

Reports

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3-1-1995

**Juvenile Finfish and Blue Crab Stock Assessment Program  
Bottom Trawl Survey Annual Data Summary Report Series Volume  
1994**

Michael F. Land  
*Virginia Institute of Marine Science*

Patrick J. Geer  
*Virginia Institute of Marine Science*

Christopher F. Bonzek  
*Virginia Institute of Marine Science*

Herbert M. Austin  
*Virginia Institute of Marine Science*

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**JUVENILE FINFISH AND BLUE CRAB STOCK  
ASSESSMENT PROGRAM  
BOTTOM TRAWL SURVEY  
ANNUAL DATA SUMMARY REPORT SERIES  
VOLUME 1994**



39° 00'

39° 00'

By

**Michael F. Land  
Patrick J. Geer  
Christopher F. Bonzek  
Herbert M. Austin**

38° 00'

38° 00'

**Special Scientific Report  
No. 124 Volume 1994**

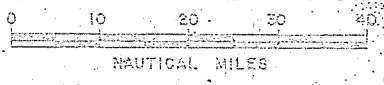
RICHMOND

**College of William and Mary  
School of Marine Science  
Virginia Institute of Marine Science  
Gloucester Point, VA 23062**

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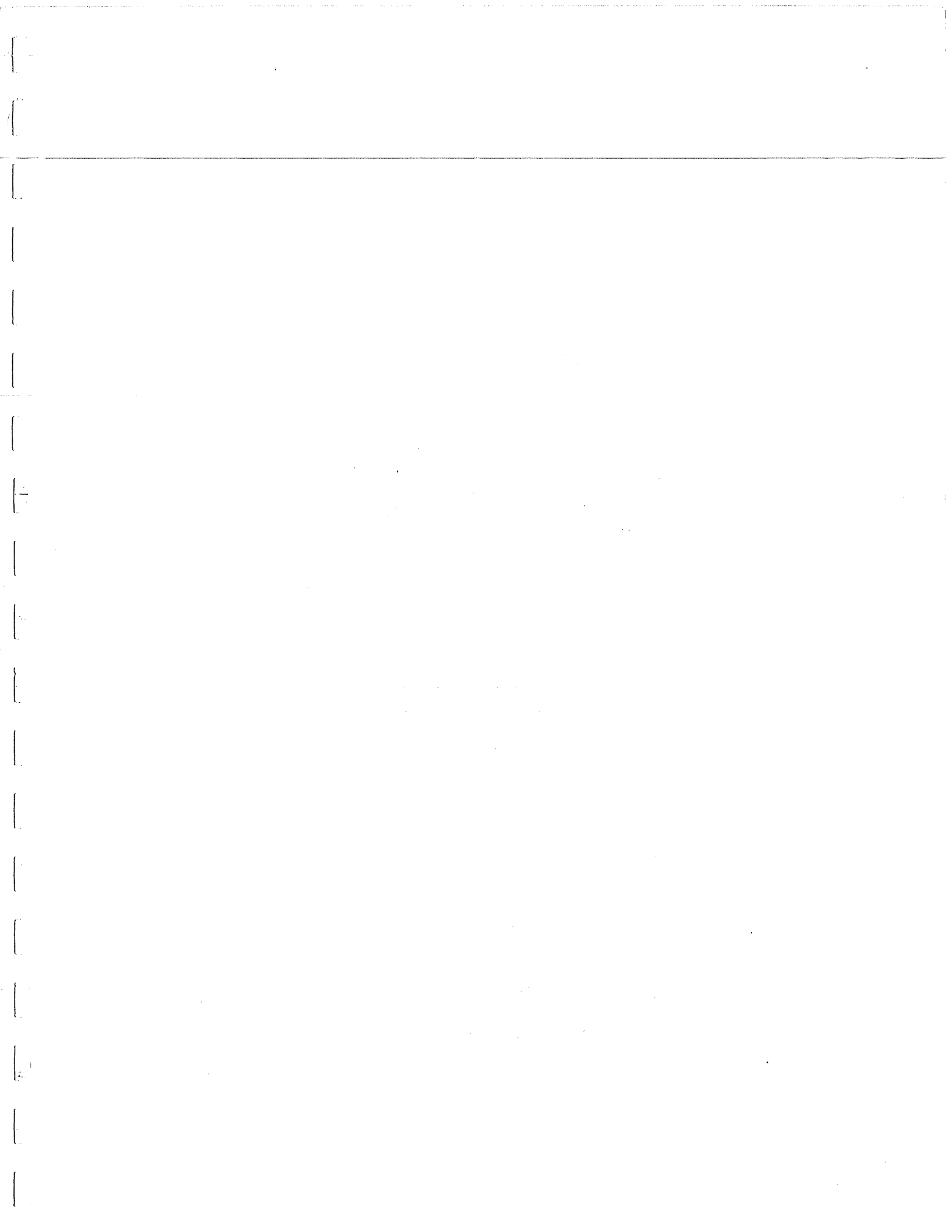
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**Dennis L. Taylor, Dean and Director**



**March 1995**

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## EXECUTIVE SUMMARY

The Virginia Institute of Marine Science (VIMS) has conducted a trawl survey dating back to 1955. Over these forty years methods and objectives have varied according to funding sources and state and/or federal mandates. The present thrust of the program is to provide juvenile indices of relative abundance for recreationally, commercially, and ecologically important finfish and invertebrates. These measures of juvenile abundance are widely used as a key element in the management of the Atlantic States' coastal fishery resources. Estimates of juveniles (age-0) have proven to be a reliable and early indicator of future year-class strength. A review of previously available indices of juvenile abundance for important fishery resource species of the Chesapeake Bay by the Chesapeake Bay Stock Assessment Committee (CBSAC), a federal/state committee sponsored and funded by the National Oceanic and Atmospheric Administration (NOAA), resulted in the recommendation that, "a unified, consistent trawl program should be one of the primary monitoring tools for finfish and crab stock assessment." (Chesapeake Bay Program Stock Assessment Plan, Chesapeake Executive Council 1988).

There were several notable survey results for this year. Catch information for 1994 indicated a continuing decline in the blue crab population, although not as pronounced as in recent years. However, the 1994 spawning stock (adult females) was half that of 1993. Juvenile white perch and striped bass catches continued to increase. Summer flounder indices doubled over the disastrous 1992 and 1993 year classes. Atmospherically, winter temperatures were normal with the exception of two extremely cold periods (air temperatures less than 4° C). Summer temperatures were relatively mild compared to 1993 values.

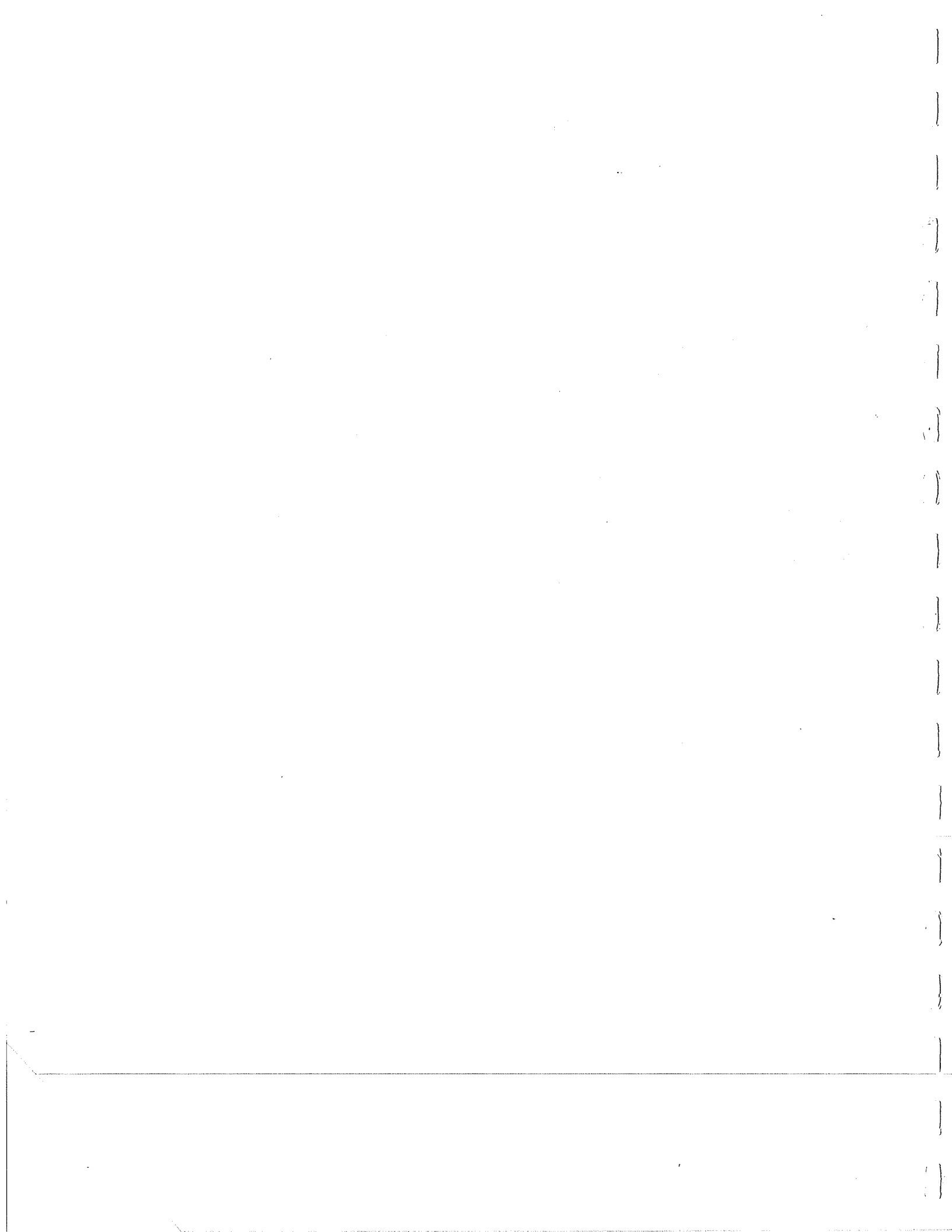
The purpose of this summary is to provide an accurate account of trawl survey sampling performed during the calendar year 1994. Previous volumes of this series have served as excellent reference guides to resource managers, scientists, academics, as well as the general public. Since there are other venues which presently detail specific results of these data (Geer et al., 1993), conclusions are kept at a minimum in order to provide the most information in the available space.





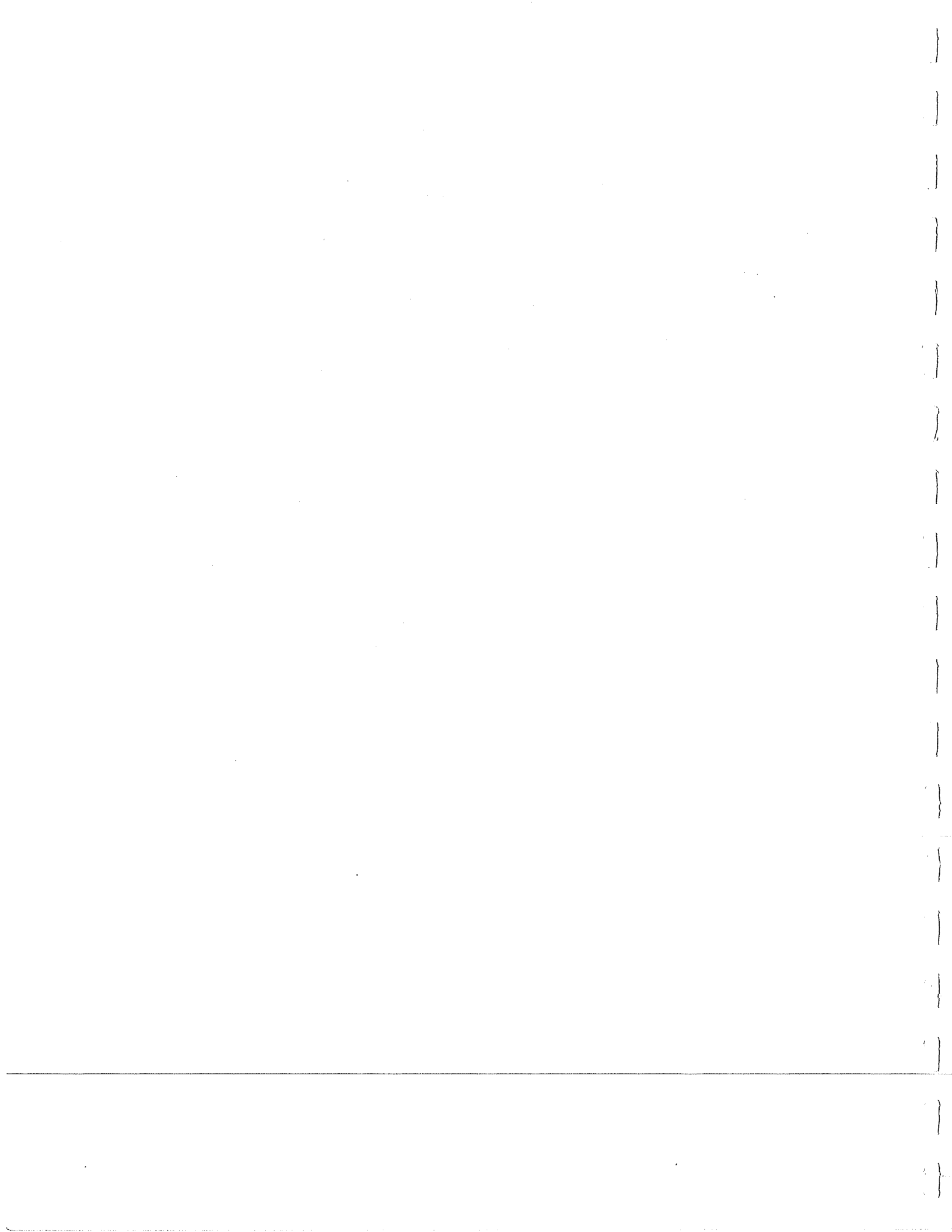
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## INTRODUCTION

This report summarizes data collected by the Virginia Institute of Marine Science (VIMS) monthly trawl survey cruises for January-December 1994. The trawl survey is a long-term, broad scope monitoring program. Its primary goal is to produce annual indices for juvenile marine and estuarine finfish and invertebrates. The objective is to provide indices of sufficient accuracy and precision for both immediate resource management needs and long-term understanding of environmental influences on fishery resources. A second important product of this effort is the documentation and monitoring of habitat utilization by juveniles and smaller adults of these species. The program also provides a sound framework for the procurement of biological samples for life history studies and other current investigations relevant to fisheries resource management.

In order to facilitate the implementation of such a program, CBSAC has subsequently encouraged and directly supported pilot studies to develop a comprehensive Bay-wide trawl survey. In the Virginia portion of the Chesapeake Bay, the primary focus of this support was the initiation of a monthly trawl survey of the lower Bay beginning January 1988. This greatly expanded the program and directly complimented the monthly trawl surveys of the major Virginia tributaries (James, York and Rappahannock rivers), which began in 1964, 1955 and 1962 respectively. These programs have continued with only slight modifications, mainly the addition of a solely dedicated research platform, the R/V Fish Hawk, in September 1990.

At present, the program consists of a monthly random stratified design survey of the lower Chesapeake Bay initiated in 1988 (Chittenden, 1989) and fixed station mid-channel transects in each of the three major Virginia tributaries: the York, James and Rappahannock rivers (Wojcik and Van Engel, 1988a, 1988b, 1989). The river survey is based upon a sampling program initiated in 1955. Changes in gear type and sampling methods used over the history of the survey are summarized in Figure 1.

The following tables and figures include data for all finfish and selected invertebrates (blue crabs, penaeid shrimp, and squid species) caught during 1994. The shrimp and squid species have been examined inconsistently in the past, with 1993 being the first year specimens have routinely been processed. The squid species include those of the family Lologinidae and consist mainly of long-finned squid, *Loligo pealei*. The most commonly captured species of kingfish, southern kingfish (*Menticirrhus americanus*) and northern kingfish (*Menticirrhus saxatilis*), have been difficult to identify in the field at small sizes due to overlapping, and non-distinct, meristic characteristics. As a result, the decision was made to combine these species under one heading (kingfish, *Menticirrhus* sp.) until further identification protocol can be examined. Data are also presented showing station locations, and atmospheric and hydrographic data collected at each station.



## METHODS

All sampling was performed aboard the research vessel FISH HAWK (photo, opposite page). The sampling gear was a 30' semi-balloon otter trawl (Marinovich Gulf Shrimp Trawl) with a 1½" stretch mesh body, a ¼" mesh cod end liner, attached tickler chain, 60' bridle length, and a 3:1 warp, using steel china-v doors (28" x 19"). The tow duration was five minutes bottom time at a speed of approximately 2½ knots. A sample day was defined as the period between sunrise and sunset.

At each station, station identification, beginning and ending latitude and longitude, depth, tidal current stage, secchi depth, tow direction (upstream vs. downstream and relative to current), beginning and ending time, tow duration, air temperature, wind direction, wind speed, weather conditions, and sea state were recorded. Surface and bottom hydrographic data (temperature, salinity and dissolved oxygen), were recorded immediately following the tow at a depth consistent with that of the trawling depth. Onboard processing of catches involved separating them according to species, and measuring individual lengths (to the nearest millimeter). For fish species, all lengths were taken as fork lengths unless no fork was present for a given species, in which case total length was measured. For blue crabs, point-to-point carapace width was measured (called long carapace width) and fecundity of adult females was assessed with individual egg stage being determined. The penaeid shrimp were measured for total length while the squid species were measured for mantle length. These data were entered directly into computer files using electronic measuring boards. Subsampling was performed when large homogeneous catches of a species were made. On these occasions, a subsampling protocol was followed with enumeration of the discarded sample taking priority over subsampling by volume. When subsampling was performed by volume, the total weights of the discarded sample and of the subsample were taken and the individual fish in the subsample were enumerated and measured. Average weight per fish was then estimated from the subsample (total subsample weight ÷ total subsample number). Number of fish in the discarded catch was estimated by dividing total discarded weight by calculating average weight. Station and environmental data were recorded first on paper and later transferred to the computer database. A sample data sheet appears in Appendix A.

### Chesapeake Bay Survey

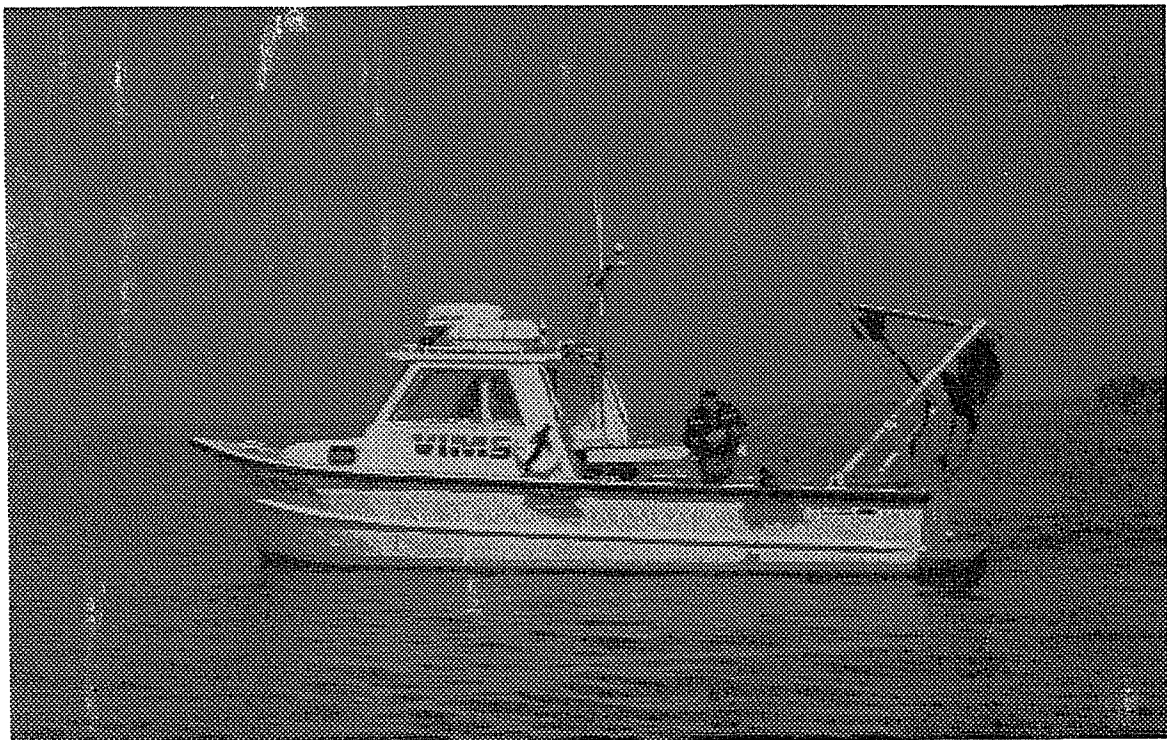
The sampling design in the mainstem bay was based on stratification by latitude and water depth. The Bay was latitudinally divided into four 15 minute blocks (segments) labeled bottom (below 37°10'N), lower (37°10'-37°25'N), upper (37°25'-37°40'N), and top (above 37°40'N). Within each segment, depth strata were defined as eastern shore shoal areas (12-30 ft), western shore shoal areas (12-30 ft), plain areas (30-42 ft), and deep areas (>42 ft), resulting in a total of 16 strata. A map of the strata appears in Appendix B. The northernmost portion of Virginia's waters (i.e. Top Bay) has not been sampled since 1988 because of funding constraints.

Station selection for each cruise was made randomly through use of the National Ocean Survey's Chesapeake Bay bathymetric grid system computerized files. This system contains position and depth records at  $\frac{1}{4}$  mile intervals, the same distance as the average tow length. Four stations were selected monthly in each plain stratum and three stations for each deep strata. During warm months (May through November) three stations were sampled in each shoal strata; during cold months (January through April, and December) only two shoal stations were sampled per strata.

Previous cruises have indicated few species occupy the mainstem Chesapeake Bay during winter months. With this in mind, a combined January/February cruise was conducted for the bay in both the 1992 and 1993 surveys in order to better allocate our sampling resources. Further investigation indicated no significant difference in abundance for several key species during the months of January through March (Geer, unpublished). As a result, a single Bay cruise in February was conducted again in 1994 to represent the period from January through March.

### River Survey

The fixed mid-channel river stations were defined at approximate 5-mile intervals from the river mouths to approximately the freshwater interface. Generally one tow was made at each station each month. A second tow, opposite in direction, was made at selected *blue crab index stations* during the warm months (May through November). During the cold months, additional stations were occupied upstream to extend the range of the survey, enabling better monitoring of some anadromous species.



Research Vessel Fish Hawk on the York River

## RESULTS

Catch data in this report represent total numbers caught. The average weights were removed from the tables beginning in 1994 because, in most cases, weights were not typically taken in the field except for subsampling purposes or for unusually large specimens. Weights taken on individual specimens are not usually representative of the catch and are thus biased, prompting the removal of that information for the report. For some species, representative samples were brought back to the laboratory in order to establish accurate weight estimates and length-weight relationships. The effort to establish length-weight relationships will continue to be expanded in the future so that biomass estimates of the trawl catch can be presented along with abundance estimates.

Figures 2-13 show the locations of the stations occupied each month in 1994. Table 1 shows the codes used for the various hydrographic and atmospheric parameters. The corresponding station information is located in Tables 2-13 (river survey) and Tables 14-23 (bay survey). The hydrographic and atmospheric data for the river survey is found in Tables 24-35, and for the bay in Tables 36-45.

Figures 14-44 geographically illustrate catch by month and station for the predominant species (the 18 most abundant finfish species - historically, three categories of blue crabs, plus other species of interest, arranged alphabetically) over the entire sampling area. These figures provide a helpful synopsis for showing temporal and geographic distribution of these species.

Figures 45-75 provide monthly length-frequency summaries for the above selected species. These graphs and accompanying statistics are useful in separating young-of-year from older fish since the age of each fish is not taken. Calendar year is not the optimal way to present such data for species that spawn late in the year, however the figures are presented this way for convenience and consistency.

Catch, catch per unit effort (CPUE), and length statistics for the data pooled from both surveys for the entire year are in Table 46. Two new variables, 'Adjusted Percent of Catch' and 'Number of Index Age Fish' were added in 1994, and in turn, 'Percent Within River', 'Cumulative Percent', and 'Average Weight' were deleted. The 'Average Weight' variable was misleading since it did not represent the overall catch. 'Cumulative Percent' seemed redundant with 'Percent of Catch' already existing and was removed in order to provide additional information on juvenile fish. Similar data for the river survey only, by river, pooled over months is presented in Tables 47-50. Likewise, data for the Chesapeake Bay survey only, by segment, pooled by months is shown in Tables 51-54. Tables 55-102 contain analogous data summaries by month and river for the river trawl survey and Tables 103-142 by month and segment for the Chesapeake Bay survey.

Catch information for 1994 indicated a continuing decline in the blue crab population, although not as pronounced as in recent years. However, the 1994 spawning stock (adult females) was half that of 1993. Striped anchovy values were remarkably higher in 1994 than

in previous years, with overall species abundance ranking increasing from the 32nd to the 4th most abundant species. This is due mainly to a few very large catches on the lower Bay in August. Other VIMS surveys confirm these abundance values. Juvenile white perch and striped bass catches continued to increase. Summer flounder indices doubled over the disastrous 1992 and 1993 year classes.

## DISCUSSION

The purpose of this report is to present a quick visual summary of the data collected during the 1994 VIMS trawl survey. A more analytical review of these data for target species for 1979-1994 is presented by Bonzek et. al., 1995.

Atmospheric conditions in 1994 included relatively normal winter and summer temperatures for the area sampled. Aside from the addition of blue crab fecundity observations, no major changes in sampling methodology or sampling gear occurred in 1994. A random stratified experimental survey was continued in the York River again in 1994, the purpose still being to provide comparisons between fixed and random surveys with an eventual switch to all random stations projected for the future. Experimental work comparing catches using present and past gear configurations was also continued in an effort to standardize catch rates among gear types and thus, provide a longer reliable time series of juvenile abundance. Neither the experimental random survey data, nor the experimental comparisons were presented in this report.

## NOTICE

No portion of this report may be used without consent or citation of the Virginia Institute of Marine Science, Trawl Survey Project. For further information contact Chris Bonzek or Patrick Geer at the Virginia Institute of Marine Science, Gloucester Point, Virginia, 23062, Telephone (804) 642-7000, FAX (804) 642-7327.

Figure 1. Sampling system, design, and gear changes for the VIMS trawl survey, 1955-1995.

# VIMS Juvenile Fish Trawl Survey

## Sampling Changes 1955 - 1994

Figure 1.

### Tow Type

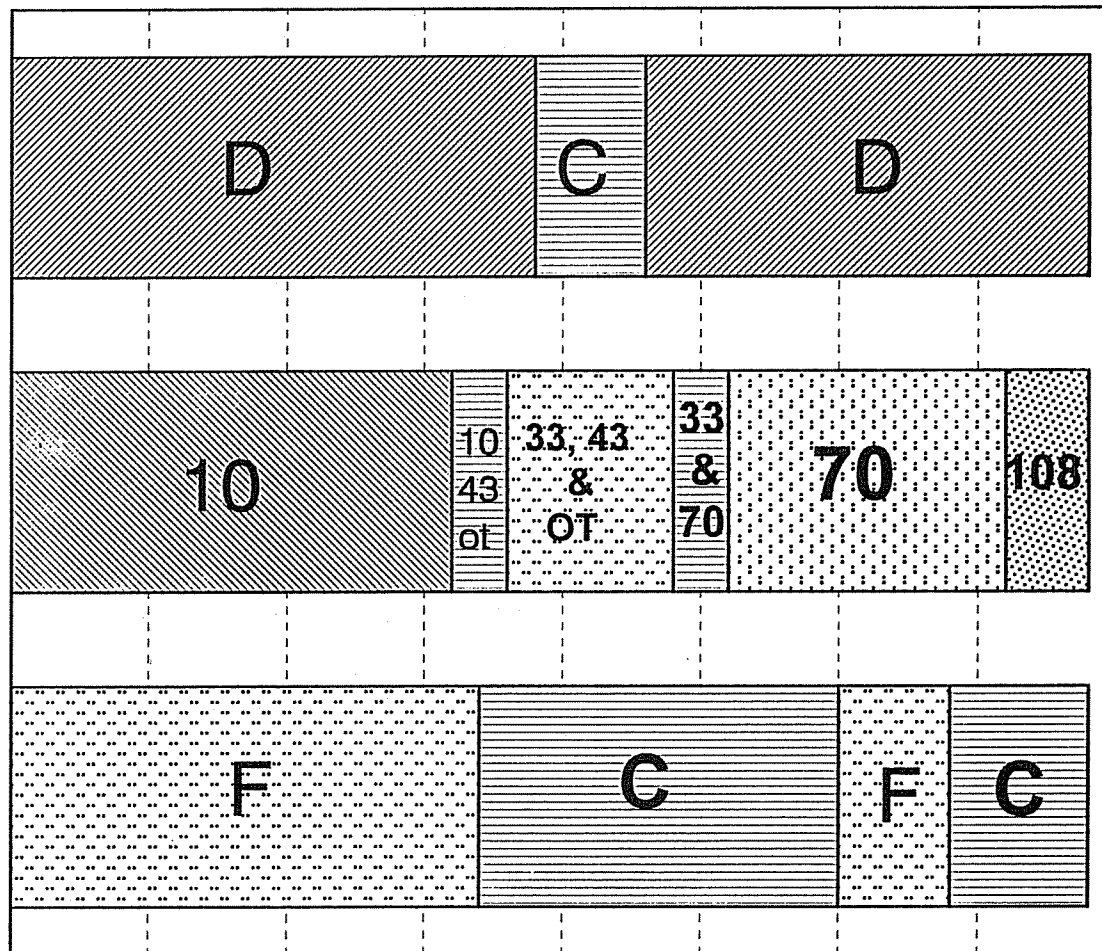
- D = Duration
- C = Duration and/or Distance

### Gear Type

- 10 = Unlined/No Tickler
- 33 = Lined/No Tickler
- 43 = Unlined/Tickler
- OT = 16' Nets
- 70 = Lined/Tickler
- 108 = Lined/Tickler/China-V

### Sampling System

- F = Fixed
- R = Random
- C = Combination



1955 1960 1965 1970 1975 1980 1985 1990 1995

Gear Type is 30 foot otter trawl if not specified.

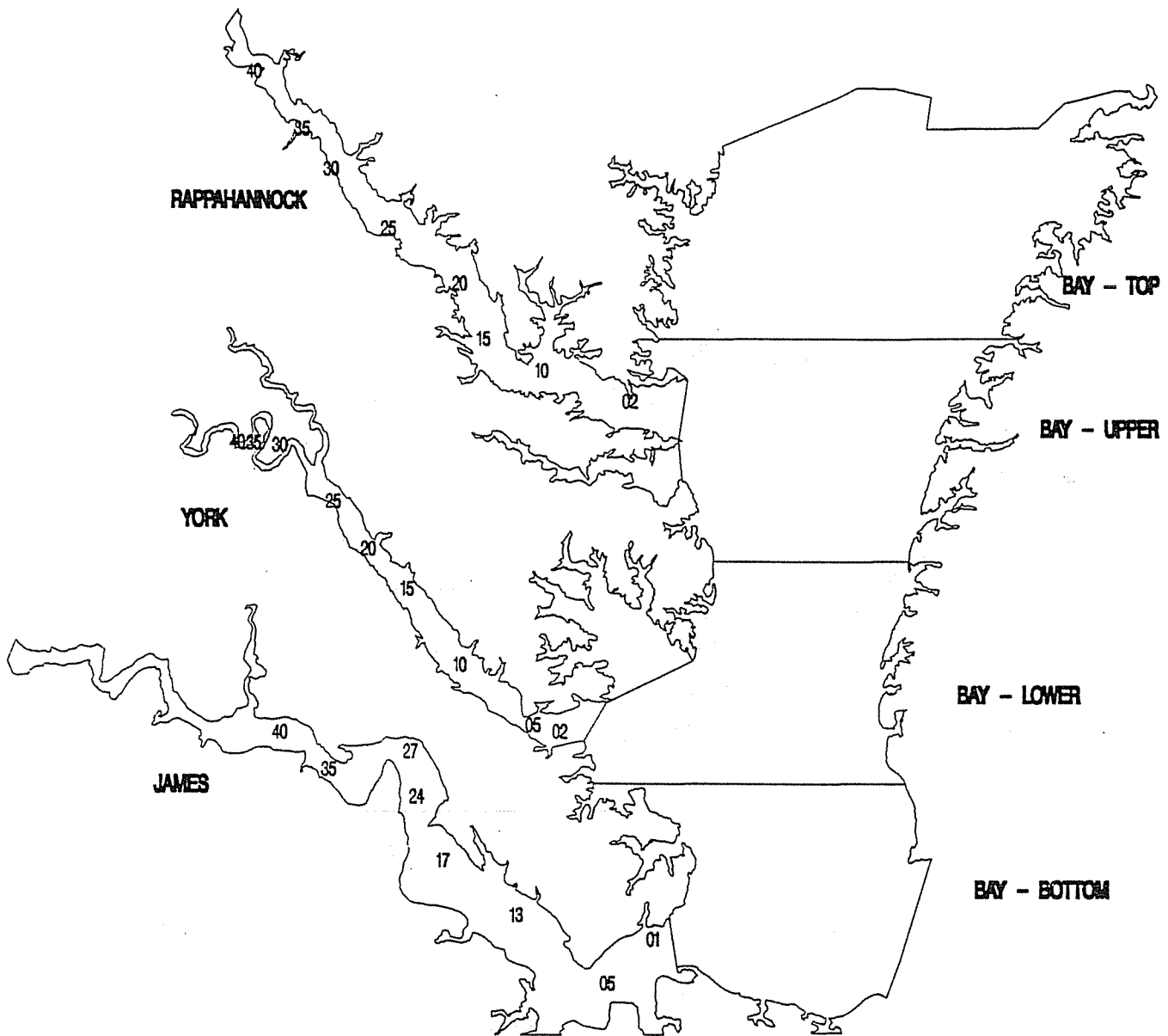
7

Figures 2-13. Stations sampled in 1994 by month.

- Notes:
- A. Due to LORAN distortion at upriver stations and to computer software control of the placement of figures on these maps, the locations shown may vary slightly from the actual stations occupied. For exact coordinates refer to Tables 2-13 (rivers) and 14-23 (bay).
  - B. A single winter cruise was conducted in February for the Chesapeake Bay during the period from January through March 1994.

Figure 2.

# JANUARY, 1994 TRAWL SURVEY STATION LOCATIONS

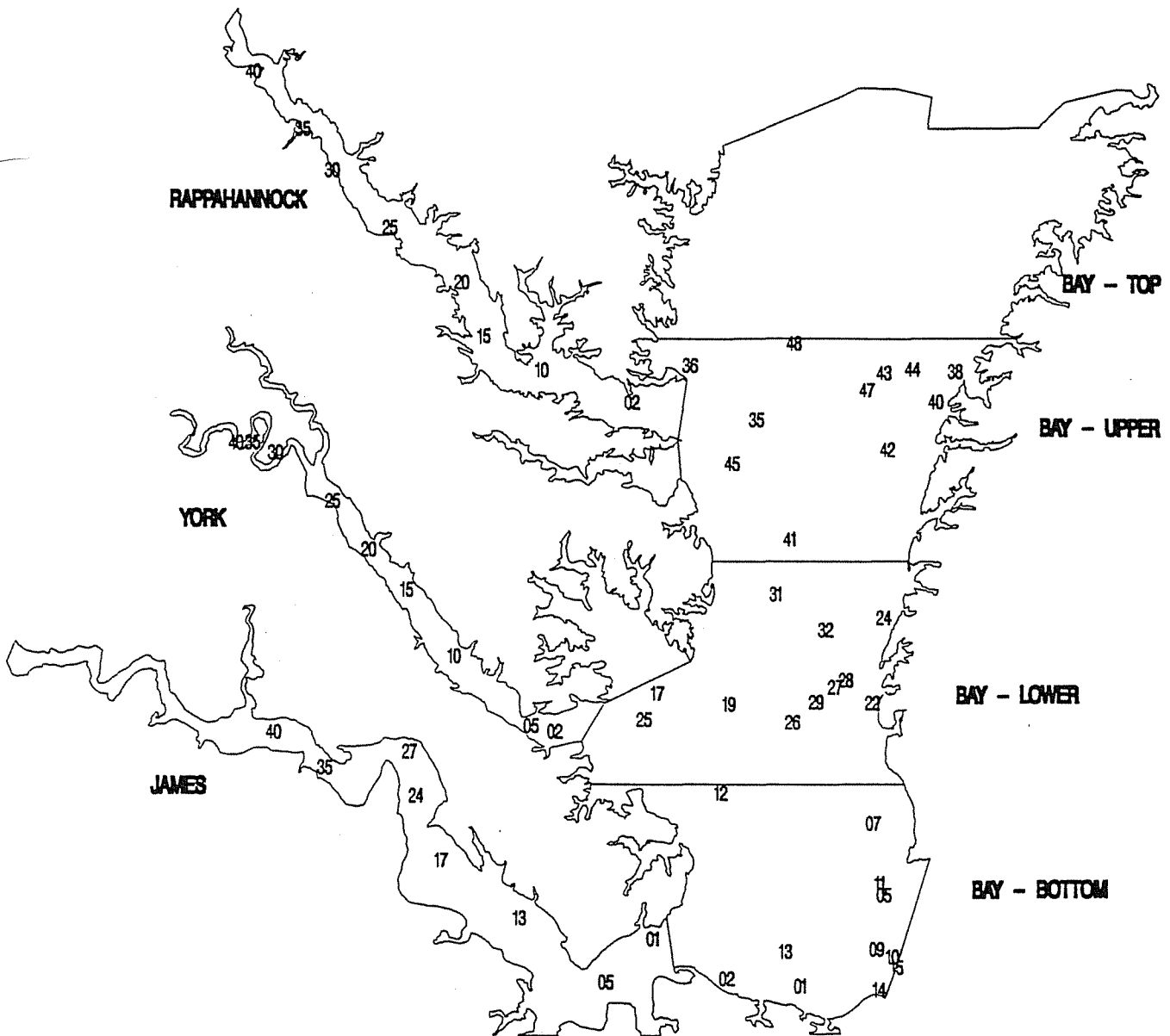


**NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS**



Figure 3.

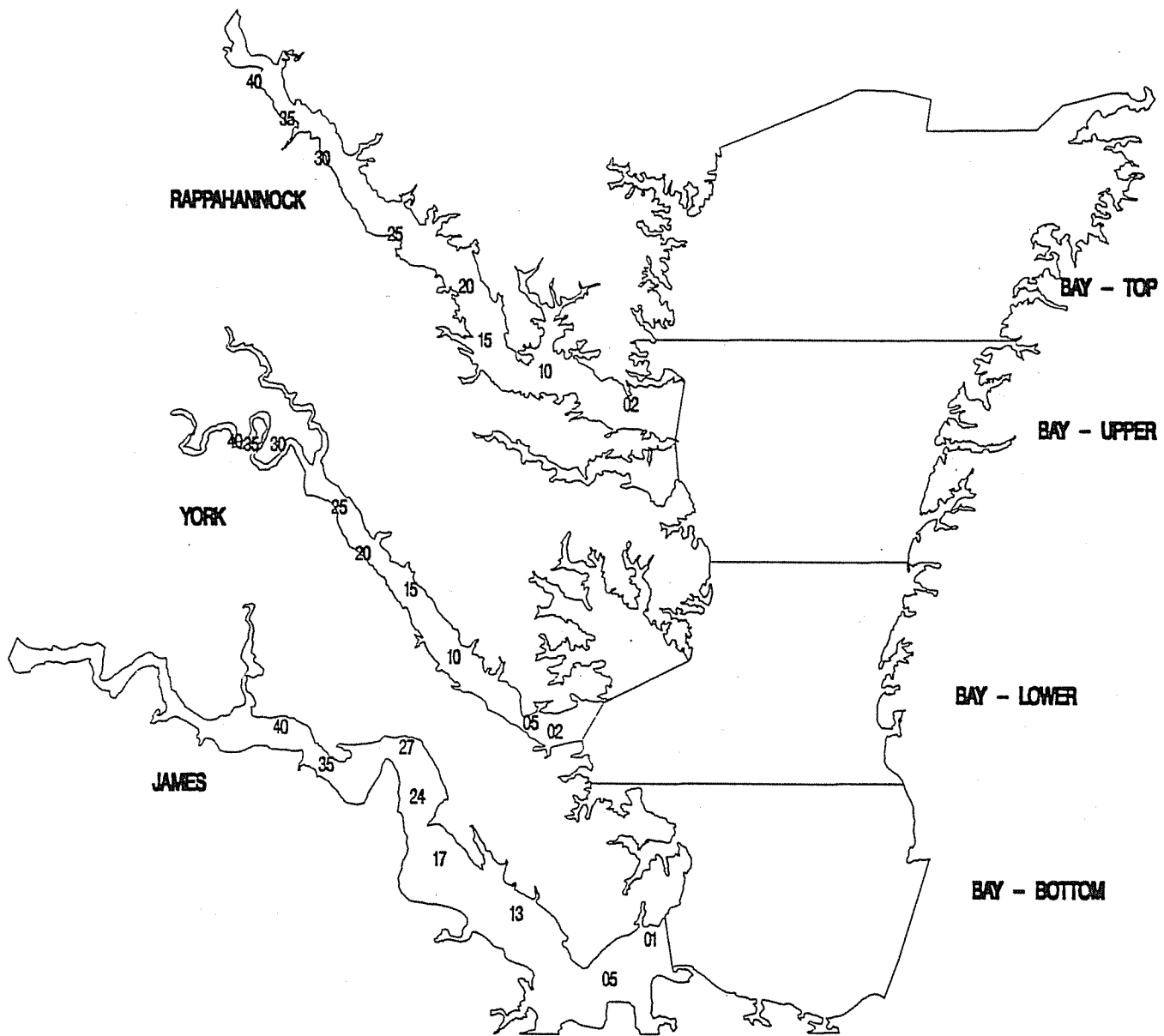
# FEBRUARY, 1994 TRAWL SURVEY STATION LOCATIONS



**NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS**

Figure 4.

