9	29.9	24.4	21.9	6.7	13.1	17.4	46.8
4E	7.7	6.4	38.0	42.3	30.4	40.3	15.0	27.8	33.2	21.6
5E	5.0	18.3	9.0	25.8	26.0	34.0	16.0	13.5	186.0	11.0
1E										
20E	8.0									
WEST										
15WN	0.7		63.3	32.3	53.3	53.5	3.0	32.5	11.0	105.0
15WS	4.0	7.1	145.8	109.8	63.0	159.6	45.8	32.4	80.6	57.9
16WN	4.0	15.3	53.1	89.6	62.2	162.4		22.3	48.4	11.0
16WS	3.1	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		5.0
14W	4.6	10.0	93.0	65.1	55.6	64.9	40.6	20.0	76.9	24.4
12W	3.0	3.4	46.4	36.7	36.6	83.1	15.8	22.4	53.3	41.8
11W	2.8	4.9	18.7	42.8	11.2	7.0	11.6	11.9	28.7	39.9
10W	4.1	2.8	24.3	37.1	41.5	47.9	14.0	25.6	55.1	29.0
9W	5.1	6.4	25.4	96.5	37.4	39.5	6.6	21.1	20.9	32.3
8W	8.4	15.8	35.6	127.8	137.9	95.3	26.1	69.0	87.3	83.2
7W	10.6	15.7	65.7	114.1	56.6	71.0	20.9	59.5	43.2	74.2
3W	(E) 7,4574	5.7		0.000	37,335	ISIS	(C) (A) (A)	I BACA		
4W	15.9	20.1	71.4	93.9	143.8	80.6	23.4	28.6	38.8	27.8
4WN	(	<i>ार</i> ाका गे.डी	OF A PARTY.	1.575920	40.545	1.040/3/5		95-35-5-70	5077.75X	ST (27.75)
5W	10.3	18.1	43.1	64.8	63.8	54.1	27.1	26.2	46.8	33.2
20W	11								- C-470	
	417									
Annual C/F	4.6	8.75	82.88	70.4	59.55	58.03	15.23	26.58	55.95	43.55

Table 8. (cont.)

18E 21E								
	-							
	34.7	18.3	41.4	26.8	22.2	13.3	45.9	21.3
	59.4	46.1	26.1	44.4	38.6	12.2	27.3	9.6
17E	34.2	18.0	27.5	48.6	48.2	12.3	30.1	18.1
16E	38.7	14.3	23.2	38.8	37.8	4.6	30.1	8.6
15E			48.0	80.0	126.0	7.0	40.5	
12E	31.1	11.3	10.9	20.9	51.9	11.0	9.6	8.1
13E	82.3	13.0	44.4	22.3	47.5	4.6	24.5	26.7
14E	33.4	20.0	41.1	58.5	48.8	22.6	36.5	27.6
19E	31.8	16.5	109.8	30.4	15.2	16.0	57.8	12.9
10E			26.0					
11E	129.4	27.4	124.9	69.7	79.5	73.2	159.2	26.1
9E	14.8	23.2	54.1	40.7	92.5	18.2	50.3	16.1
7E1	52.0							
7EC								
7EE	17.1	19.0	54.1	11.8	35.1	34.8	193.3	50.5
7EW	42.7	12.3	31.6	27.7	35.6	51.7	231.0	16.1
8E	13.3	34.7	122.4	54.0	85.3	131.1	266.3	51.6
6E								
3E	17.8	8.9	96.6	22.1	60.0	12.9	118.1	18.6
4E	13.3	16.7	78.6	18.3	47.3	7.8	217.7	25.6
5E	10.5	22.3	28.0	24.0		11.0		
1E								
20E								
WEST								
15WN	27.6		16.0					
15WS	22.8	8.1	153.8	56.6	149.0	13.9	48.3	17.0
16WN	20.2	5.1	79.5		81.6	5.2	69.8	12.4
16WS	51.0			15.0		24.0	16.0	
13W								
14W	26.6	12.2	36.9	29.2	54.2	19.8	70.8	19.3
12W	21.7	14.6	26.3	24.9	106.8	7.8	37.0	17.9
11W	31.1	38.2	4.0	22.0	78.6	32.3	39.2	17.1
10W	17.3	18.2	53.4	16.3	33.6	18.3	34.4	21.7
9W	20.3	12.3	41.3	30.1	26.6	11.2	20.0	17.0
8W	34.5	34.1	41.4	28.6	26.4	6.0	34.2	29.7
7W	35.6	54.3	68.3	14.3	45.8	17.5	52.0	38.0
3W								
4W	35.1	31.3	97.7	37.3	51.8	33.7	86.9	30.7
4WN	17.0							
5W	34.6	25.3	78.0	42.7	49.5	22.6	46.9	18.2
20W		100001870		1000000		1000000,777		

Table 9. CPUE of YOY Striped bass by station, weeks 4-9 1980-2002

STATION	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
EAST		). (S)	F	- 1									
18E	13.7	30.8	24.2	36.7	23.1	0.2	2.8	27.8	68.3	36.0	15.0	2.6	17.3
21E						0.0	1.0	65.5		60.5	50.8	0.8	15.7
17E	9.3	17.6	35.7	91.7	36.8	0.2	7.0	46.5	96.3	73.3	57.6	5.8	13.0
16E	6.3	4.0	20.0	21.4	11.0		3.0		48.7	15.2	22.3	1.3	12.8
15E	24.0			302.6	52.8		8.0	29.0	38.0	10.0	10.0	6.3	
12E	2.7	3.5	8.4	24.3	10.4	2.8	1.8	17.5	29.0	20.0	21.8	1.0	17.6
13E	6.3	4.0			11.0	4.5	4.5	46.3	17.0	12.5	31.0	8.5	12.0
14E	35.5	10.6	15.0	42.2	11.8	0.2	4.3	30.2	51.0	42.3	28.0	2.0	15.7
19E	B3001703				20.7	2.2	2.8	121.8	21.3	34.2	22.8	4.8	11.5
10E													
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
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
7E1							10.0			1.0	17.5	1.0	
7EC			94.0			0.0							
7EE	0.0	22.0	88.3	48.2	146.0	0.7	6.6	274.7	41.5	50.3	28.8	8.3	6.8
7EW	19.7	10.0	66.0	35.7	215.3	2.5	5.0	406.6	37.5	106.3	54.6	8.0	23.2
8E	38.5	11.0	103.3	45.0	48.2	1.5	5.0	0.0	16.3		15.3	3.5	
6E	12.7	5.5	41.3	147.0	34.3	0.5	2.5	39.7	18.5	34.8			
3E	304 PARAGE	12.0			109.5	3.6	2.0	37.2	36.3	28.0	17.7	4.0	9.7
4E	29.0	14.0	27.8	22.2	41.8	6.3	6.3	32.7	36.6	31.5	30.7	5.5	16.2
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
1E				5.0									
20E													
WEST	Į.,												
15WN	39.0	9.4	16.7	36.3	42.7	0.0		21.0	28.5	53.4	47.6	3.0	16.2
15WS	20.6	10.2	8.4	81.3	26.0	2.6	5.5	9.8	67.7	22.0	77.5	15.6	17.4
16WN	68.3	32.0	11.3	17.5	15.2	3.7	12.3	27.8	64.8	82.7	93.0		16.0
16WS	60.3	29.6	8.5	49.7	11.0	2.8	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
14W	45.3	55.5	17.8	33.3	4.2	5.7		71.5	58.2	36.7	39.6	9.5	8.3
12W	8.3	9.7	12.0	10.8	7.0	2.7	1.4	35.8	40.7	36.8	65.2	9.5	10.2
11W	137.0	9.4	12.2	8.0	5.0	2.7	2.2	12.5	45.6	13.2	6.6	7.5	13.2
10W	21.6	22.2		15.4	7.5	3.3	2.0	20.7	37.2	24.2	29.5	9.0	16.4
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
8W	19.0	26.8	15.0	29.8	18.3	10.5	15.5	23.5	99.2	47.8	29.8	8.2	42.8
7W	4.3	47.0	51.0	46.7	34.3	11.3	10.0	13.2	97.2	61.5	74.6	8.5	42.8
3W	12.2	10.3	23.4	8.0	J (.J	11.0	2.0			****	or in the same	320000	. 507.107.6
4W	15.3	26.2	41.8	37.5	38.0	18.0	15.8	52.0	95.0	69.0	73.0	12.5	20.0
4W 4WN	13.3	20.2	71.0	37.3	50.0	10.0	15.0	52.0	55.0	57.0			
	7 0	20.6	38.4	44.0	39.8	8.3	15.0	27.3	39.4	33.0	40.6	9.5	19.0
5W	7.8	20.0	30.4	44.0	37.0	0.3	13.0	21.3	37.4	JJ.0	40.0	7.3	17.0
20W								V/511-QW.o.	-	-	1		
Appual C/E	22.00		20	40.05	27.11	2.02	(15	60.67	52.2	41.04	27.00	600	172
A mention ( '/H	11 00	11 33	411.3	AX III	4/11	1 41	D 13	DILO /	1/3	41 74	1/70	11.0	1 / 1

Annual C/F 23.98 21.55 30.51 48.05 37.11 3.93 6.15 60.67 52.3 41.94 37.98 6.85 17.3

Table 9. (Cont.)

STATION	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
EAST										
18E	39.2	23.4	31.2	12.0	31.7	7.8	23.7	3.3	41.0	7.4
21E	18.5	30.0	30.8	16.3	10.5	17.3	36.3	2.0	10.2	5.0
17E	31.7	60.3	14.0	12.3	19.2	35.5	18.3	1.0	22.2	14.7
16E	30.8	16.8	13.0	7.2	12.2	15.2	31.7	1.7	20.2	6.3
15E	12.5			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				5.0	44.0	
12E	13.7	8.2	14.0	10.5	9.5	12.5	60.3	3.5	10.7	10.0
13E	12.2	9.4	18.0	8.0	20.8	11.0	33.7	0.6	26.5	29.4
14E	26.8	20.0	16.0	12.0	29.3	27.4	42.0	2.0	34.0	15.6
19E	14.8	30.5	25.4	11.3	54.8	24.2	21.7	5.8	54.3	11.2
10E	2.33			*.*	26.0			(3.50)		***
11E	19.8	44.8	146.0	31.4	115.0	50.7	61.6	14.0	205.0	24.5
9E	21.8	16.6	14.3	20.3	52.8	44.2	76.6	18.0	62.5	22.2
7E1	= 7.5		52.0							
7EC										
7EE	90.0	16.8	16.0	12.5	61.7	10.0	30.2	8.2	286.8	63.2
7EW	57.3	25.6	47.0	10.5	36.7	33.2	27.0	17.3	327.8	12.7
8E	70.7	70.8	11.3	34.3	130.0	56.6	48.4	36.2	345.7	33.8
6E		11141051518								
3E	9.6	55.6	20.2	8.0	87.0	22.3	76.0	9.4	153.8	23.6
4E	9.3	16.0	14.8	13.3	94.2	14.8	93.0	4.6	346.5	36.2
5E		11.0	18.0	19.0		24.0				
1E										
20E										
WEST										
I5WN	11.0		26.7		16.0					
15WS	56.4	55.0	16.3	6.5	78.3	22.5	176.8	3.2	56.6	26.7
16WN	21.7	11.0	21.0	4.2	100.5	VIII111.1614	99.3	2.0	83.0	15.2
16WS						12.8				
13W										
14W	30.7	16.8	18.2	8.8	25.5	23.3	48.5	6.7	48.8	18.7
12W	8.0	37.2	12.0	8.3	14.8	13.8	134.8	3.8	28.0	21.6
11W	17.2	32.3	23.3	10.5		37.0	101.8	27.2	37.5	18.8
10W	24.3	17.0	13.3	11.7	47.7	17.2	13.0	5.4	47.0	14.6
9W	15.3	13.8	21.4	6.8	45.6	5.5	15.2	3.2	20.2	16.5
8W	35.8	38.5	24.4	17.7	36.7	13.5	16.2	5.5	53.7	20.2
7W	13.8	36.8	31.5	36.5	60.2	13.7	23.0	13.0	37.3	36.5
3W	13.0	50.0	31.0	50.5	00.0					
4W	15.5	17.8	40.8	24.3	71.8	19.0	103.0	8.0	90.8	38.7
4WN	13.3	17.0	17.0	- 110	5.53M/.			50.00	E-182-54	. # (F 5 5 1)
5W	14.2	14.8	35.2	17.5	69.8	39.0	72.0	4.3	35.8	20.5
20W	17.2	14.0	بعه ل ق		07.0	52.0	12.0			
2011									-	
Annual C/F	26.5	28.49	27.26	14.66	50.28	22.91	53.02	7.82	91.44	21.74
minute of	20.5					12000				

Table 10. Size-frequency distribution of YOY Striped bass, Hudson River 2002

TL	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	Se me	weeks	weeks
<20	2	0	0	0	0	0	0	0	0		0	2
20-24	14	2	0	0	0	0	0	0	0		0	16
25-29	51	5	0	0	0	0	0	0	0		0	56
30-34	55	20	2	0	0	0	0	0	0		0	77
35-39	59	50	1	0	0	0	0	0	0		0	110
40-44	45	99	17	2	0	0	0	0	0		2	163
45-49	45	91	57	6	1	0	0	0	0		7	200
50-54	51	84	94	35	2	0	0	0	1		38	267
55-59	45	54	57	66	10	2	0	2	0		80	236
60-64	47	59	65	94	38	4	3	3	0		142	313
65-69	15	45	39	71	67	23	5	9	5		180	279
70-74	2	43	27	47	94	44	7	13	8		213	285
75-79	0	35	36	46	84	33	15	18	3		199	270
80-84	0	16	28	29	126	48	24	19	8		254	298
85-89	0	10	33	20	93	47	14	22	8		204	247
90-94	0	2	25	26	76	34	30	23	7		196	223
95-99	0	0	20	37	82	37	26	21	10		213	233
100-104	0	1	18	32	47	25	18	16	7		145	164
105-109	0	0	4	22	48	33	28	18	12		161	165
110-114	0	0	2	26	46	23	38	19	15		167	169
115-119	0	0	0	9	31	13	39	21	9		122	122
120-124	0	0	1	5	24	24	23	13	13		102	103
125-129	0	1	0	1	12	13	27	15	5		73	74
130-134	0	0	0	1	4	7	31	5	3		51	51
135-139	0	0	1	0	2	3	35	14	6		60	61
140-144	0	2	1	0	0	1	19	3	1		24	27
145-149	0	0	0	0	1	1	8	1	2		13	13
150-154	0	0	0	1	0	0	5	2	0		8	8
155-159	0	0	0	0	2	0	9	1	1		13	13
160-164	0	0	0	1	0	0	1	0	0		2	2
165-169	0	0	0	0	1	0	2	0	0		3	3
170-174	0	0	0	0	o	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	o	0		0	0
190-194	0	0	0	0	0	0	0	0	0		o	0
195-199	0	0	0	0	0	0	0	0	o		o	0
>200	0	0	0	0	0	0	0	0	0		0	0
# measured Mean StdDev.	431 43.74 12.56	619 54.62 15.14	528 66.71 17.93	577 76.59 19.56	891 88.11 17.46	415 93.20 18.38	407 112.78 22.27	258 100.98 21.38	124 104.25 21.12		2672 92.16 78.62	4250 22.66 27.43

Table 11. Biweekly size comparison of YOY Striped bass, 1985-2002

YEAR		week 1	week 2	week 3	week 4	week 5	week 6	week 7	week 8	week 9
2002	Mean	43.74	54.62	66.71	76.59	88.11	93.20	112.78	100.98	104.25
	StdDev	12.56	15.14	17.93	19.56	17.46	18.38	22.27	21.38	21.12
2001	Mean	44.29	54.77	67.13	75.74	85.94	93.95	92.62	92.62	104.57
	StdDev	10.00	13.21	12.81	12.65	13.10	15.92	16.49	17.59	10.80
2000	Mean	41.66	47.55	53.04	62.40	71.82	73.03	79.30	71.55	70.71
	StdDev	9.93	10.77	11.76	13.27	14.79	15.40	17.53	8.06	4.92
1999	Mean	52.53	62.91	75.34	93.44	101.45	95.64	89.42	91.12	88.46
	StdDev	11.43	10.90	14.86	20.11	18.39	22.37	21.01	24.39	24.14
1998	Mean	39.28	47.88	60.55	70.46	79.73	81.81	84.88	98.30	91.93
	StdDev	11.93	12.68	11.81	14.15	11.85	15.03	13.15	15.23	15.21
1997	Mean	41.50	52.26	73.32	72.85	79.14	83.59	87.66	87.71	87.16
	StdDev	9.19	11.12	10.00	12.98	13.48	13.79	13.61	12.23	15.10
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
1995	Mean	41.98	62.43	69.91	78.85	87.57	94.65	100.20	99.90	90.76
	StdDev	8.95	11.20	11.38	11.19	12.99	16.21	18.29	20.34	20.04
1994	Mean	41.26	54.56	62.11	71.21	75.99	84.01	84.08	87.83	88.93
	StdDev	8.77	10.82	11.76	13.69	14.37	15.55	13.21	14.61	13.45
1993	Mean	38.12	52.58	62.17	68.99	76.33	83.52	84.60	88.12	88.59
	StdDev	8.13	11.53	12.35	13.30	13.40	14.83	13.41	16.38	19.19
1992	Mean	46.89	57.77	65.38	72.52	82.02	85.40	91.01	89.59	89.89
	StdDev	10.82	12.47	12.31	12.60	12.08	14.46	15.25	15.26	15.57
1991	Mean	62.42	71.48	82.04	89.93	97.61	100.96	101.95	94.02	97.25
	StdDev	15.45	14.34	15.00	18.54	18.56	22.94	27.32	27.51	22.83
1990	Mean	48.94	45.95	57.52	65.00	71.59	76.17	77.46	78.28	74.82
	StdDev	23.57	15.70	14.99	13.42	13.91	13.66	13.97	14.32	16.01
1989	Mean	36.10	46.68	57.32	65.12	72.35	81.13	81.16	82.11	85.05
	StdDev	9.36	9.40	10.84	11.29	11.02	12.20	12.64	12.45	14.17
1988	Mean	41.90	51.28	59.89	73.84	80.91	84.06	88.09	85.91	86.88
	StdDev	10.56	15.28	14.67	15.53	16.32	15.82	17.16	18.63	16.43
1987	Mean	47.84	59.84	67.50	72.49	80.71	85.56	85.17	87.58	84.96
	StdDev	9.52	9.61	10.61	10.71	10.71	11.97	13.41	13.53	15.29
1986	Mean	58.03	67.05	76.08	86.55	90.21	97.18	95.60	99.56	98.75
	StdDev	7.14	10.68	13.08	11.94	11.32	15.94	14.00	22.23	16.34
1985	Mean	54.30	63.74	80.80	84.10	93.19	102.55	105.76	100.28	105.22
	StdDev	7.34	11.29	11.04	10.60	14.13	14.90	17.51	12.88	19.18

Table 12. Age-distribution of Striped bass captured in the Hudson River Sampling, 1985-2002.

AGE	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
0	1185	2203	9183	9322	9449	9828	3188	5796	7591	7620	5899	4346	5987	5071	5720	2917	6178	4250
1	84	43	27	151	144	58	154	156	108	57	245	93	87	129	118	149	168	176
2	13	3	3	6	12	9	11	7	23	5	23	5	10	15	4	11	7	12
3	0	4	0	1	0	2	3	2	6	0	5	3	2	1	0	1	0	2
4	0	3	0	1	0	0	1	4	1	3	2	0	0	. 1	0	0	1	0
5	1	0	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
6	0	0	0	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	1	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
>8	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0

Table 13. Size-frequency distribution of older Striped bass, Hudson River, 2002

TL	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	weeks 4-9	weeks 1-9
<20	0	0	0	0	0	0	0	0	0	0	0
20-39	o	0	0	0	0	0	o	o	0	0	0
40-59	0	0	0	0	o	0	0	0	0	0	0
60-79	0	0	0	0	0	0	0	0	0	0	0
80-99	1	0	1	0	0	0	0	0	0	0	2
100-119	6	0	0	1	0	0	0	0	0	1	7
120-139	2	5	10	1	1	2	2	0	0	6	23
140-159	0	2	5	. 3	1	1	3	4	0	12	19
160-179	0	1	3	5	15	2	7	2	2	33	37
180-199	0	o	0	6	11	5	8	3	2	35	35
200-219	0	0	0	1	4	5	12	5	3	30	30
220-239	0	0	0	1	2	3	5	2	3	16	16
240-259	0	1	2	0	4	2	1	0	0	7	10
260-279	0	0	0	0	3	0	1	0	0	4	4
280-299	0	0	0	0	0	2	0	1	0	3	3
300-319	0	0	0	0	0	0	1	0	0	1	1
320-339	0	0	0	0	1	0	1	0	0	2	2
340-359	0	0	0	0	0	0	0	0	0	0	0
360-379	0	0	0	0	0	0	0	0	1	1	1
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	0	0	0	0	0	0	0	0	0	0	0
# measured	9	9	21	18	42	22	41	17	11	151	190
Mean	112.33	152.00	149.33	169.78	197.02	203.91	199.27	191.94	214.73	196.11	184.88
StdDev	6.89	37.88	35.97	26.85	40.20	43.28	41.75	35.31	55.57	41.37	45.84