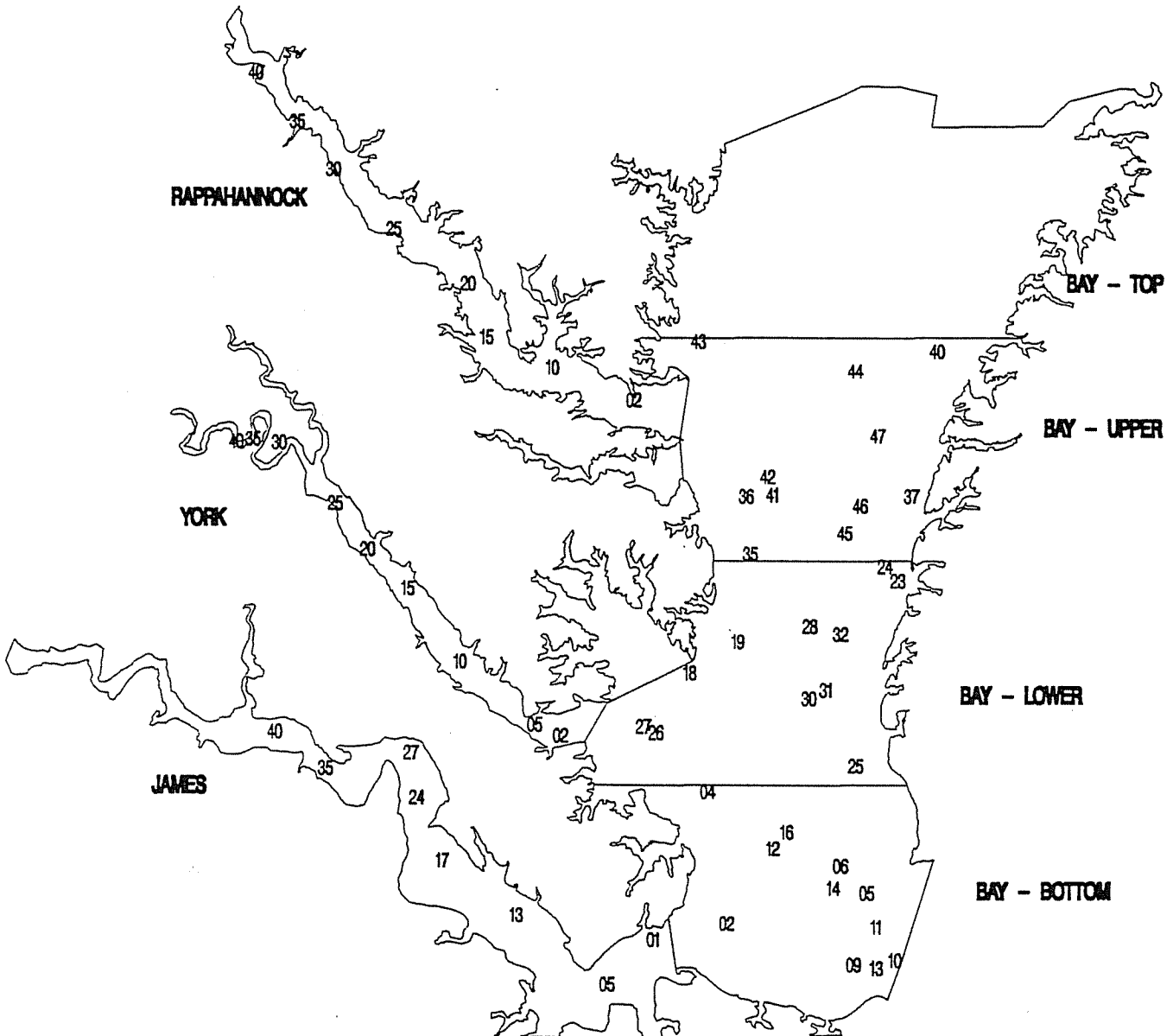
# MARCH, 1994 TRAWL SURVEY STATION LOCATIONS



**NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS**

Figure 5.

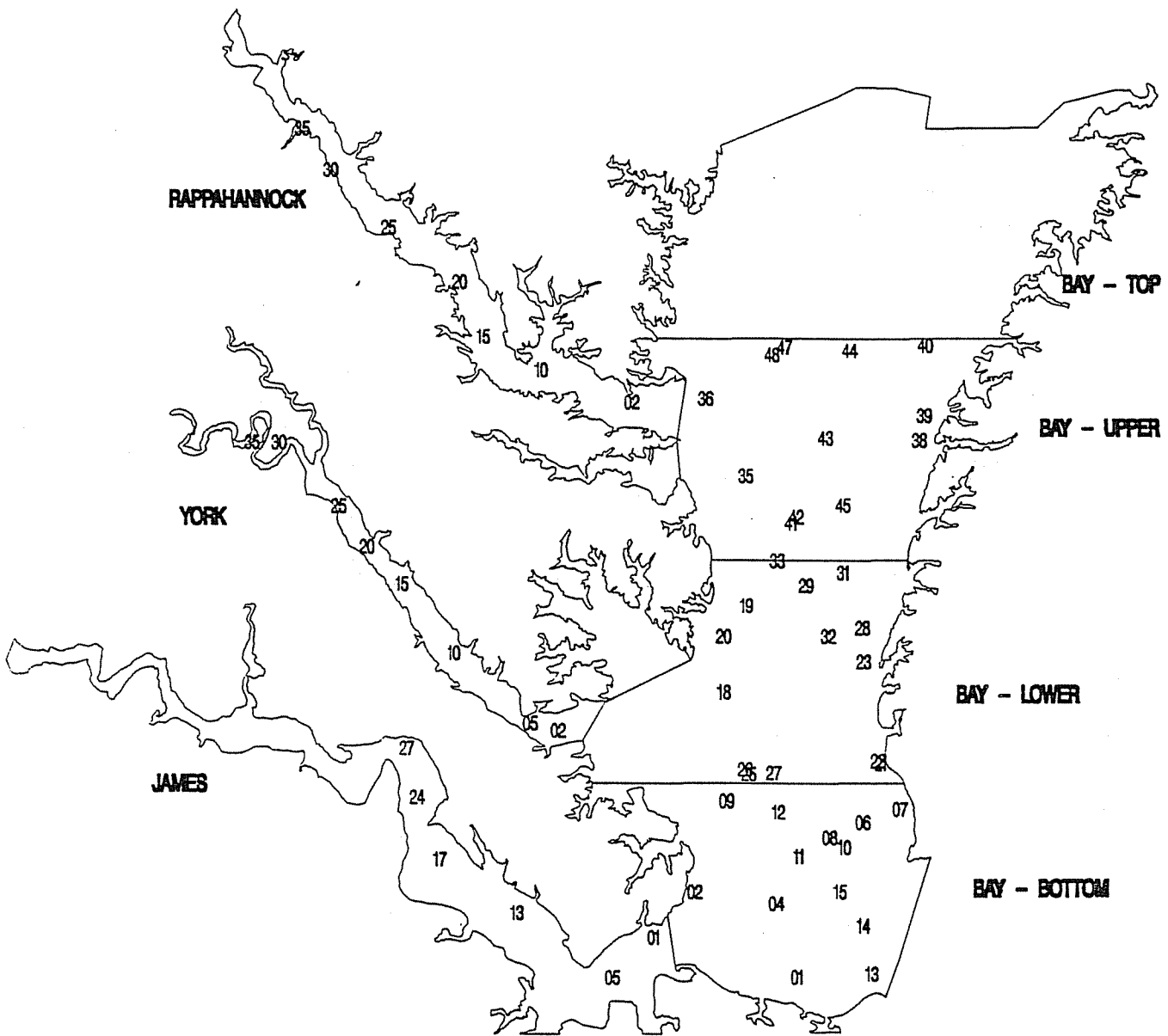
# APRIL, 1994 TRAWL SURVEY STATION LOCATIONS



**NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS**

Figure 6.

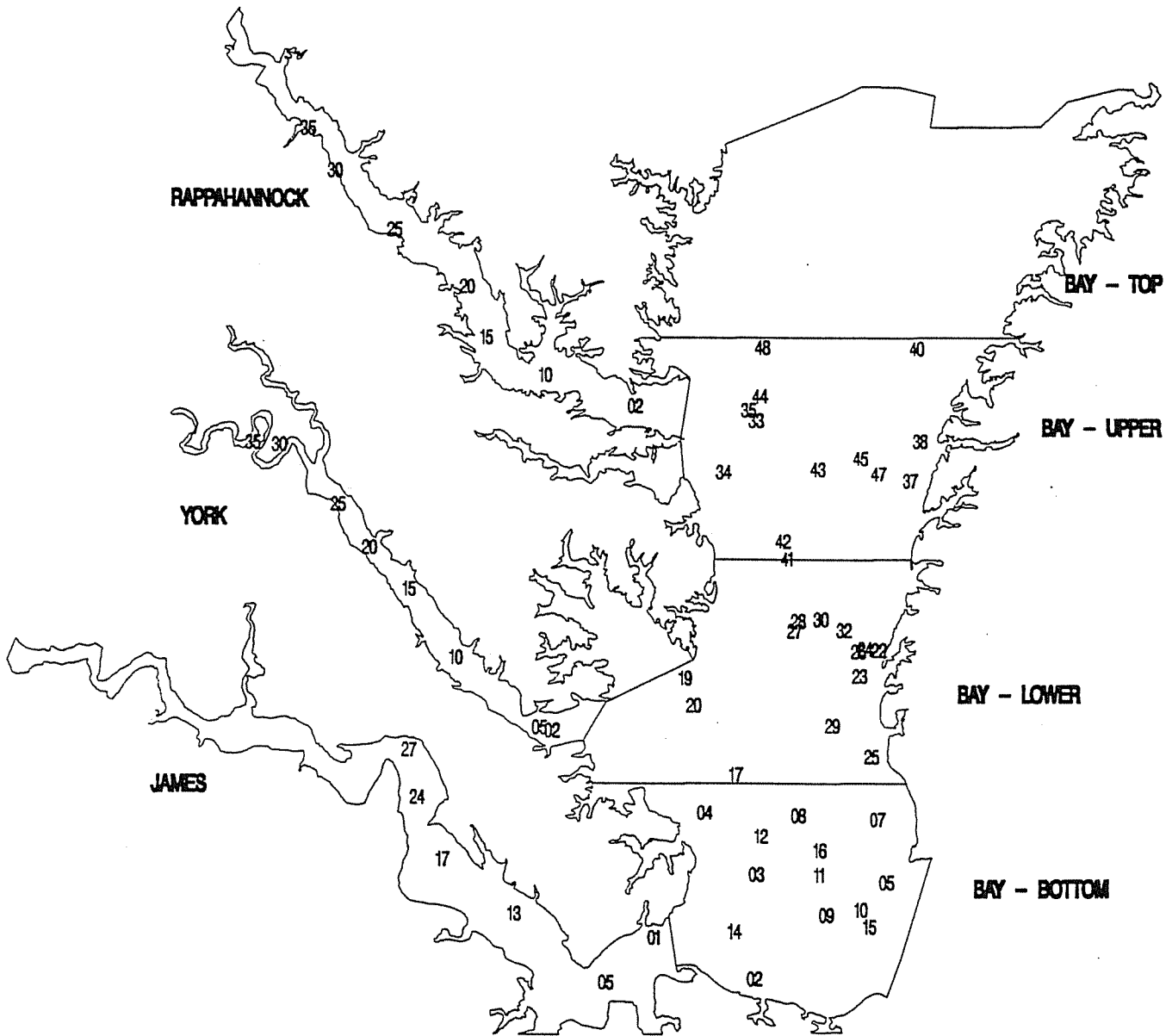
# MAY, 1994 TRAWL SURVEY STATION LOCATIONS



**NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS**

Figure 7.

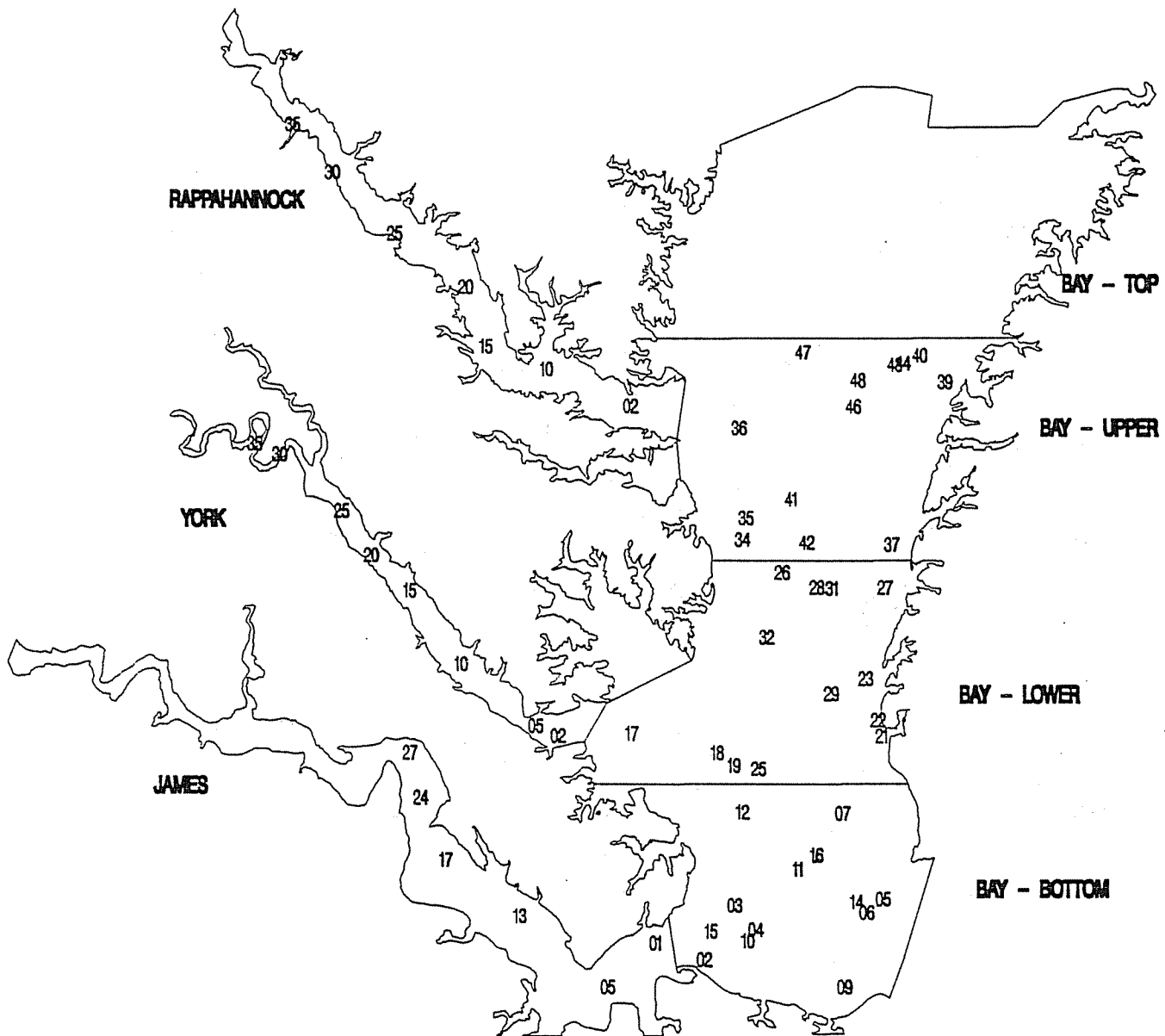
# JUNE, 1994 TRAWL SURVEY STATION LOCATIONS



NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS

Figure 8.

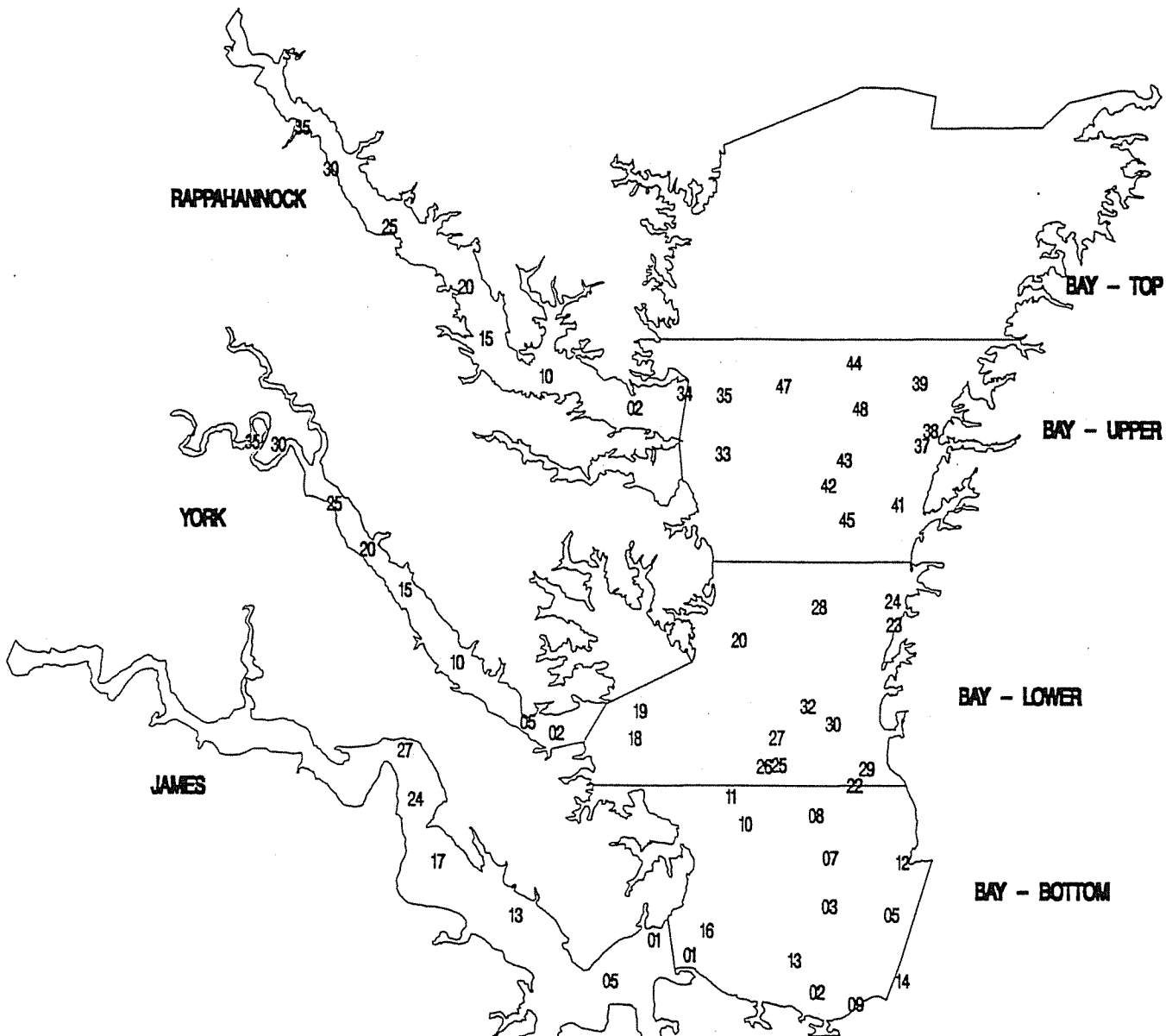
# JULY, 1994 TRAWL SURVEY STATION LOCATIONS



**NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS**

Figure 9.

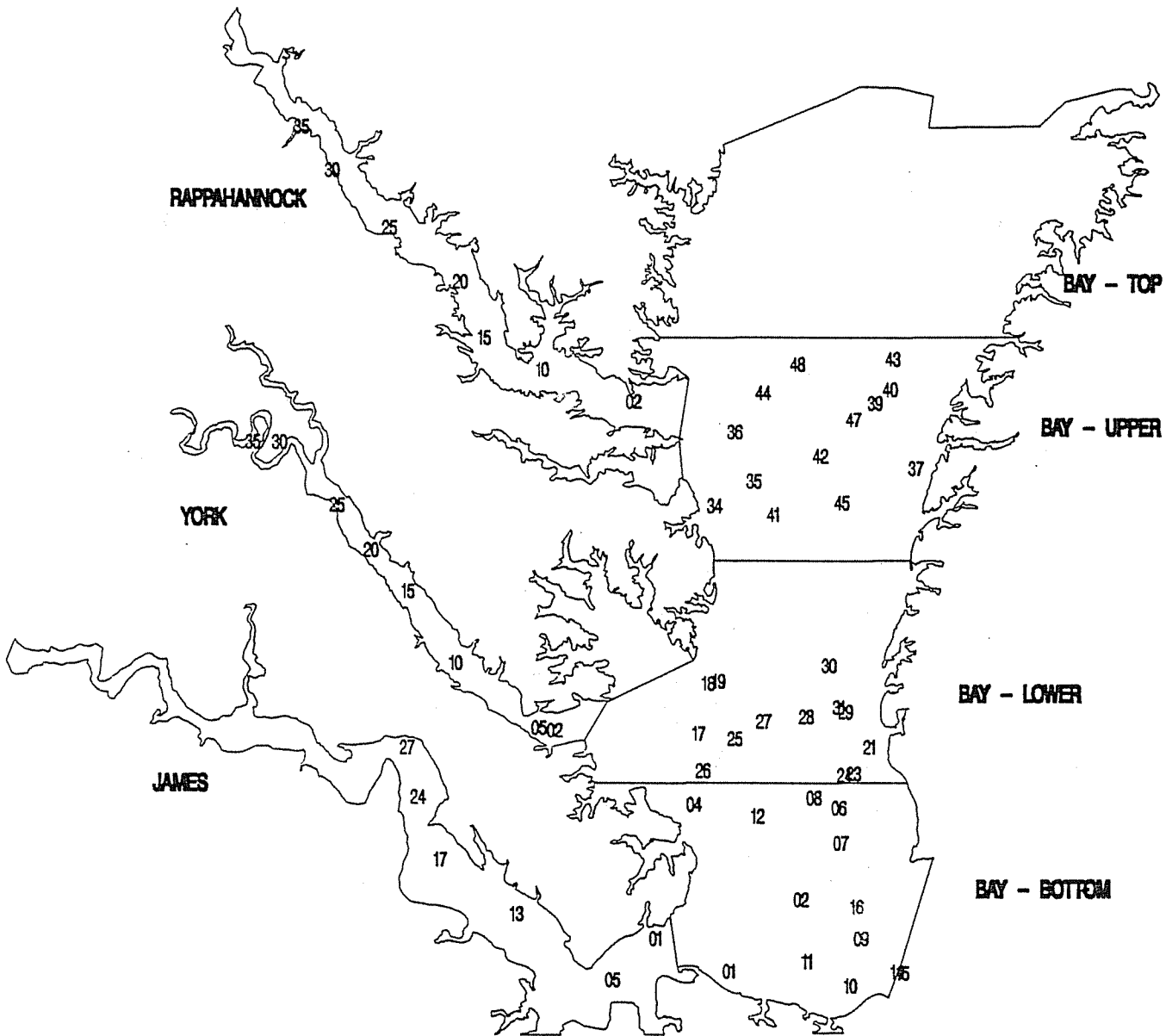
# AUGUST, 1994 TRAWL SURVEY STATION LOCATIONS



**NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS**

Figure 10.

# SEPTEMBER, 1994 TRAWL SURVEY STATION LOCATIONS

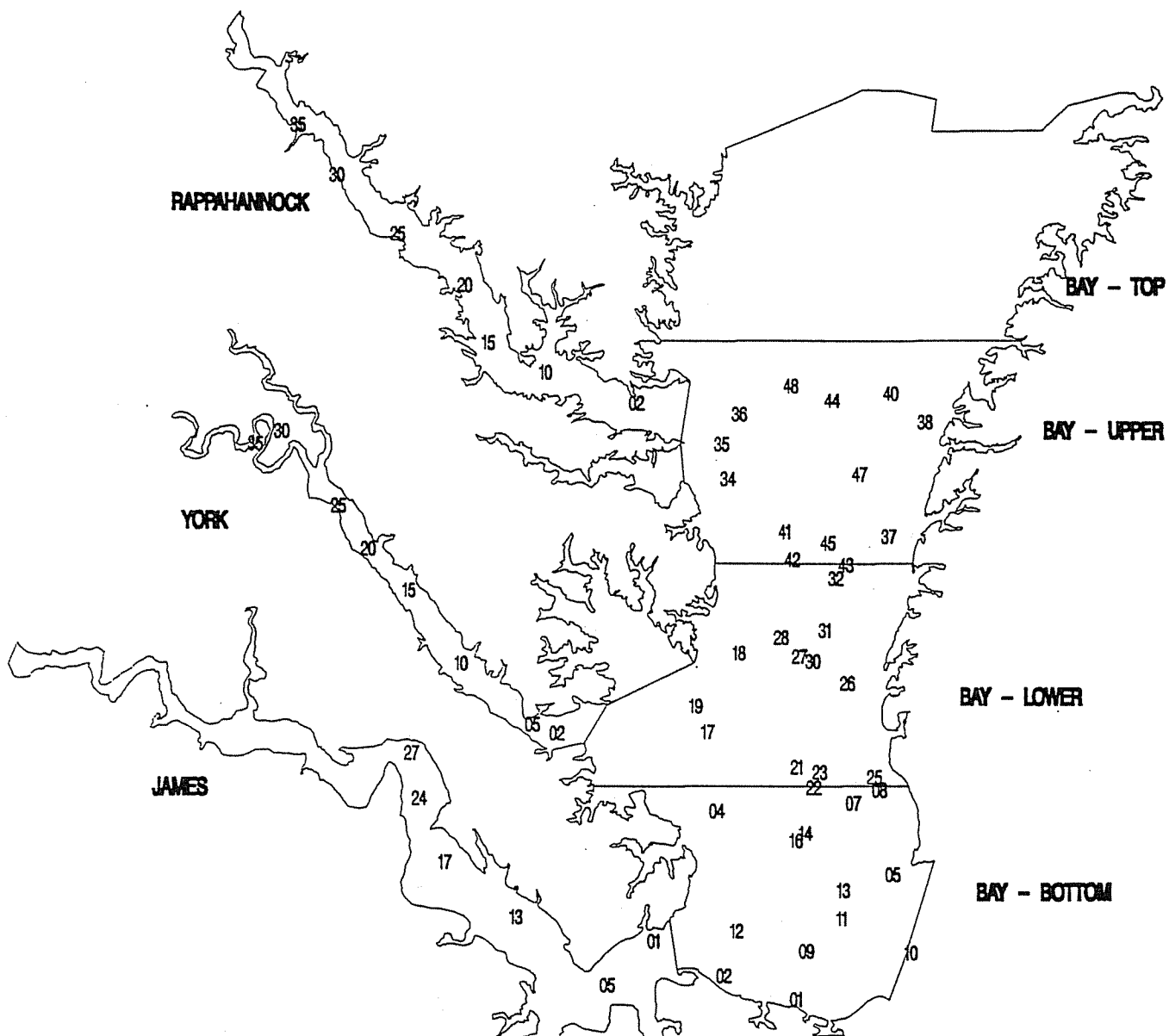


**NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS**



Figure 11.

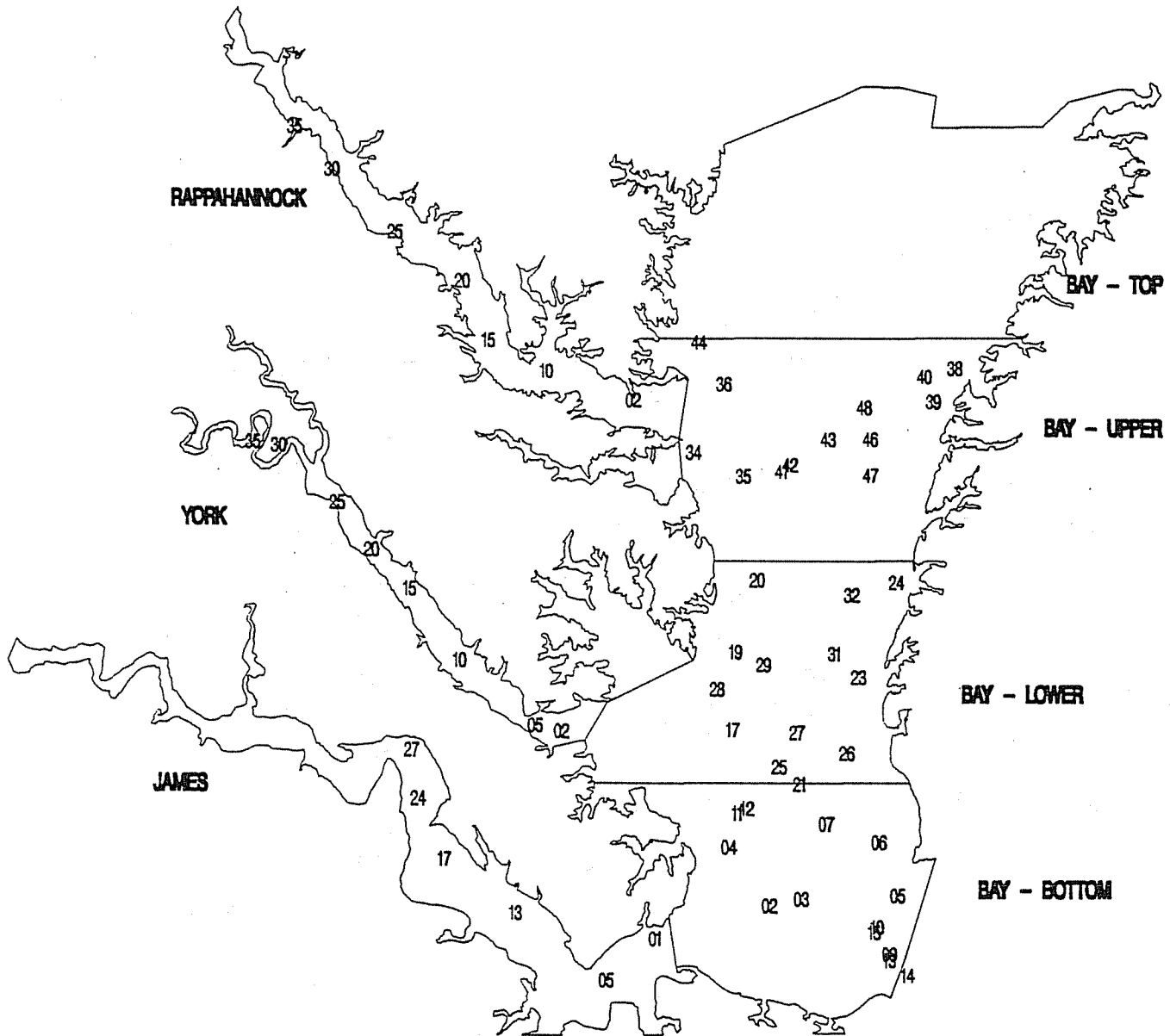
# OCTOBER, 1994 TRAWL SURVEY STATION LOCATIONS



**NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS**

Figure 12.

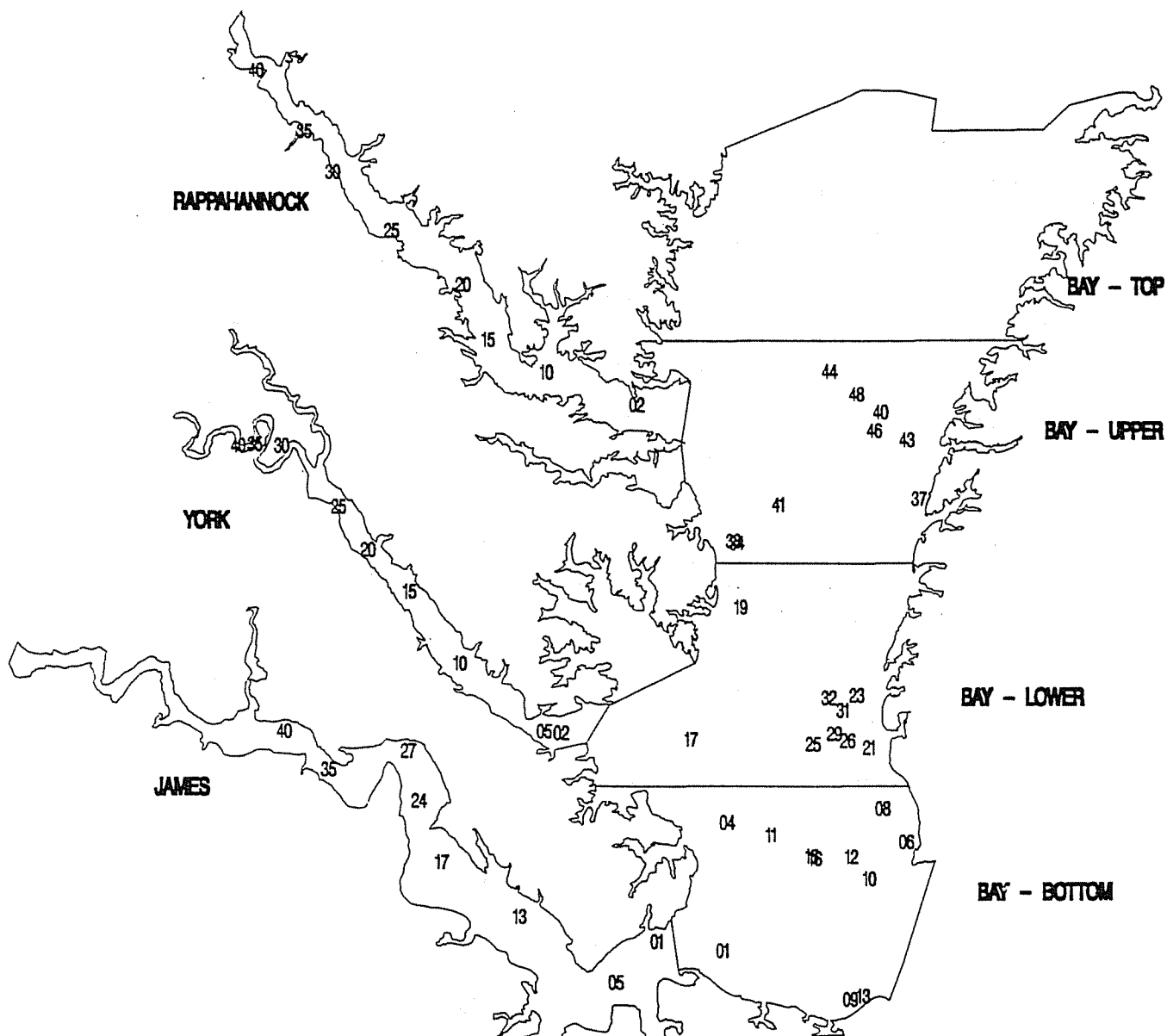
# NOVEMBER, 1994 TRAWL SURVEY STATION LOCATIONS



NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS

Figure 13.

# DECEMBER, 1994 TRAWL SURVEY STATION LOCATIONS



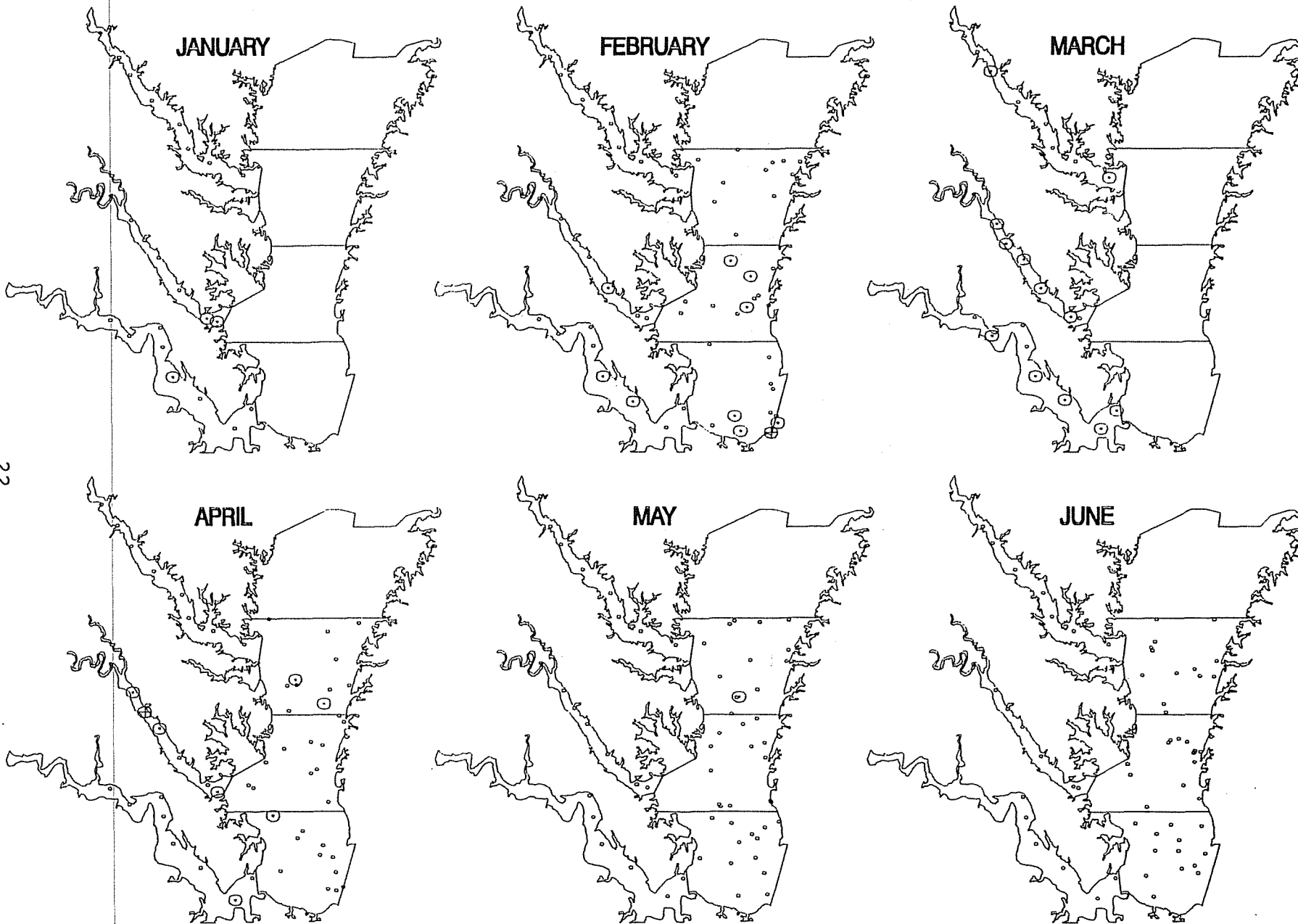
**NOTE: FIGURES IN RIVERS INDICATE RIVER MILES,  
FIGURES IN BAY INDICATE STATION NUMBERS**

Figures 14-43. Geographic distribution, by month, of predominant species. Density values represent total number of specimens caught.

- Notes:
- A. Due to LORAN distortion at upriver stations and to computer software control of the placement of figures on these maps, the locations shown may vary slightly from the actual stations occupied. For exact latitude and longitude refer to Tables 2-13.
  - B. A single winter cruise was conducted in February for the Chesapeake Bay during the period from January through March 1994.
  - C. For purposes of clarity, if a second tow was performed at a given station, the second tow will be offset two minutes north and two minutes east from the original coordinates.