Table 14. Older Striped bass catch per station, 2002

STATIO	V	riv mile	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	Week 5 Sept. 9-10	week 6 Sept. 23-24	Oct. 8-10	Oct. 21-22	Nov. 5-8	C/F
EAST	•	a state	15 10	27 30	12.13	20 21	7-10	23 21	0.10	21 22	3-0	<u> </u>
	18E	23	0	0	0	0	0		0	1	2	0.38
	21E	23	0	0	0	0	3	2		0	2	0.88
	17E	24	0	0	0	0	0	0	1	2	0	0.33
	16E	25	0	0	0	0	0	9	1	4	0	1.56
	15E	27										
	12E	29	1	1	0	3	7		4		1	2.43
	13E	29	0	0		0	0	0		3	0	0.43
	14E	29	0	0	0	0	2		1	2	1	0.75
	19E	33	0	2	0	0	6	1	2	1	0	1.33
	10E	34										
	11E	34	0	1	5	0	1	1	0	0	0	0.89
	9E	34	2	0	1	0	2		3	0	0	1.13
	7E1	35										
	7EC	35										
	7EE	35	0	0	1	3	9	4	2	0		2.38
	7EW	35	0	0	5	3 2 2	0	2	2 2 7	2	0	1.67
	8E	35		0	0	2		0	7	0	1	1.43
	6E	36										
	3E	39	1	3	0	0	2	0		0	3	1.13
	4E	39	0	0	0	0	0	1	6	0	0	0.78
	5E	39										
	20E	41										
WEST												
	15WN	27										
	15WS	27	0	0	0	0	0		6			1.00
	16WN	27	0	0	0	7	0		0	0	0	0.88
	16WS	27										
	13W	29										
	14W	29	0	0	0	0	0	0	2	0	0	0.22
	12W	30	0		0		0	0	0	0	0	0.00
	11W	32	1	0	1	0	2	0	1	0		0.63
	10W	35		0	1	0	2	0		0	0	0.43
	9W	35			0		0		0	0	0	0.00
	8W	36	0	0	0	0	1	1	0	0	0	0.22
	7W	37	1	1	1	0	1	0	0	0	1	0.56
	3W	39	ñ	-		-			ď.			
	4W	39	0	0	2	0	0	1	1	0	0	0.44
	4WN	39	(5)	77	- CT-	-50	1000	<i>6</i> ₹0		99 <del>8</del> 8	170.	and:
	5W	39	0	0	2	0	1	0	0	0	0	0.33
	20W	42		_								
	Effort		23	25	25	24	25	19	22	24	23	
	Catch		8	8	19	18	39	22	39	15	11	
	C/E		0.35	0.32	0.76	0.75	1.56	1.16	1.77	0.63	0.48	

Table 15. YOY White perch catch by station, 2002

STATION		riv mile	July	2 July	3 Aug.	4 Aug.	5 Sept.	week 6 Sept. 23-24	7 Oct.		9 Nov.	C/F
EAST		IIV IIIIC	15-10	29-30	12-13	20-27	9-10	23-24	0-10	21-22	3-0	C/F
	18E	23	5	0	0	0	0		0	0	0	0.63
	21E	23	0	0	1	0	0	0		0	0	0.13
	17E	24	0	0	0	0	0	0	0	0	0	0.00
	16E	25	9	0	1	0	0	0	1	4	0	1.67
	15E	27										1107
	12E	29	2	0	0	1	0		0		0	0.43
	13E	29	3	27	95%	9	65	19	35743	5	0	18.29
	14E	29	2	0	0	0	0		0	0	0	0.25
	19E	33	0	0	1	0	0	0	0	3	0	0.44
	10E	34										
	11E	34	0	2	6	0	1	0	0	0	0 .	1.00
	9E	34	0	36	0	0	0		0	0	0	4.50
	7E1	35	7.	11.751512								
	7EC	35										
	7EE	35	2	23	68	24	21	0	0	2		17.50
	7EW	35	4	11	17	4	0	4	1	11	0	5.78
	8E	35		188	411	287	17	22	1	0	0	129.86
	6E	36				170.70		35776	.5	7	A. S. C.	
	3E	39	22	2	2	18	5	3		3	21	9.50
	4E	39	0	6	7	14	3	5	6	12	4	6.33
	5E	39				.,						
	20E	41										
WEST		15.75										
	15WN	27									~	
	15WS	27	12	0	28	67	0		9			19.33
	16WN	27	0	0	4	0	0		9	1	0	1.00
	16WS	27	U	U		U	v		3	*	v	1.00
	13W	29										
	14W	29	4	27	37	27	12	2	2	2	0	12.56
	12W	30	9	55	23	21	35	11	14	24	5	22.00
	11W	32	0	0	2	22	0	0	0	0	3	3.00
	10W	35	U	66	75	60	47	14	U	1	0	37.57
	9W	35		00	0	00	0	14	0	0	0	0.00
	8W	36	7	35	25	4	0	0	0	0	0	7.89
			22	15	0	13	2	19	0	5	0	8.44
	7W	37	22	13	U	13	2	19	U	3	U	0.44
	3W	39	0	1	1	5	8	8	0	0	11	3.78
	4W	39	0	1	1	3	ō	0	U	U	11	3.76
	4WN	39	0	0	3	6	7	8	0	0	55	8.78
	5W	39	U	U	3	0	7	0	U	U	33	8.78
	20W	42			1154							
	Effort		23	25	25	24	25	19	22	24	23	
	Catch		103	494	712	561	206	115	37	73	96	
	C/E		4.48	19.76	28.48	23.38	8.24	6.05	1.68	3.04	4.17	

Table 16. Older White Perch catch by station, 2002

STATION	3	Riv. mile	week 1 July 15-16	July 29-30	Week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	Sept. 23-24	Week 7 Oct. 8-10	week 8 Oct. 21-22	Nov. 5-8	C/F
EAST		13.5	158				11.7					
Di io i	18E	23	0	0	1	4	0		17	1	0	2.88
	21E	23	0	0	0	0	0	0		1	1	0.25
	17E	24	7	4	4	4	5	14	11	0	4	5.89
	16E	25	89	36	28	0	66	0	11	6	0	26.22
	15E	27	02		3	•		D4 <del>2</del> 3	101011			
	12E	29	10	32	2	0	9		1		0	7.71
	13E	29	35	26	- F	18	2	10		2	0	13.29
	14E	29	1	1	0	0	0		3	2	0	0.88
	19E	33	o	482	0	0	0	0	0	0	0	53.56
	10E	34	3553	Managa						-1		
	11E	34	7	0	36	7	0	0	0	0	0	5.56
	9E	34	57	0	5	0	0		0	0	0	7.75
	7E1	35										
	7EC	35										
	7EE	35	3	5	73	17	10	0	0	0		13.50
	7EW	35	52	10	69	0	0	0	0	0	0	14.56
	8E	35		342	73	88		11	0	0	0	73.43
	6E	36										
	3E	39	21	76	227	5	17	0		10	26	47.75
si <sup>ll</sup>	4E	39	0	143	153	2	1	5	24	0	16	38.22
	5E	39										
	20E	41										
WEST	STATE OF THE STATE OF											
	15WN	27										
	15WS	27	10	4	2	0	18		2			6.00
	16WN	27	0	2	2	0	1		5	1	1	1.25
	16WS	27	0030									
	13W	29										
	14W	29	3	5	24	6	10	9	10	i	0	7.56
	12W	30	1	9	45		23	21	7	14	3	15.38
	11W	32	1	0	0	22	0	3	9	1		4.50
	10W	35		39	31	10	450	138		0	0	95.43
	9W	35		0.33.50	0		0		0	0	0	0.00
	8W	36	19	0	91	68	0	88	0	0	0	29.56
	7W	37	7	62	0	51	4	31	0	21	0	19.56
	3W	39	8									
	4W	39	2	14	121	1	11	8	2	0	13	19.11
	4WN	39	120	9000	10.00	10	55	_				
	5W	39	29	16	28	4	3	2	1	0	31	12.67
	20W	42				1R		x252	420	93	xs-qu-	
	Effor	1	23	25	25	24	25	19	22	24	23	
	Catch		354	1308	1013	307	630	340	103	60	95	
	C/E		15.39	52.32	40.52	12.79	25.20	17.89	4.68	2.50	4.13	

Table 17. Size-frequency distribution of YOY White Perch, Hudson River 2002

TL	*week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	**week 7 Oct. 8-10	**week 8 Oct. 21-22	**week 9 Nov. 5-8	weeks 4-9	weeks 1-9
<20	0	0	0	0	0	0	- 0-10			0	0
20-24	0	0	0	0	0	0		•	-	0	0
25-29	0	0	0	0	0	0	-	·•·	1 <b>-</b> 1	0	0
30-34	0	7	1	1	0	0	-		387X	1	9
35-39	1	14	1	0	0	0	-	2075		0	16
40-44	4	10	4	0	0	0	5	1556		0	18
45-49	0	21	9	1	0	0		·	770	1	31
50-54	0	14	10	8	3	0	1273	-		11	35
55-59	0	11	12	7	4	0	: <del>-</del>	-	-	11	34
60-64			15	16	10		5 <del></del>		-	27	34 44
65-69	0	2		12	3	1			-	17	
	0	0	7			2	( <b>€</b>	-			24
70-74	0	0	4	6	3	2		<del>7</del> 8	-	11	15
75-79	0	1	0	2	3	3	- <del>-</del>	汞	-	8	9
80-84	1	0	0	1	1	4		-	•	6	7
85-89	0	0	0	0	0	2		•	-	2	2
90-94	3	0	0	0	0	0	•	-	-	0	3
95-99	1	0	0	0	1	0	•	-	•	1	2
100-104	10	0	0	0	0	0	-	•	-	0	10
105-109	2	0	0	0	0	0	•	-	-	0	2
110-114	6	0	0	0	0	0	•	-	-	0	6
115-119	1	0	0	0	0	0	-	<b>*</b>	8.	0	1
120-124	2	0	0	0	0	0	1.50	-		0	2
125-129	1	0	0	0	0	0	> <del>=</del> 0	-	35	0	1
130-134	1	0	0	0	0	0		-	-	0	1
135-139	1	0	0	0	0	0	-	-	S=	0	1
140-144	1	0	0	0	0	0		-	-	0	I
145-149	3	0	0	0	0	0	-	8	-	0	3
150-154	1	0	0	0	0	0		-	-	0	1
155-159	2	0	0	0	0	0		-	-	0	2
160-164	0	0	0	0	0	0		-	-	0	0
165-169	2	0	0	0	0	0	-	-	-	0	2
170-174	1	0	0	0	0	0	B <b>₩</b> 1	-	-	0	1
175-179	0	0	0	0	0	0	•	-	•	0	0
180-184	0	0	0	0	0	0	-		•	0	0
185-189	0	0	0	0	0	0	-	-	5.00	0	0
190-194	0	0	0	0	0	0	-	-	•	0	0
195-199	1	0	0	0	0	0	-	-	-	0	1
>200	0	0	0	0	0	0	<u> </u>	•	•	0	0
# Measured Mean	45 112.09	80 46.39	63 56.16	54 61.85	28 65.07	14 76.93	<b>H</b> (	-	-	96 64.99	284 64.57
StdDev.	35.99	8.45	8.65	8.39	10.45	7.59				10.24	27.88

<sup>\*</sup> adult (1+ years) white perch were only measured during week 1 \*\* YOY white perch were not measured in weeks 7-9

Table 18. Atlantic tomcod catch by station, 2002

STATION	I	Riv. mile	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	Oct. 8-10	Week 8 Oct. 21-22	Week 9 Nov. 5-8	9 C/F
EAST		H										- 100
	18E	23	0	0	0	1	0		0	0	0	0.13
	21E	23	0	0	0	0	0	0		0	0	0.00
	17E	24	0	0	0	0	0	0	0	0	0	0.00
	16E	25	0	0	0	0	0	0	0	0	0	0.00
	15E	27										
	12E	29	0	0	0	0	0		0		0	0.00
	13E	29	0	0		0	0	0		0	0	0.00
	14E	29	0	0	0	0	0		0	0	0	0.00
	19E	33	0	0	0	0	0	0	0	0	0	0.00
	10E	34										
	11E	34	0	0	0	0	0	0	0	0	0	0.00
	9E	34	0	0	0	0	0		0	0	0	0.00
	7E1	35										
	7EC	35										
	7EE	35	0	0	0	0	0	0	0	0		0.00
	7EW	35	0	0	0	0	0	0	0	0	0	0.00
	8E	35		0	1	0		0	0	0	0	0.14
	6E	36										
	3E	39	0	0	0	0	0	0	1743	0	0	0.00
	4E	39	0	0	0	0	0	0	0	0	0	0.00
	5E	39										
	20E	41										
WEST		-										
	15WN	27										
	15WS	27	0	0	0	0	0		0			0.00
	16WN	27	0	0	0	0	0		0	0	0	0.00
	16WS	27										
	13W	29										
	14W	29	0	0	1	0	0	0	0	0	0	0.11
	12W	30	0	0	0		1	0		0	0	0.13
	11W	32	0	0	0	0	0	0	0	0		0.00
	10W	35		0	0	0	0	0		0	0	0.00
	9W	35			0		0		0	0	0	0.00
	8W	36	0	0	0	0	0	0	0	0	0	0.00
	7W	37	0	0	0	0	0	0	0	0	0	0.00
	3W	39										
	4W	39	0	0	0	0	0	0	0	0	0	0.00
	4WN	39										
	5W	39	0	0	0	0	0	0	0	0	0	0.00
	20W	42								1 11	_	
	Ef	Tort	23	25	25	24	25	19	22	24	23	
	Ca	atch	0	0	2	1	1	0	0	0	0	
	CI	E	0.00	0.00	0.08	0.04	0.04	0.00	0.00	0.00	0.00	

Table 19. Size-frequency distribution of Atlantic Tomcod, Hudson River 2002

TL	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	weeks 4-9	weeks
<20	0	0	0	0	0	0	0	0	0	0	0
20-24	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	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0	0
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	1	0	0	0	0	0	0	0	1
100-104	0	0	0	0	0	0	0	0	0	0	0
105-109	0	0	1	0	0	0	0	0	0	0	1
110-114	0	0	0	0	0	0	0	0	0	0	0
115-119	0	0	0	0	1	0	0	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
150-154	0	0	0	1	0	0	0	0	0	1	1
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
>200	0	0	0	0	0	0	0	0	0	0	0
Measured	0	0	2	1	1	0	0	0	0	2	4
Mean StdDev.			103.00 8.49	150.00	115.00					132.50 24.75	117.75

Table 20. American eel catch per station, 2002

STATION	0.00 0.00 0.11 0.44 0.00 0.29
18E         23         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         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         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         0         0         0	0.00 0.1 0.44 0.00 0.29
21E 23	0.00 0.1 0.44 0.00 0.29
17E	0.1 0.44 0.00 0.29
16E   25	0.44 0.00 0.29
15E   27	0.00
12E   29	0.29
13E   29	0.29
14E 29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 10E 33 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 10E 34 11E 34 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
19E 33	
10E 34 11E 34 0 0 1 0 0 0 0 0 0 1 0 9E 34 0 0 0 0 0 0 0 0 0 0 7E1 35 7EC 35 7EE 35 0 0 0 0 0 0 0 0 0 0 0 8E 35 0 0 0 0 0 0 0 0 0 0 0 0 6E 36 3E 39 0 1 0 0 0 0 0 0 0 0 0 0 4E 39 0 0 0 0 0 0 0 0 0 0 0 0 4E 39 0 0 0 0 0 0 0 0 0 0 0 0 4E 39 0 0 0 0 0 0 0 0 0 0 0 0  WEST    15WN 27	0.11
11E 34 0 0 1 0 0 0 0 0 0 0 0 0 0 7 1 0 9 1 0 9 1 0 0 0 0 0 0 0 0 0 0 0 0 0	
9E 34 0 0 0 0 0 0 0 0 0 0 0 0 0 7E1 35 7EC 35 7EE 35 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.22
7E1 35 7EC 35 7EC 35 7EB 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 0 0 6E 36 3E 39 0 1 0 0 0 0 0 0 0 0 0 4E 39 0 0 0 0 0 0 0 0 0 0 0 2 5E 39 20E 41  WEST    VEST	0.00
7EC         35           7EE         35         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         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         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 </td <td>0.00</td>	0.00
7EE         35         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         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         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         0         0         0	
7EW 35 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00
8E 35	0.00
6E 36 3E 39 0 1 0 0 0 0 0 0 0 0 4E 39 0 0 0 0 0 0 0 0 0 2 5E 39 20E 41  WEST  15WN 27 15WS 27 0 0 0 0 0 0 0 0 16WS 27 13W 29 14W 29 1 0 0 0 0 0 0 0 0 0 0 12W 30 0 1 1 2 1 2 1 3 0 2 11W 32 0 0 0 0 0 0 0 0 0 2 10W 35 0 0 1 1 0 0 0 0	0.00
3E 39 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00
4E 39 0 0 0 0 0 0 0 0 0 0 2  5E 39 20E 41  WEST  15WN 27 15WS 27 0 0 0 0 0 0 0 0 16WS 27 13W 29 14W 29 1 0 0 0 0 0 0 0 0 0 0 12W 30 0 1 1 2 1 3 0 2 11W 32 0 0 0 0 0 0 0 0 2 10W 35 0 0 1 1 0 0 0 0	0.13
5E 39 20E 41  WEST  15WN 27 15WS 27 0 0 0 0 0 0 0 0 16WS 27 13W 29 14W 29 1 0 0 0 0 0 0 0 0 0 0 12W 30 0 1 1 2 1 3 0 2 11W 32 0 0 0 0 0 0 0 0 2 10W 35 0 0 1 1 0 0 0 0	0.22
20E 41  WEST  15WN 27  15WS 27 0 0 0 0 0 0 0 0  16WN 27 0 0 0 0 1 0 0 0 0  16WS 27  13W 29  14W 29 1 0 0 0 0 0 0 0 0 0 0  12W 30 0 1 1 2 1 3 0 2  11W 32 0 0 0 0 0 0 0 0 2  10W 35 0 0 1 1 0 0 0	0.22
WEST    15WN   27	
15WN 27 15WS 27 0 0 0 0 0 0 0 16WN 27 0 0 0 0 1 0 0 0 16WS 27 13W 29 14W 29 1 0 0 0 0 0 0 0 0 0 12W 30 0 1 1 2 1 3 0 2 11W 32 0 0 0 0 0 0 0 0 2 10W 35 0 0 1 1 0 0 0	
15WS 27 0 0 0 0 0 0 0 0 1 1 0 0 0 1 16WN 27 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	
16WN     27     0     0     0     0     1     0     0     0       16WS     27       13W     29       14W     29     1     0     0     0     0     0     0     0       12W     30     0     1     1     2     1     3     0     2       11W     32     0     0     0     0     0     0     0     2       10W     35     0     0     1     1     0     0     0	
16WS 27 13W 29 14W 29	0.00
13W 29 14W 29 1 0 0 0 0 0 0 0 0 12W 30 0 1 1 2 1 3 0 2 11W 32 0 0 0 0 0 0 0 2 10W 35 0 0 1 1 0 0 0	0.13
14W     29     1     0     0     0     0     0     0     0     0       12W     30     0     1     1     2     1     3     0     2       11W     32     0     0     0     0     0     0     2       10W     35     0     0     1     1     0     0     0	
12W 30 0 1 1 2 1 3 0 2 11W 32 0 0 0 0 0 0 0 2 10W 35 0 0 1 1 0 0 0	
11W 32 0 0 0 0 0 0 0 2 10W 35 0 0 1 1 0 0 0	0.11
10W 35 0 0 1 1 0 0 0	1.25
	0.25
	0.29
9W 35 0 0 0 0 0	0.00
8W 36 0 0 0 1 0 2 0 0 0	0.33
7W 37 0 0 0 0 0 1 0 0 1	0.22
3W 39	and Assets
4W 39 0 0 0 0 0 0 0 0	0.00
4WN 39	
5W 39 0 0 0 0 0 0 0 1	0.11
20W 42	
Effort 23 25 25 24 25 19 22 24 23	
Catch 3 4 2 3 4 4 5 4 6	
C/E 0.13 0.16 0.08 0.13 0.16 0.21 0.23 0.17 0.26	

Table 21. Size-frequency distribution of American eel, Hudson River 2002

TL	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	Week 8 Oct. 21-22	week 9 Nov. 5-8	weeks	weel
<20	0	0	0	0	0	0	0	0	0	0	0
20-39	0	0	0	0	0	0	0	0	0	0	0
40-59	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	0	0	0	0
100-119	0	0	0	0	0	0	0	1	1	2	2
120-139	0	0	0	0	0	0	0	1	i	2	2
140-159	0	0	1	0	0	0	0	0	3	3	4
160-179	0	0	0	0	0	0	3	1	1	5	5
180-179	0	0	0	0	0	0	0	0	0	0	0
200-219	0	0	0	0	0	0	0	0	0	0	0
220-219	0	0	0	0	0	0	0	0	0	0	0
240-259	0	0	0	0	0	0	0	0	0	0	0
260-279	0	1	0	0	0	0	0	0	0	0	1
280-279	0	0	0	1	0	0	0	0	0	1	1
	0		0	0	553	2	0	0	0	3	3
300-319		0	333	0	1	0	25.5	0	0	2	2
320-339	0	0	0	102	0		2	0	0	0	0
340-359	0	0	0	0	0	0	0	33600	267		
360-379	0	0	1	0	0	0	0	0	0	0	1
380-399	0	0	0	0	0	0	0	0	0	0	0
400-419	1	0	0	0	0	0	0	0	0	0	1
420-439	0	0	0	0	0	1	0	0	0	1	1
440-459	0	0	0	0	0	0	0	0	0	0	0
160-479	0	0	0	1	0	0	0	0	0	1	1
180-499	0	0	0	0	0	0	0	0	0	0	0
500-519	0	1	0	0	1	1	0	0	0	2	3
520-539	0	0	0	0	0	0	0	0	0	0	0
540-559	0	1	0	0	1	0	0	0	0	I	2
560-579	1	0	0	0	0	0	0	0	0	0	1
580-599	0	0	0	0	0	0	0	1	0	1	1
500-619	0	1	0	0	0	0	0	0	0	0	1
620-639	0	0	0	1	0	0	0	0	0	1	1
540-659	0	0	0	0	1	0	0	0	0	1	1
660-679	0	0	0	0	0	0	0	0	0	0	0
680-699	0	0	0	0	0	0	0	0	0	0	0
700-719	0	0	0	0	0	0	0	0	0	0	0
720-739	0	0	0	0	0	0	0	0	0	0	0
740-759	0	0	0	0	0	0	0	0	0	0	0
760-779	0	0	0	0	0	0	0	0	0	0	0
780-799	0	0	0	0	0	0	0	0	0	0	0
800-819	0	0	0	0	0	0	0	0	0	0	0
820-839	0	0	0	0	0	0	0	0	0	0	0
840-859	0	0	0	0	0	0	0	0	0	0	0
860-879	0	0	0	0	0	0	0	0	0	0	0
880-899	0	0	0	0	0	0	0	0	0	0	0
>900	0	0	0	0	0	0	0	0	0	0	0
Measured	2	4	2	3	4	4	5	4	6	26	34
Mean		477.50	259.00	455.00	503.00	386.00	229.60	246.75	139.33	303.54	332.0
StdDev.		150.14			145.16	96.99	89.46	225.62	19.37	178.30	179.5