Figure 14

# Alewife



NUMBER CAUGHT: · = ZERO

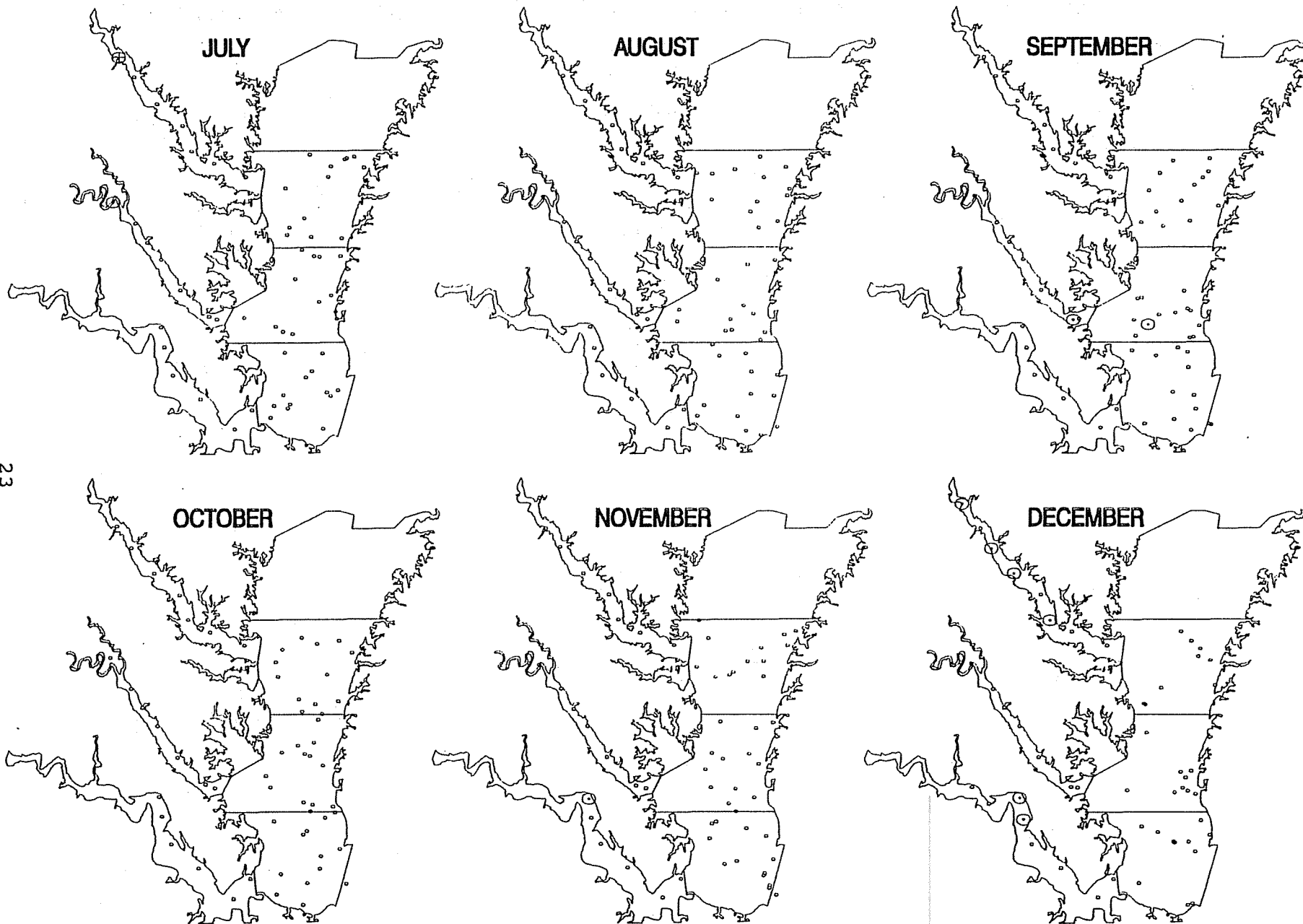
⊙ = 1 to 9

⊕ = 10 to 99

⊗ = 100 to 999

● = ≥ 1,000

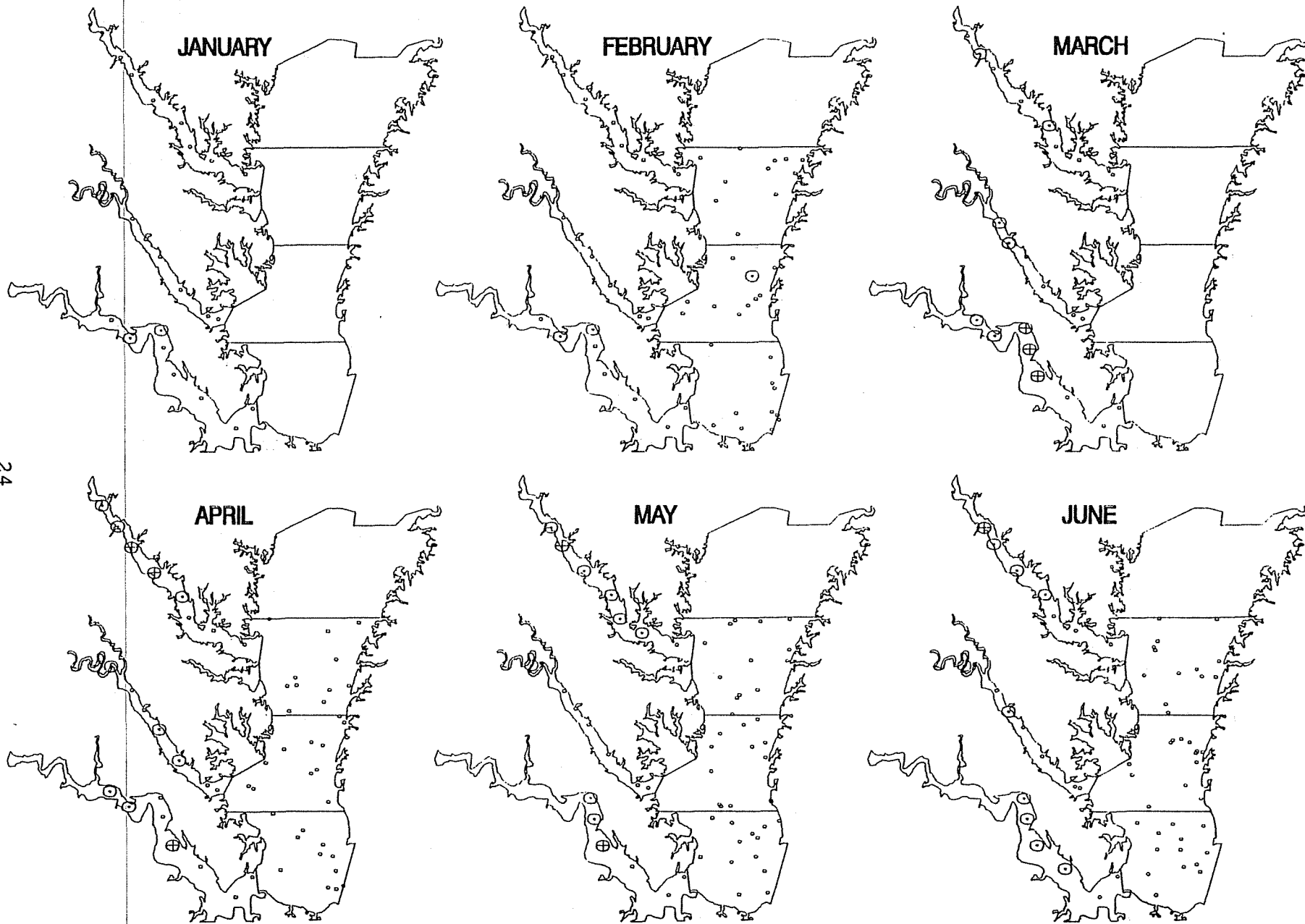
Figure 14



NUMBER CAUGHT: · = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 15

# American Eel



NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 15

NUMBER CAUGHT: • = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

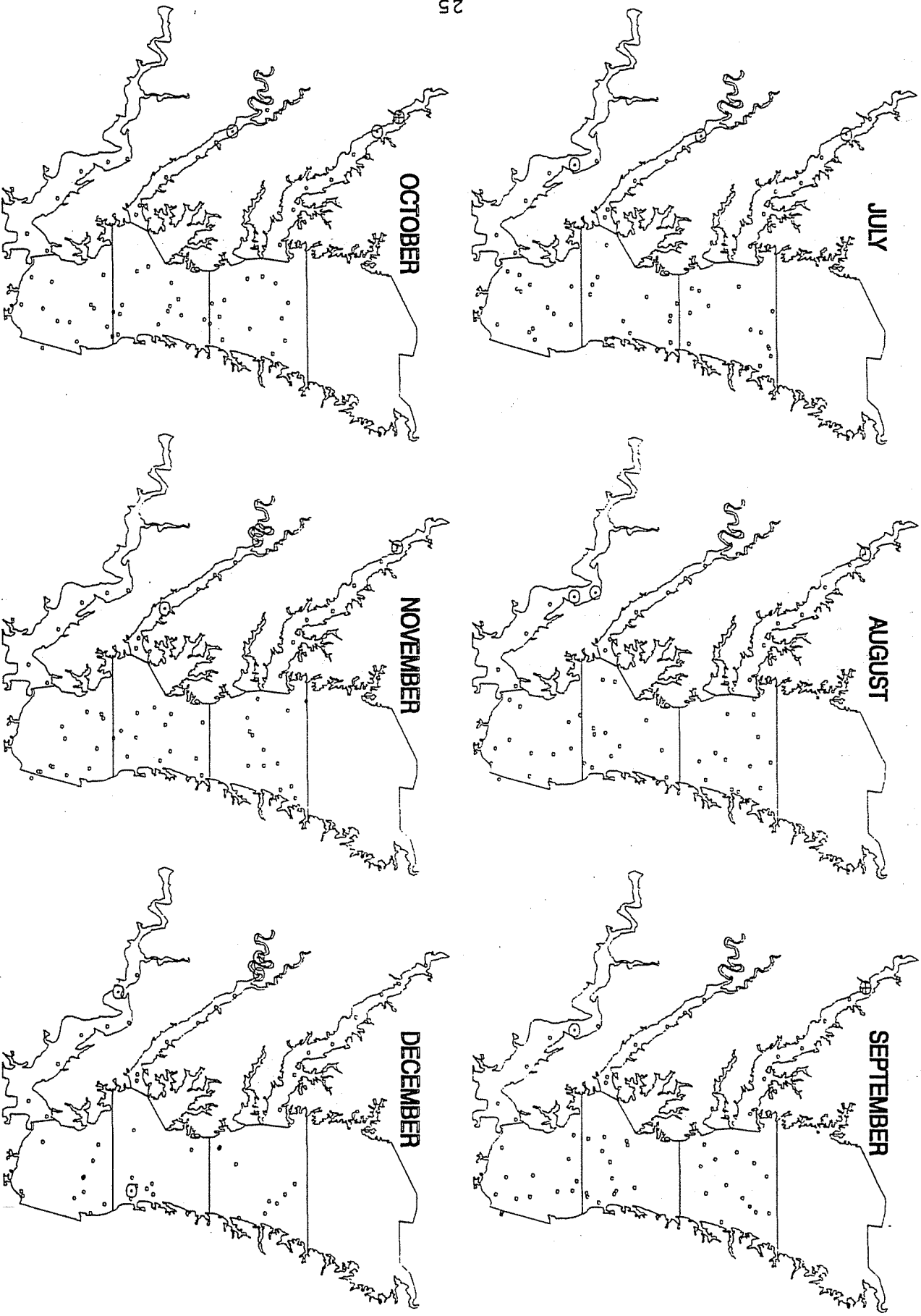
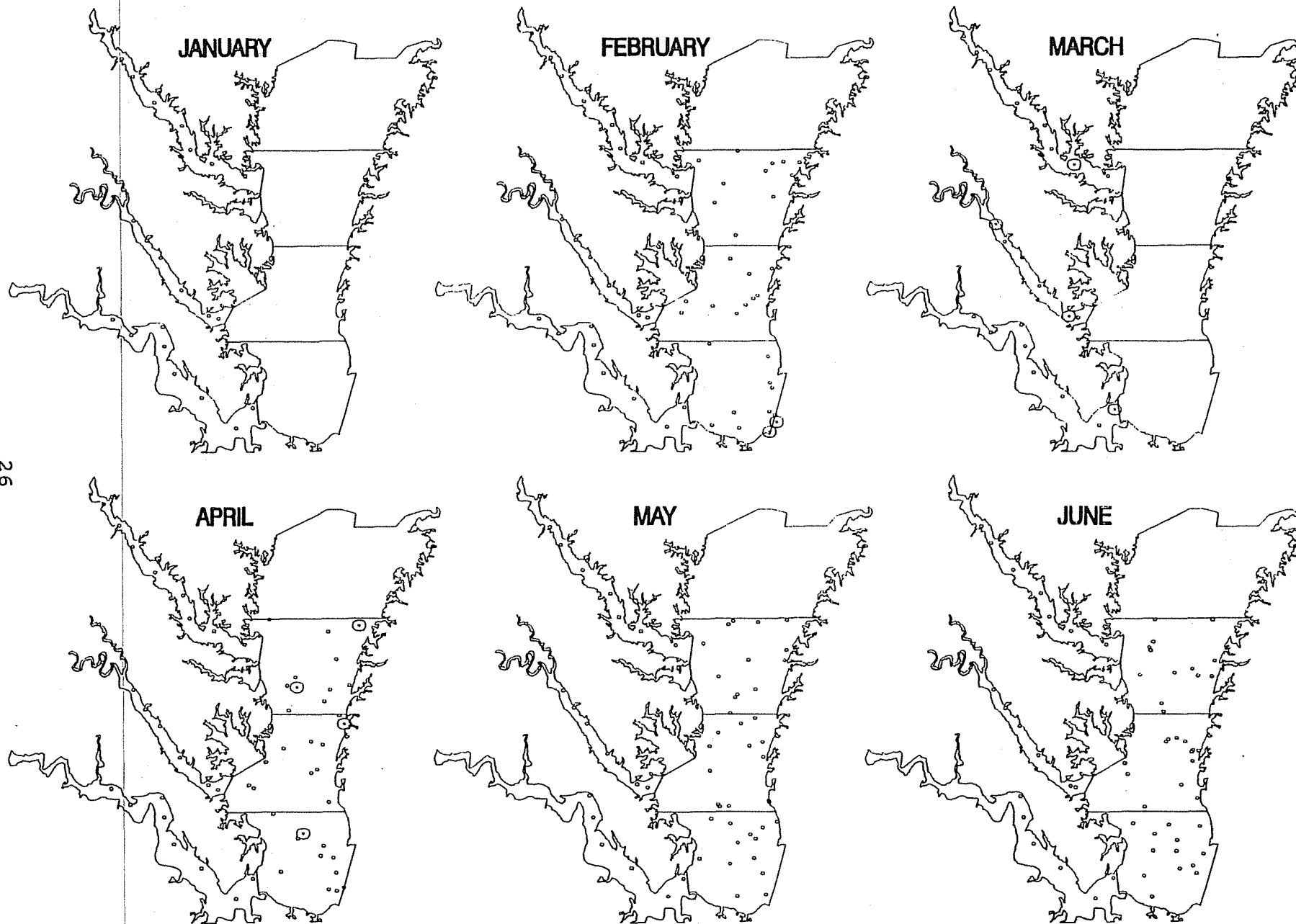




Figure 16

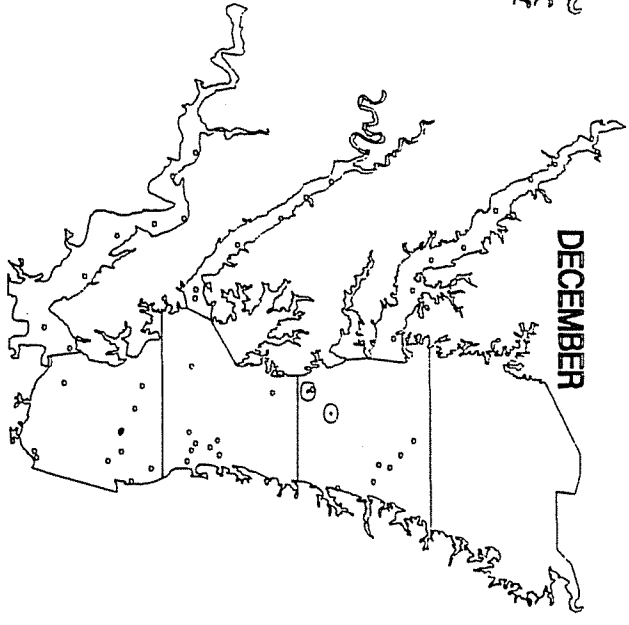
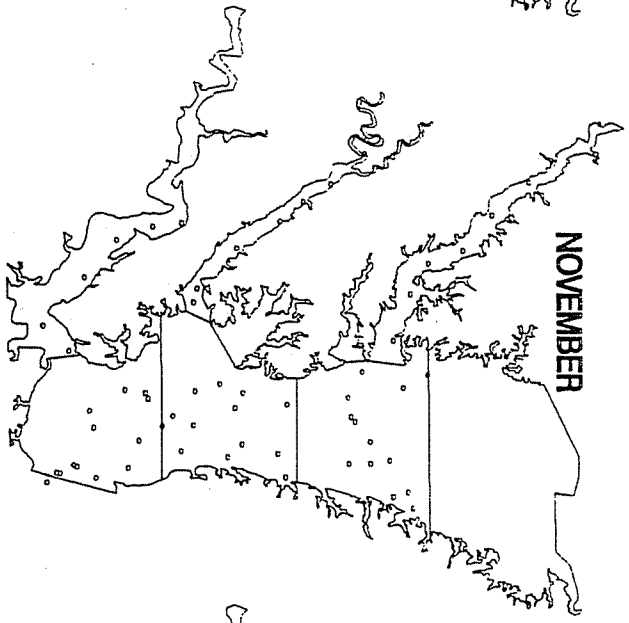
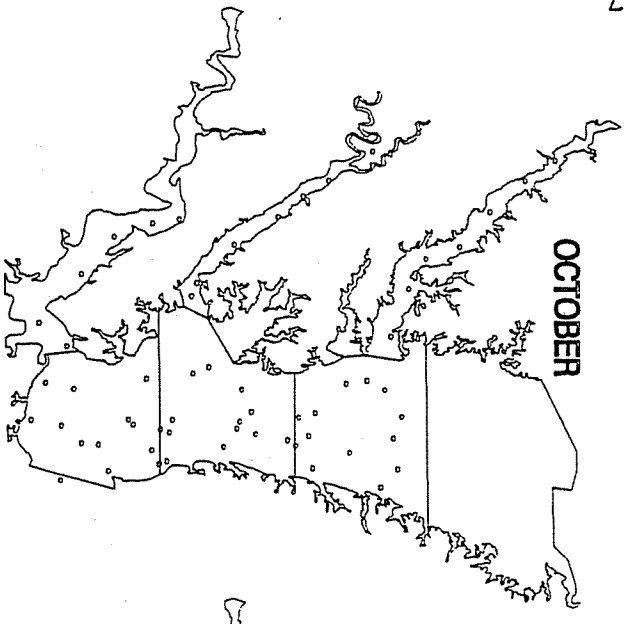
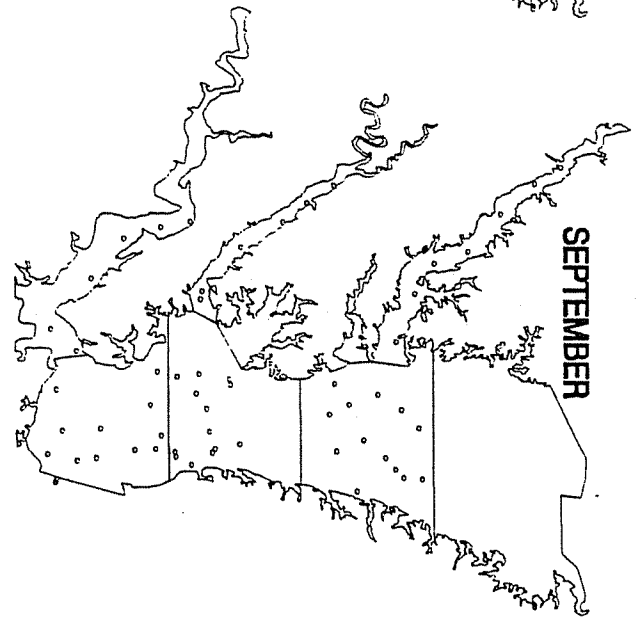
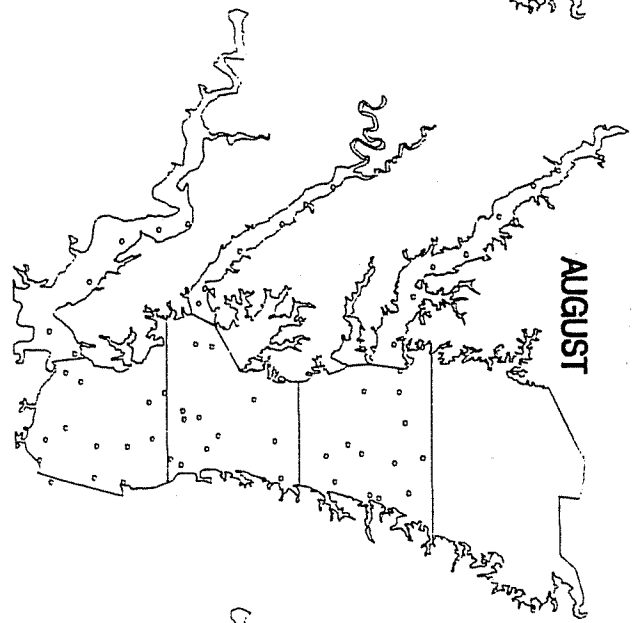
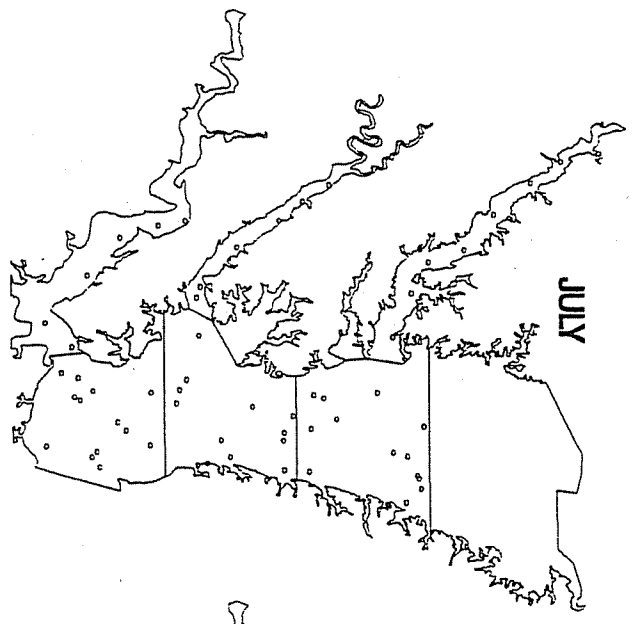
# American Shad



NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 16

27



NUMBER CAUGHT: • = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ⊙ = ≥ 1,000

Figure 17

# Atlantic Croaker

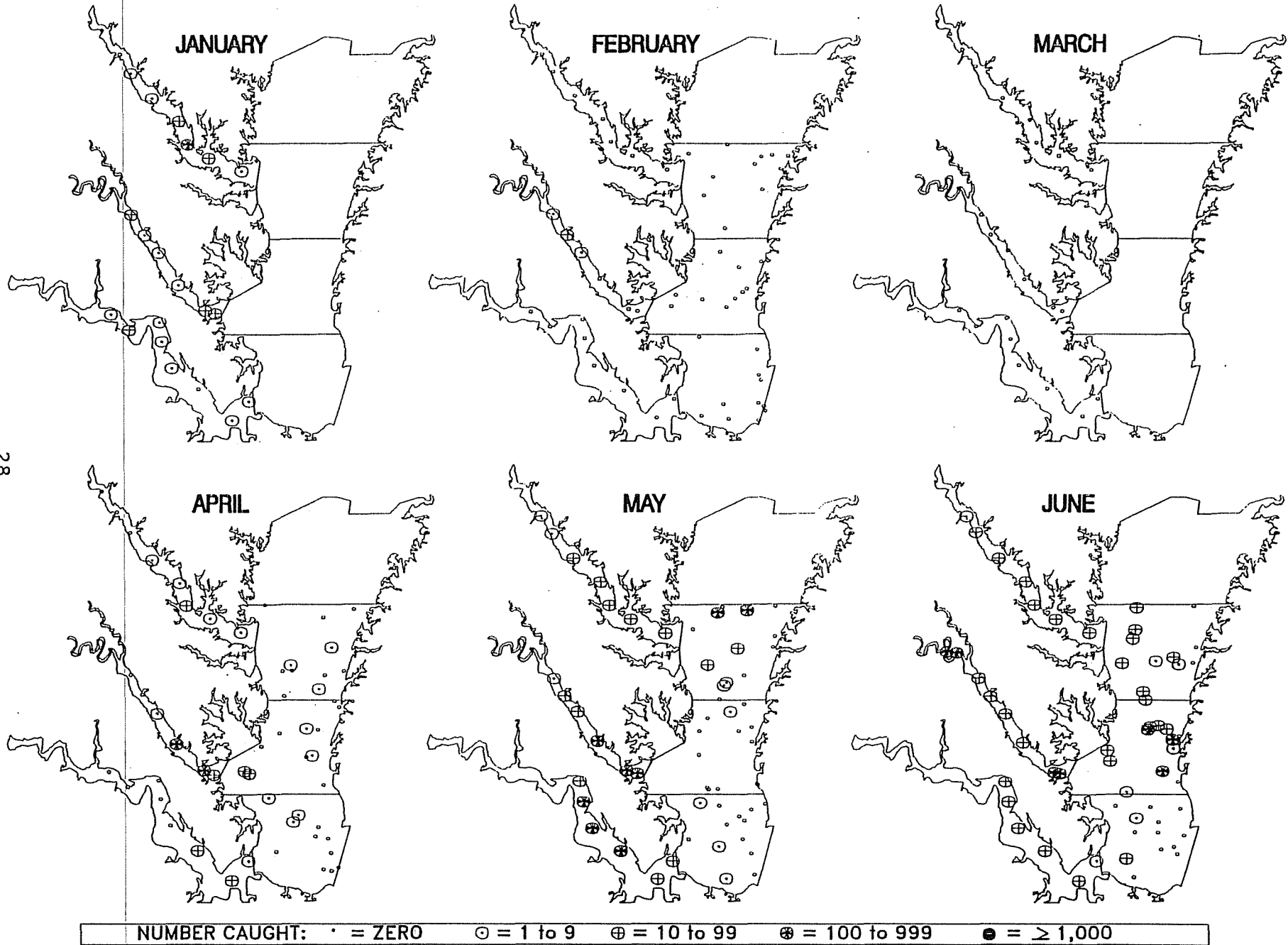
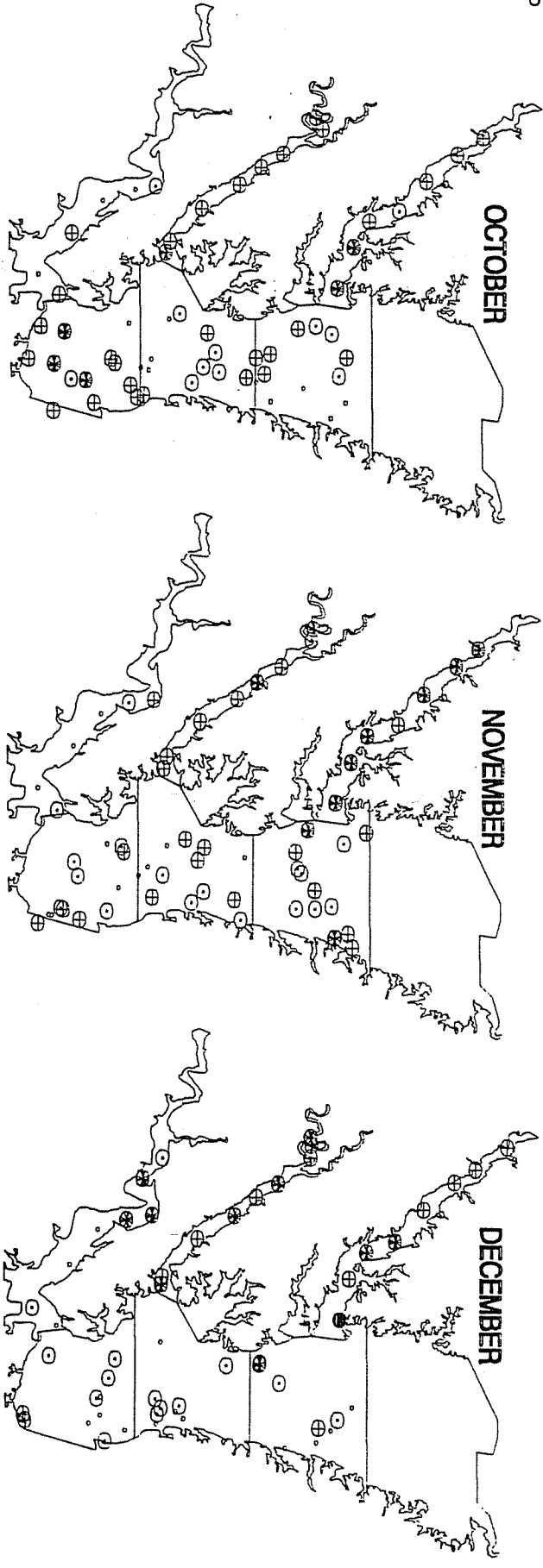
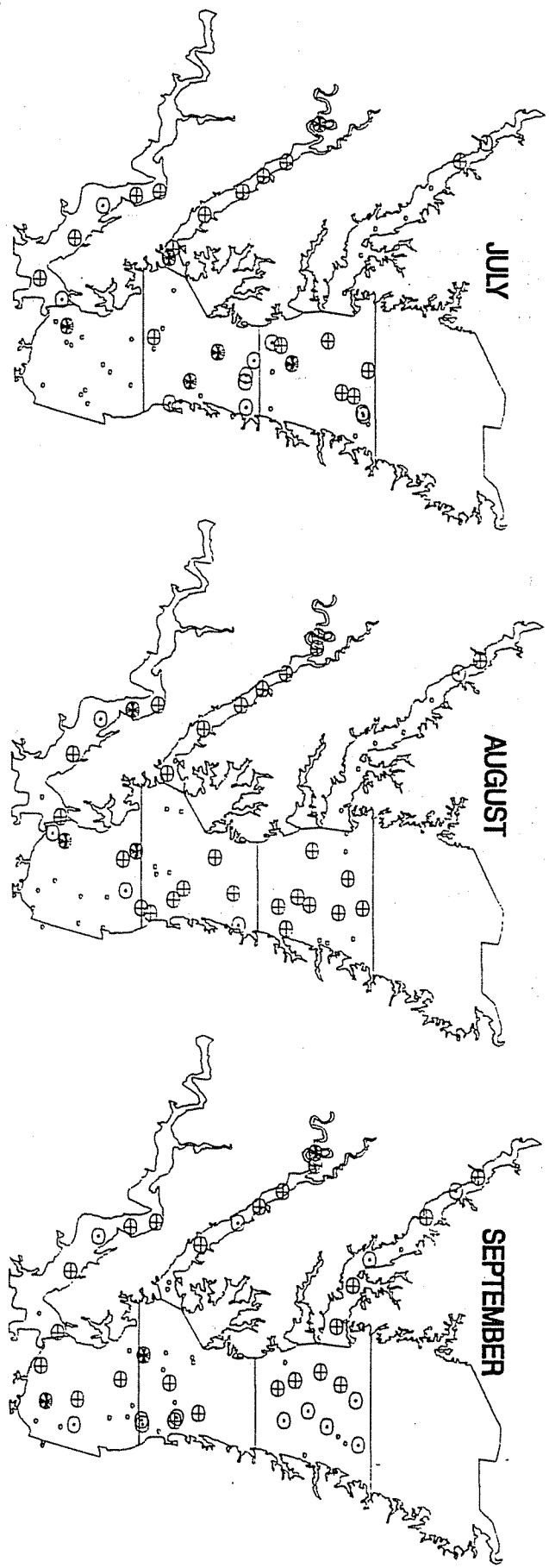


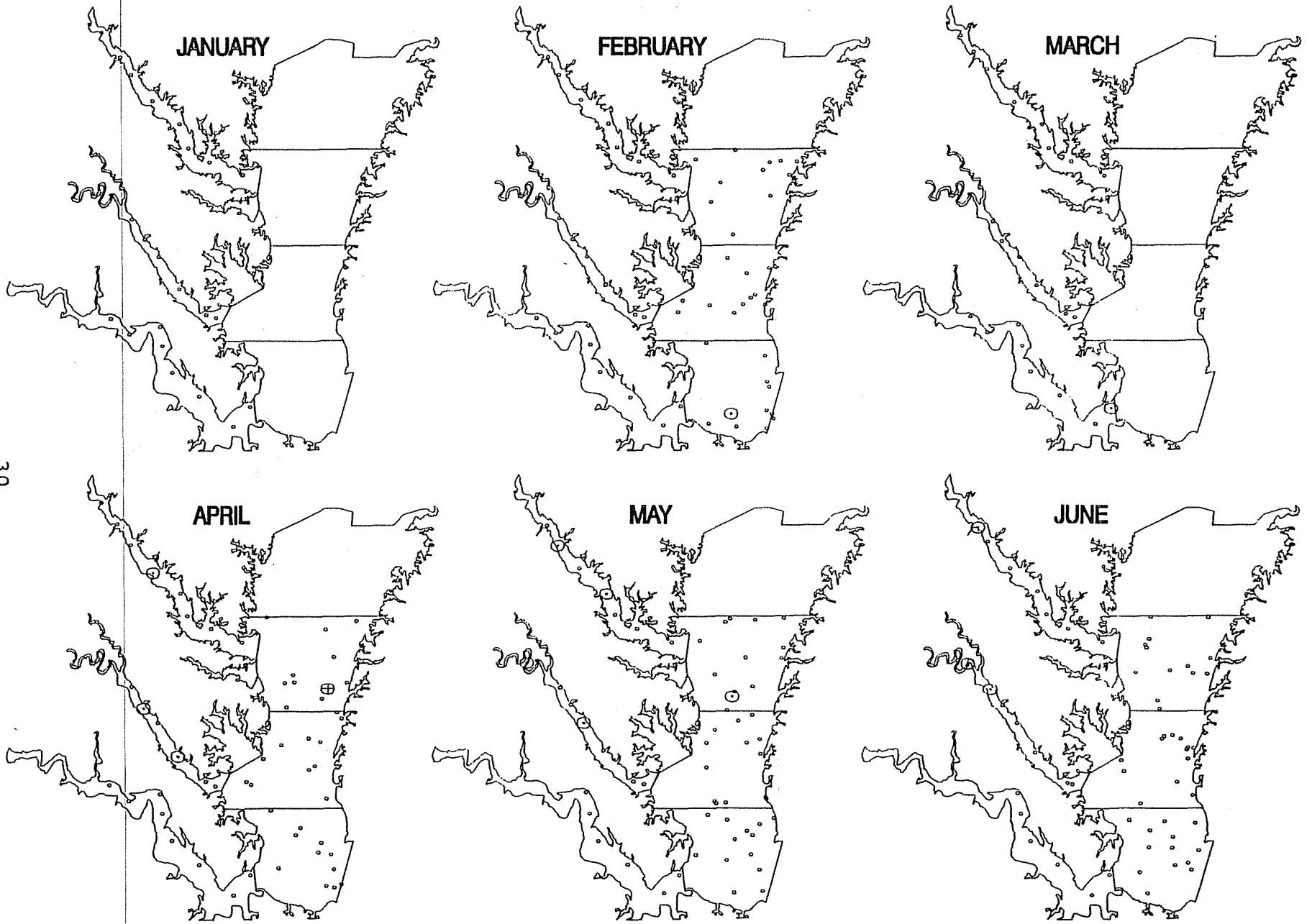
Figure 17



NUMBER CAUGHT: • = ZERO ○ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ⊙ = ≥ 1,000