Table 22 Older Bluefish catch by station, 2002

STATION	ı	riv mile	week 1 July 15-16	week 2 July 29-30	Aug.	week 4 Aug. 26-27	5 Sept.	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	C/I
East			7									
))** <u>1</u>	18E	23	1	0	0	0	0		0	0	0	0.13
	21E	23	0	0	0	0	0	0		0	0	0.00
	17E	24	0	0	0	0	0	0	0	0	0	0.00
	16E	25	0	0	0	0	0	0	0	0	0	0.00
	15E	27	it.									
	12E	29	0	0	0	0	0		0		0	0.00
	13E	29	0	0		0	0	0		0	0	0.00
	14E	29	0	0	0	0	0		0	0	0	0.00
	19E	33	0	0	0	0	0	0	0	0	0	0.00
	10E	34										
	11E	34	0	1	0	0	0	0	0	0	0	0.11
	9E	34	0	0	0	0	0		0	0	0	0.00
	7E1	35										
	7EC	35										
	7EE	35	0	0	0	0	0	0	0	0		0.00
	7EW	35	0	0	0	0	0	0	0	0	0	0.00
	8E	35		0	0	0		0	0	0	0	0.00
	6E	36										
	3E	39	0	0	0	0	0	0		0	0	0.00
	4E	39	0	0	0	0	0	0	0	0	0	0.00
	5E	39										
	20E	41										
West												
	15WN	27										
	15WS	27	0	0	0	0	0		0			0.00
	16WN	27	0	0	0	0	0		0	0	0	0.00
	16WS	27										
	13W	29										
	14W	29	0	0	0	0	0	0	0	0	0	0.00
	12W	30	0	0	0		0	0	0	0	0	0.00
	11W	32	0	0	0	0	0	0	0	0		0.00
	10W	35		0	0	0	0	0		0	0	0.00
	9W	35			0		0		0	0	0	0.00
	8W	36	0	0	0	0	0	0	0	0	0	0.00
	7W	37	0	0	0	0	0	0	0	0	0	0.00
	3W	39										
	4W	39	0	0	0	0	0	0	0	0	0	0.00
	4WN	39										
	5W	39	0	0	0	0	0	0	0	0	0	0.00
	20W	42	lega.	10	3000	9810	10.	3677	14	121	- Or	46545
		Effort	23	25	25	24	25	19	22	24	23	
		Catch	1	1	0	0	0	0	0	0	0	
		C/E	0.04	0.04	0.00	0.00	0.00	0.00			0.00	

Table 23. Size-frequency distribution of Bluefish, Hudson River 2002

TL	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	Week 8 Oct. 21-22	week 9 Nov. 5-8	weeks 4-9	weeks
<20	0	0	0	0	0	0	0	0	0	0	0
20-39	0	0	0	0	0	0	0	0	0	0	0
40-59	0	0	0	0	0	0	0	0	0	0	0
60-79	0	0	3	1	2	0	0	0	0	3	6
80-99	10	2	16	26	17	0	0	0	0	43	71
100-119	40	2	10	37	21	13	0	0	0	71	123
120-139	14	22	60	24	16	16	3	0	0	59	155
140-159	0	17	46	20	5	5	1	1	0	32	95
160-179	2	1	29	15	6	5	6	0	0	32	64
180-199	0	0	8	12	3	0	3	0	0	18	26
200-219	0	0	0	3	7	0	1	0	0	11	11
220-239	1	0	0	1	3	I	0	0	0	5	6
240-259	0	0	0	0	0	0	1	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	0	0	0	0	0	0	0	0	0	0	0
340-359	1	0	0	0	0	0	0	0	0	0	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	1	0	0	0	0	0	0	0	0	1
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	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0
680-699	0	0	0	0	0	0	0	0	0	0	0
700-719	0	0	0	0	0	0	0	0	0	0	0
720-739	0	0	0	0	0	0	0	0	0	0	0
740-759	0	0	0	0	0	0	0	0	0	0	0
760-779	0	0	0	0	0	0	0	0	0	0	0
780-779	0	0	0	0	0	0	0	0	0	0	0
800-819	0	0	0	0	0	0	0	0	0	0	0
820-839	0	0	0	0	0	0	0	0	0	0	0
840-859	0	0	0	0	0	0	0	0	0	0	0
860-879	0	0	0	0	0	0	0	0	0	0	0
880-899	0	0	0	0	0	0	0	0	0	0	0
>900	0	0	0	0	0	0	0	0	0	0	0
# Measured	68	45	172	139	80	40	15	1	0	275	560
Mean	116.74	142.24	137.12	129.61	130.98	131.83	171.93	147.00		132.70	132.89
SrdDev.	34.01	59.31	25.91	34.26	40.51	25.98	32.05			36.11	36.11

Table 24. Winter flounder catch by station, 2002

Om 1			July	July	Aug.	Aug.	Sept.	Sept.	Oct.	Oct.	Week 9 Nov.	1922
STATIO	N	Riv, mile	15-16	29-30	12-13	26-27	9-10	23-24	8-10	21-22	5-8	C/I
East	100	• 00					- S		- 20			1.00
	18E	23	0	3	0	0	1		1	2	1	1.00
	21E	23	0	2	0	2	0	0		0	0	0.50
	17E	24	0	4	1	0	1	0	3	0	2	1.22
	16E	25	0	2	0	0	0	0	1	1	1	0.56
	15E	27	120	120			320				2	200
	12E	29	0	0	0	0	0	790	1	2022	0	0.14
	13E	29	0	0	2	0	0	1	727	0	2	0.43
	14E	29	1	2	1	0	1	122	1	0	0	0.75
	19E	33	0	0	0	0	0	0	0	1	1	0.22
	10E	34										
	11E	34	0	0	0	0	0	0	0	0	0	0.00
	9E	34	0	0	0	0	0		0	0	0	0.00
	7E1	35										
	7EC	35										
	7EE	35	0	0	0	0	0	0	0	0		0.00
	7EW	35	0	0	0	0	0	0	0	0	0	0.00
	8E	35		0	0	0		0	0	0	0	0.00
	6E	36										
	3E	39	0	0	0	0	0	0		0	0	0.00
	4E	39	0	0	0	0	0	0	0	0	0	0.00
	5E	39										
	20E	41										
Vest												
rose	15WN	27										
	15WS	27	0	0	0	0	0		1			0.17
	16WN	27	0	0	0	0	0		3	1	3	0.17
	16WS	27	U	U	U	U	U		3		3	0.00
	13W											
		29	•	•	•	0		•	•	0		0.00
	14W	29	0	0	0	0	0	0	0	0	0	0.00
	12W	30	0	1	0		0	0	0	0	4	0.63
	11W	32	0	0	0	0	0	0	0	0		0.00
	10W	35		0	0	0	0	0	76	0	0	0.00
	9W	35	127		0	2217	0	723	0	0	0	0.00
	8W	36	0	0	0	0	0	0	0	0	0	0.00
	7W	37	0	0	0	0	0	0	0	0	0	0.00
	3W	39										
	4W	39	0	0	0	0	0	0	0	0	0	0.00
	4WN	39										
	5W	39	0	0	0	0	0	0	0	0	1	0.11
	20W	42										
		Effort	23	25	25	24	25	19	22	24	23	
		Effort	1	14	2	2	3	1	11	5	15	
		C/E	0.04	0.56	0.08	0.08	0.12	0.05	0.50	0.21	0.65	

Table 25. Size frequency distribution of Winter flounder, Hudson River 2002

TL	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	weeks	weeks
<20	0	0	0	0	0	0	0	0	0	0	0
20-24	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	2	1	0	0	0	0	0	0	0	3
50-54	0	3	0	0	0	0	0	0	0	0	3
55-59	1	2	1	0	0	0	0	0	0	0	4
60-64	0	2	0	0	0	I	0	0	0	1	3
65-69	0	2	0	0	0	0	1	0	0	1	3
70-74	0	2	0	1	1	0	0	0	0	2	4
75-79	0	0	0	0	1	0	1	0	1	3	3
80-84	0	0	0	0	1	0	0	1	1	3	3
85-89	0	0	0	0	0	0	3	0	0	3	3
90-94	0	0	0	0	0	0	1	0	0	1	1
95-99	0	0	0	0	0	0	2	0	2	4	4
100-104	0	0	0	0	0	0	1	0	1	2	2
105-109	0	0	0	0	0	0	1	3	1	5	5
110-114	0	0	0	0	0	0	0	1	1	2	2
115-119	0	0	0	0	0	0	0	0	1	1	1
120-124	0	0	0	0	0	0	0	0	3	3	3
125-129	0	0	0	0	0	0	0	0	0	0	0
130-134	0	0	0	0	0	0	0	0	3	3	3
135-139	0	0	0	0	0	0	0	0	1	1	1
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	1	0	0	1	1
175-179	0	1	0	0	0	1	0	0	0	1	2
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
>200	0	0	0	1	0	0	0	0	0	1	1
# Measured Mean StdDev.	1 58.00	14 67.43 33.05	2 53.00 5.66	2 138.50 91.22	3 76.67 3.51	2 120.50 79.90	11 97.27 27.18	5 101.80 12.32	15 112.47 18.72	38 105.63 30.44	55 93.13 35.53