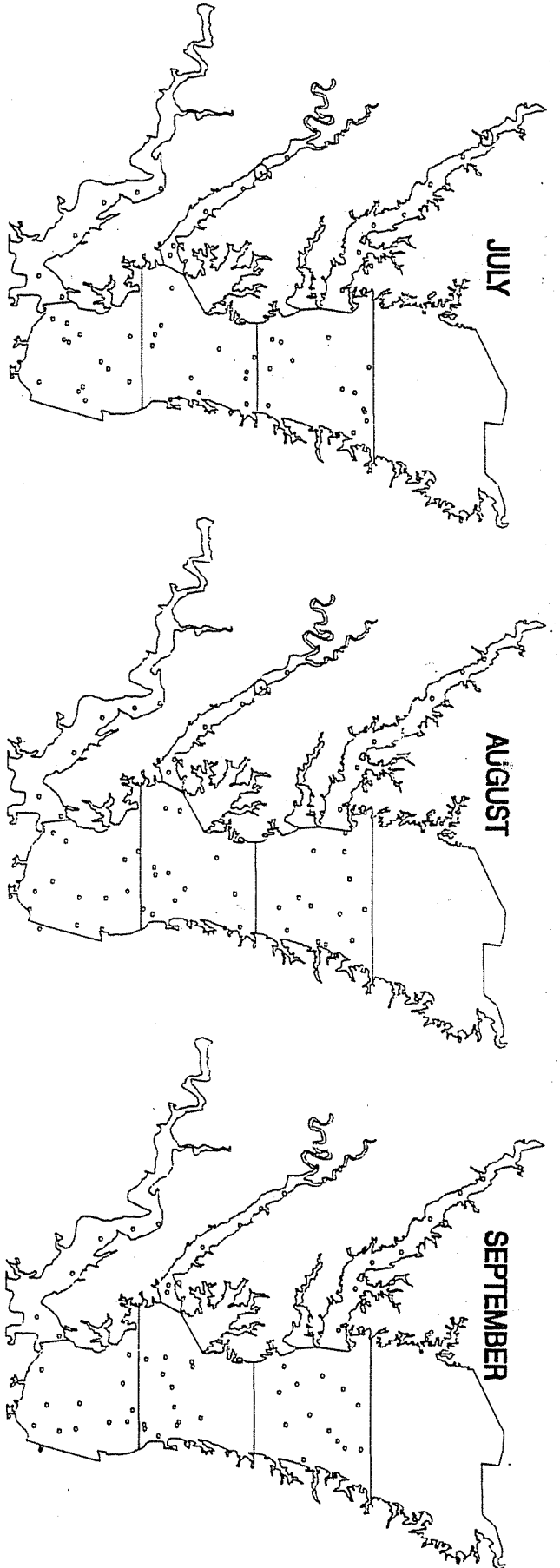
Figure 18

# Atlantic Menhaden

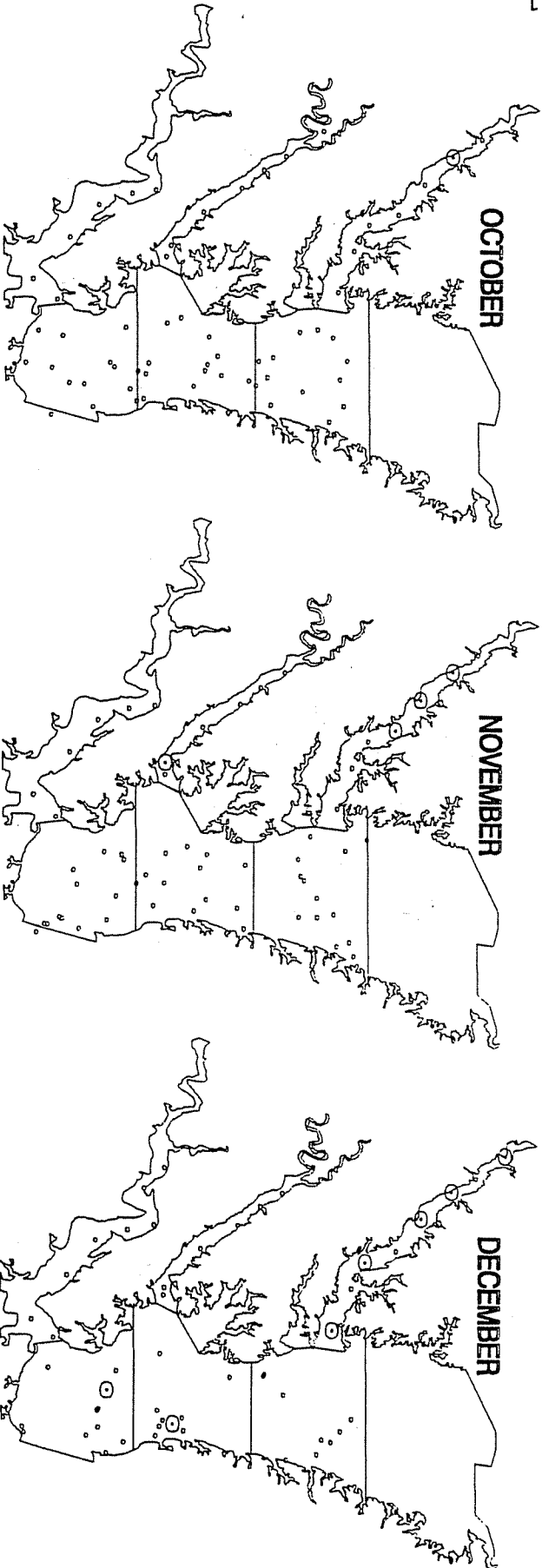


NUMBER CAUGHT: • = ZERO ⊙ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

Figure 18



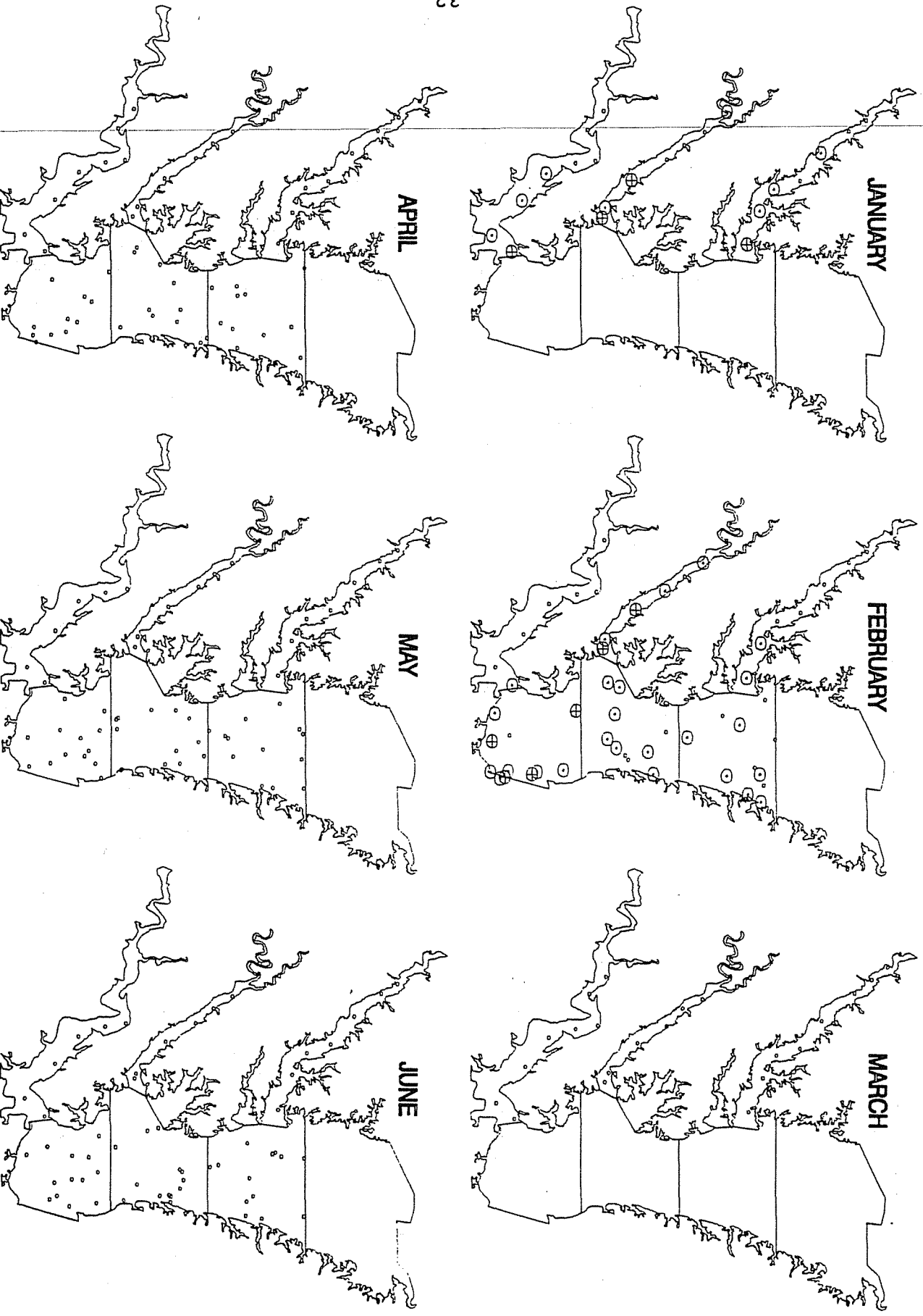
31



NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 19

# Atlantic Silverside



JANUARY

FEBRUARY

MARCH

APRIL

MAY

JUNE

NUMBER CAUGHT: • = ZERO   ⊙ = 1 to 9   ⊕ = 10 to 99   ⊗ = 100 to 999   ● = ≥ 1,000

Figure 19

NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

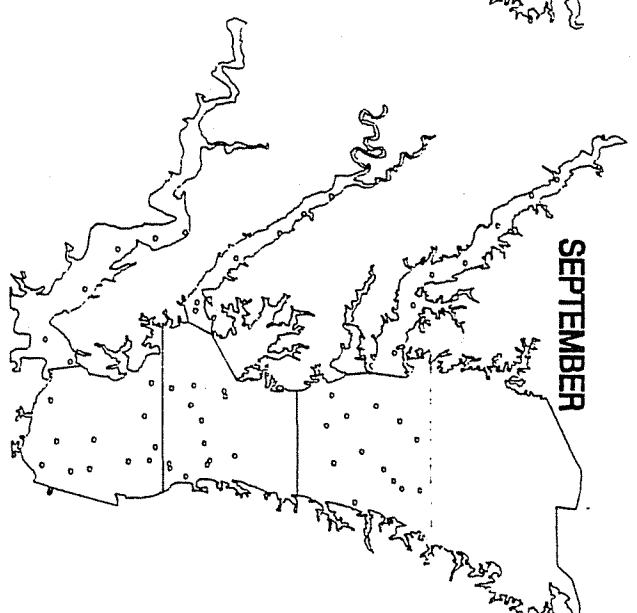
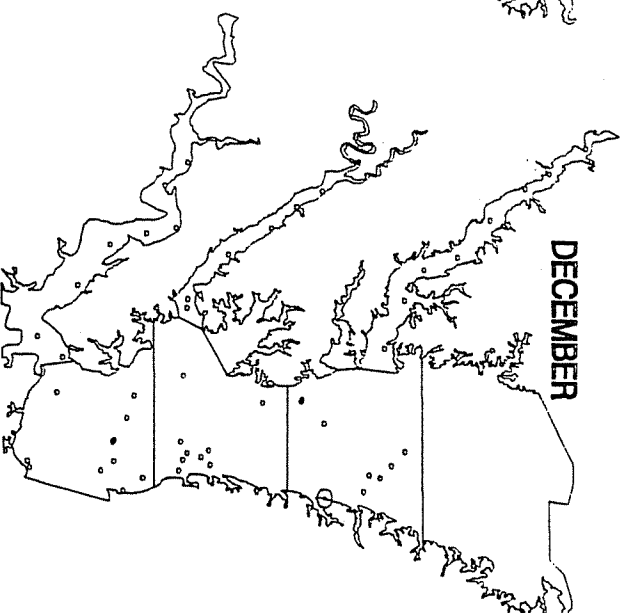
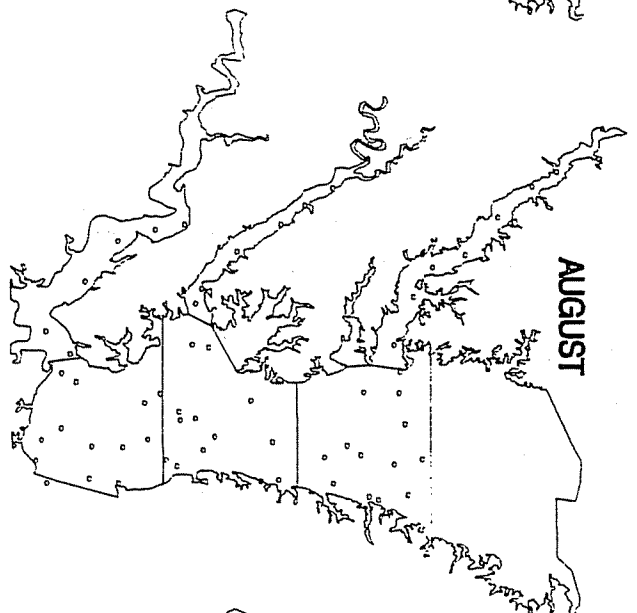
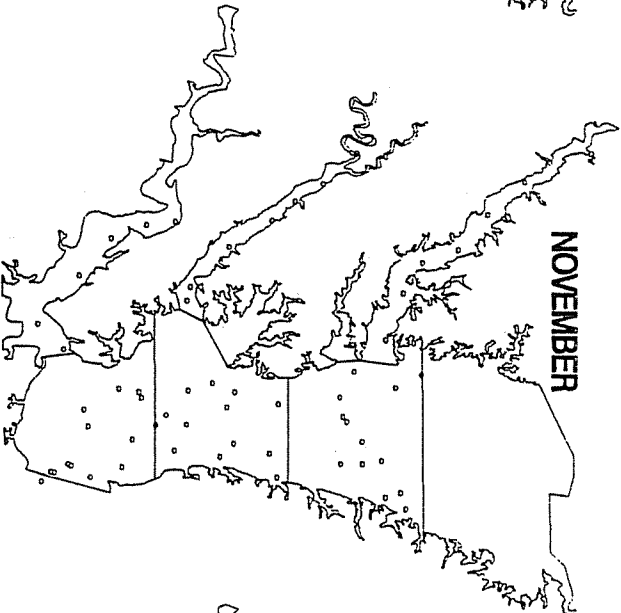
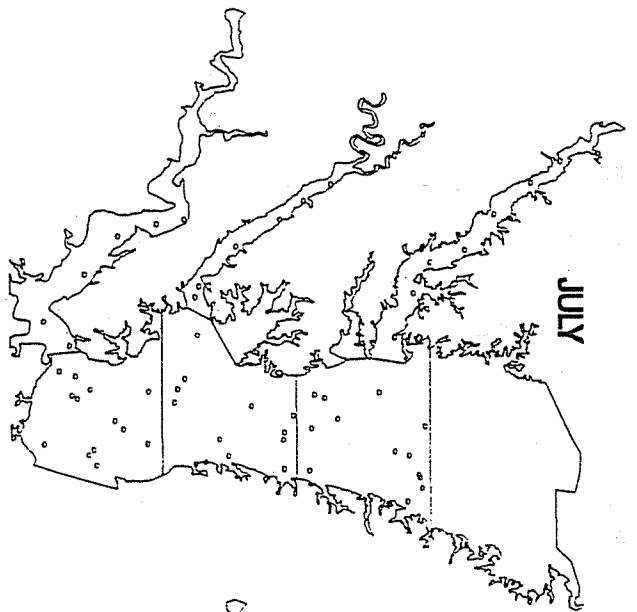
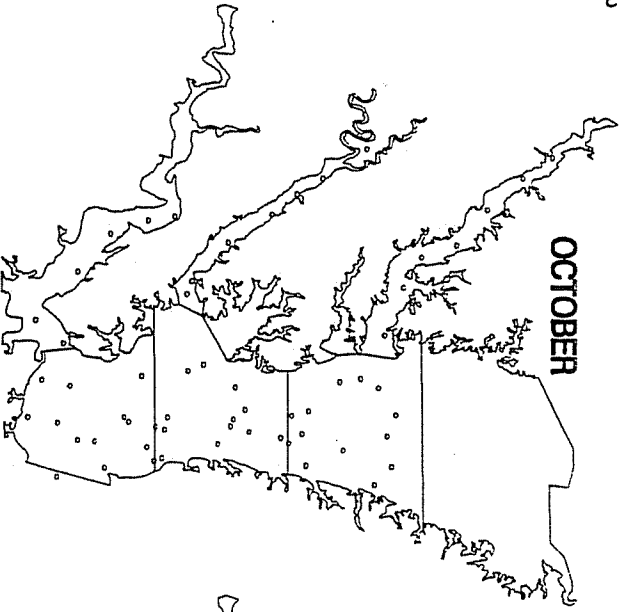
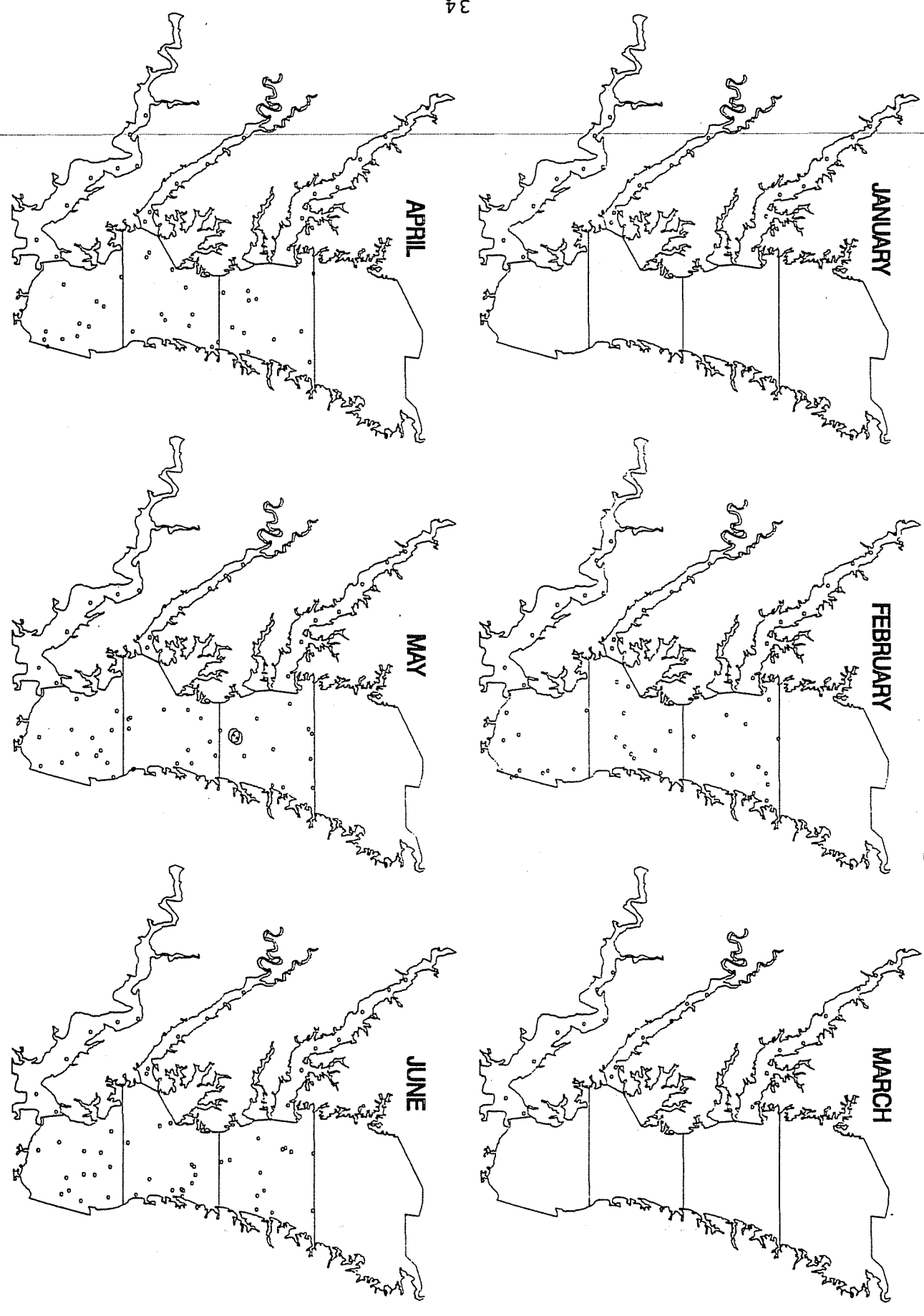




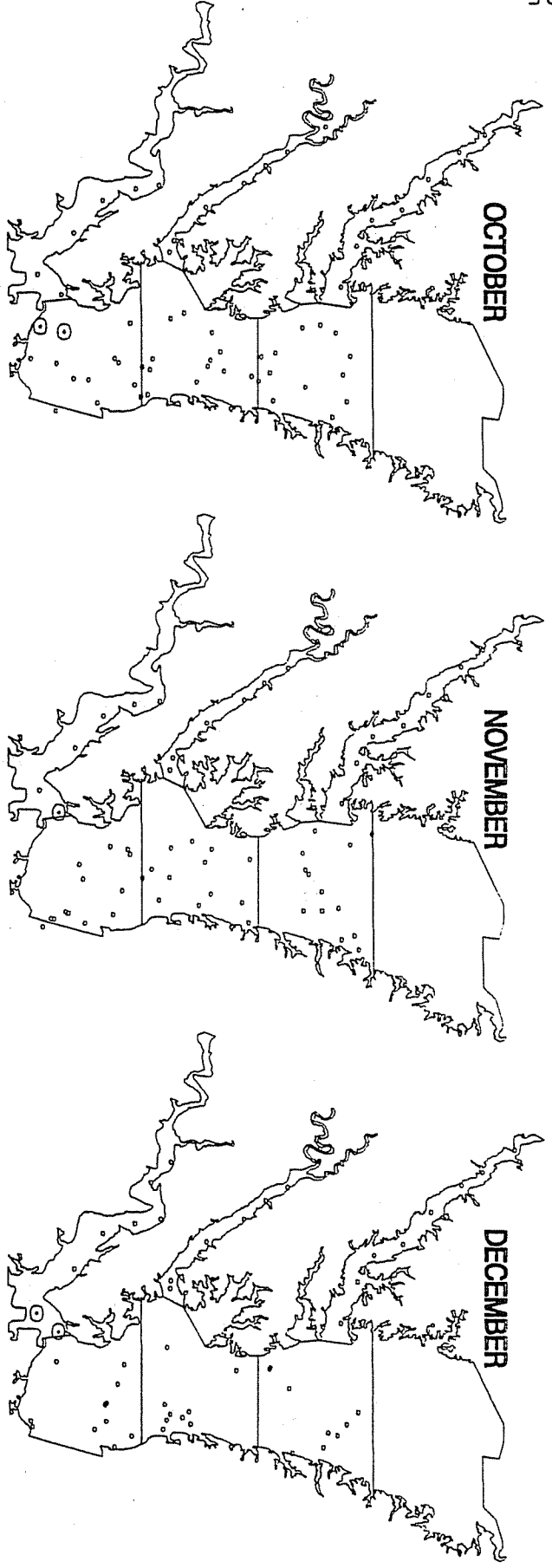
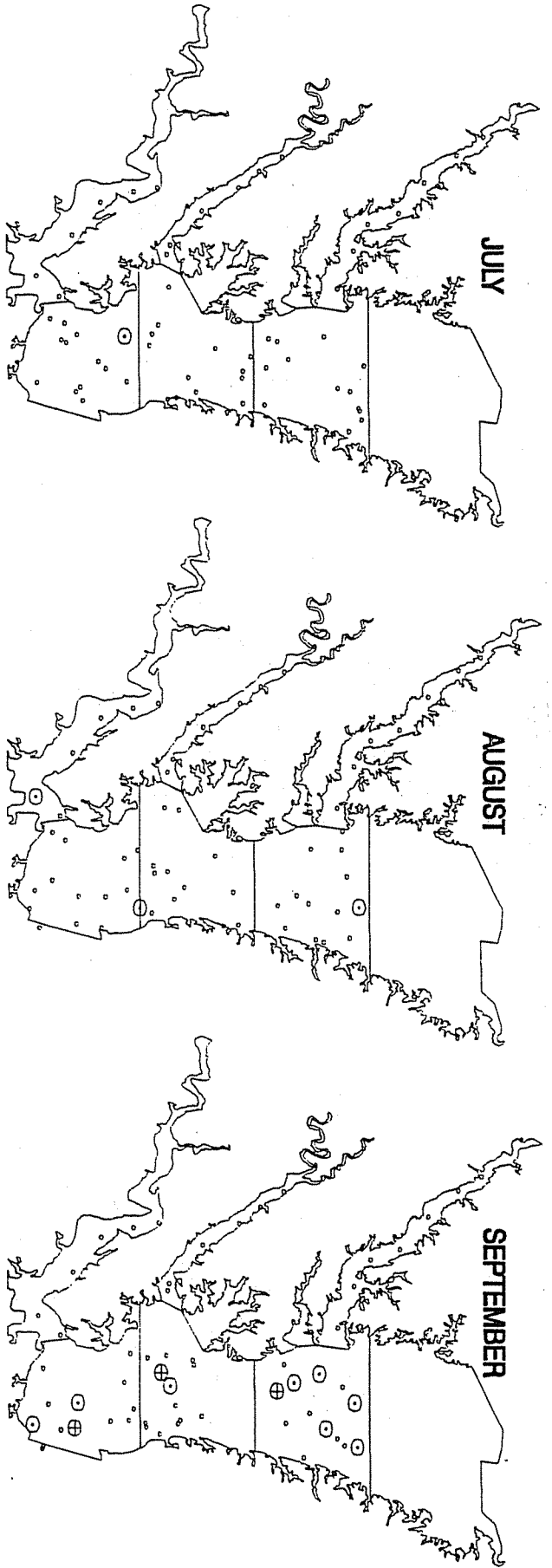
Figure 20

# Atlantic Thread Herring



NUMBER CAUGHT: • = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

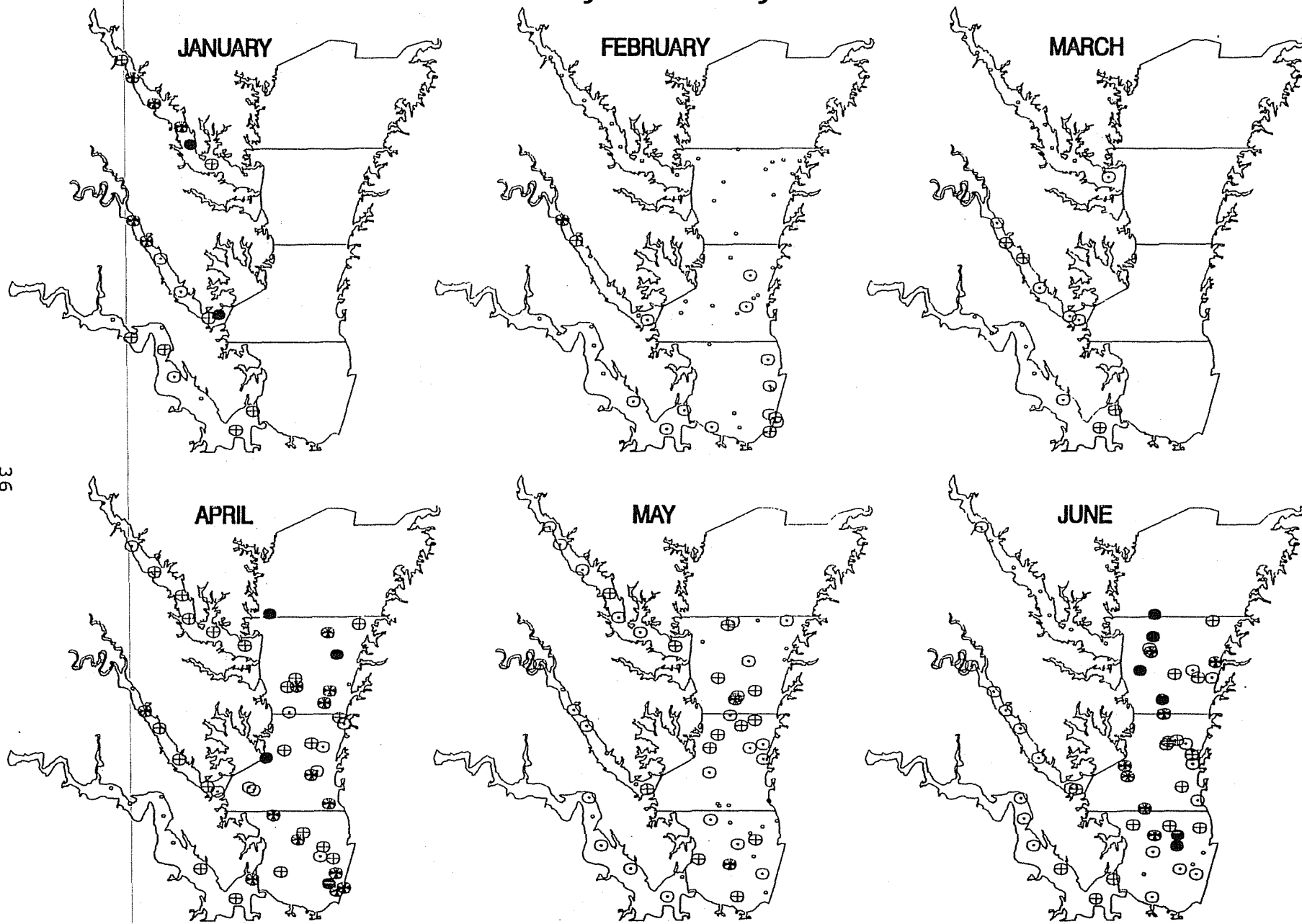
Figure 20



NUMBER CAUGHT: . = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 21

# Bay Anchovy



NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 21

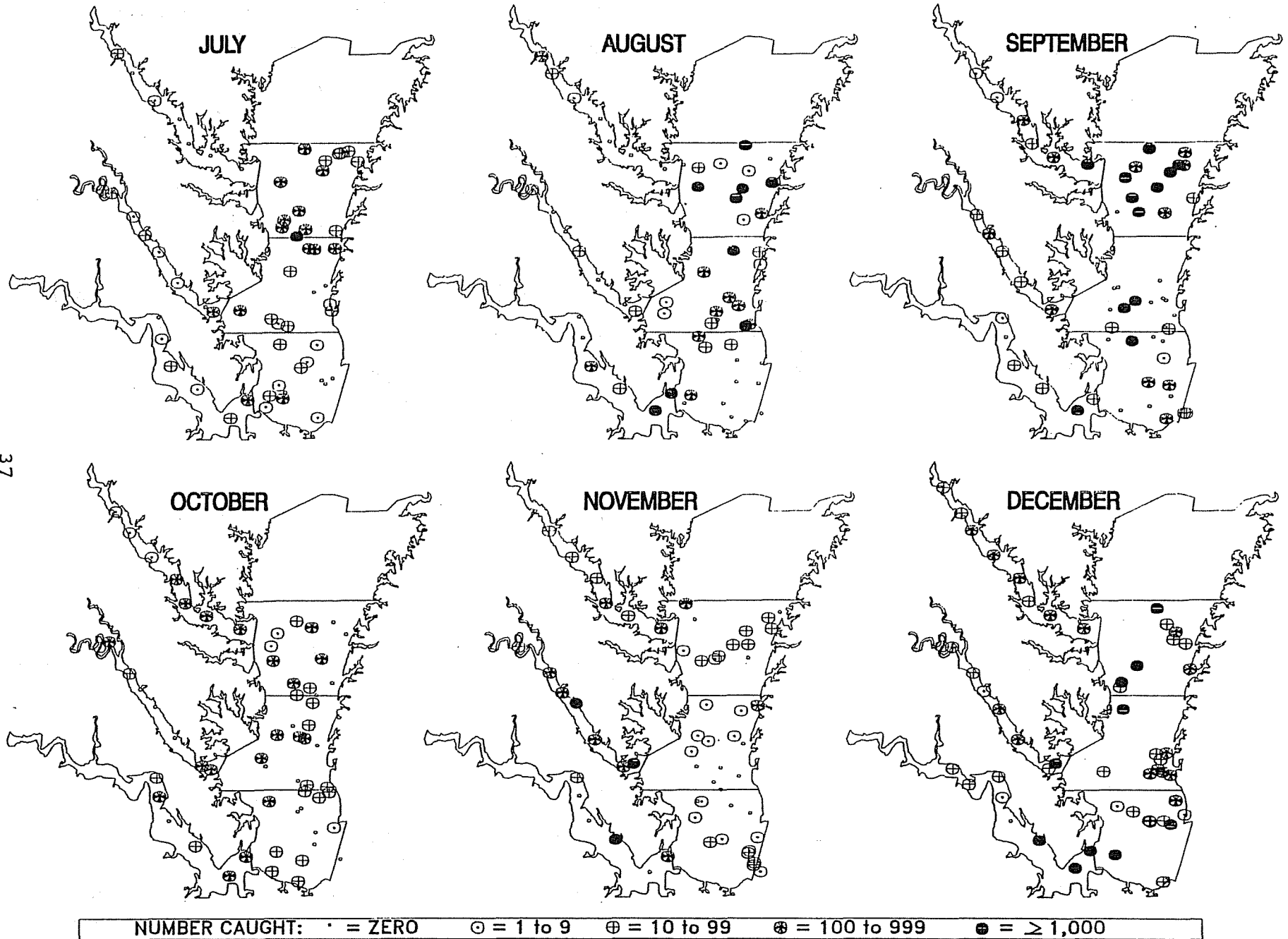


Figure 22

# Black Seabass

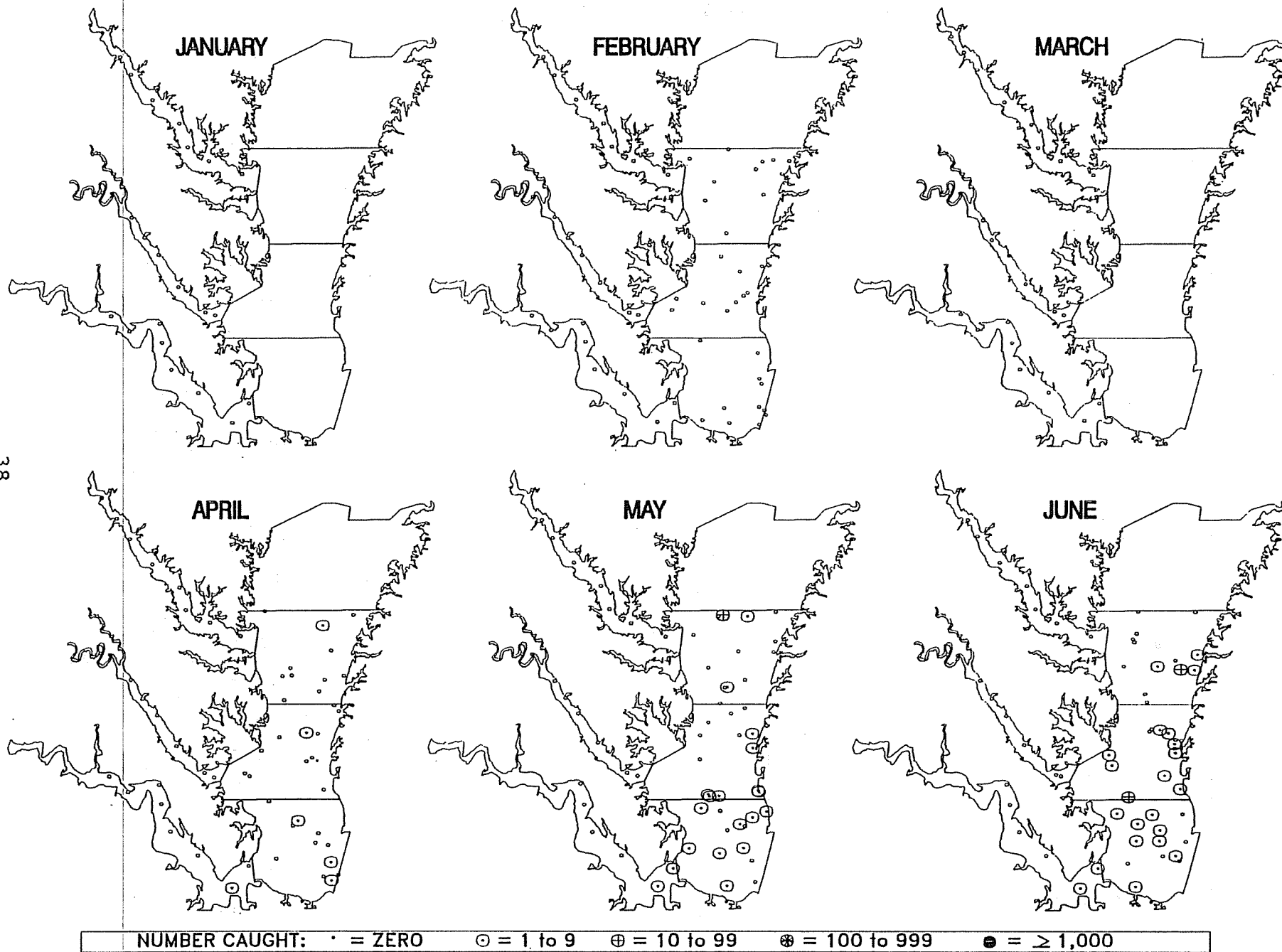


Figure 22

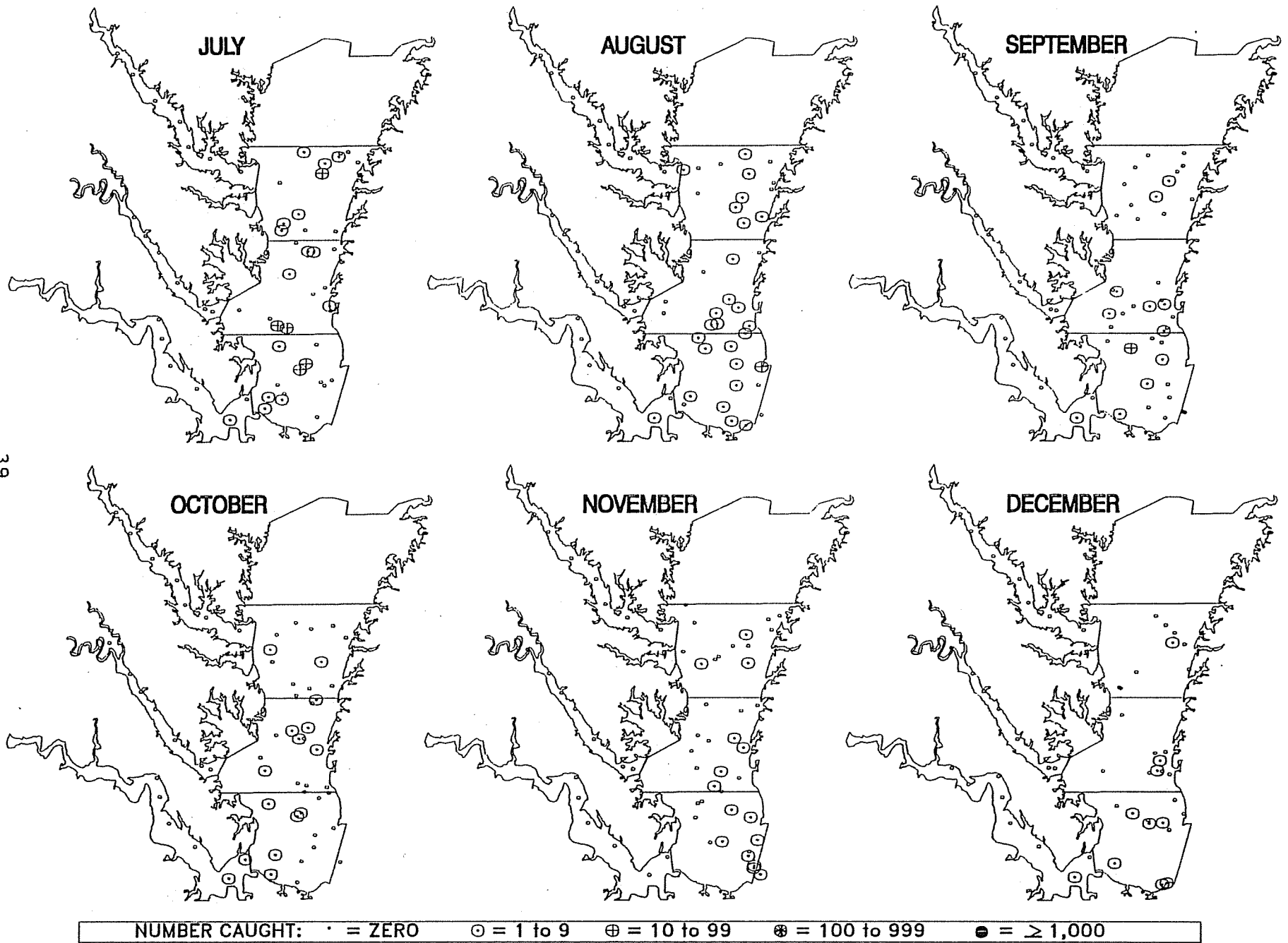
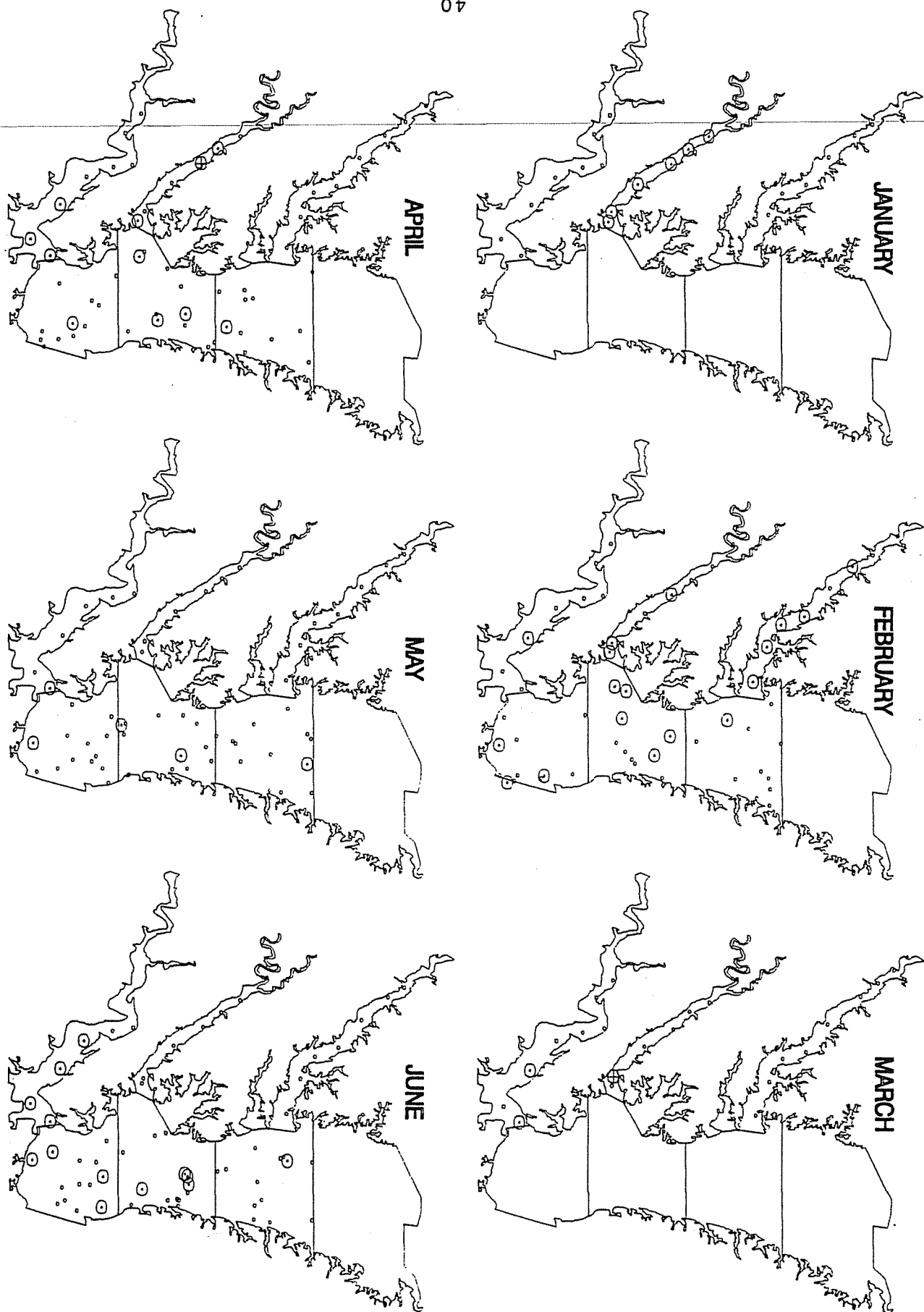


Figure 23

# Blackcheek Tonguefish



NUMBER CAUGHT: • = ZERO

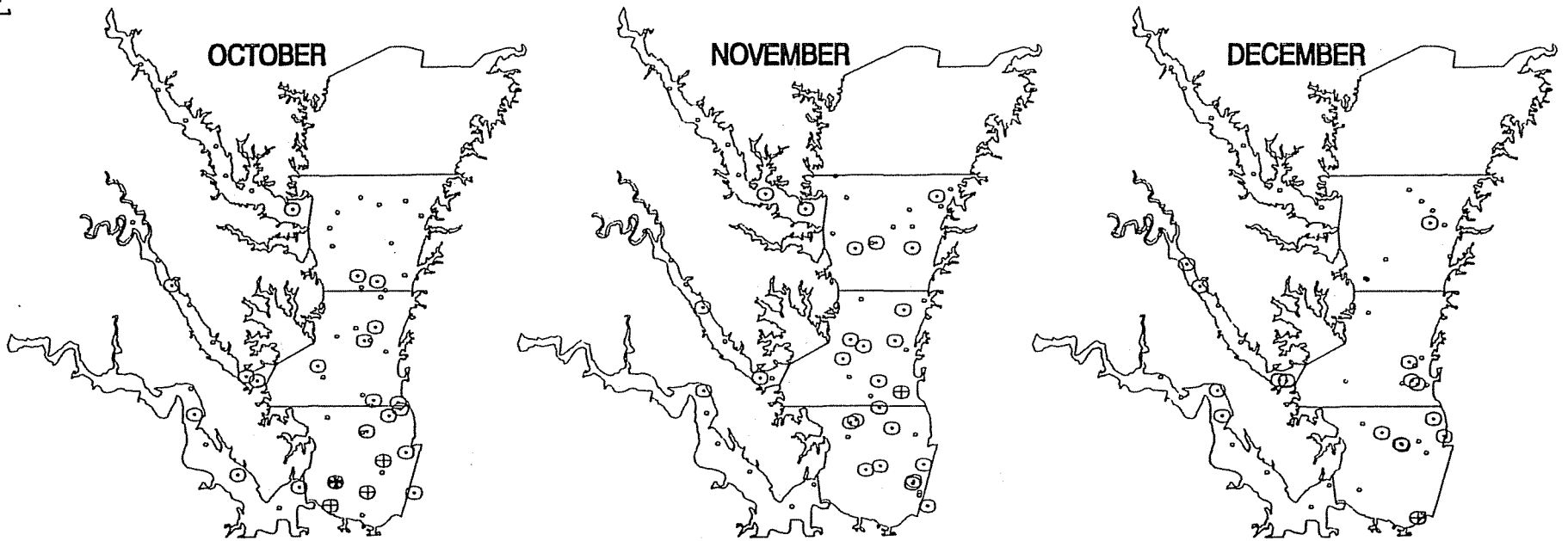
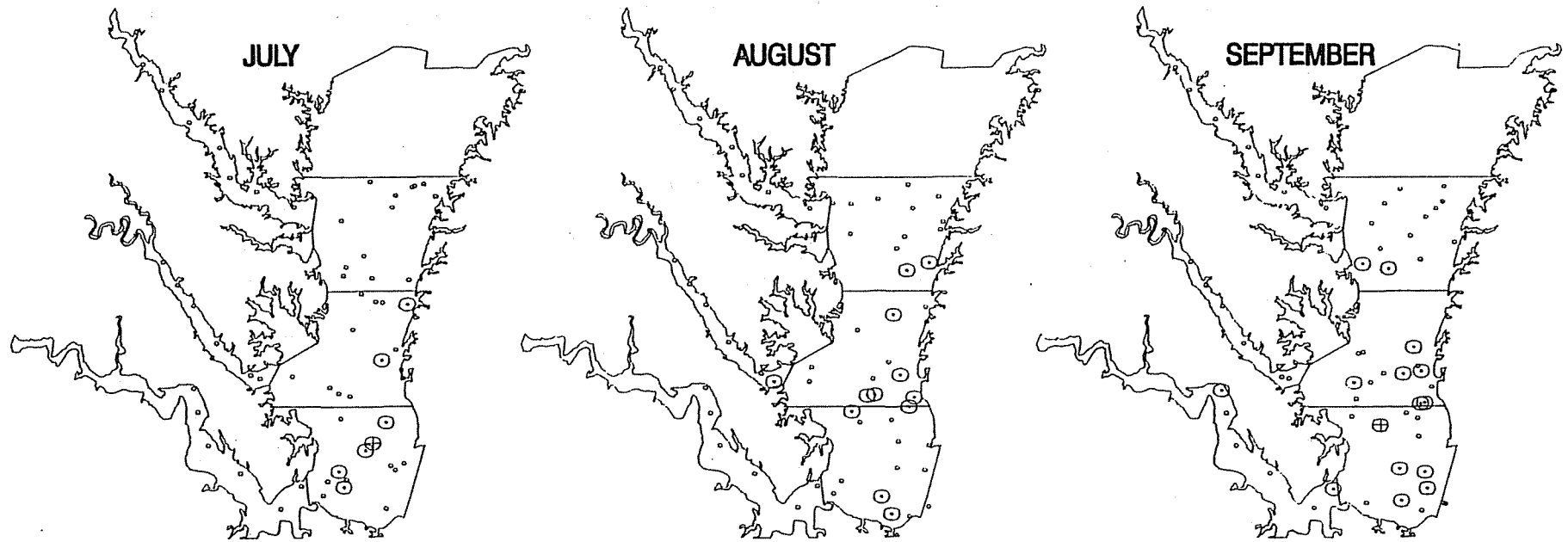
⊙ = 1 to 9

⊕ = 10 to 99

⊕ = 100 to 999

● = ≥ 1,000

Figure 23

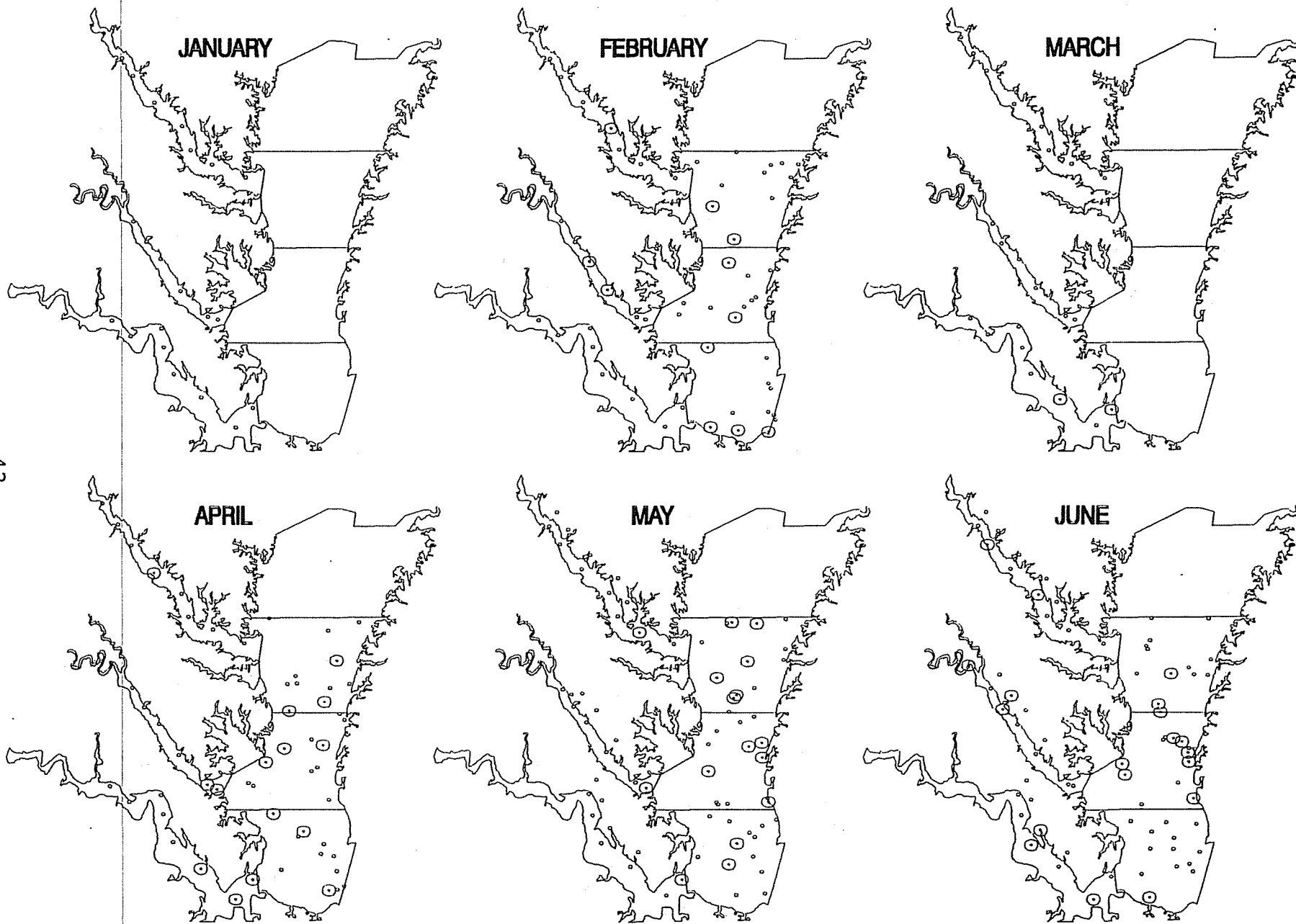


NUMBER CAUGHT: · = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000



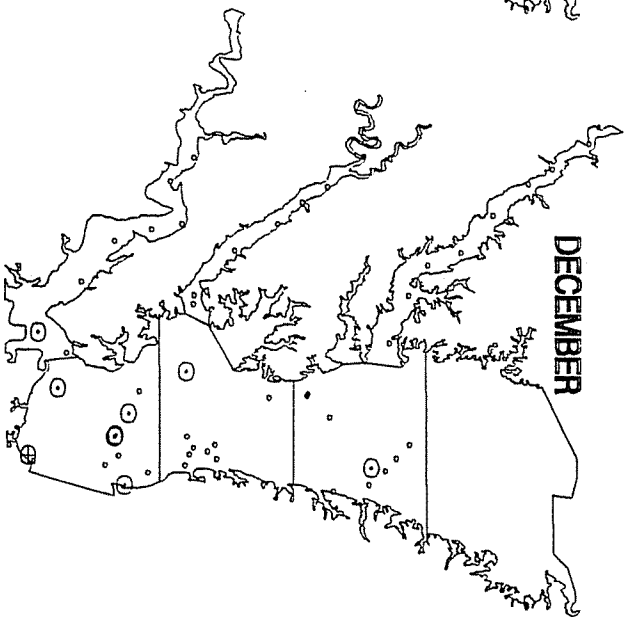
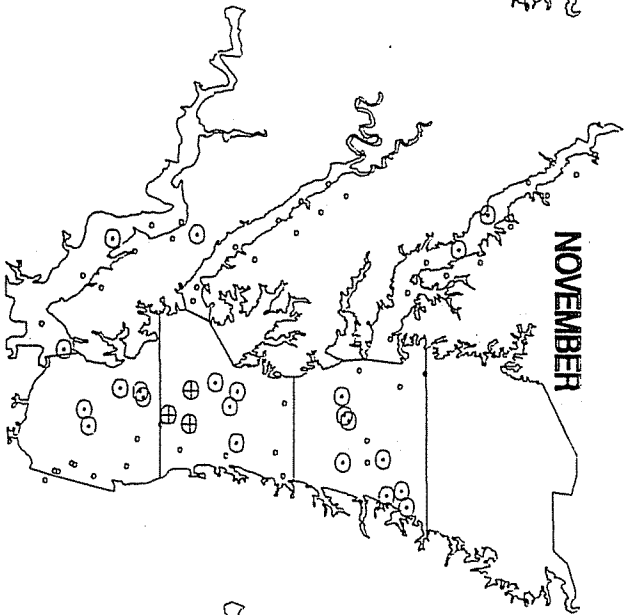
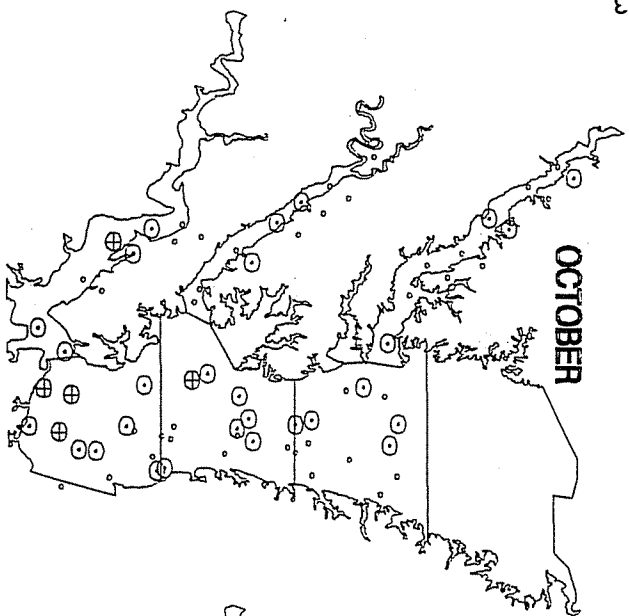
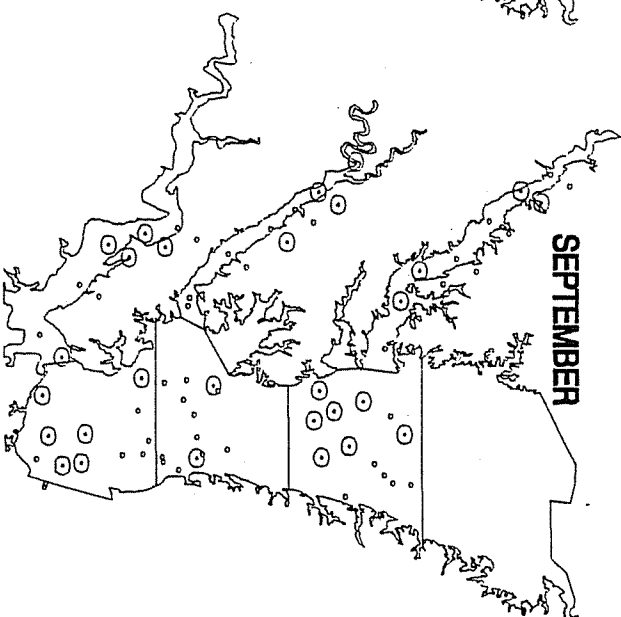
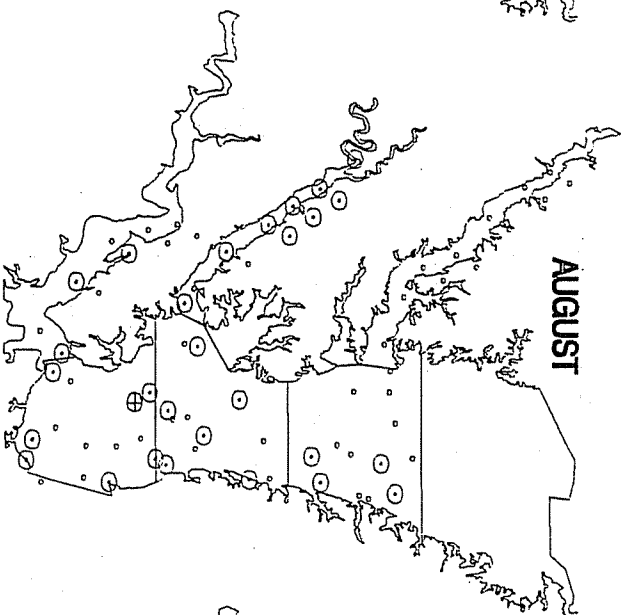
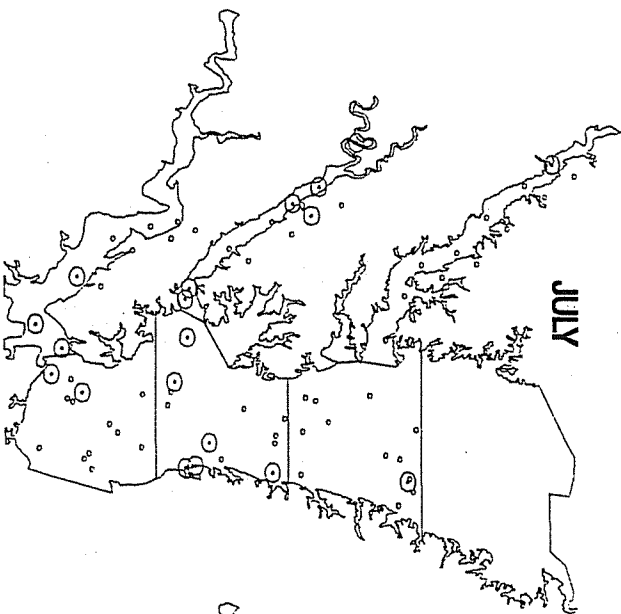
Figure 24

# Blue Crab – Adult Female



NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    \* = 100 to 999    ● = ≥ 1,000

Figure 24



NUMBER CAUGHT: • = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 25

# Blue Crab – Juvenile Female

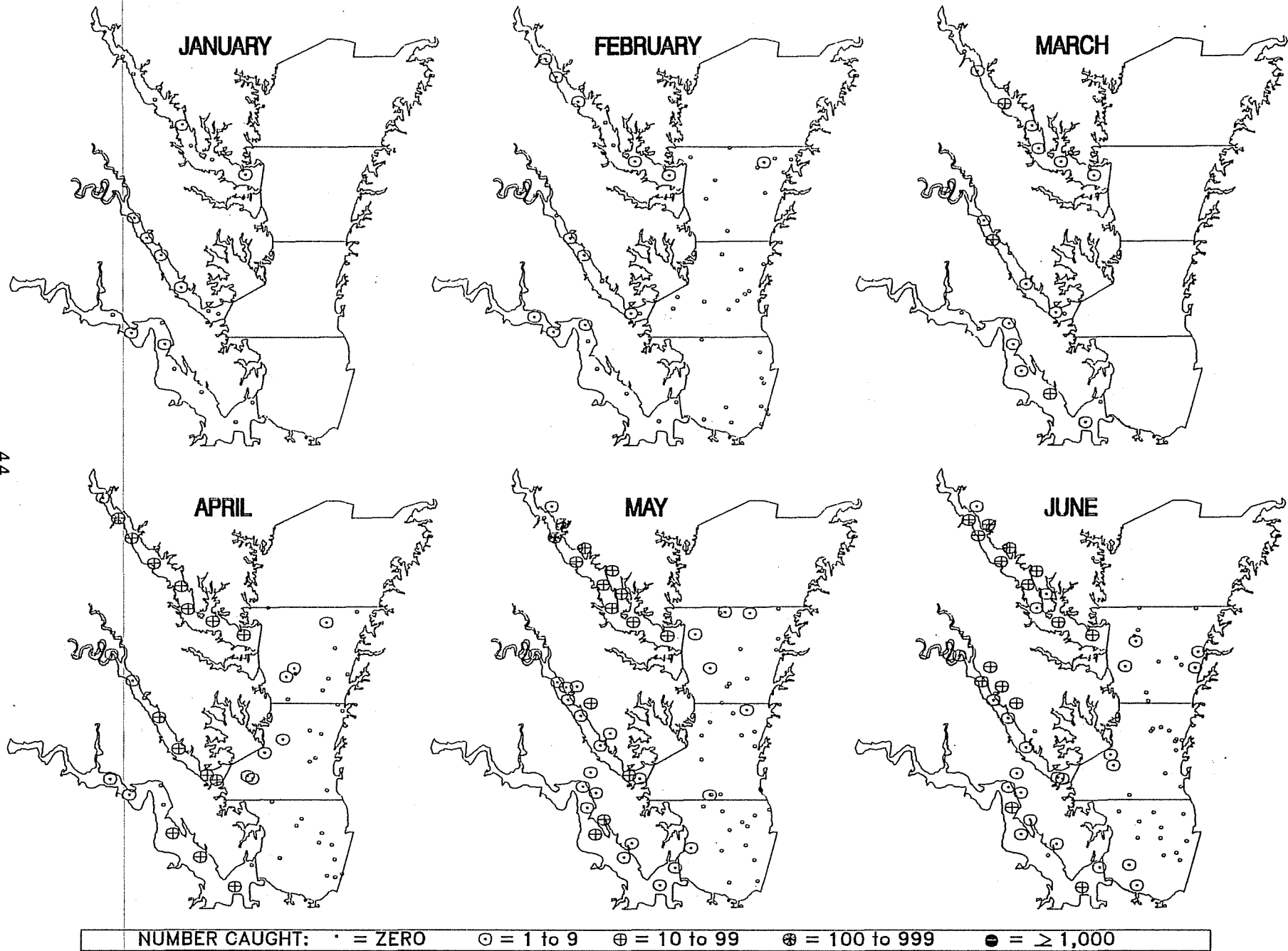
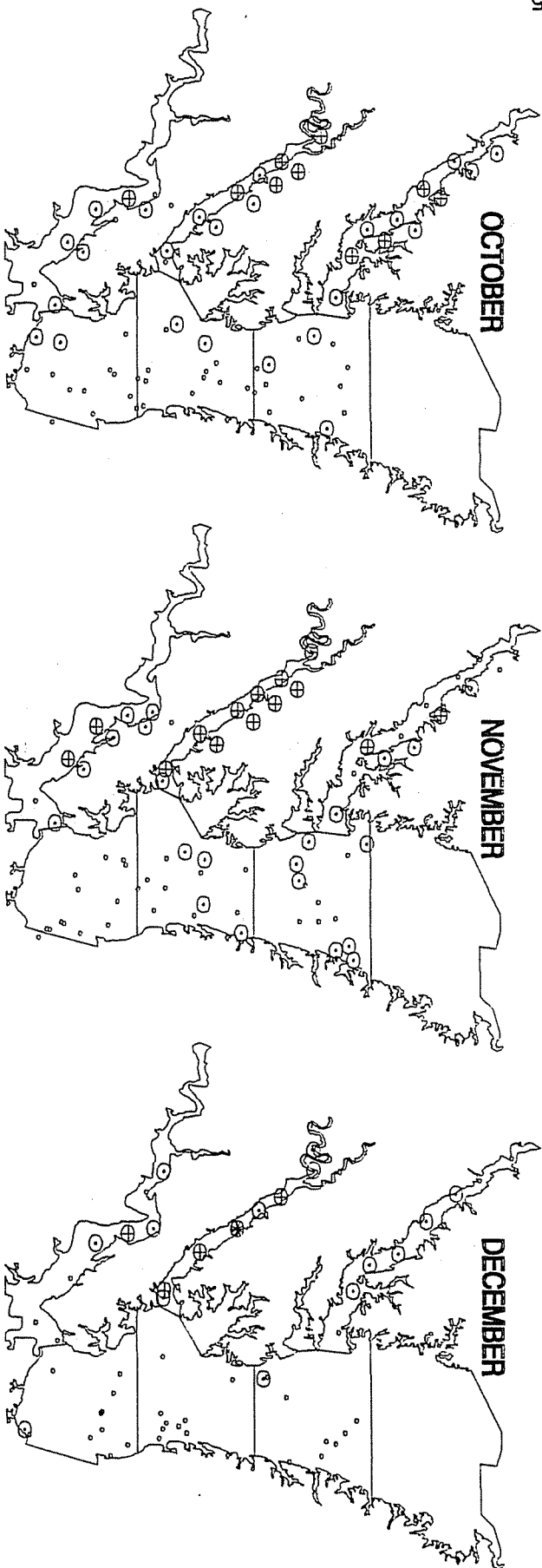
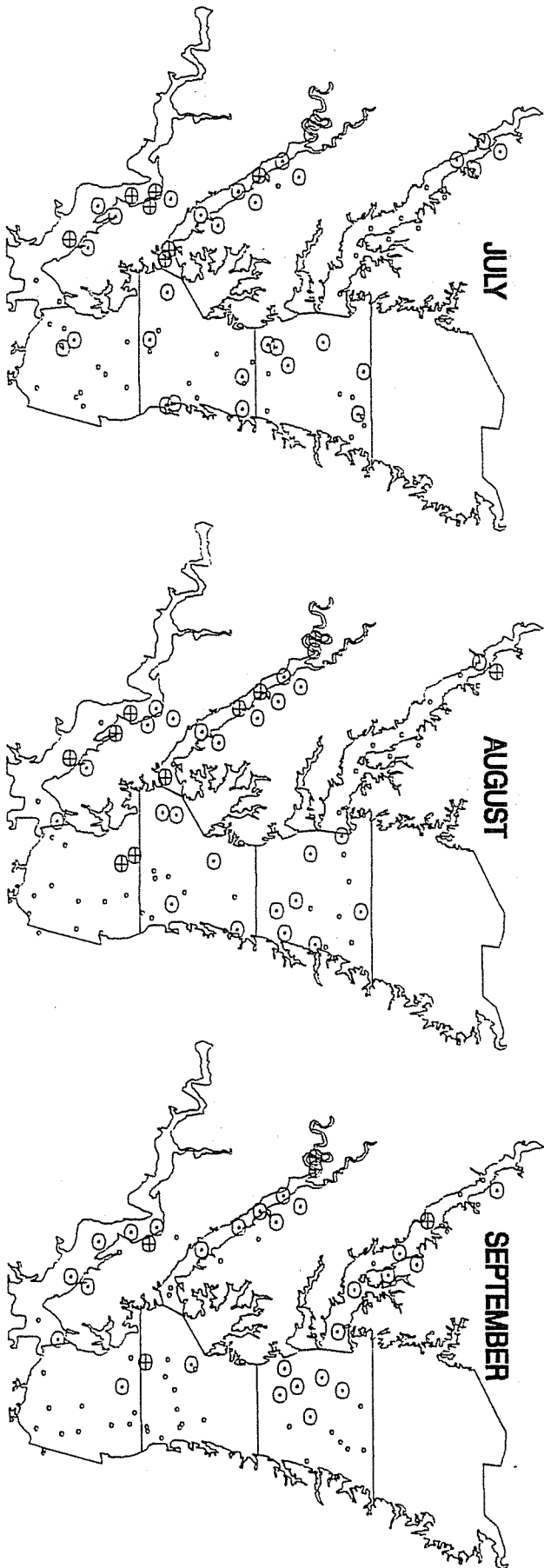


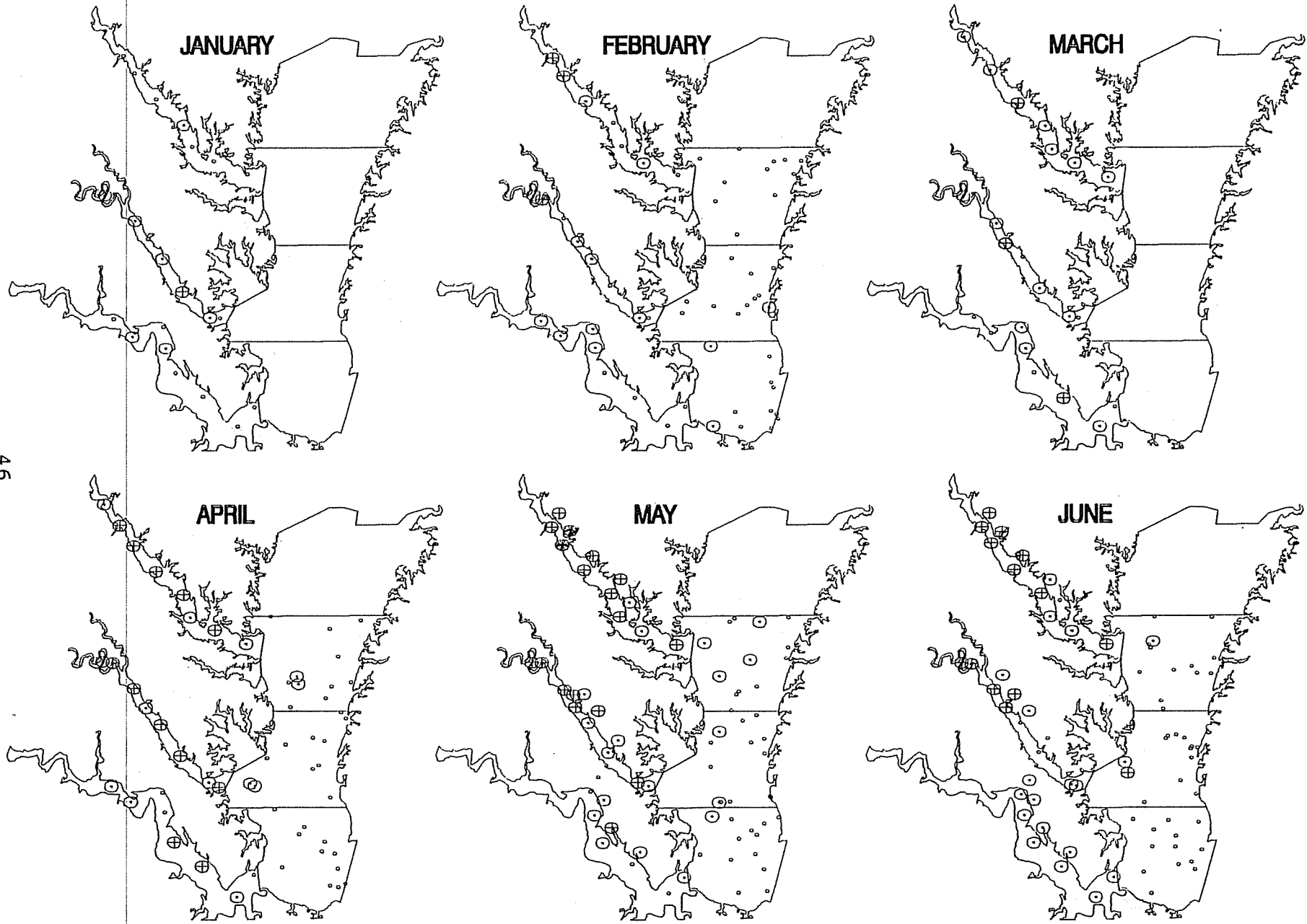
Figure 25



NUMBER CAUGHT: · = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ⊙ = ≥ 1,000

Figure 26

# Blue Crab — Male



NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 26

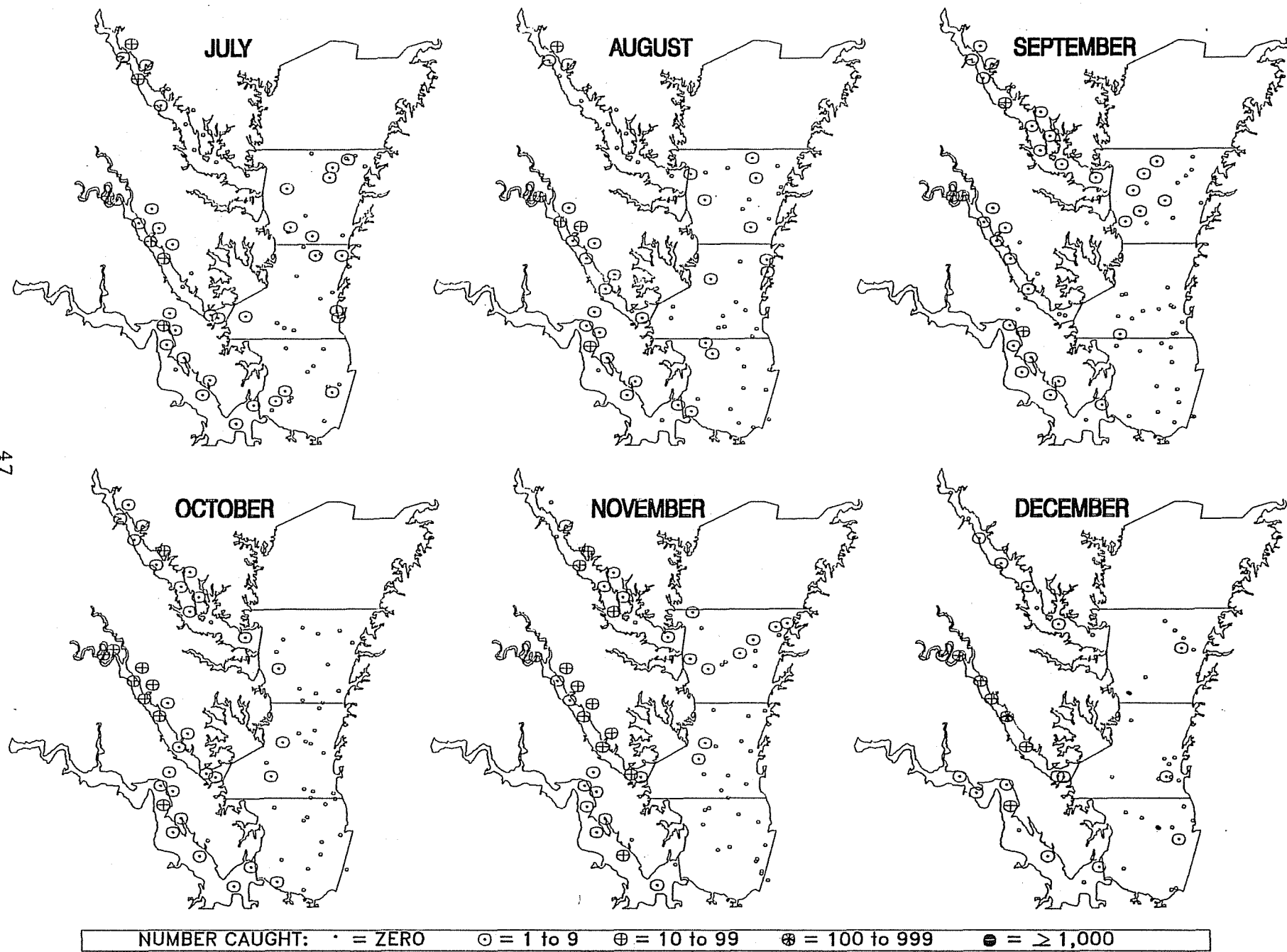
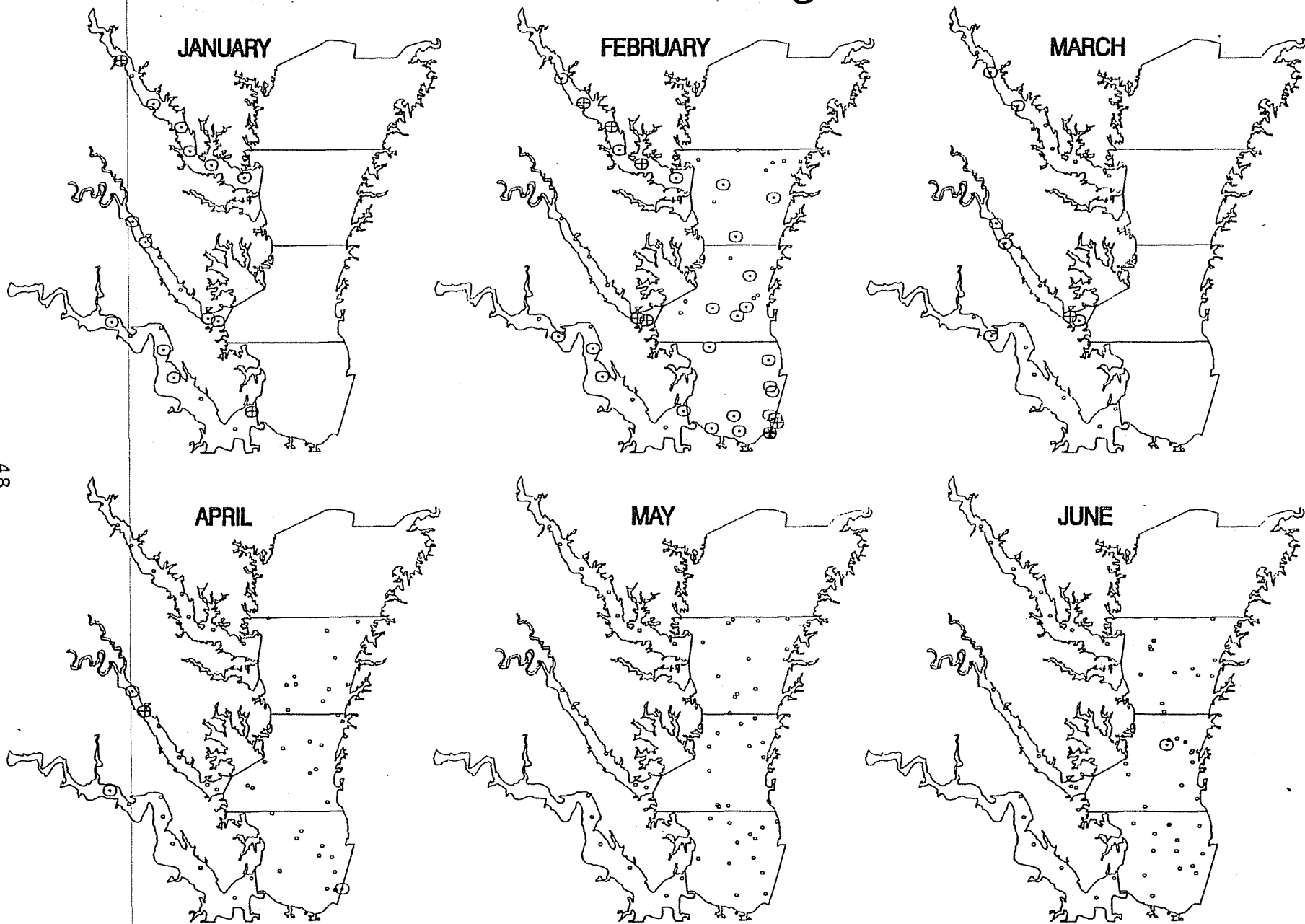