Table 26. American Shad catch per station, 2002

STATION	1	riv mile	week 1 July 15-16	week 2 July 29- 30	week 3 Aug. 12-13	week 4 Aug. 26-27	week5 Sept. 9-10	week6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	C/F
East												
	18E	23	0	0	0	0	3		0	51	0	6.75
	21E	23	0	0	2	0	0	0		330	8	42.50
	17E	24	0	0	0	0	0	0	0	90	4	10.44
	16E	25	0	0	0	0	0	0	3	12	4	2.11
	15E	27										
	12E	29	0	0	0	0	0		0		7	1.00
	13E	29	0	0		0	0	0		0	0	0.00
	14E	29	0	0	0	0	0		0	5	14	2.38
	19E	33	0	0	0	0	0	0	0	0	0	0.00
	10E	34										
	11E	34	0	0	3	0	0	0	0	0	0	0.33
	9E	34	0	0	0	0	0		0	0	4	0.50
	7E1	35										
	7EC	35										
	7EE	35	0	0	0	0	0	0	0	0		0.00
	7EW	35	0	0	0	0	0	0	0	4	0	0.44
	8E	35		2	24	2		0	0	0	12	5.71
	6E	36										
	3E	39	1	0	0	0	0	0		2	0	0.38
	4E	39	0	0	0	0	0	0	4	0	0	0.44
	5E	39										
	20E	41										
West												
rese	15WN	27										
	15WS	27	0	0	0	0	0		0			0.00
	16WN	27	0	0	0	0	0		0	3	1	0.50
	16WS	27	U	U	U	Ü	v		U	3	i de	0.50
	13W	29										
	14W	29	0	0	0	0	0	0	0	2	0	0.22
	12W	30	5	3	19	v	4	0	0	4	0	4.38
	11W	32	0	0	0	0	2	0	0	0	U	0.25
	10W	35	U	0	0	0	0	0	U	5	0	0.71
		35		U	0	U	0	U	0	2	5	
	9W 8W		20		0	0	0	0	0	(770).	0	1.40
	7W	36 37	30 0	0	0	0 12	0	0	0	0	0	3.33 1.44
	3W		U	U	U.	12	U	U	U		U	1.44
	4W	39	0	0	0	0	0	0	٥	1	0	0.11
		39	0	0	0	0	0	0	0	1	U	0.11
	4WN	39		0		2	0	0	0	•	•	0.55
	5W	39	1	0	0	2	0	0	0	0	_ Z	0.56
	20W	42										
	Ef	fort	23	25	25	24	25	19	22	24	23	
		atch	37	5	48	16	9	0	7	512	61	
		E/E	1.61	0.20	1.92	0.67	0.36	7	0.32	21.33	2.65	

Table 27. Size-frequency distribution of American Shad, Hudson River 2002

TL	week 1 July 15-16	week 2 July 29- 30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	weeks 4-9	weeks
<20	0	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	o	0	0	0	0	0	0	0	0
30-34	0	0	o	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	21	0	0	1	0	0	0	o	0	1	22
60-64	13	4	0	2	0	0	0	0	0	2	19
65-69	2	1	8	0	0	0	0	1	0	1	12
70-74	I	0	16	3	2	0	0	1	1	7	24
75-79	0	0	9	8	3	0	2	10	2	25	34
80-84	0	0	11	1	2	0	2	42	26	73	84
85-89	0	0	3	1	1	0	2	46	17	67	70
90-94	0	0	0	0	1	0	1	25	3	30	30
95-99	0	0	1	0	0	0	0	5	2	7	8
100-104	0	0	0	0	0	0	0	0	I	1	1
105-109	0	0	0	0	0	0	0	1	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
>200	0	0	0	0	0	0	0	0	0	0	0
# Measured	37	5	48	16	9	0	7	131	52	215	305
Mean	59.84	63.40	75.46	73.50	79.78		83.14	85.85	84.38	84.24	79.55
Stdev	3.24	2.30	6.31	7.81	6.74		5.30	5.37	4.89	6.41	10.30

Table 28. Alewife catch by station, 2002

STATION	E	riv mile	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	СЛ
East												- 100
	18E	23	0	0	0	0	0		0	0	0	0.0
	21E	23	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	10	0	0	0	0	0	0	1.1
	15E	27						90				
	12E	29	0	0	0	0	0		0		0	0.0
	13E	29	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
	10E	34										
	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
	7E1	35										
	7EC	35										
	7EE	35	0	0	0	0	0	0	0	0		0.00
	7EW	35	0	0	0	0	0	0	0	0	0	0.00
	8E	35		6	123	8		0	0	0	0	19.7
	6E	36										
	3E	39	0	0	0	0	0	0		0	0	0.00
	4E	39	0	0	0	0	0	0	0	0	0	0.00
	5E	39										
	20E	41										
West												
	15WN	27										
	15WS	27	0	0	0	0	0		0			0.00
	16WN	27	0	0	0	0	0		0	0	0	0.00
	16WS	27										
	13W	29										
	14W	29	0	0	0	0	0	0	0	0	0	0.00
	12W	30	2	1	0		0	0	0	0	0	0.38
	11W	32	0	0	0	2	0	0	0	0		0.25
	10W	35		2	0	0	0	0		0	0	0.29
	9W	35			0		0		0	0	0	0.00
	8W	36	1	0	0	0	0	0	0	0	0	0.11
	7W	37	0	0	0	0	0	0	0	0	0	0.00
	3W	39										
	4W	39	0	0	0	0	0	0	0	0	0	0.00
	4WN	39										
	5W	39	0	0	0	0	0	0	0	0	0	0.00
	20W	42										
	E	Effort	23	25	25	24	25	19	22	24	23	
	C	Catch	3	9	133	10	0	0	0	0	0	
		C/E	0.13	0.36	5.32	0.42						

Table 29. Size-Frequency distribution of Alewife, Hudson River 2002

TL	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	weeks 4-9	weeks 1-9
<20	0	0	0	0	0	0	0	0	0	0	0
20-24	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	1	0	0	0 -	0	0	0	0	0	1
50-54	0	1	1	0	0	0	0	0	0	0	2
55-59	0	3	5	1	0	0	0	0	0	1	9
60-64	0	2	7	1	0	0	0	0	0	1	10
65-69	0	0	5	5	0	0	0	0	0	5	10
70-74	0	0	7	2	0	0	0	0	0	2	9
75-79	1	0	2	1	0	0	0	0	o	ī	4
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	2	0	0	0	0	0	0	0	0	0	2
95-99	0	0	0	0	0	0	0	0	0	0	0
100-104	0	0	1	0	0	0	0	0	0	0	1
105-109	0	0	3	0	0	0	0	0	0	0	3
110-114	0	0	5	0	0	o	0	0	0	0	5
115-119	0	0	4	0	0	0	0	0	0	0	4
120-124	0	0	0	0	0	0	0	0	0	0	o
125-129	0	0	0	0	o	0	0	0	o	o	ő
130-134	o	0	0	o	0	0	0	0	0	o	0
135-139	0	0	0	0	o	o	0	0	o	o	0
140-144	0	0	0	0	0	0	0	0	0	o	0
145-149	0	0	o	0	0	o	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	o	0	0	0	0	0	0	0	o	0
165-169	0	0	0	0	0	0	0	0	0	o	o
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
190-194	0	0	0			0		0	0	0	
195-199		0		0	0		0	0			0
>200	0	0	0	0	0	0	0		0	0	0
-	0	0	0	0	0	0	0	0	0	0	0
measured Mean	3 91	7 61.57	40 85.35	10 72.9	0	0	0	0	0	10 72.9	60 80.78
StdDev	8.72	5.41	22.47	5.59						5.59	20.44

Table 30. Blueback herring catch per station, 2002

STATION		riv mile	week I July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	C/F
East		STEEL										
	18E	23	0	0	0	0	0		0	1	808	101.13
	21E	23	0	0	0	0	0	0		170	32	25.25
	17E	24	0	0	0	0	0	0	0	57	1	6.44
	16E	25	0	0	0	0	0	0	0	0	34	3.78
	15E	27										
	12E	29	0	0	0	0	0		0		0	0.00
	13E	29	0	0		0	0	0		0	0	0.00
	14E	29	0	0	0	0	0		0	1	444	55.63
	19E	33	0	0	0	0	0	0	0	0	0	0.00
	10E	34										
	11E	34	0	0	0	0	0	0	0	0	0	0.00
	9E	34	0	0	0	0	0		0	0	0	0.00
	7E1	35										
	7EC	35										
	7EE	35	0	0	0	0	0	0	0	1		0.13
	7EW	35	0	0	0	0	0	0	0	1	0	0.11
	8E	35		0	0	0		0	0	0	97	13.86
	6E	36										
	3E	39	0	0	0	0	0	0		0	0	0.00
	4E	39	0	0	0	0	0	0	0	0	0	0.00
	5E	39										
	20E	41										
West												
	15WN	27										
	15WS	27	0	0	0	0	0		0			0.00
	16WN	27	0	0	0	1	0		0	0	3	0.50
	16WS	27										
	13W	29										
	14W	29	0	0	0	0	0	0	0	0	2	0.22
	12W	30	0	0	0		0	0	0	3	0	0.38
	11W	32	0	0	0	0	0	0	0	0		0.00
	10W	35		0	0	0	0	0		0	0	0.00
	9W	35			0		0		0	0	0	0.00
	8W	36	0	0	0	0	0	0	0	0	1	0.11
	7W	37	0	0	0	0	0	0	0	1	0	0.11
	3W	39										
	4W	39	0	0	0	0	0	0	0	0	0	0.00
	4WN	39										
	5W	39	0	0	0	0	0	0	0	0	0	0.00
	20W	42							a la sense	1		
100	Ef	fort	23	25	25	24	25	19	22	24	23	31000
		ntch	0	0	0	1	0	0	0	235	1422	
	C/	E				0.04				9.79	61.83	

Table 31. Size-Frequency distribution of Blueback herring, Hudson River 2002

TL	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	weeks 4-9	weeks 1-9
<20	0	0	0	0	0	0	0	0	0	0	0
20-24	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	1	0	0	0	0	0	1	1
50-54	0	0	0	0	0	0	0	0	6	6	6
55-59	0	0	0	0	0	0	0	1	18	19	19
60-64	0	0	0	0	0	0	0	1	15	16	16
65-69	0	0	0	0	0	0	0	2	31	33	33
70-74	0	0	0	0	0	0	0	8	32	40	40
75-79	0	0	0	0	0	0	0	2	33	35	35
80-84	0	0	0	0	0	0	0	15	13	28	28
85-89	0	0	0	0	0	0	0	15	7	22	22
90-94	0	0	0	0	0	0	0	9	2	11	11
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	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	1	0	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
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
>200	0	0	0	0	0	0	0	0	0	0	0
# Measured	0	0	0	1	0	0	0	54	157	212	212
Mean				49.00				83.06	69.96	73.20	73.20
StdDev								10.02	9.07	11.02	11.02

Table 32. Atlantic Menhaden catch per station, 2002

STATION		riv mile	Week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	C/F
East		177		+					1 7 4	177	100	
	18E	23	0	0	0	0	0		0	0	0	0.00
	21E	23	0	0	0	0	0	2		0	0	0.25
	17E	24	0	0	0	0	0	1	0	0	0	0.11
	16E	25	0	0	0	0	0	0	0	0	0	0.00
	15E	27										
	12E	29	0	0	1	0	0		0		0	0.14
	13E	29	27	126		0	0	1093		0	0	178.0
	14E	29	0	0	0	0	0		0	0	0	0.00
	19E	33	0	0	0	0	0	0	0	0	0	0.00
	10E	34										
	HE	34	0	0	0	0	0	0	0	0	0	0.00
	9E	34	0	0	0	0	0		0	0	0	0.00
	7E1	35										
	7EC	35										
	7EE	35	0	0	0	0	0	0	0	0		0.00
	7EW	35	0	0	0	0	0	0	0	0	0	0.00
	8E	35		128	0	0		5	0	0	0	19.0
	<b>6</b> E	36										
	3E	39	0	0	0	0	0	0		0	0	0.00
	4E	39	0	0	0	0	0	0	0	0	0	0.00
	5E	39										
	20E	41										
West												
	15WN	27										
	15WS	27	0	0	0	0	0		0			0.00
	16WN	27	0	0	0	0	0		0	0	0	0.00
	16WS	27		0.8		-	~		•			0.00
	13W	29										
	14W	29	0	0	0	0	3	0	0	0	0	0.33
	12W	30	0	0	0		0	0	0	0	o	0.00
	11W	32	0	0	0	0	0	0	0	0	•	0.00
	10W	35		0	0	0	0	1	U	0	0	0.14
	9W	35		X.	0	380	0		0	0	0	0.00
	8W	36	0	0	0	0	0	0	0	0	0	0.00
	7W	37	0	0	0	0	0	0	0	0	0	0.00
	3W	39	Ü					v				0.00
	4W	39	600	0	24	0	0	0	0	0	0	69.33
	4WN	39	000		STATE OF	•	•	•	•			07.33
	5W	39	0	0	0	0	0	0	0	0	0	0.00
	20W	42	J	U	U	U	v	U	U		v	0.00
		Effort	23	25	25	24	25	19	22	24	23	-
		Catch	627	254	25	0	3	1102	0	0	0	
		C/E	27.26	10.16	1.00	v	0.12	58.00	v			