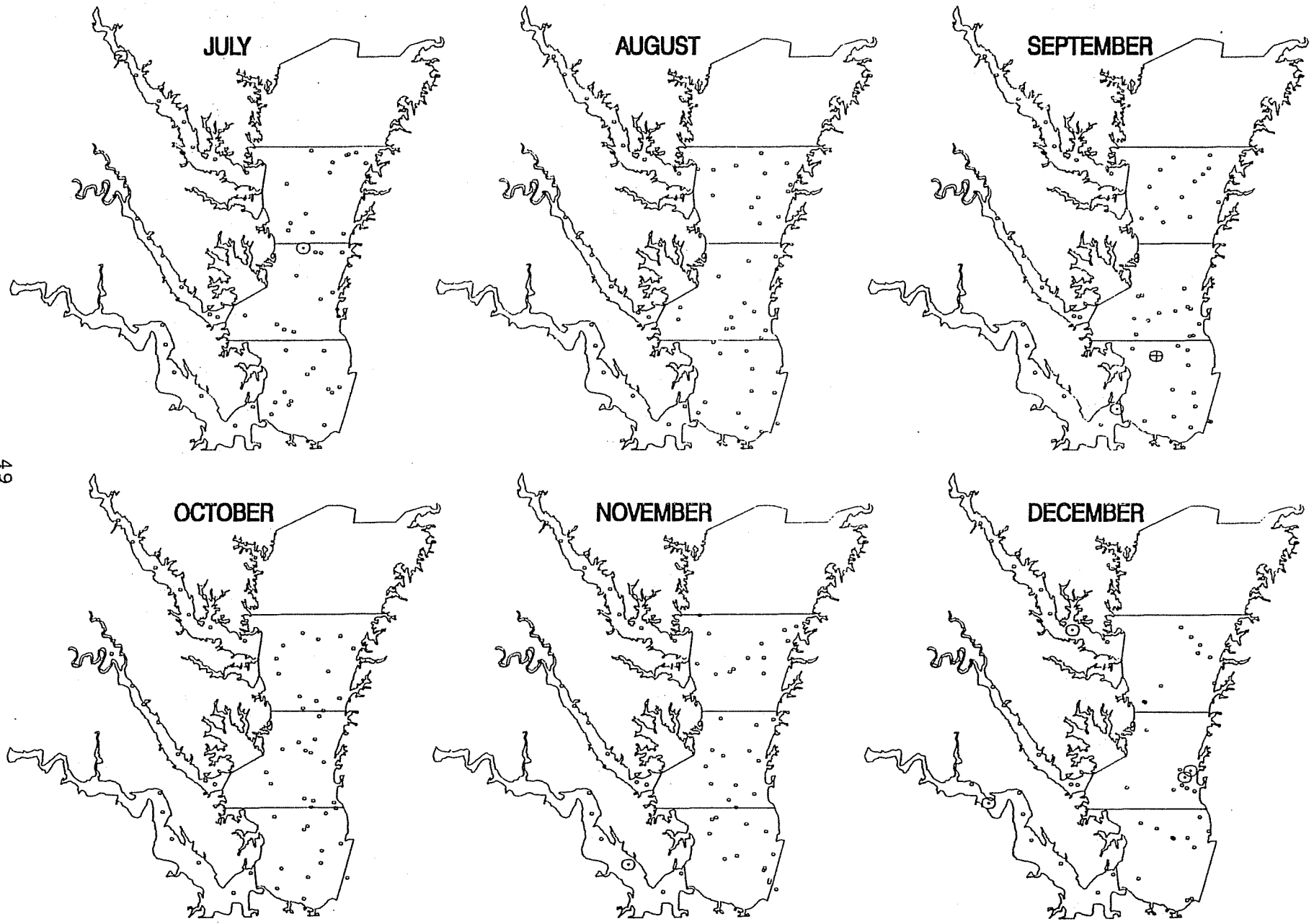
Figure 27

# Blueback Herring



NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 27



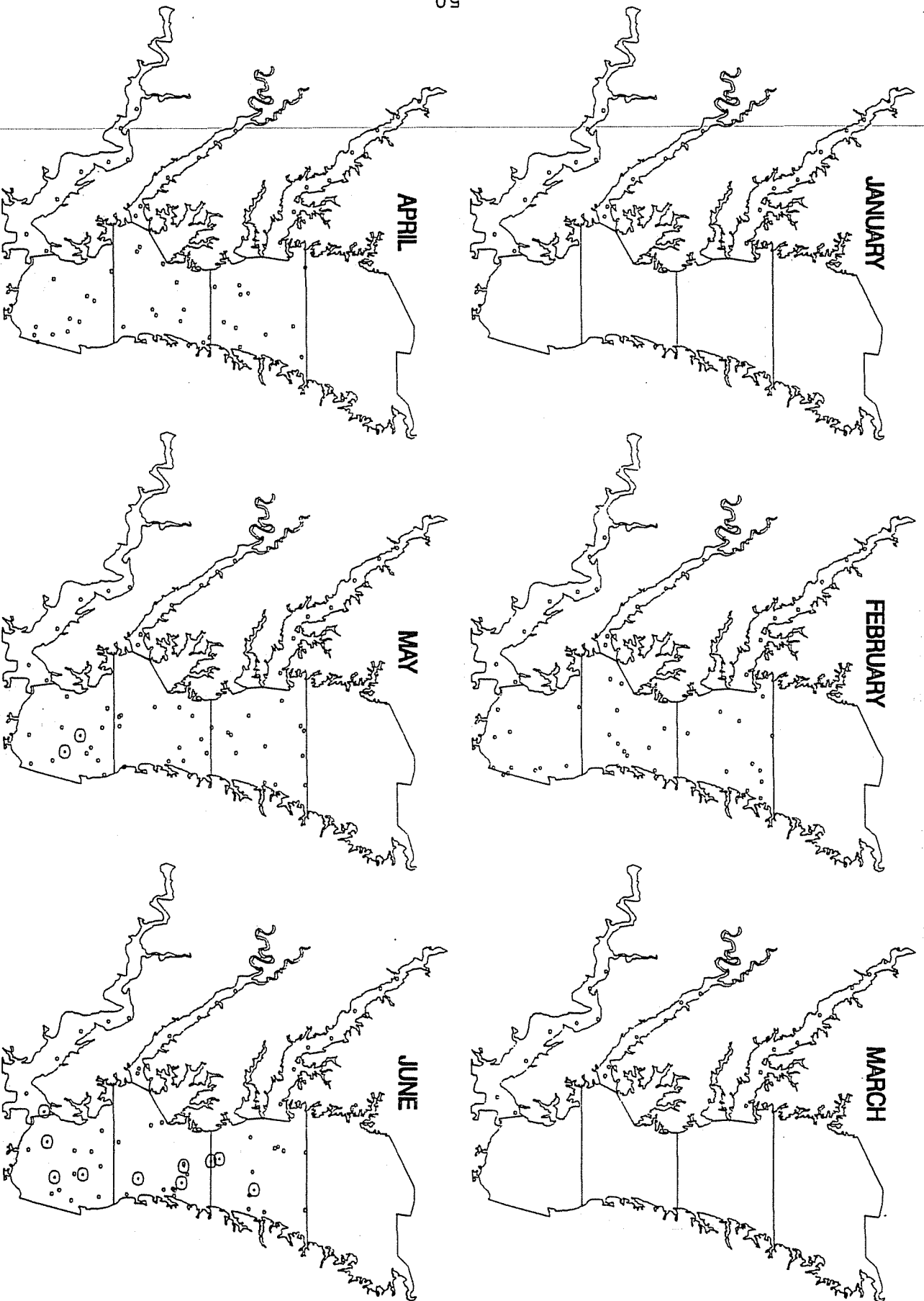
49

NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000



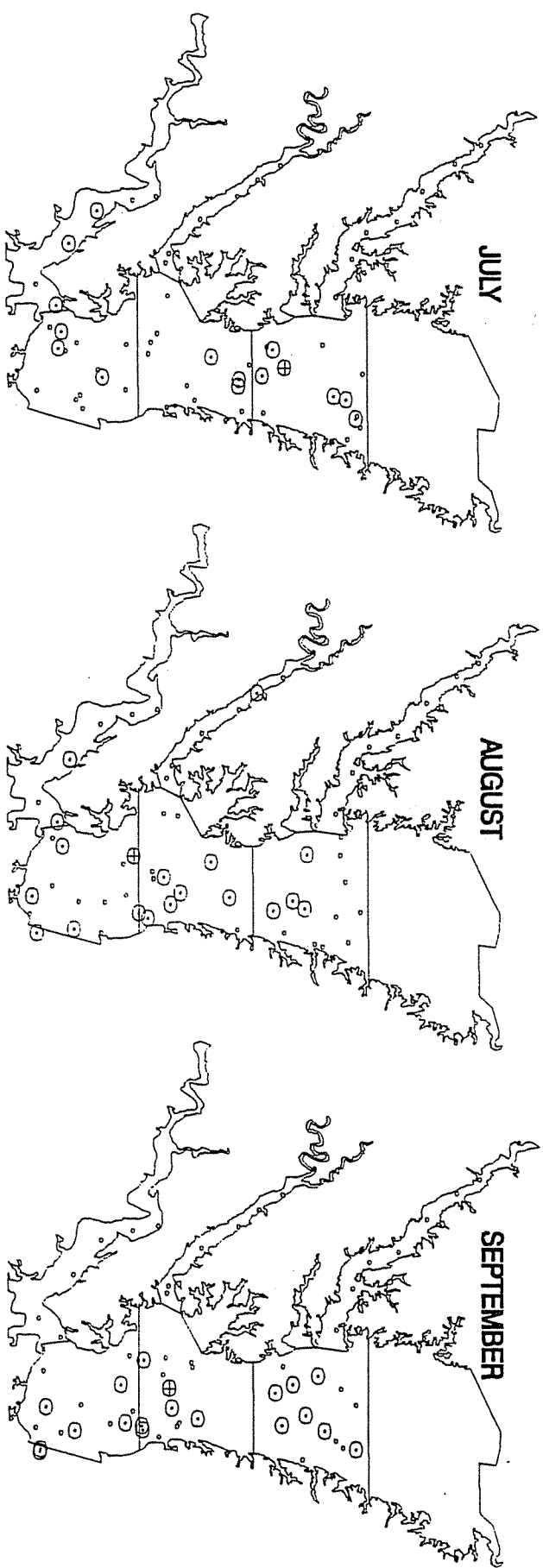
Figure 28

# Butterfish

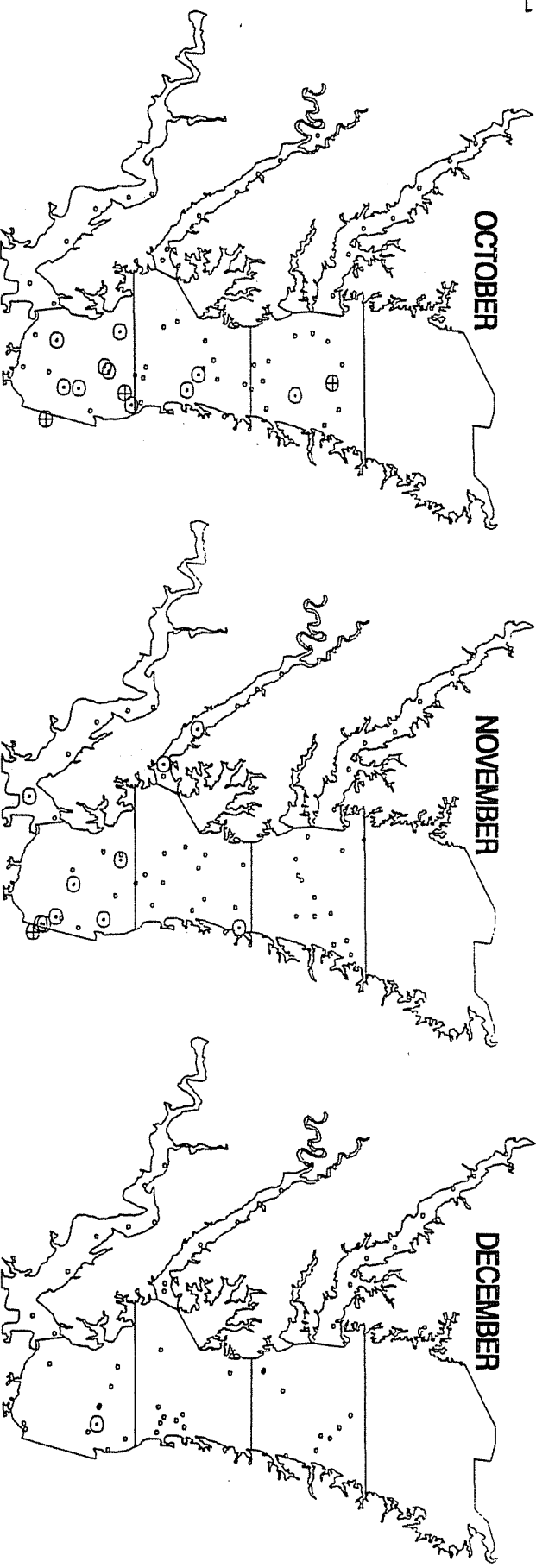


NUMBER CAUGHT: . = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 28



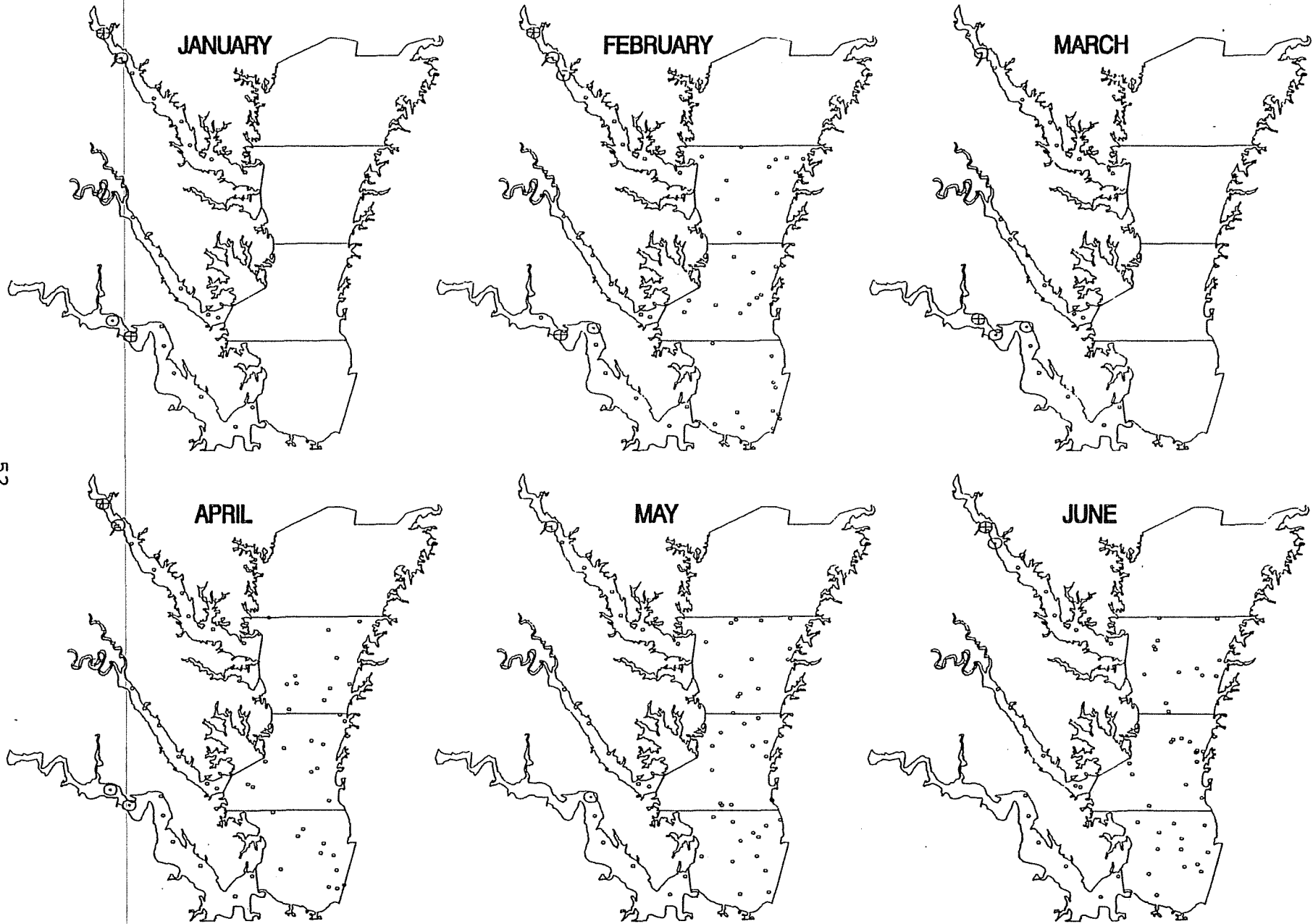
51



NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ⊚ = ≥ 1,000

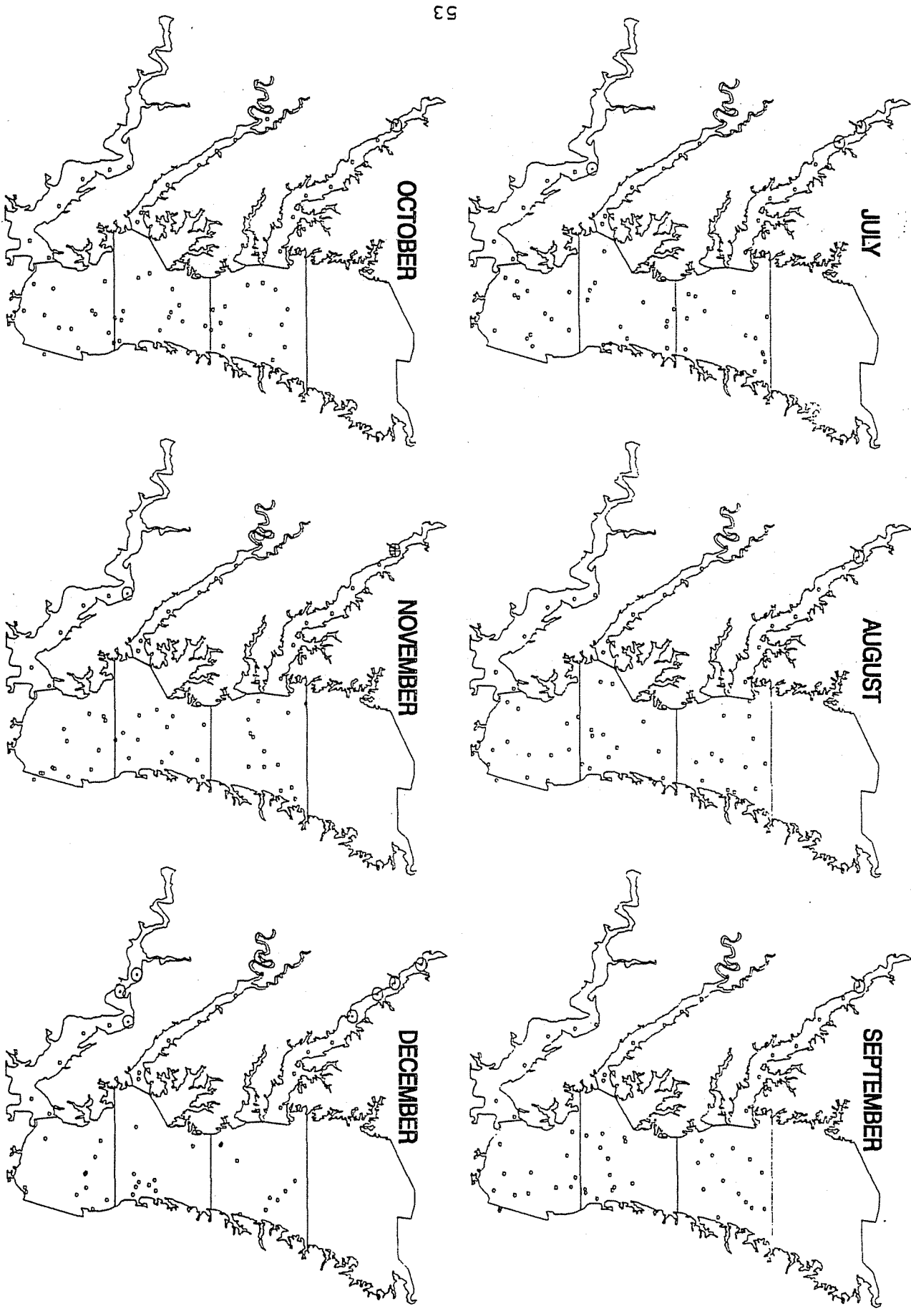
Figure 29

# Channel Catfish



NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

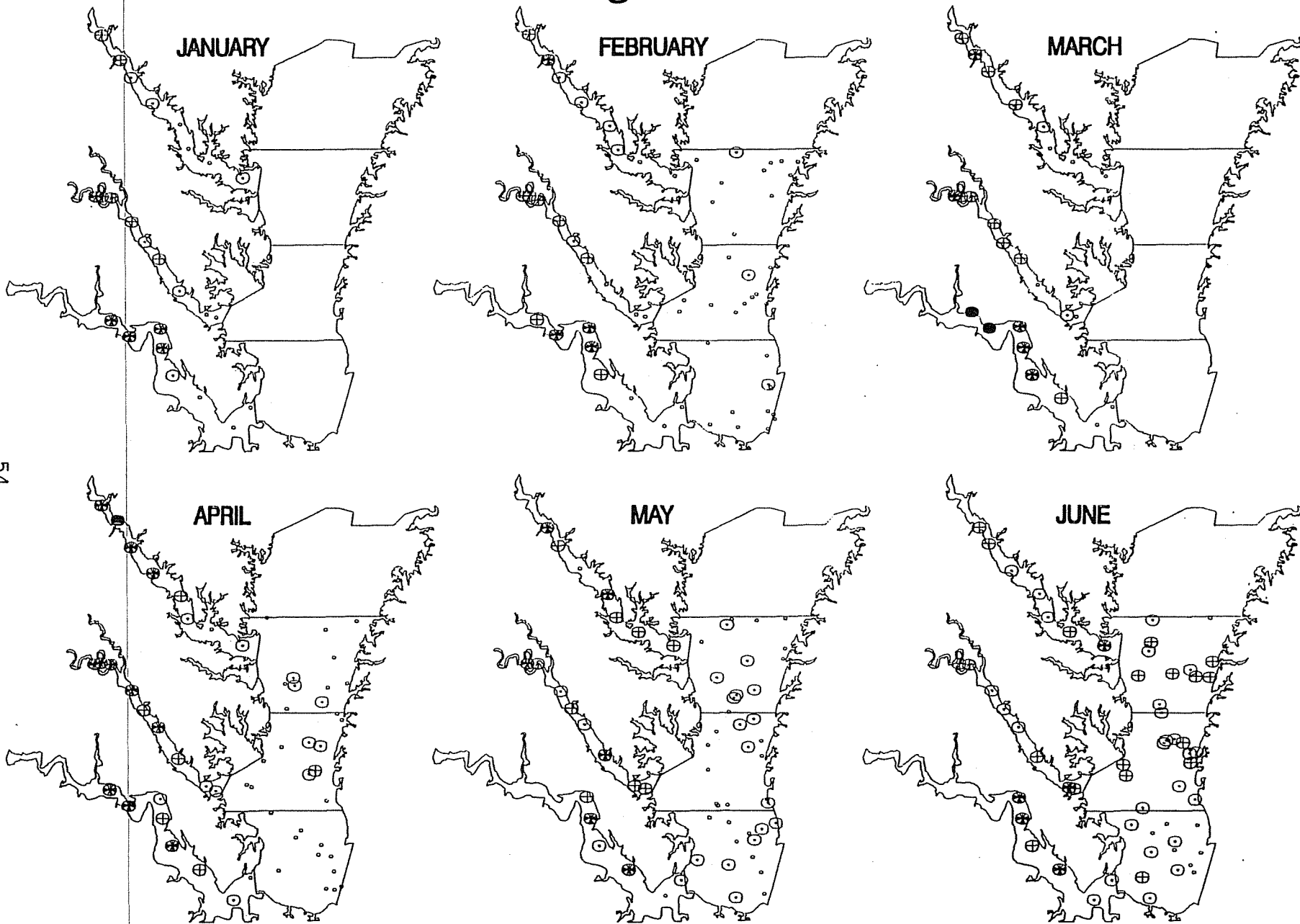
Figure 29



NUMBER CAUGHT: • = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

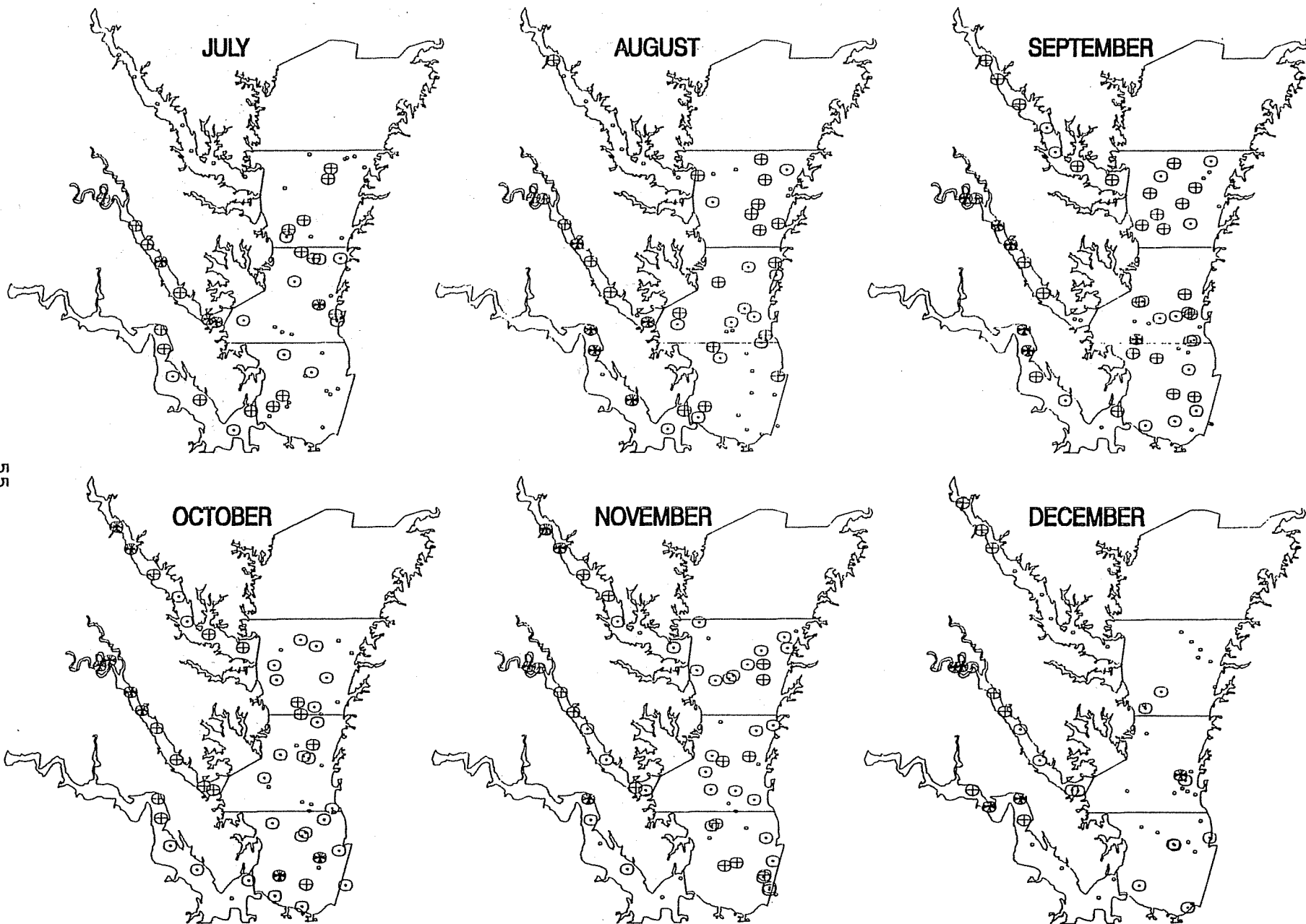
Figure 30

# Hogchoker



NUMBER CAUGHT: • = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

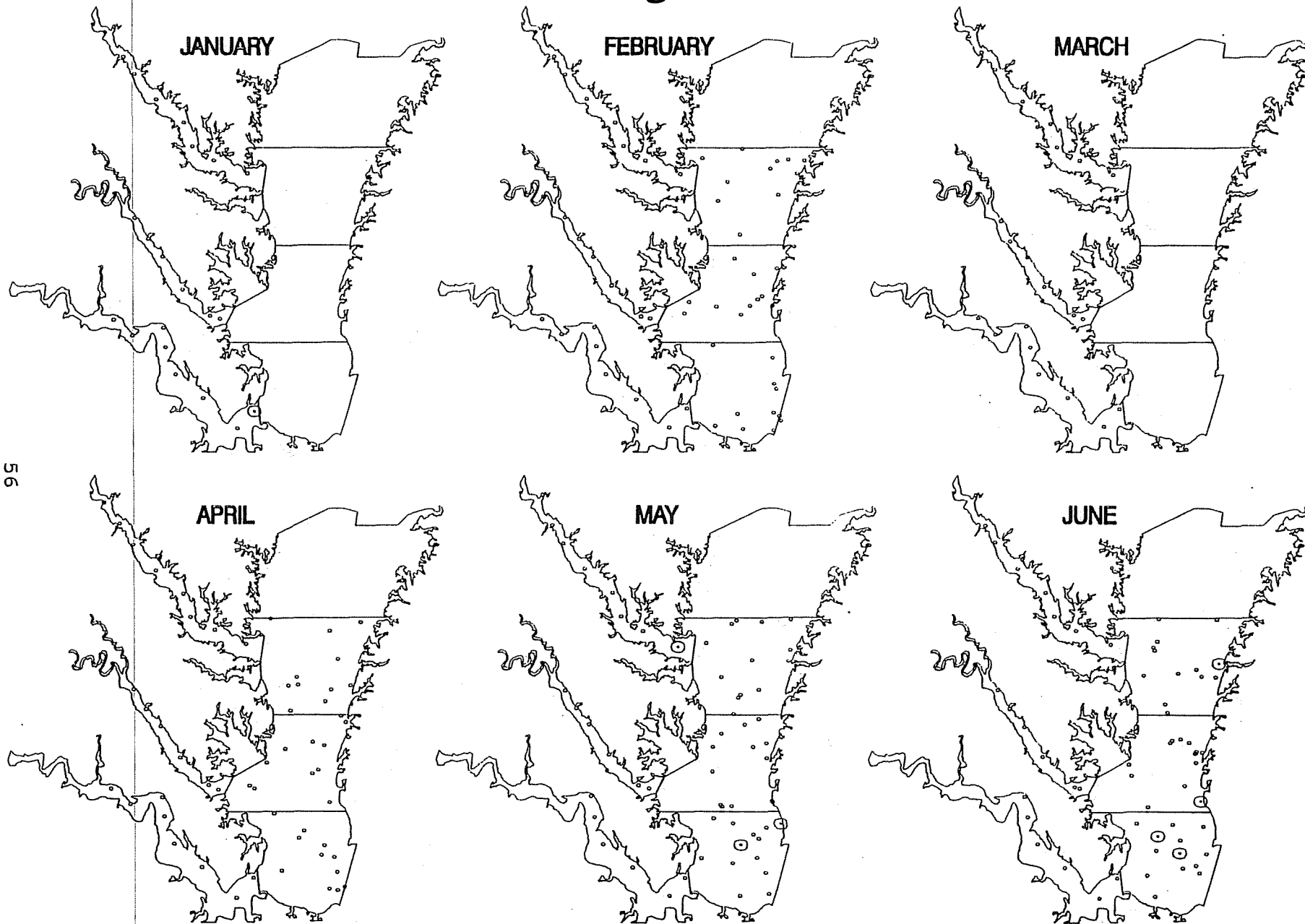
Figure 30



NUMBER CAUGHT: · = ZERO    ⊕ = 1 to 9    ⊕⊕ = 10 to 99    ⊕⊕⊙ = 100 to 999    ● = ≥ 1,000

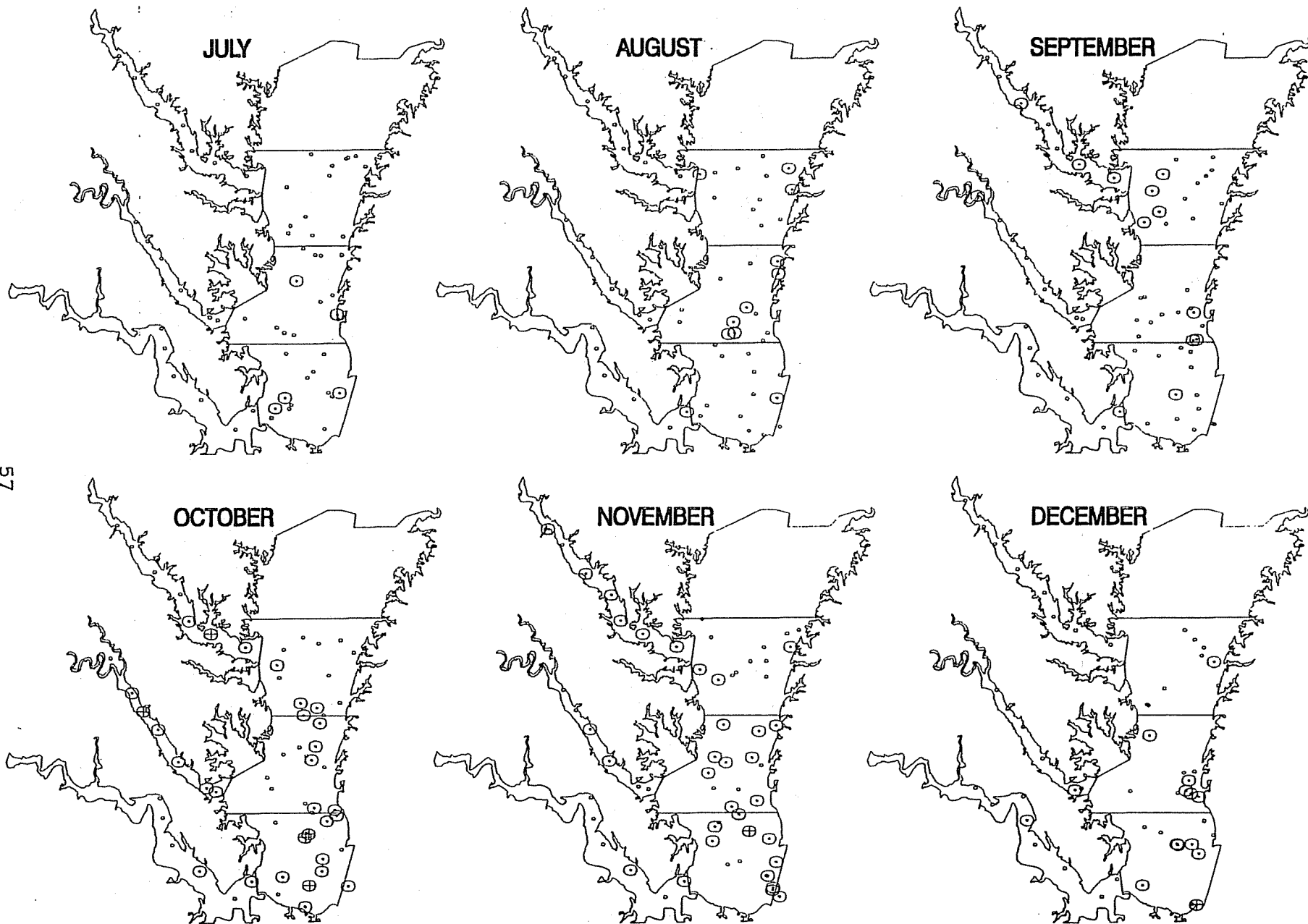
Figure 31

# Kingfish



NUMBER CAUGHT: · = ZERO   ○ = 1 to 9   ⊕ = 10 to 99   ⊛ = 100 to 999   ● = ≥ 1,000

Figure 31



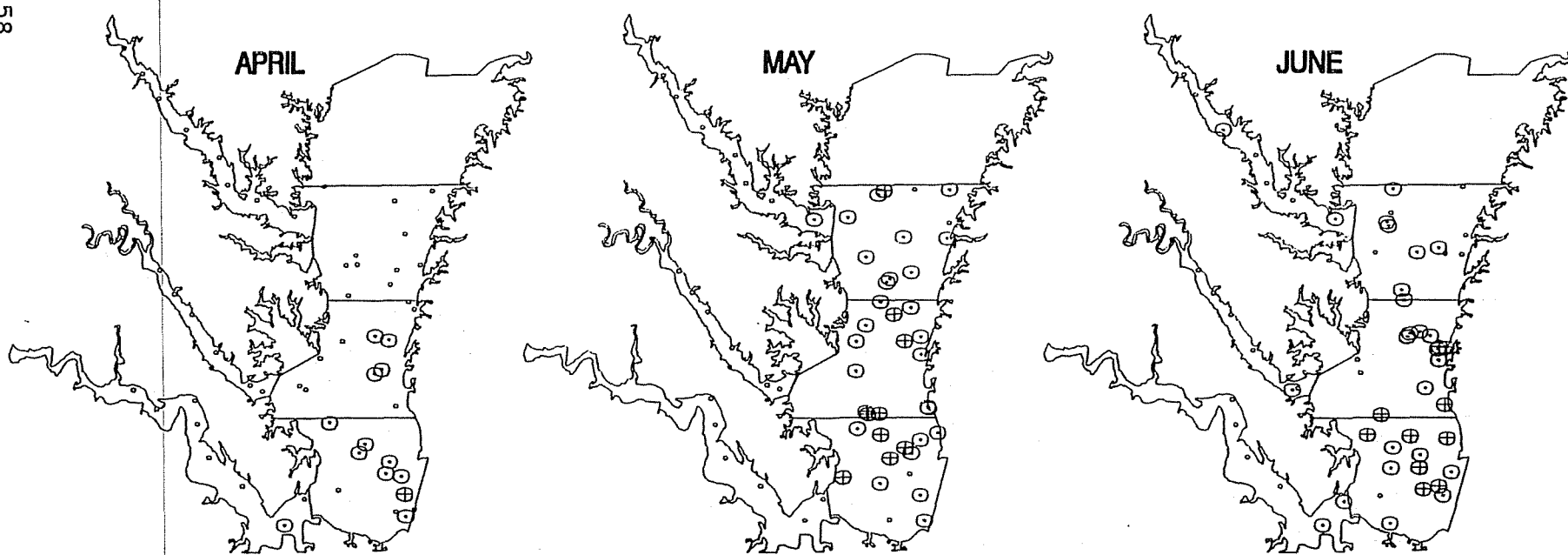
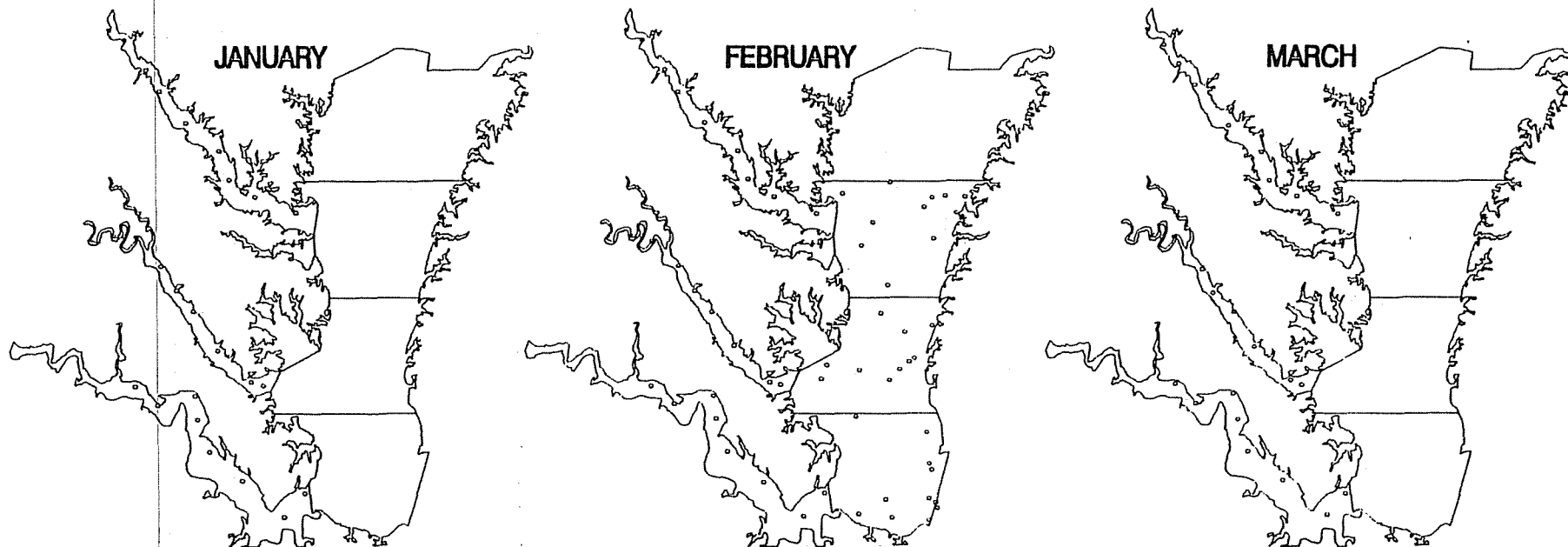
57

NUMBER CAUGHT: · = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● =  $\geq 1,000$



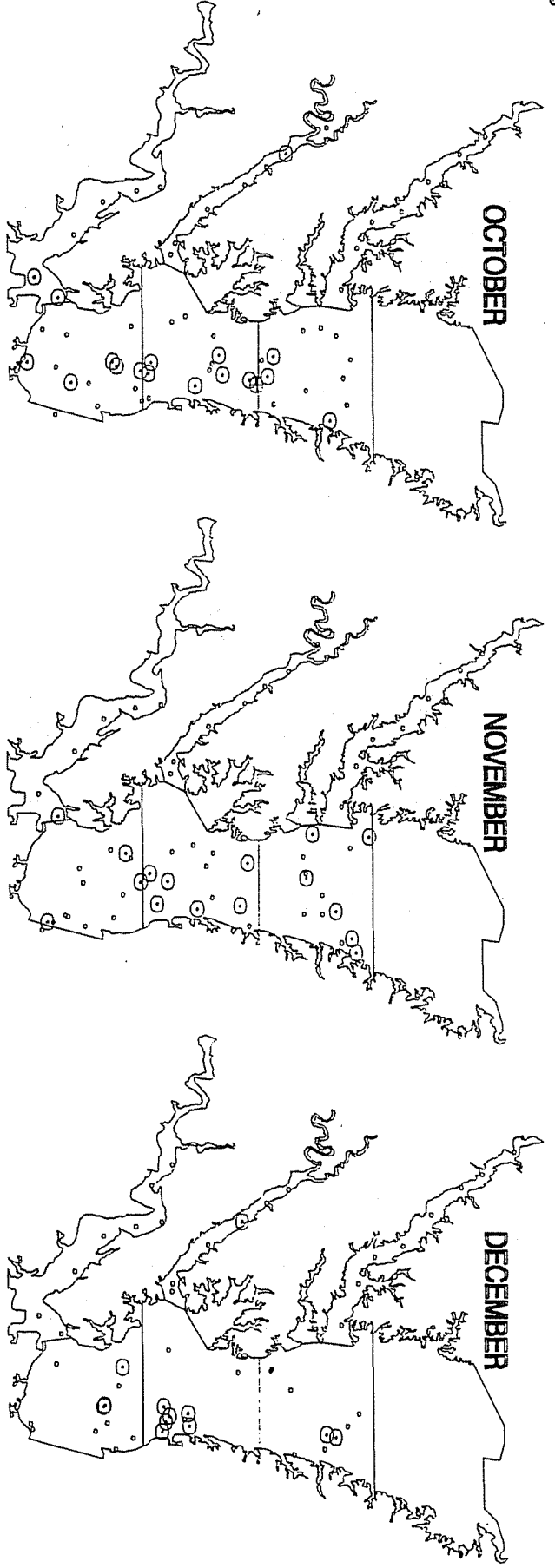
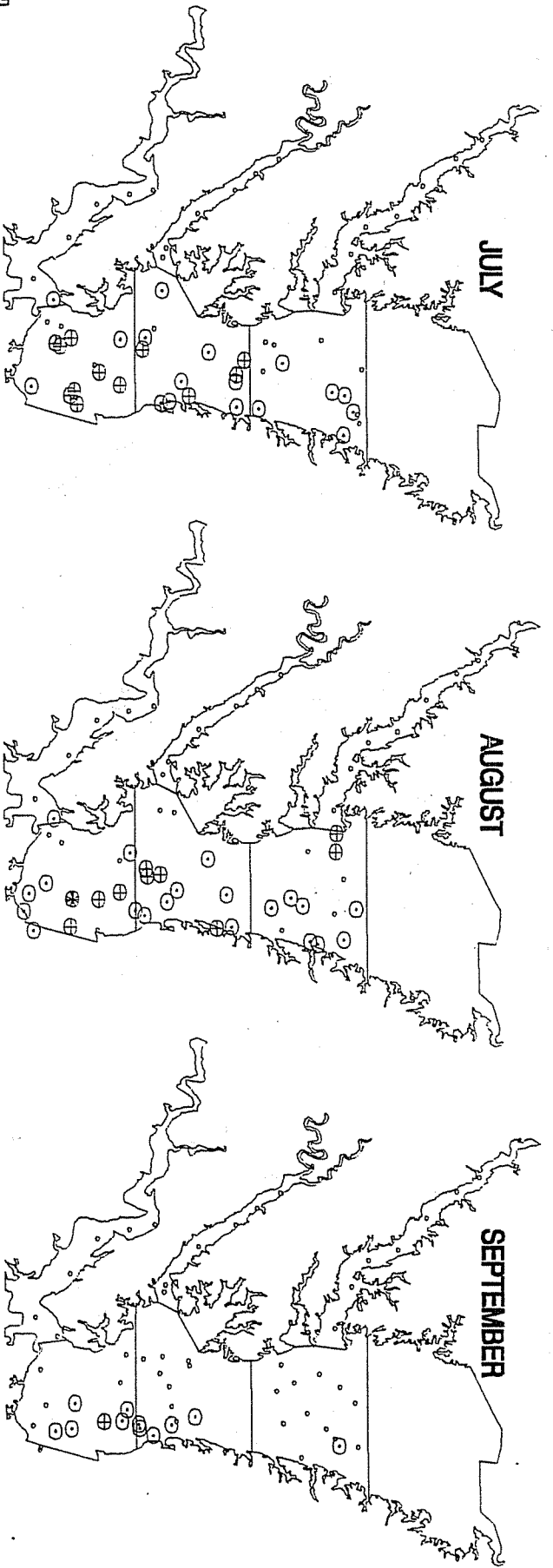
Figure 32

# Northern Searobin



NUMBER CAUGHT: · = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊕⊙ = 100 to 999    ● = ≥ 1,000

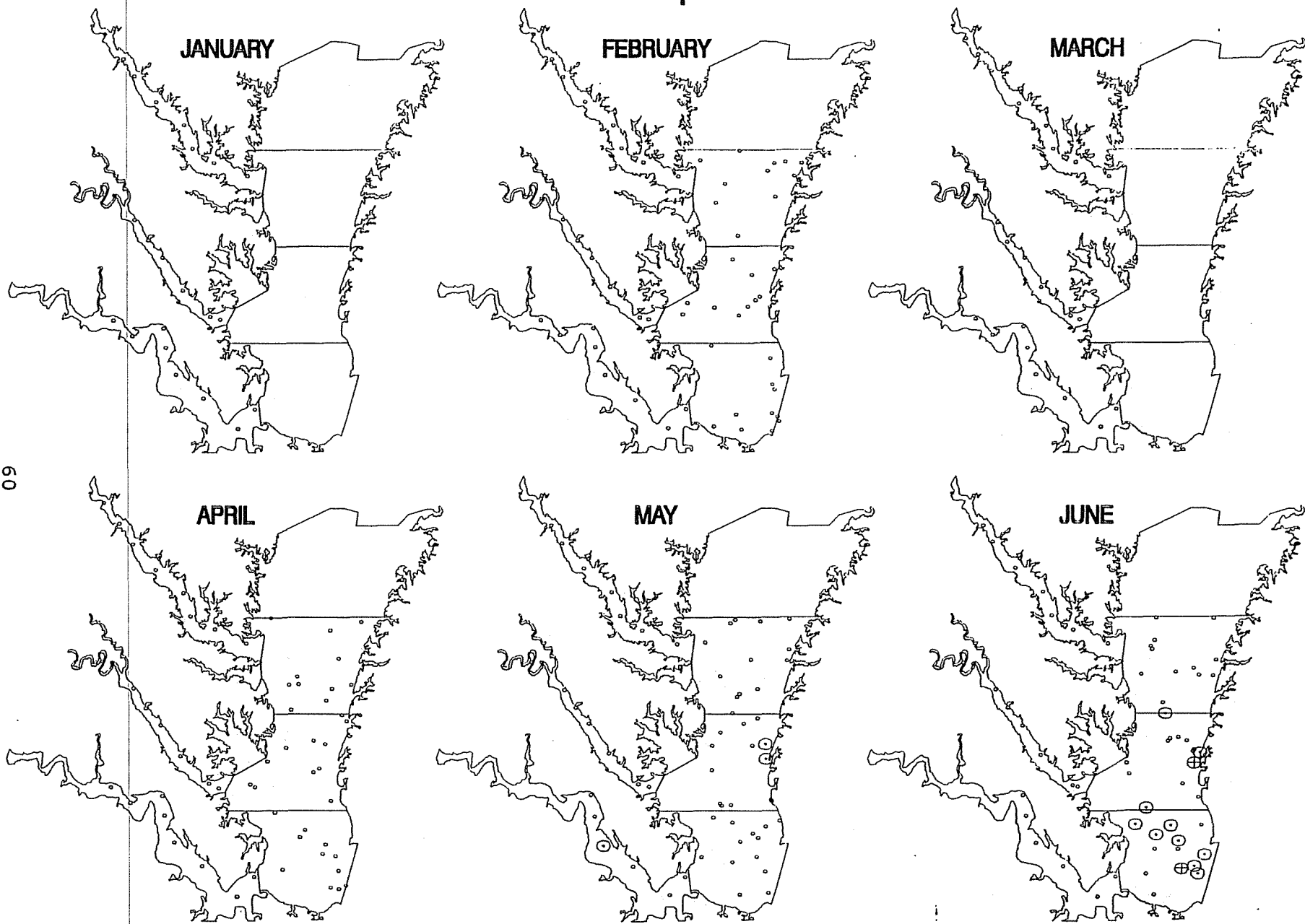
Figure 32



NUMBER CAUGHT: • = ZERO ○ = 1 to 9 ⊕ = 10 to 99 ⊕ = 100 to 999 ● = ≥1,000

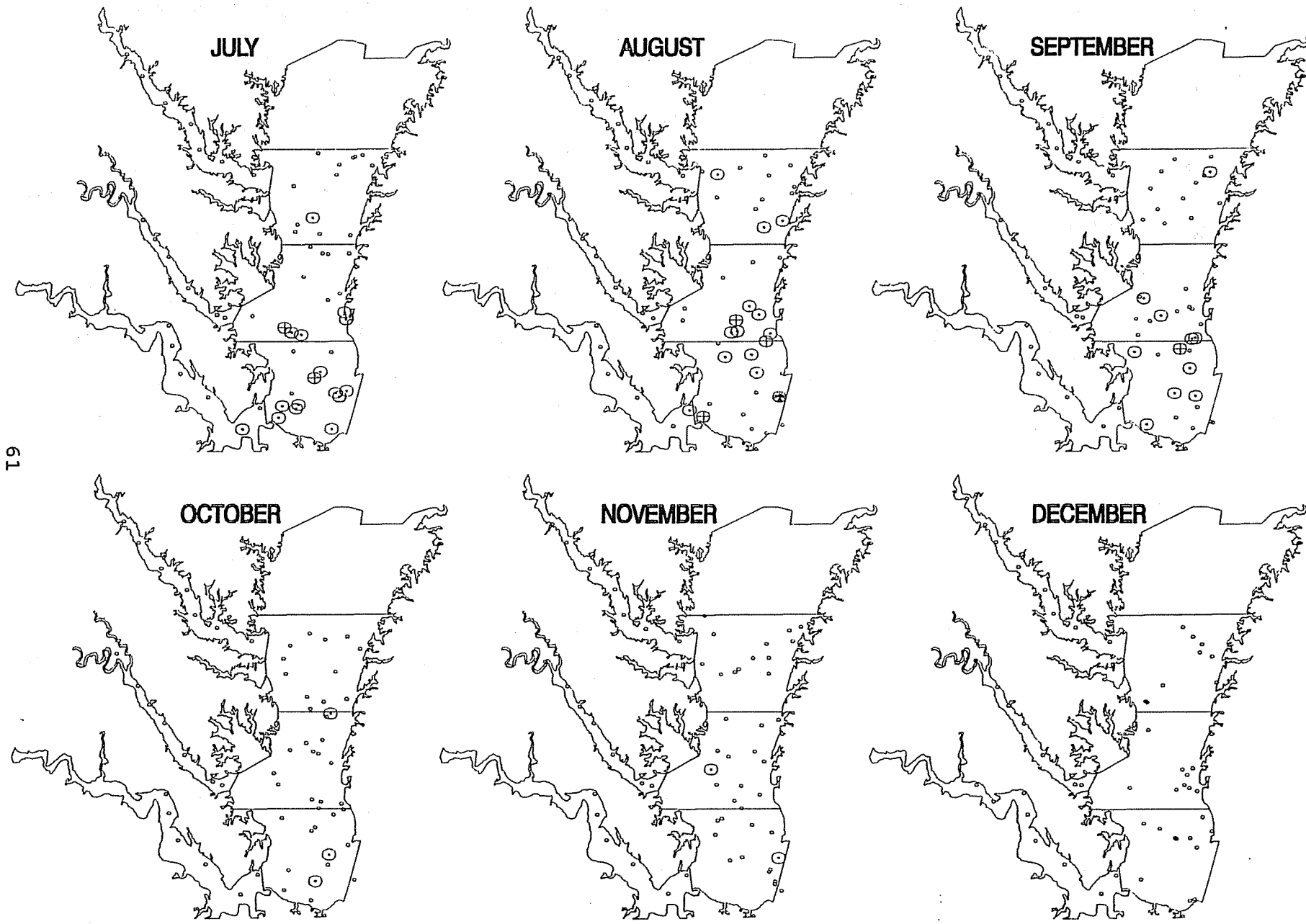
Figure 33

# Scup



NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 33

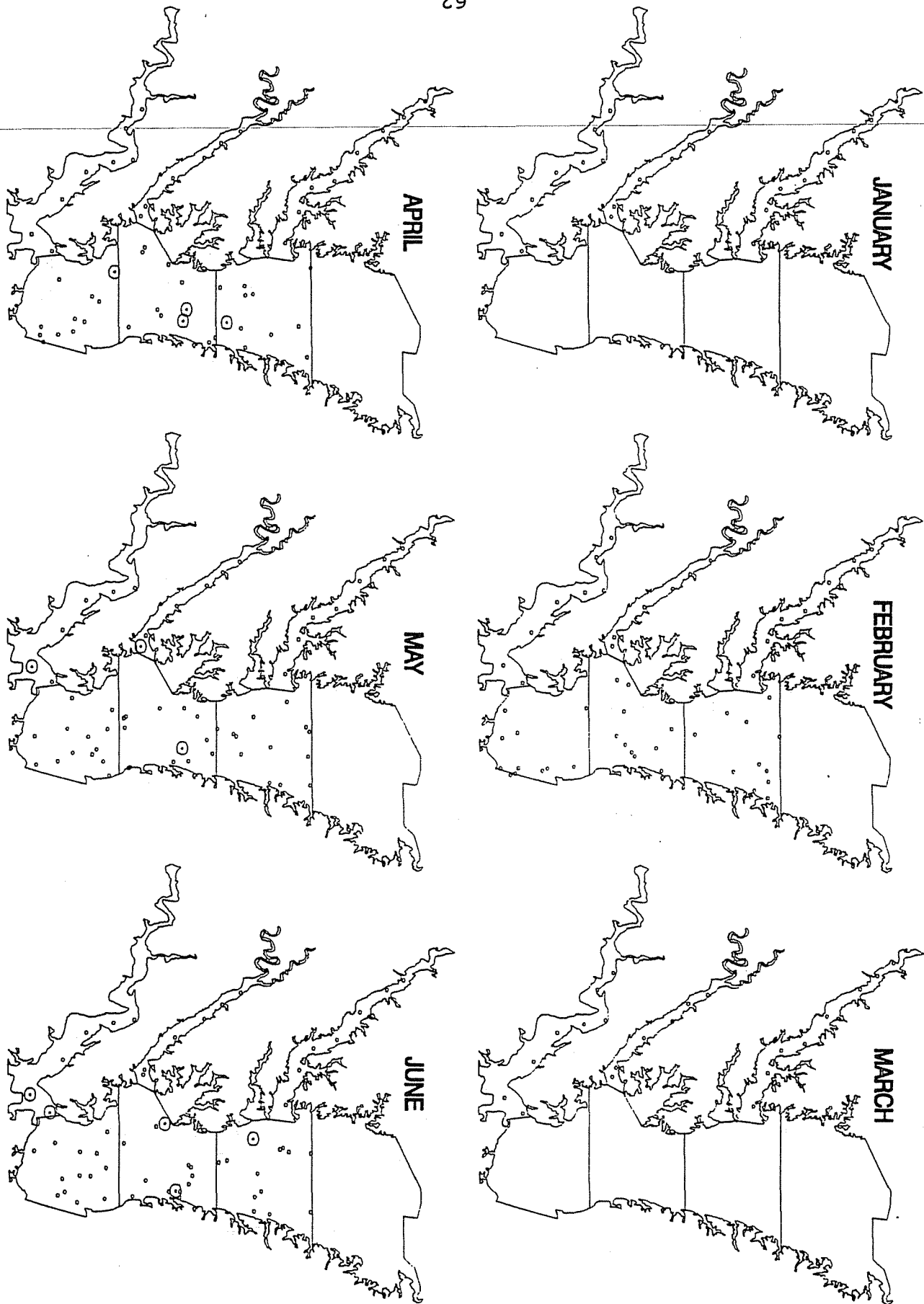


61

NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

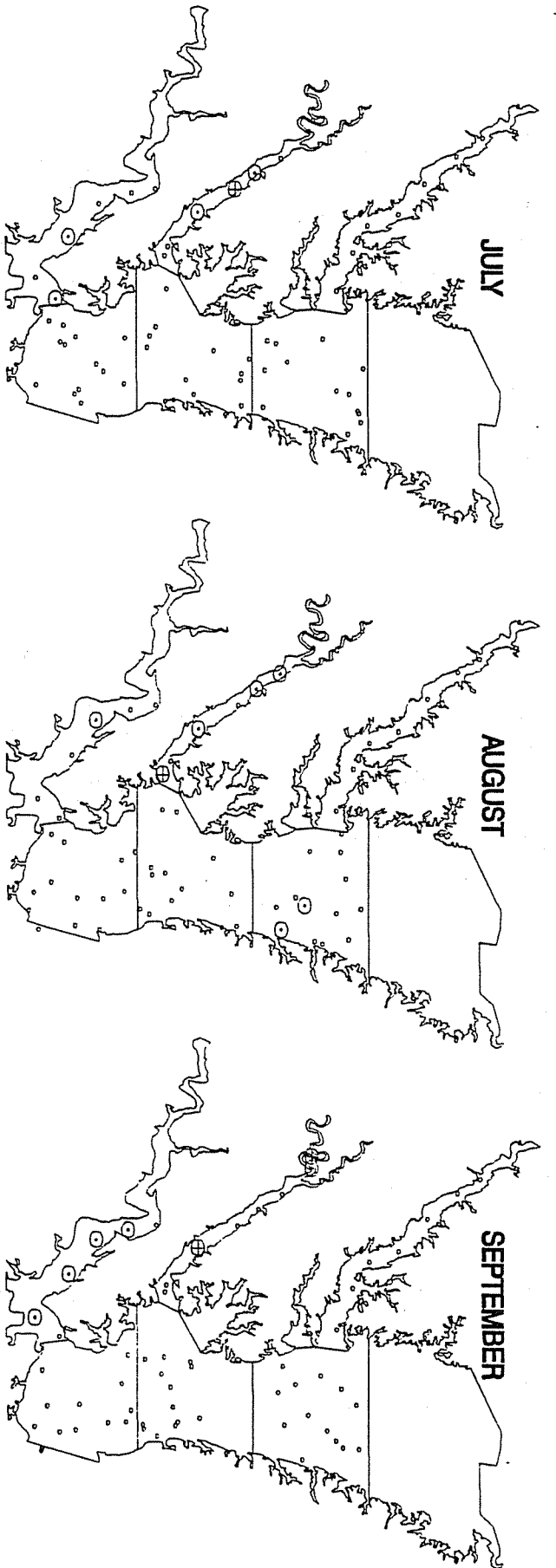
Figure 34

# Silver Perch

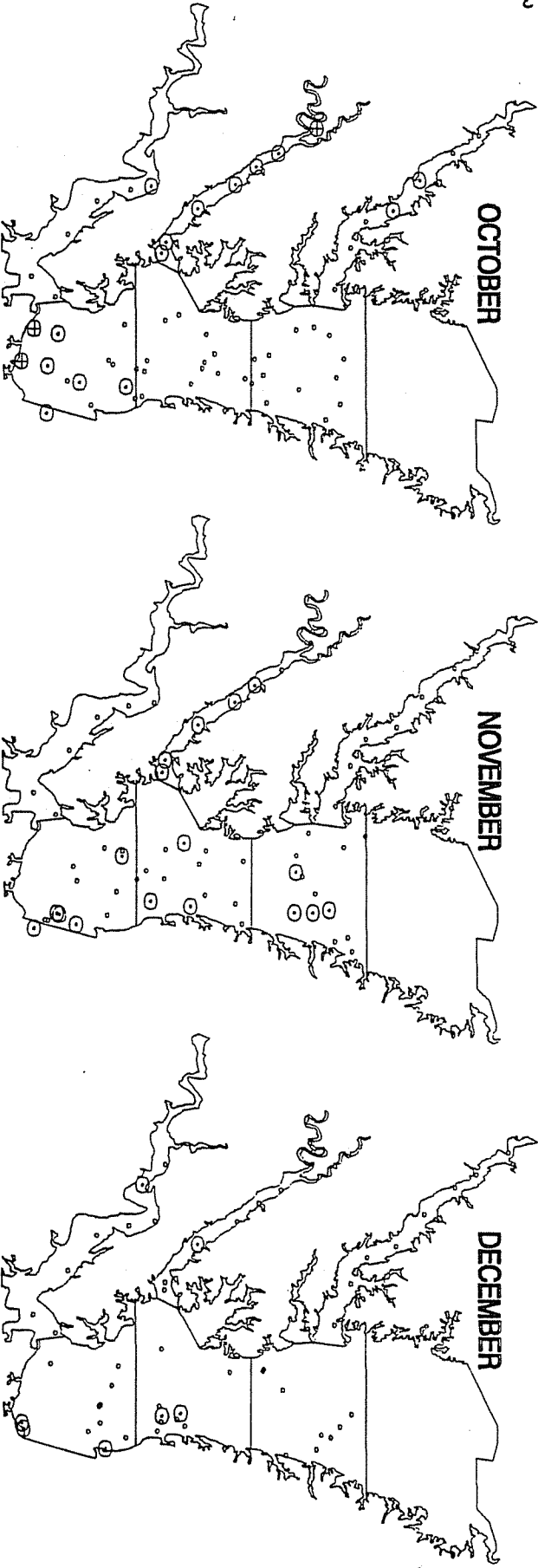


NUMBER CAUGHT: . = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 34



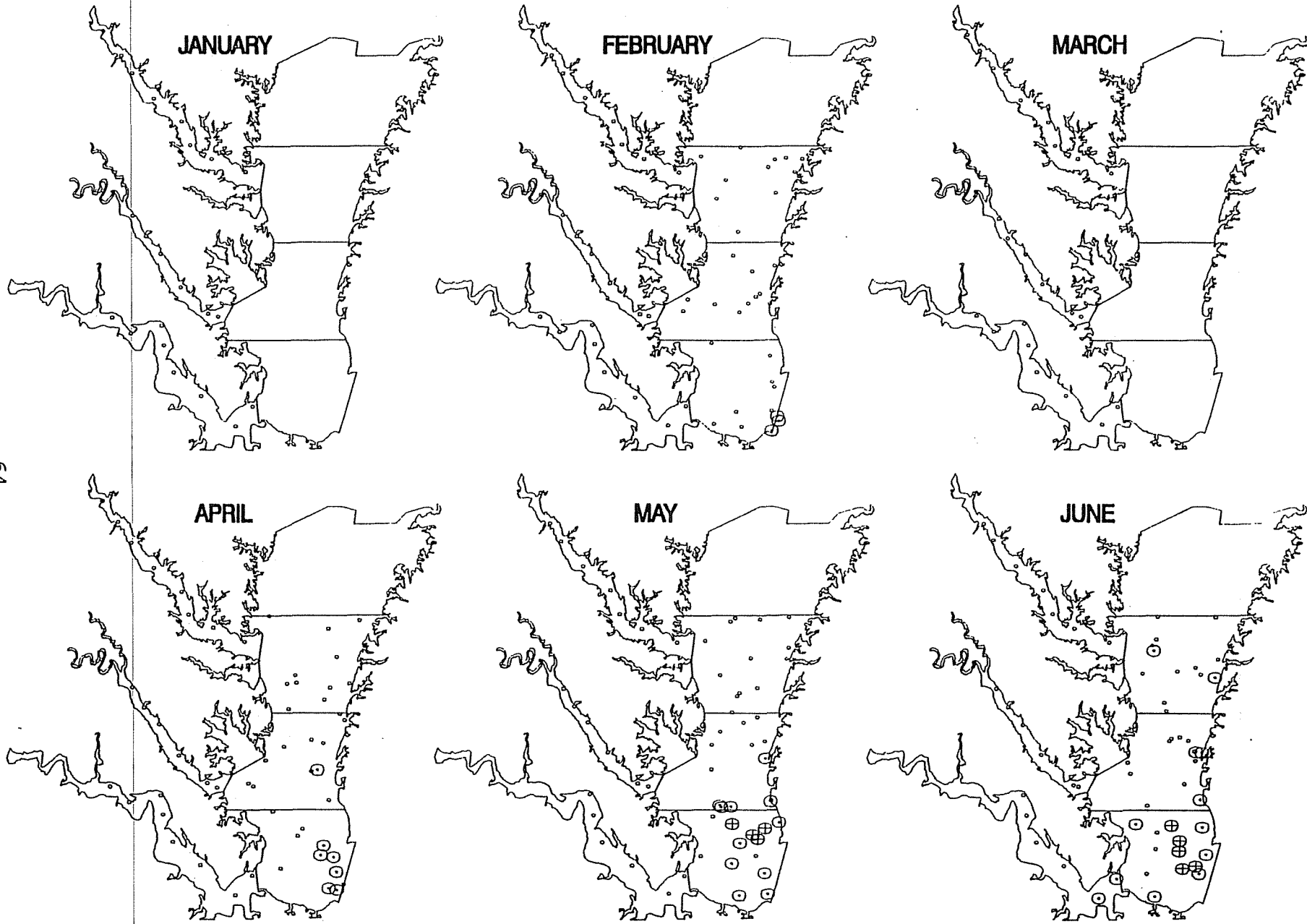
63



NUMBER CAUGHT: . = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 35

# Smallmouth Flounder



64

NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 35

NUMBER CAUGHT: · = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

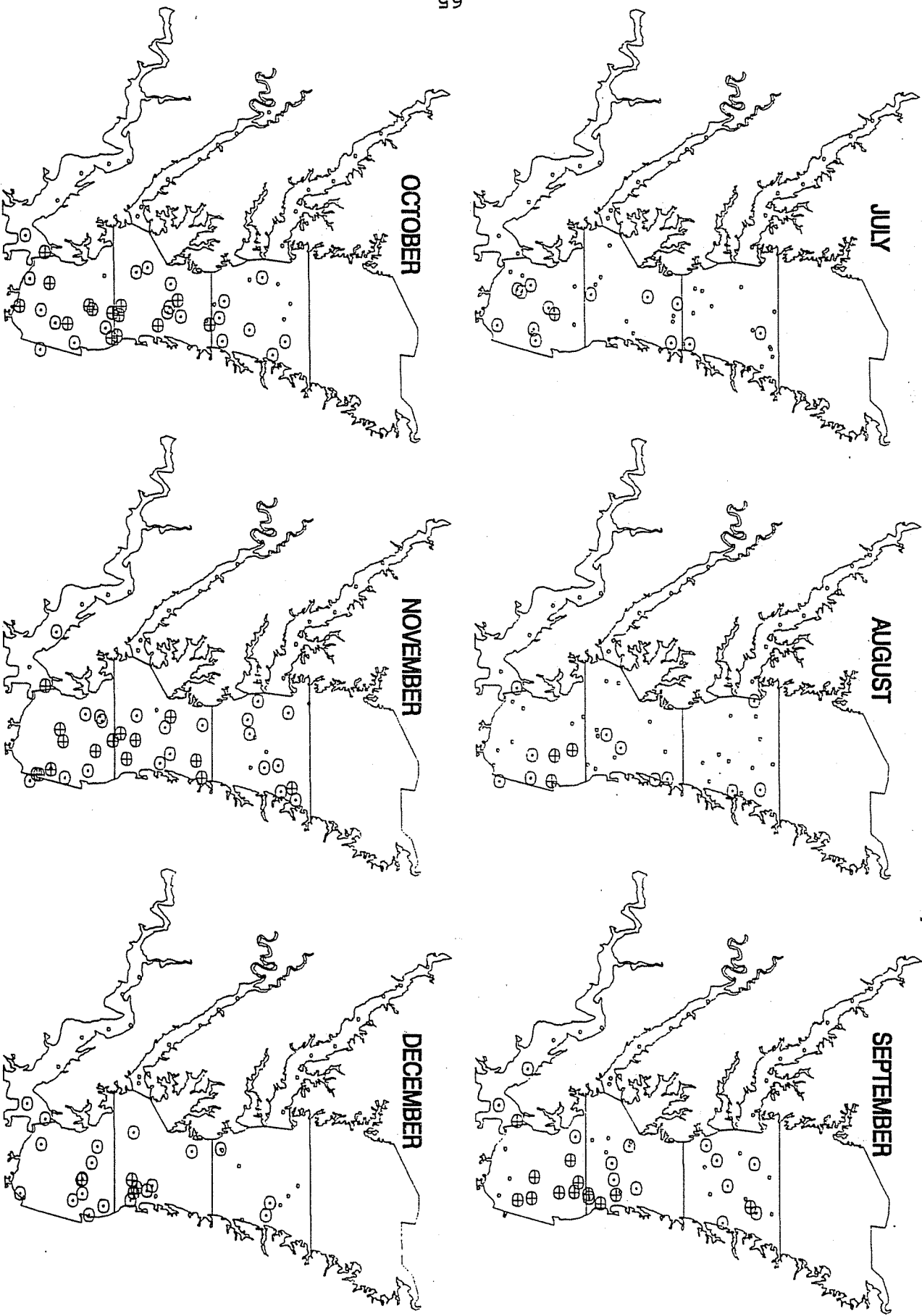
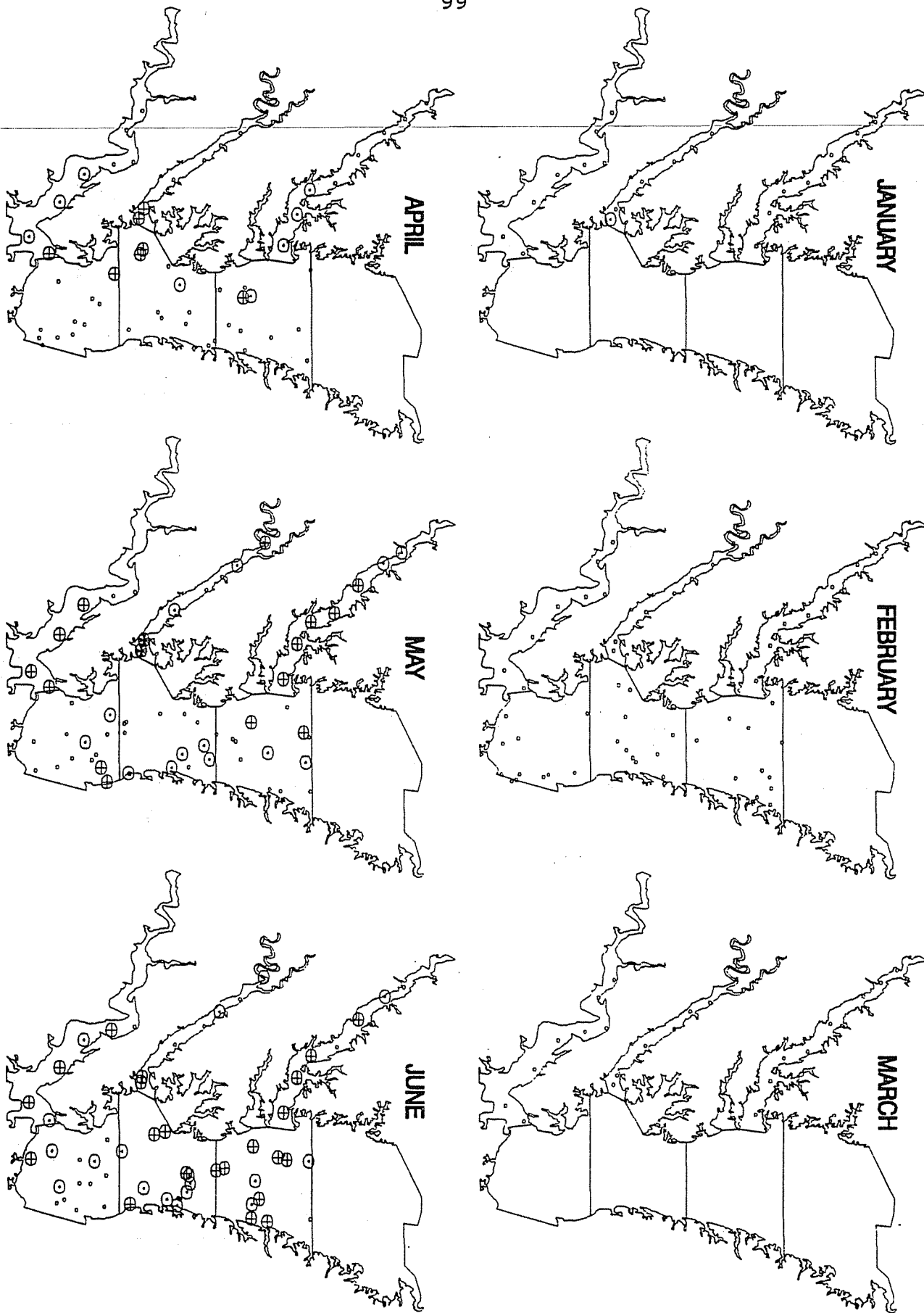




Figure 36

Spot



NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 36

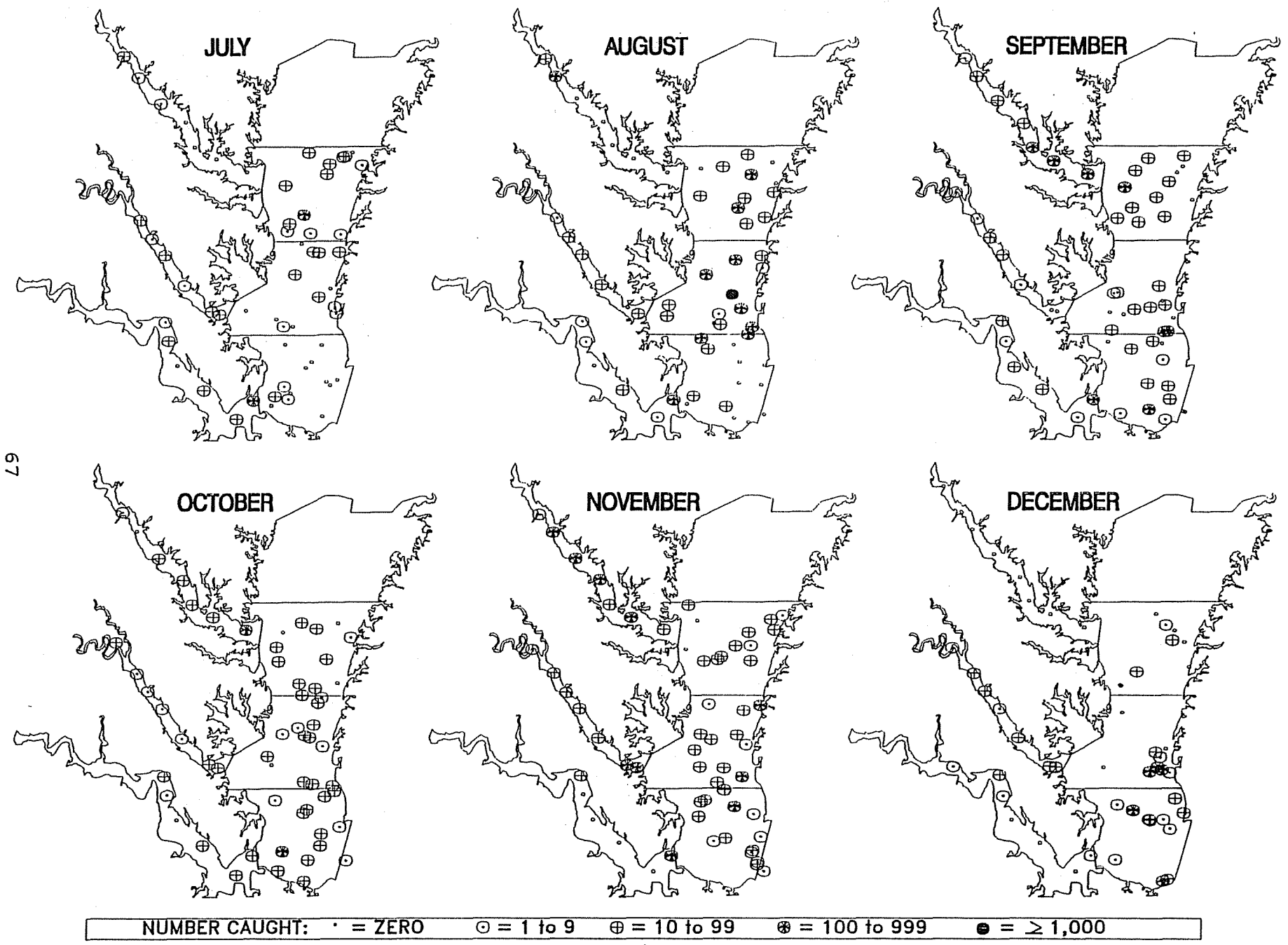
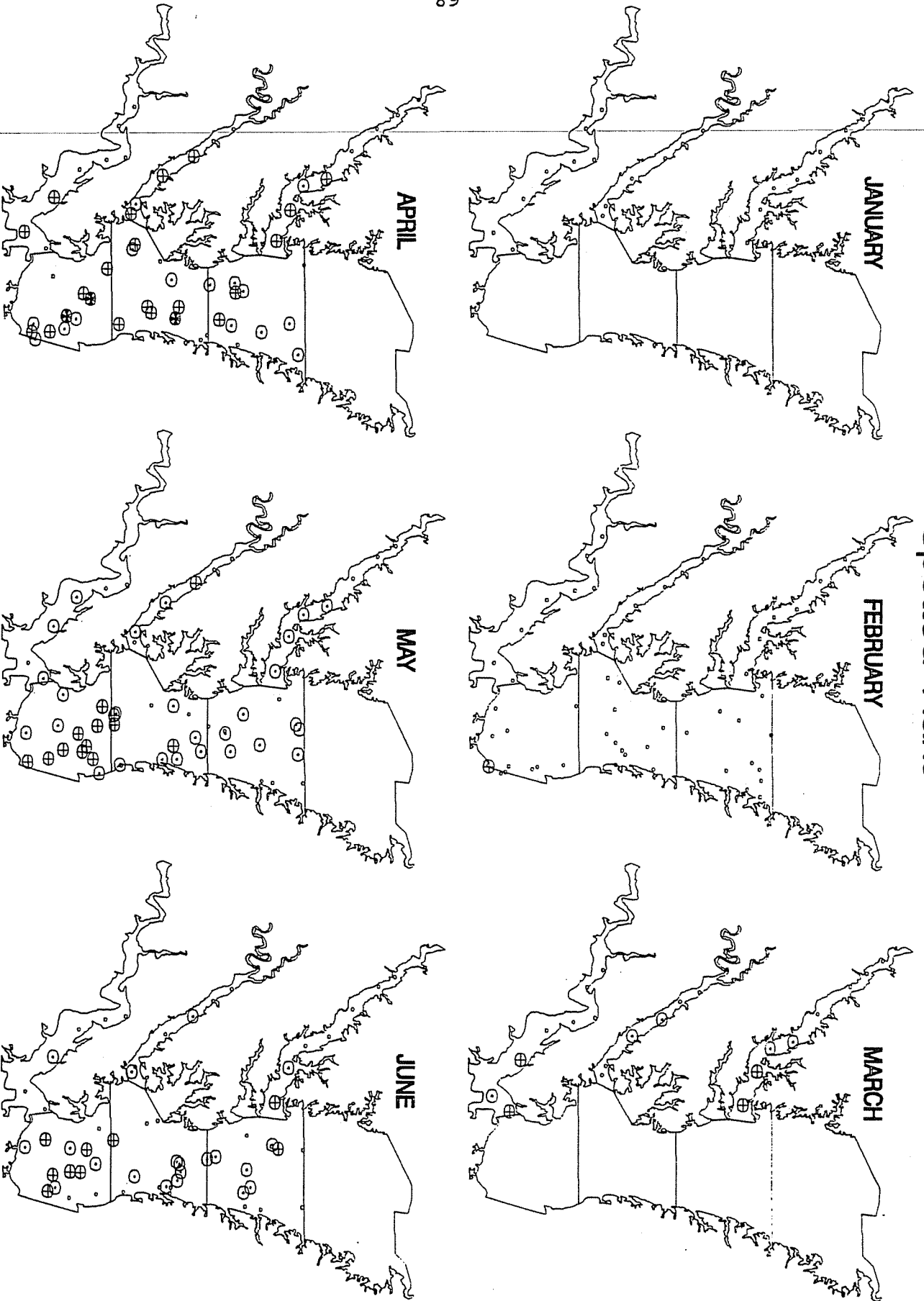