Table 33. Size-Frequency distribution of Atlantic Menhaden, Hudson River 2002

TL	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	weeks 4-9	weeks 1-9
<20	0	0	0	0	0	0	0	0	0	0	0
20-24	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	2	0	0	1	0	0	0	0	0	1	3
35-39	1	0	1	1	0	0	0	0	0	1	3
40-44	0	0	0	1	0	0	0	0	0	1	1
45-49	0	0	2	6	1	2	0	0	0	9	11
50-54	0	0	1	2	I	8	0	0	0	11	12
55-59	0	0	1	5	0	9	0	0	0	14	15
60-64	0	0	0	0	0	3	0	0	0	3	3
65-69	0	0	0	1	4	0	0	0	1	6	6
70-74	0	0	0	1	9	2	0	1	2	15	15
75-79	0	0	0	1	17	2	0	4	2	26	26
80-84	0	0	0	0	9	3	0	0	2	14	14
85-89	0	0	0	0	3	3	0	0	1	7	7
90-94	0	0	0	0	1	0	0	2	1	4	4
95-99	0	0	0	0	0	1	0	0	1	2	2
100-104	0	0	0	0	0	0	0	0	1	1	1
105-109	0	0	1	0	0	0	0	1	1	2	3
110-114	0	0	3	0	1	0	0	0	0	1	4
115-119	0	0	2	0	0	0	0	0	0	0	2
120-124	0	0	2	0	0	0	0	0	0	0	2
125-129	0	0	6	0	0	1	0	0	0	1	7
130-134	0	0	4	0	0	0	0	0	0	0	4
135-139	0	0	2	0	0	0	0	0	0	0	2
140-144	0	0	2	0	0	0	0	0	0	0	2
145-149	0	0	0	0	0	0	0	0	0	0	0
150-154	0	0	0	0	1	0	0	0	0	1	1
155-159	0	0	0	0	1	0	0	0	0	1	1
160-164	0	0	1	0	0	0	0	0	0	0	1
165-169	0	0	0	0	0	0	0	0	0	0	0
170-174	0	o	0	0	0	0	0	0	0	0	0
175-179		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	o	0	0
195-199	0	0	0	0	0	o	0	0	0	o	o
>200	0	0	0	0	0	0	0	0	0	0	0
#measured	3	0	28	19	48	34	0	8	12	121	152
Mean	37.67		118.14	57.42	84.50	70.83		89.25	88.42	77.11	83.89
StdDev	2.08		33.38	11.20	18.37	17.58		11.71	12.81	19.39	28.20

Table 34. Atlantic silversides catch per station, 2002

STATIO	N	riv mile	week I July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	C/F
East												
Dust	18E	23	8	24	8	20	38		5	8	56	20.88
	21E	23	26	12	24	14	238	2		23	96	54.38
	17E	24	18	55	9	7	24	4	53	32	37	26.56
	16E	25	50	1	0	16	12	18	1	2	49	16.56
	15E	27										
	12E	29	109	79	165	81	262		46		25	109.5
	13E	29	272	22		31	165	142		9	27	95.43
	14E	29	47	13	197	2	89		18	26	15	50.88
	19E	33	16	145	227	127	193	78	41	56	5	98.67
	10E	34										
	11E	34	922	0	2576	204	576	364	162	37	49	543.33
	9E	34	11	91	30	271	486		477	1	40	175.88
	7E1	35										
	7EC	35										
	7EE	35	121	228	157	273	70	0	72	149		133.75
	7EW	35	94	126	527	174	391	350	174	30	13	208.78
	8E	35		284	338	65		264	44	23	43	151.57
	6E	36										
	3E	39	34	15	149	32	48	5		5	2	36.25
	4E	39	114	29	21	308	339	24	207	3	0	116.11
	5E	39										
	20E	41										
West												
	15WN	27										
	15WS	27	147	387	461	1481	245		30			458.50
	16WN	27	68	212	51	82	3		13	3	36	58.50
	16WS	27										
	13W	29										
	14W	29	4	84	102	6	76	12	8	10	27	36.56
	12W	30	264	28	54		107	82	22	5	23	73.13
	11W	32	13	240	26	35	54	31	0	0		49.88
	10W	35		50	19	27	0	1		11	2	15.71
	9W	35			205		8		253	1	4	94.20
	8W	36	54	14	0	16	22	12	16	1	3	15.33
	7W	37	71	41	77	125	333	65	116	17	6	94.56
	3W	39										
	4W	39	7	61	37	29	58	30	11	12	1	27.33
	4WN	39			1 0003	17000	100	a control			500	
	5W	39	7	50	8	27	25	8	9	98	1	25.89
	20W	42										
	1	Effort	23	25	25	24	25	19	22	24	23	
		Catch	2477	2291	5468	3453	3862	1492	1778	562	560	
		C/E	107.70	91.64	218.72	143.88	154.48	78.53	80.82	23.42	24.35	

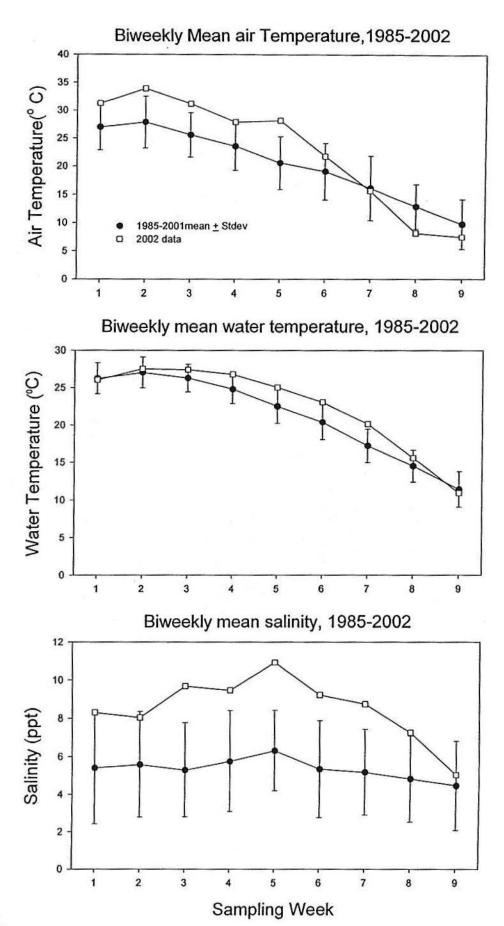


Figure 2.

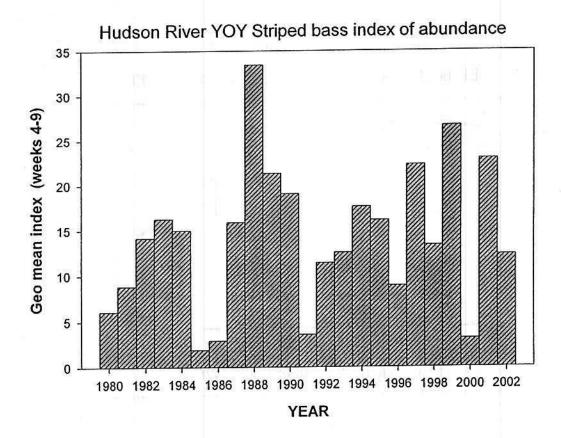


Figure 3.

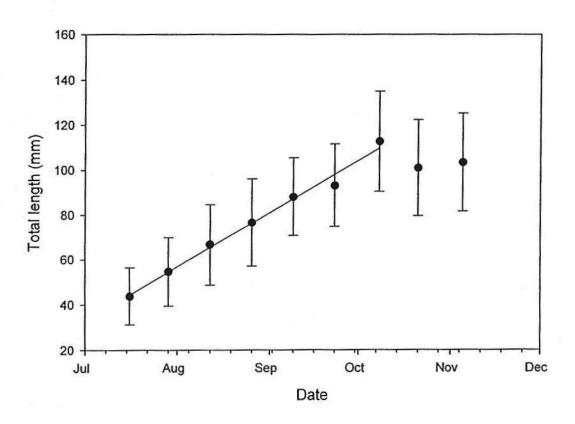


Figure 4. Growth of YOY striped bass in the 2002 cohort.

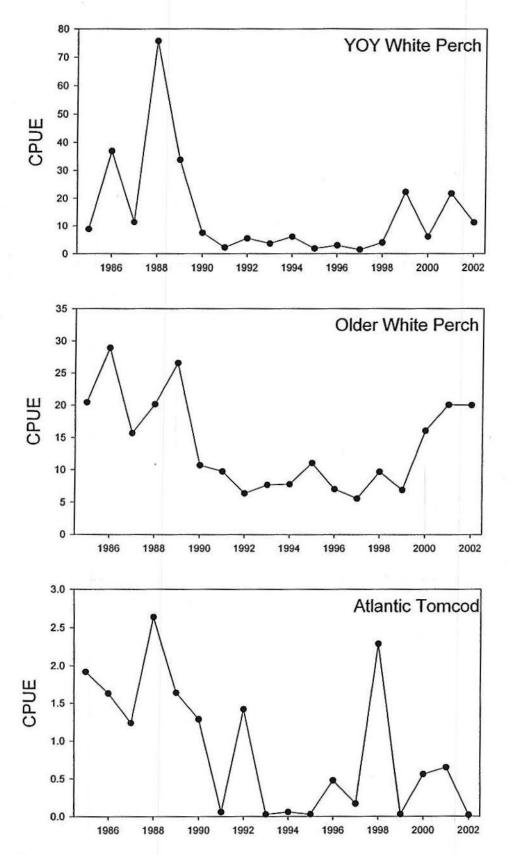


Figure 5.

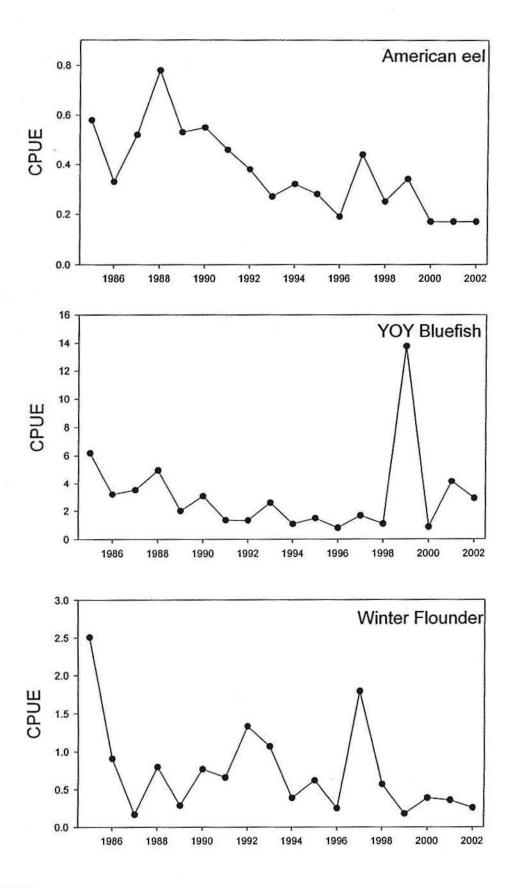


Figure 6.

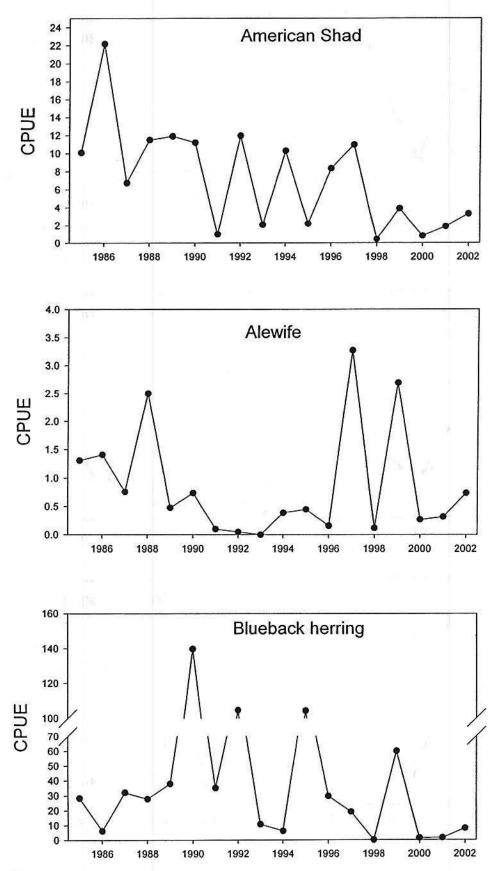
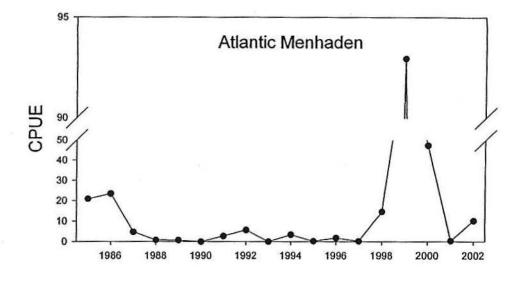
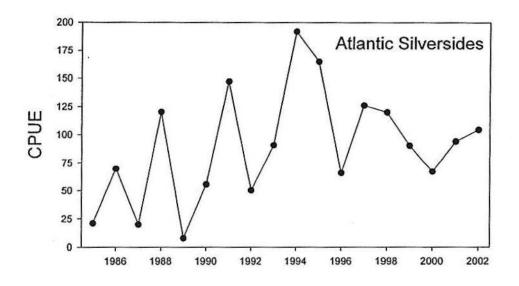


Figure 7.





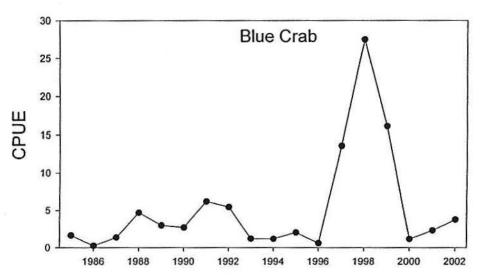


Figure 8.

Table 35. Size-Frequency distribution Atlantic silversides, Hudson River 2002

TL	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	weeks	weeks
<20	0	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	1	0	1	1
30-34	0	0	1	0	0	0	0	0	0	0	1
35-39	1	1	0	0	0	0	0	0	0	0	2
40-44	0	2	0	1	0	0	0	0	ì	2	4
45-49	0	2	1	0	0	I	0	0	3	4	7
50-54	5	10	4	3	0	0	0	1	4	8	27
55-59	10	12	1	8	I	3	0	0	10	22	45
60-64	19	28	14	19	5	15	3	0	12	54	115
65-69	14	22	34	22	18	17	8	4	3	72	142
70-74	6	22	36	45	57	27	19	11	4	163	227
75-79	4	10	32	31	44	46	30	22	12	185	231
80-84	1	5	19	19	30	33	35	24	20	161	186
85-89	0	0	6	7	18	26	33	30	18	132	138
90-94	0	0	2	6	8	23	20	29	32	118	120
95-99	0	0	0	3	4	8	11	14	21	61	61
100-104	0	0	0	1	1	1	10	10	20	43	43
105-109	0	0	0	0	0	0	1	1	8	10	10
110-114	0	0	1	0	0	0	0	1	2	3	4
115-119	0	0	0	0	0	0	1	0	0	1	1
120-124	0	0	0	0	0	0	1	0	0	1	1
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
>200	0	0	0	0	0	0	0	0	0	0	0
# Measured	60	114	151	165	186	200	172	148	170	1041	1366
Mean	63.28	64.54	72.34	72.78	76.94	78.73	83.67	85.35	84.45	80.16	77.25
StdDev	7.44	8.71	8.91	9.75	7.70	9.87	9.95	10.52	15.79	11.68	12.35

Table 36. YOY blue crab catch by station, 2002

STATION		riv mile	week 1 July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	C/F
East	9E 16											
Last	18E	23	6	3	1	0	0		3	0	0	1.63
	21E	23	16	1	0	0	2	0		0	0	2.38
	17E	24	11	10	12	3	3	0	8	2	0	5.44
	16E	25	6	10	3	2	0	0	11	0	0	3.56
	15E	27	U	10	3	4	v	U	••	v	U	3.30
	12E	29	2	2	1	1	1		2		0	1.29
	13E	29	4	19		13	29	5	2	7	1	11.1
	14E	29	7	5	3	0	0	3	1	0	1	2.13
	19E	33	ó	0	1	0	0	3	0	2	0	0.67
	10E	34	U	U	•	U	v	3	0	2	U	0.07
	HE	34	0	0	4	0	0	0	0	5	1	1.11
	9E	34	1	0	0	1	0	U	0	0	0	0.25
	7E1	35	1	U	U	1	U		U	U	U	0.23
	7EC	35										
	7EE	35	1	1	0	0	0	0	0	0		0.25
	7EW	35	0	0	0	0	1	0	0	0	0	0.23
	8E	35	U	0	0		1	4	0	6		1.57
	6E	36		U	U	1		4	U	0	0	1.57
	3E			0		0	2	-		6	0	1.00
	4E	39	8	0	1	0 2	3 2	3	•	0	0	1.88
		39	1	3	0	2	2	1	0	0	0	1.00
	5E	39										
	20E	41										
West												
	15WN	27										
	15WS	27	1	0	0	2	0		0			0.50
	16WN	27	2	15	3	6	12		2	0	1	5.13
	16WS	27										
	13W	29										
	14W	29	0	4	1	3	3	0	0	0	0	1.22
	12W	30	4	1	5		13	4	1	1	4	4.13
	11W	32	0	0	0	2	1	0	0	1		0.50
	10W	35		2	0	0	0	0		1	0	0.43
	9W	35			2		0		0	0	0	0.40
	8W	36	0	0	5	0	0	3	0	0	0	0.89
	7W	37	17	3	0	0	1	0	0	0	0	2.33
	3W	39										
	4W	39	1	3	0	2	4	0	0	0	0	1.11
	4WN	39	101	1659	270		156	38			(3)	
	5W	39	4	5	4	2	1	0	0	2	0	2.00
	20W	42	,			139/1	100				112	
	Eff	ort	23	25	25	24	25	19	22	24	23	
	Cat		92	87	46	40	76	23	28	27	8	
	C/I		4.00	3.48	1.84	1.67	3.04	1.21	1.27	1.13	0.35	

Table 37. Older blue crab catch by station, 2002

STATION		riv mile	Week I July 15-16	week 2 July 29-30	week 3 Aug. 12-13	week 4 Aug. 26-27	week 5 Sept. 9-10	week 6 Sept. 23-24	week 7 Oct. 8-10	week 8 Oct. 21-22	week 9 Nov. 5-8	C/I
East												
2000	18E	23	0	9	1	2	0		1	0	0	1.6
	21E	23	4	2	0	2	0	0		0	0	1.0
	17E	24	2	15	11	1	1	0	1	0	0	3.4
	16E	25	6	4	2	0	0	0	2	1	0	1.6
	15E	27										
	12E	29	3	1	0	2	3		2		0	1.5
	13E	29	5	5		5	6	3		2	0	3.7
	14E	29	2	5	2	0	0		1	0	0	1.2
	19E	33	0	0	10	0	1	1	0	0	0	1.3
	10E	34										
	11E	34	2	2	12	2	0	0	0	1	0	2.1
	9E	34	0	2	0	0	0		2	0	0	0.5
	7E1	35										
	7EC	35										
	7EE	35	1	2	4	3	3	0	0	0		1.6
	7EW	35	1	2	2	0	4	0	0	1	0	1.1
	8E	35		1	0	1		0	0	2	0	0.5
	6E	36										
	3E	39	5	1	1	0	5	1		1	3	2.1
	4E	39	0	6	0	1	2	0	0	0	0	1.0
	5E	39										
	20E	41										
West												
West	15WN	27										
	15WS	27	0	2	0	0	1		2			0.8
	16WN	27	0	5	3	3	0		0	0	0	1.3
	16WS	27										1134394
	13W	29										
	14W	29	3	2	5	2	54	0	4	2	0	8.0
	12W	30	1	0	5	-	2	3	2	2	0	1.8
	11W	32	0	2	1	1	1	0	0	1	(40)	0.7
	10W	35		1	3	1	0	1		0	0	0.8
	9W	35			3		0		0	0	0	0.60
	8W	36	1	1	9	2	3	1	0	0	0	1.89
	7W	37	4	4	0	2	1	0	0	0	0	1.2
	3W	39				-		·5/			7.	-700
	4W	39	3	3	0	0	0	0	0	1	2	1.00
	4WN	39	,		•		13 <b>-</b> 17	-		757	<del>100</del> 41	
	5W	39	0	8	0	0	1	0	1	0	1	1.22
	20W	42	,		•						•	-1
	Ef	fort	23	25	25	24	25	19	22	24	23	
		itch	43	85	74	30	88	10	18	14	6	
	C/		1.87	3.40	2.96	1.25	3.52	0.53	0.82	0.58	0.26	



FIGURE 1 NYS DEC YOY STRIPED BASS SEINE STATIONS