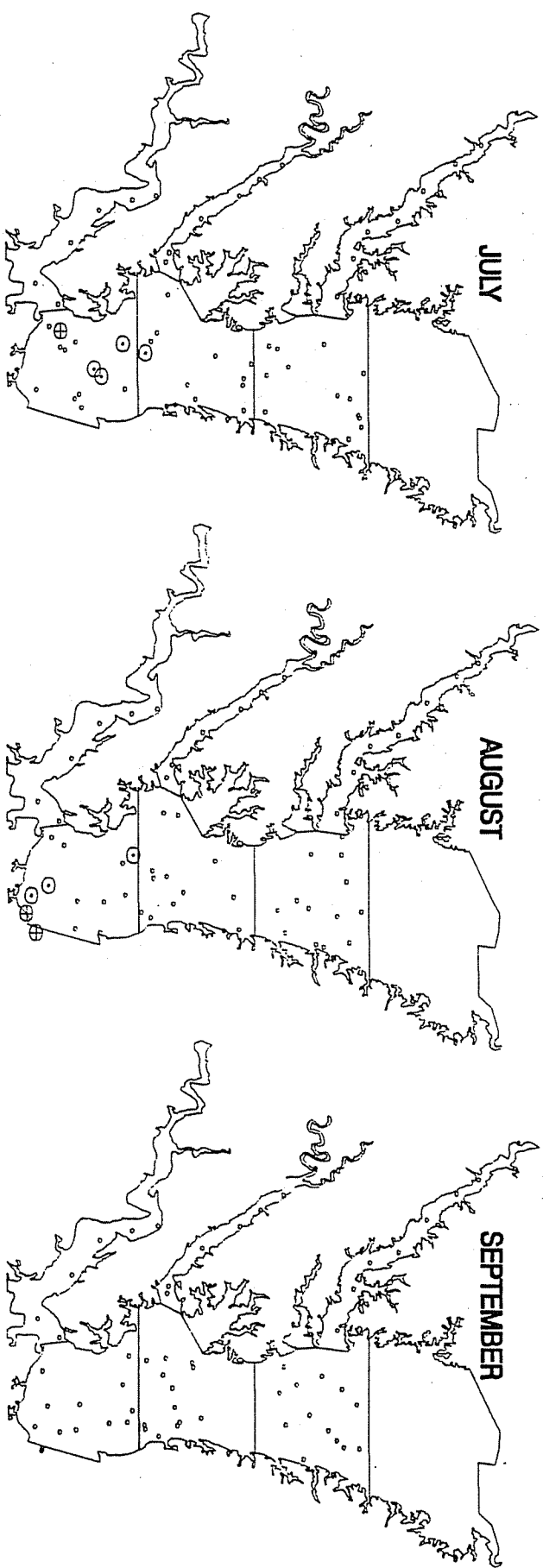
Figure 37

# Spotted Hake

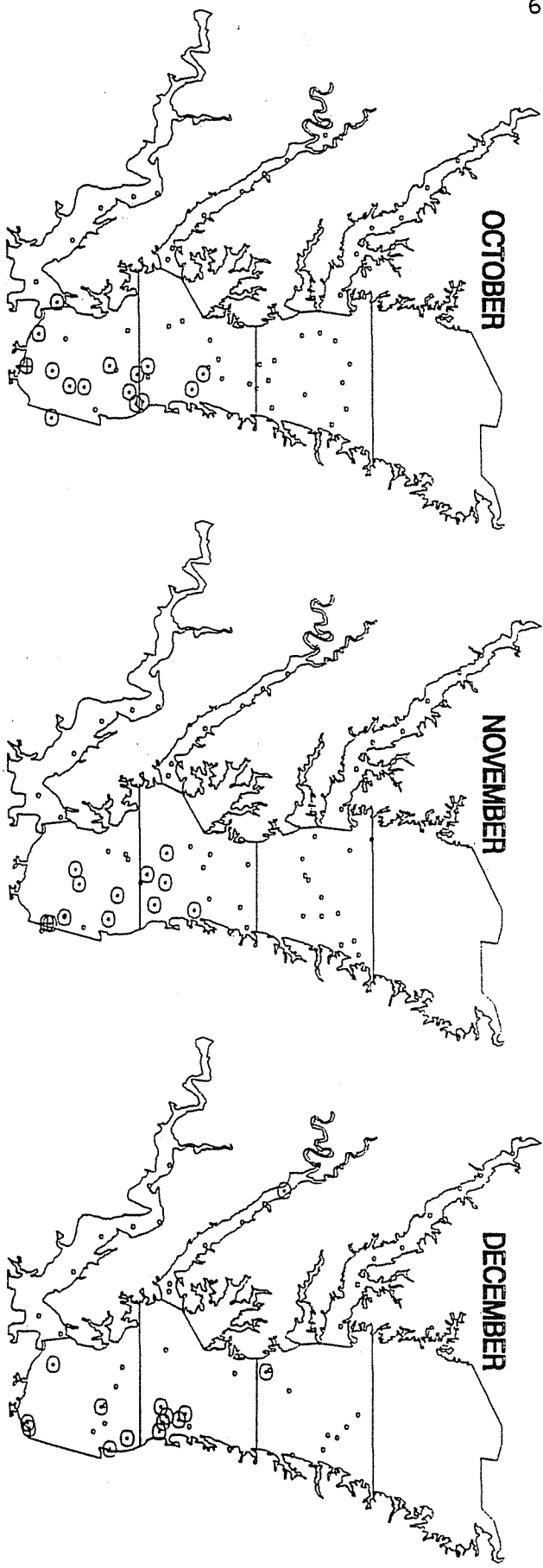


NUMBER CAUGHT: • = ZERO ○ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

Figure 37



69



NUMBER CAUGHT: • = ZERO ○ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

Figure 38

# Striped Anchovy

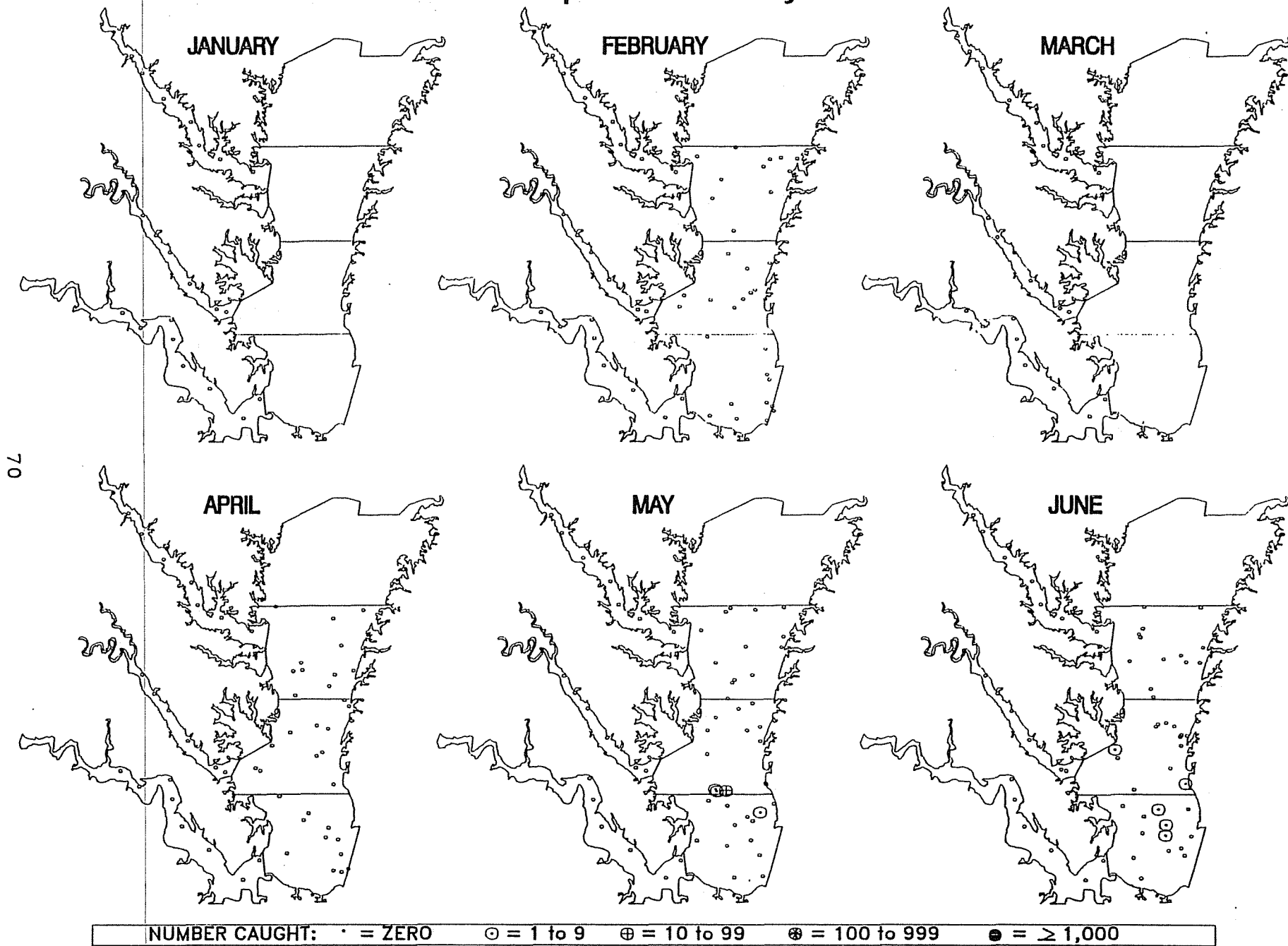
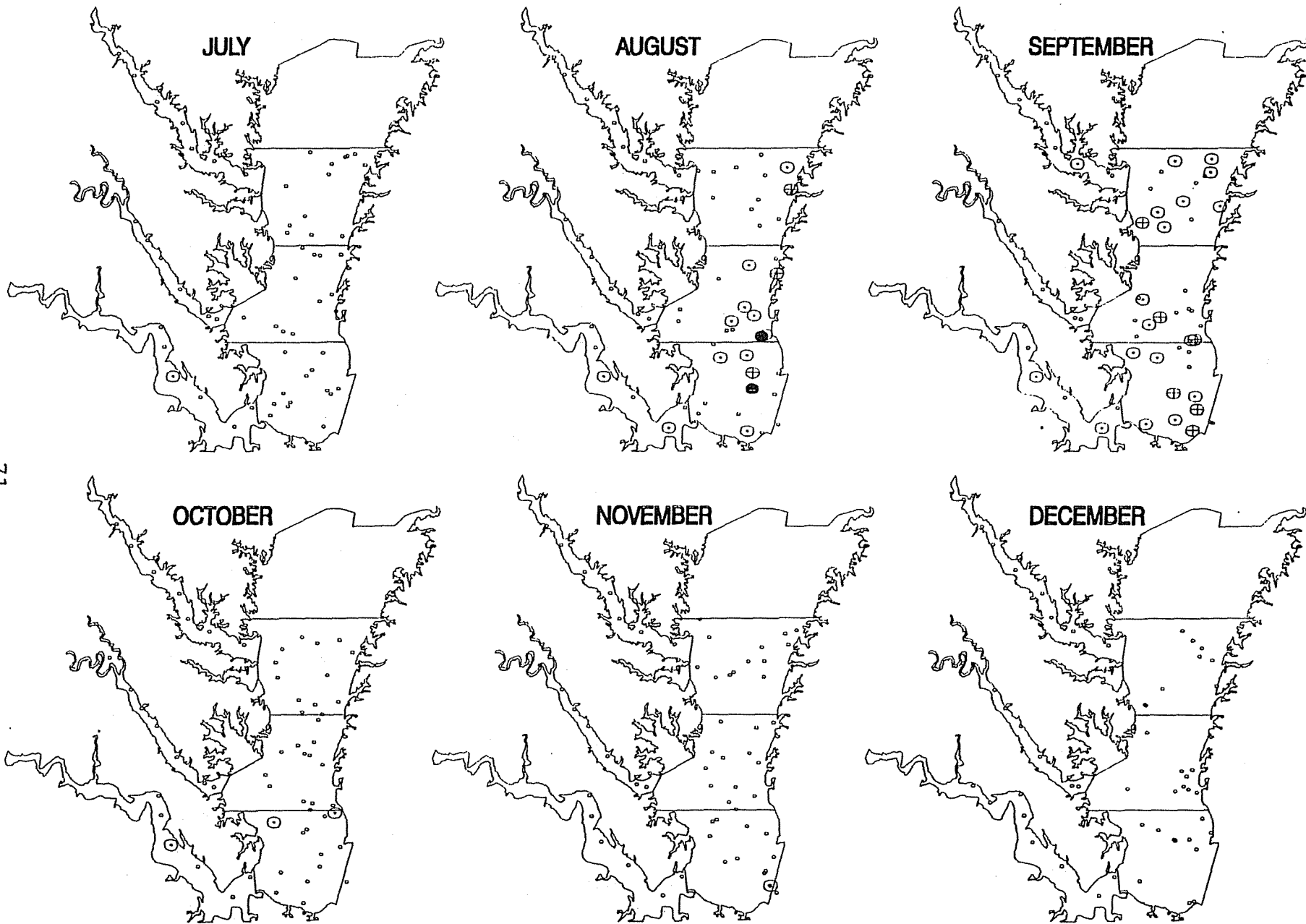


Figure 38

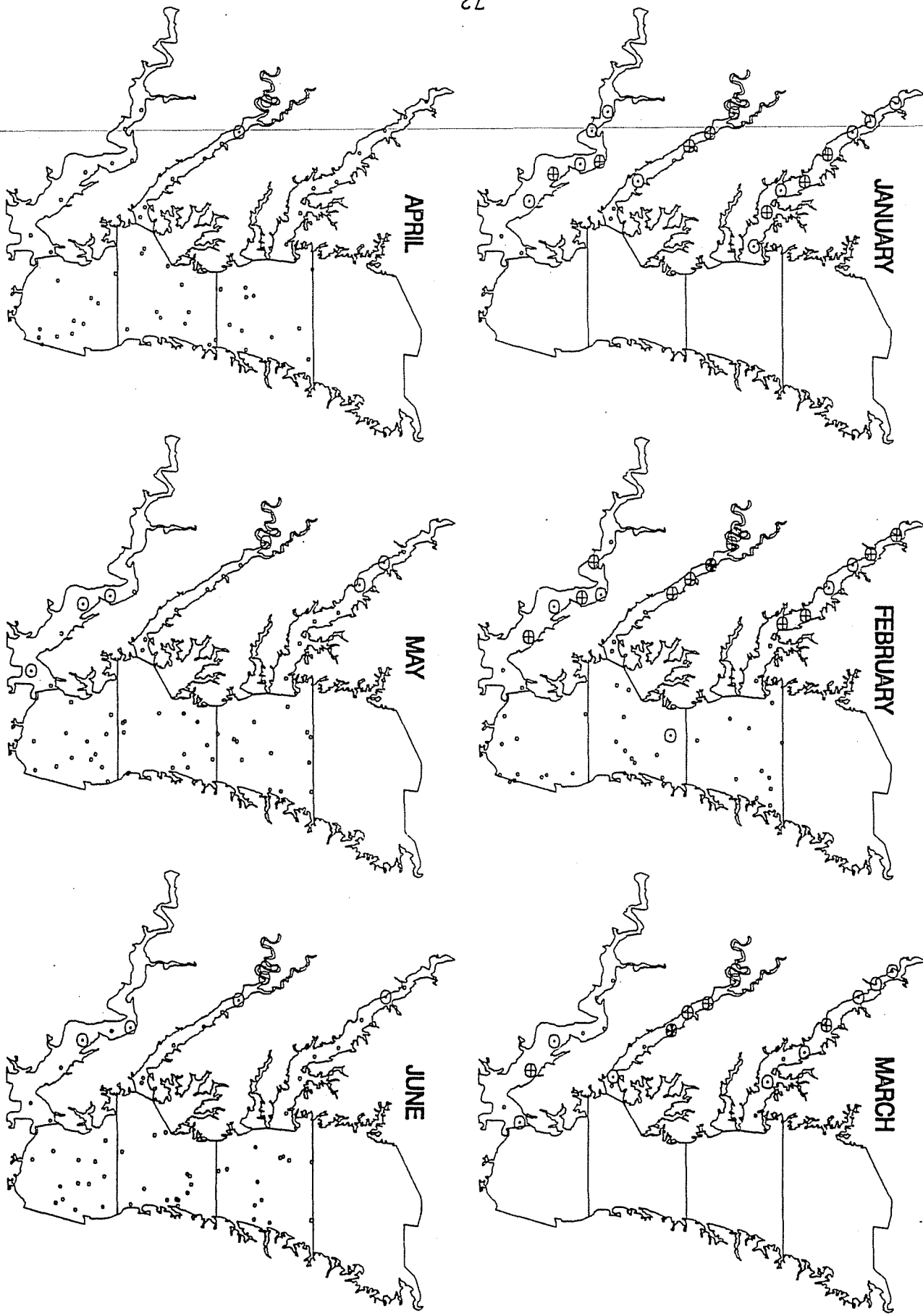


71

NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊕· = 100 to 999    ● = ≥ 1,000

Figure 39

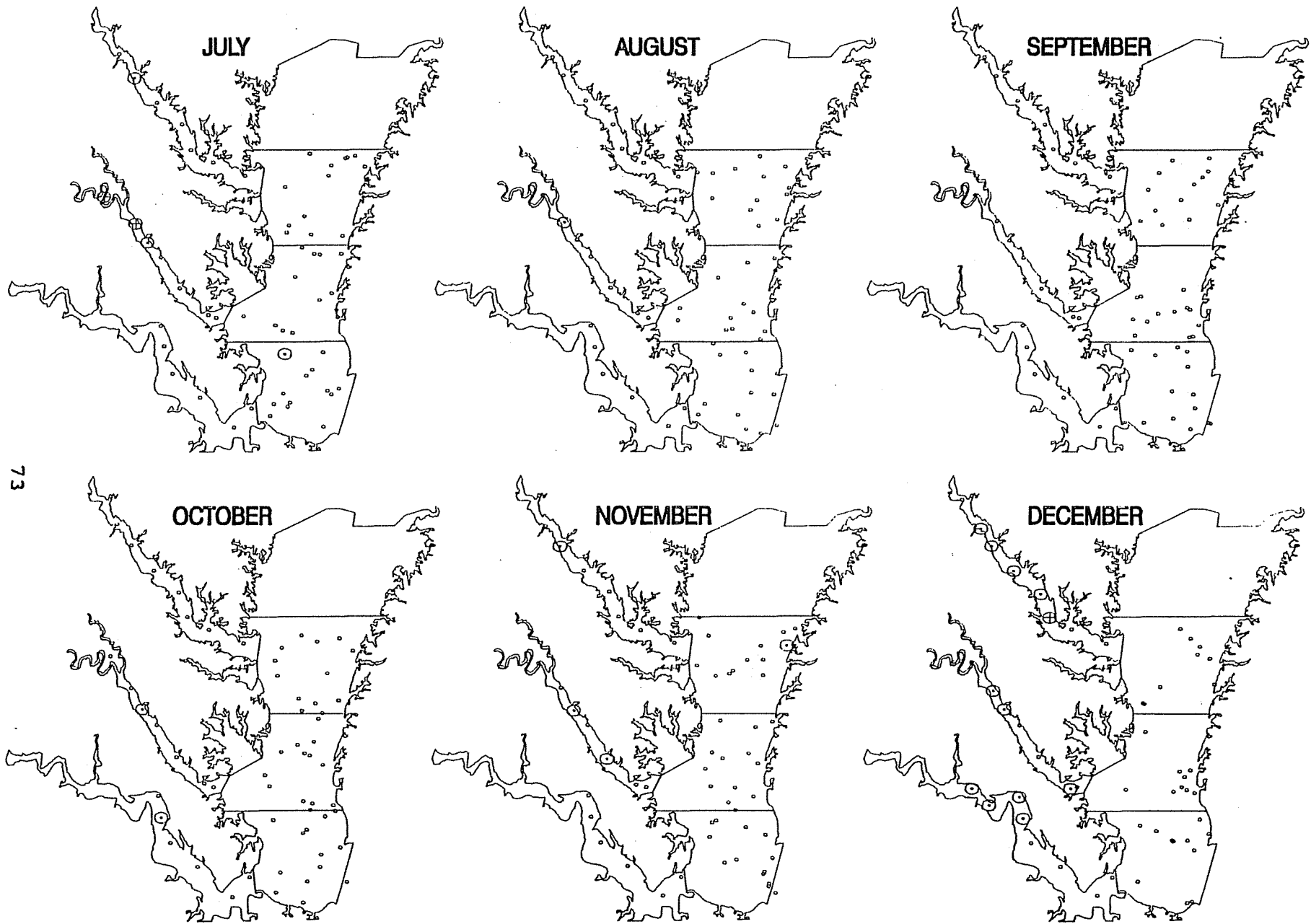
# Striped Bass



72

NUMBER CAUGHT: . = ZERO   ○ = 1 to 9   ⊕ = 10 to 99   ⊗ = 100 to 999   ● = ≥ 1,000

Figure 39



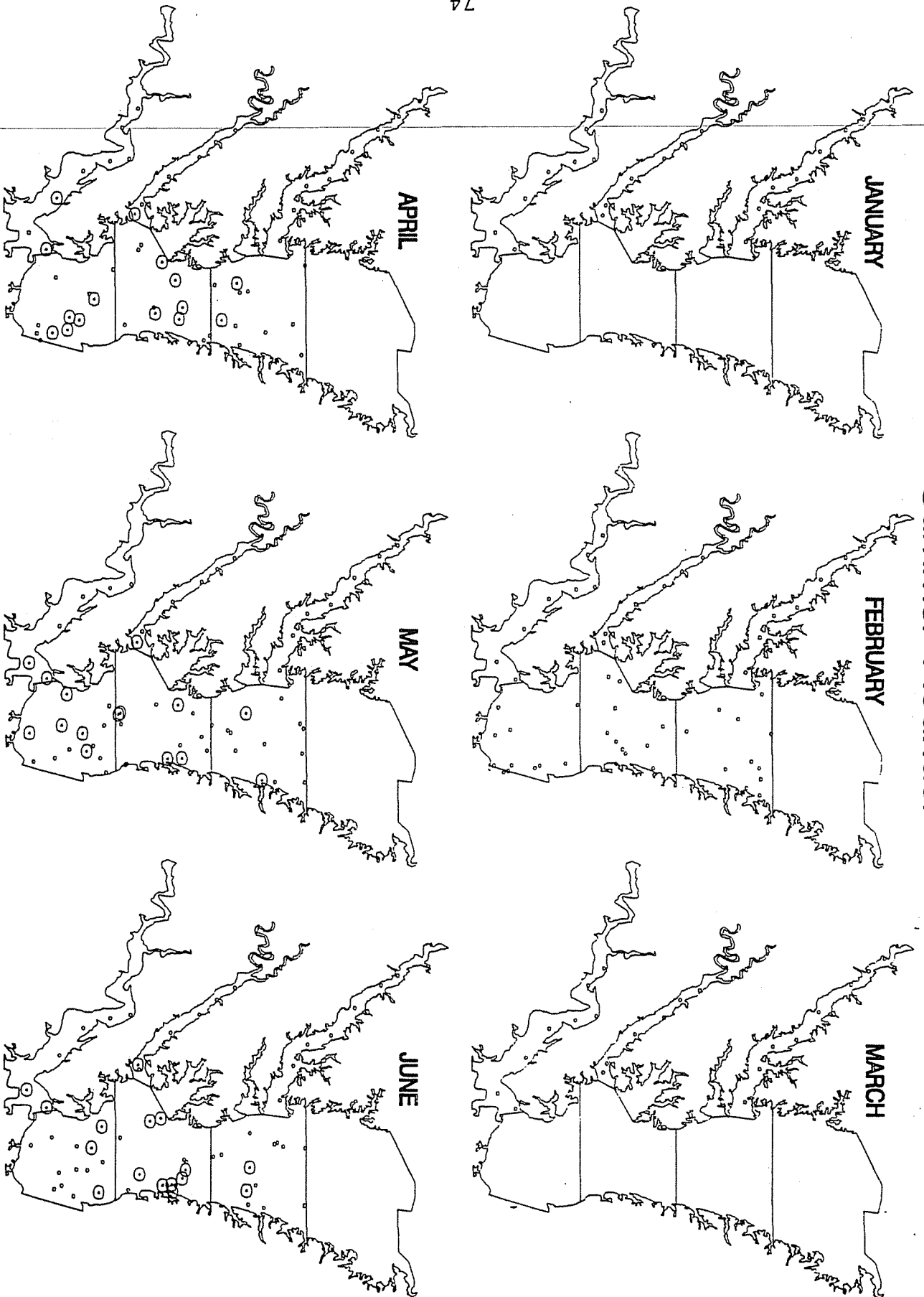
73

NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000



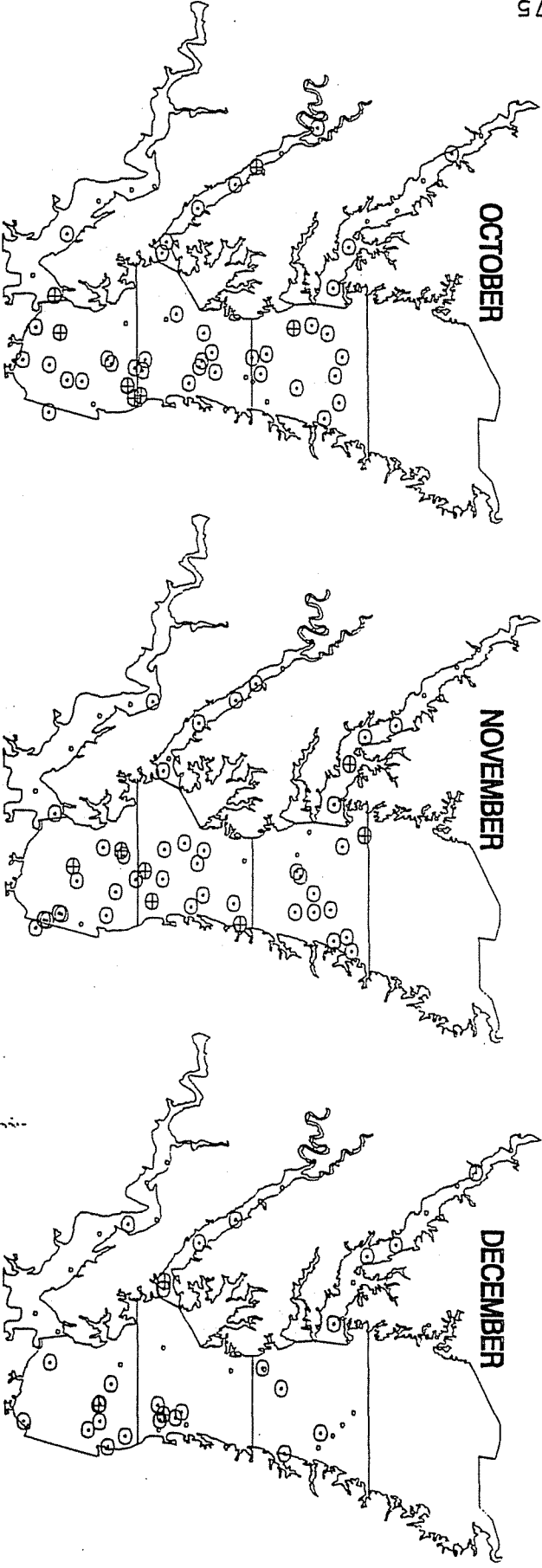
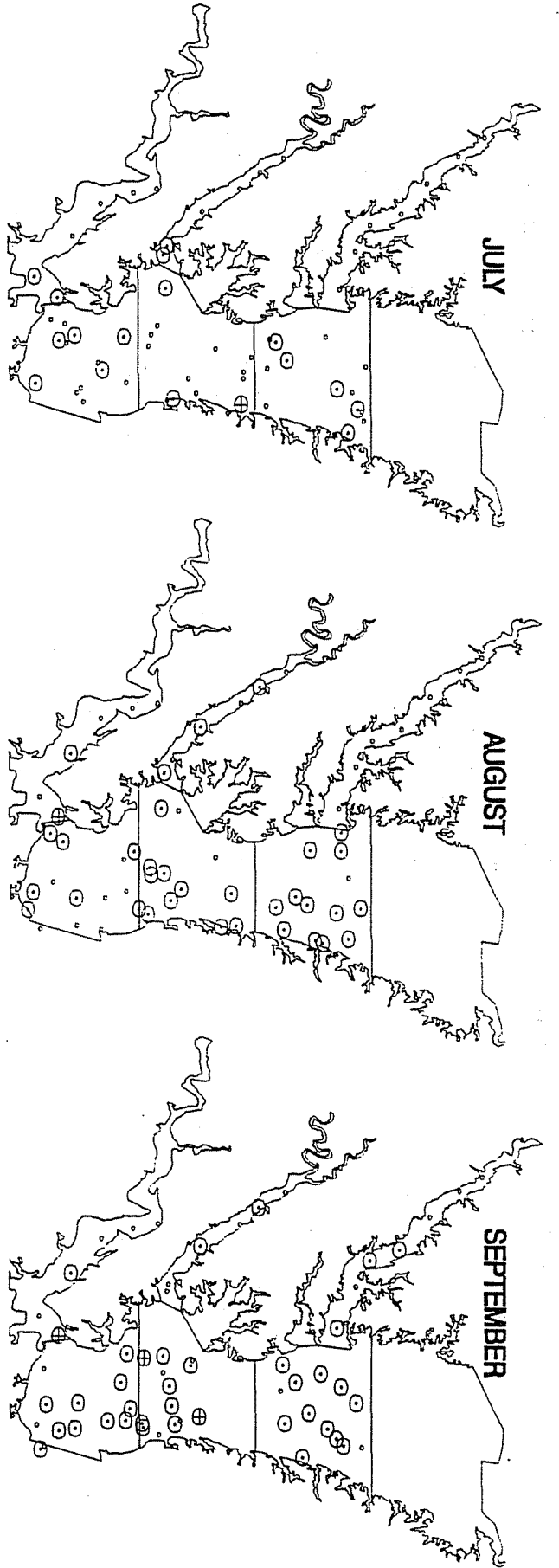
Figure 40

# Summer Flounder



NUMBER CAUGHT: • = ZERO ○ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

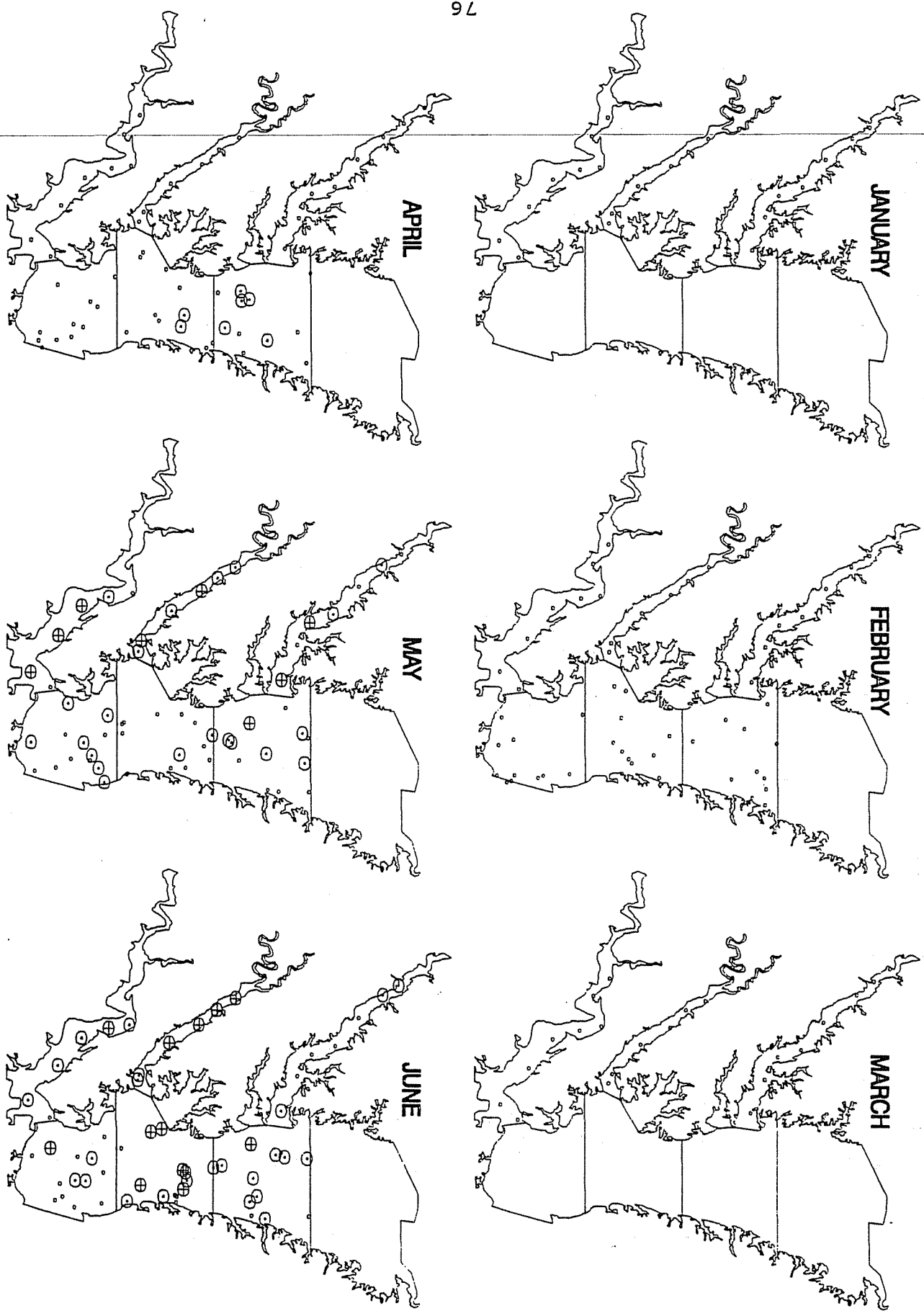
Figure 40



NUMBER CAUGHT: . = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 41

# Weakfish



JANUARY

FEBRUARY

MARCH

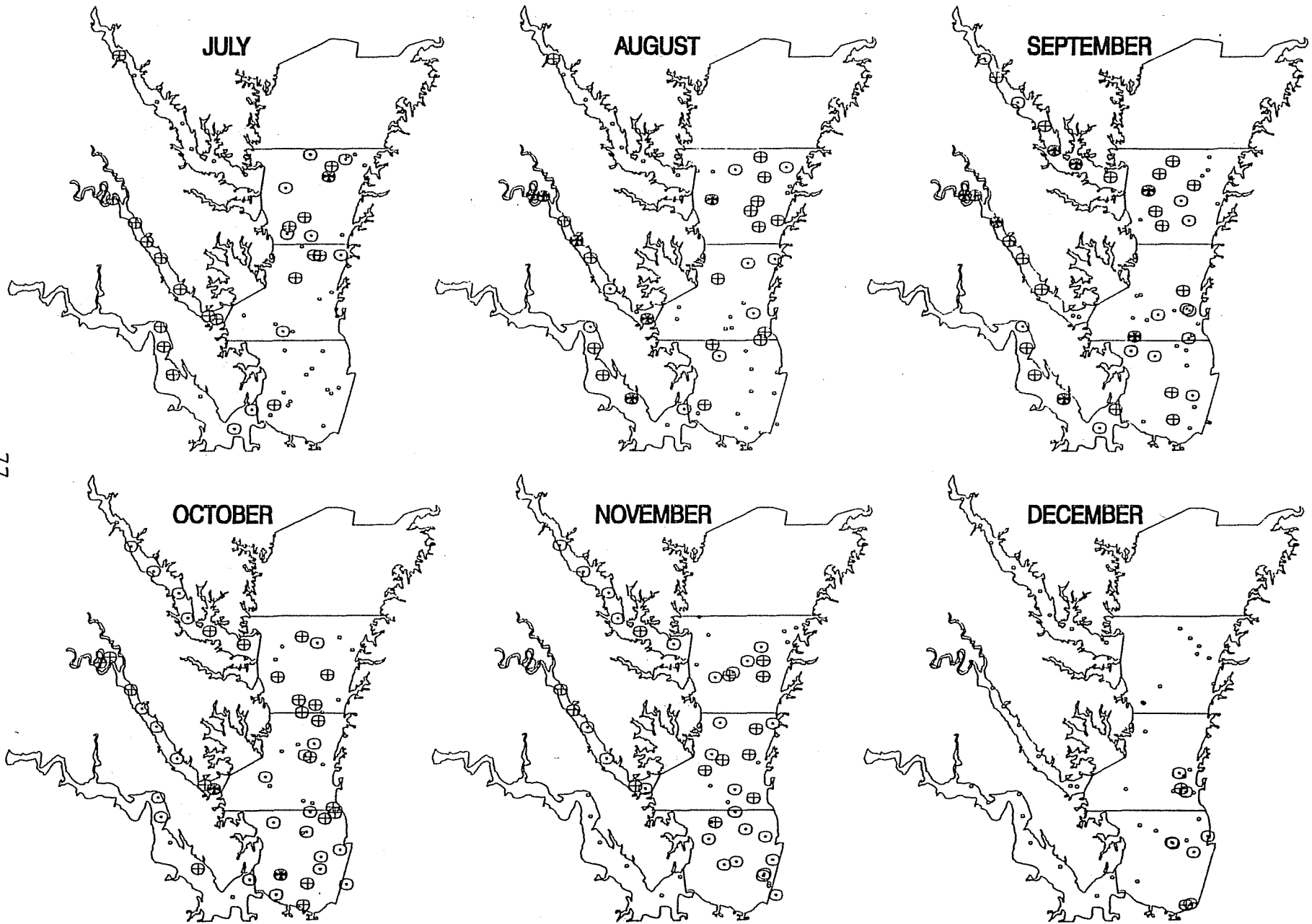
APRIL

MAY

JUNE

NUMBER CAUGHT: . = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

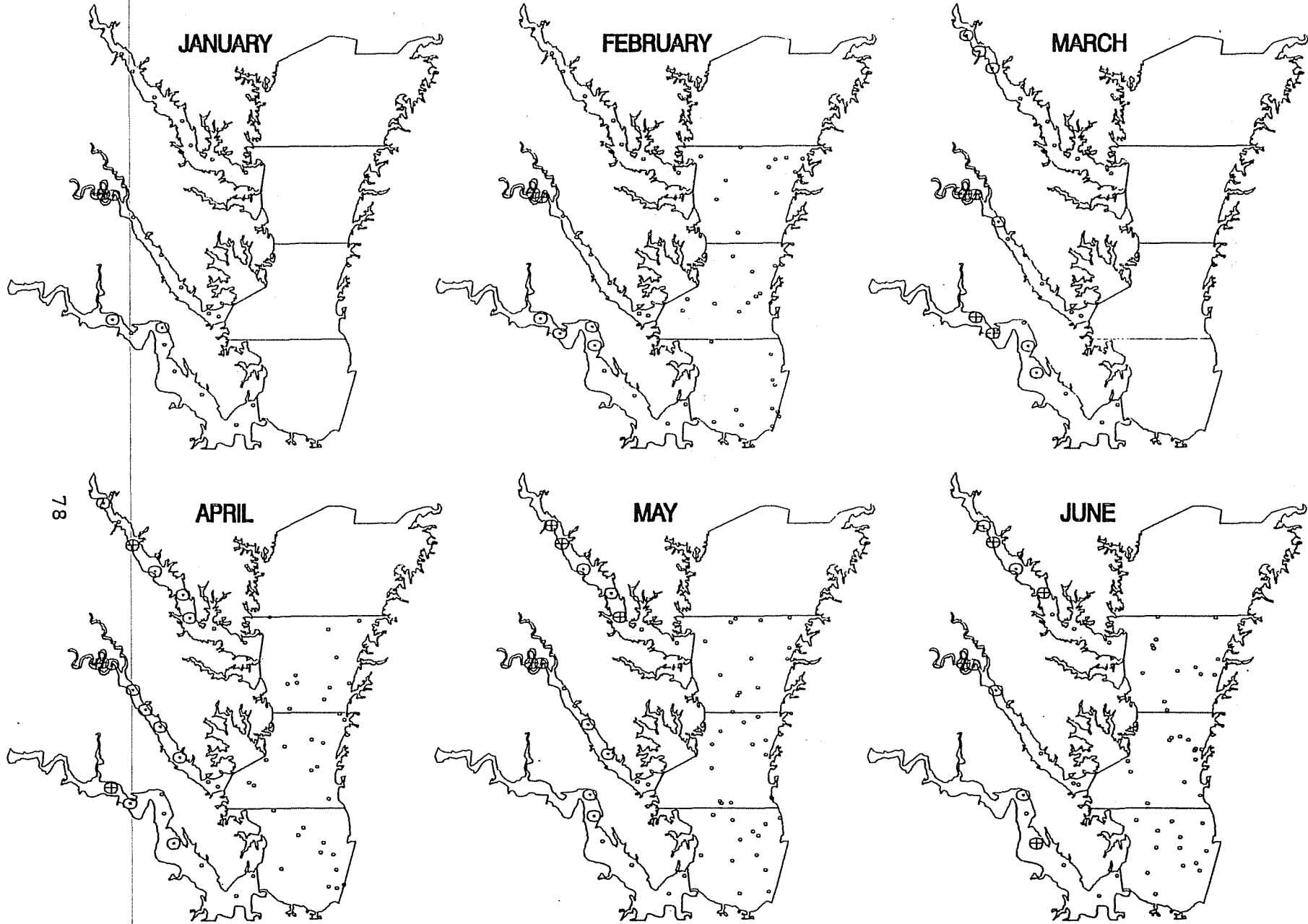
Figure 41



NUMBER CAUGHT: · = ZERO ⊙ = 1 to 9 ⊕ = 10 to 99 ⊗ = 100 to 999 ● = ≥ 1,000

Figure 42

# White Catfish

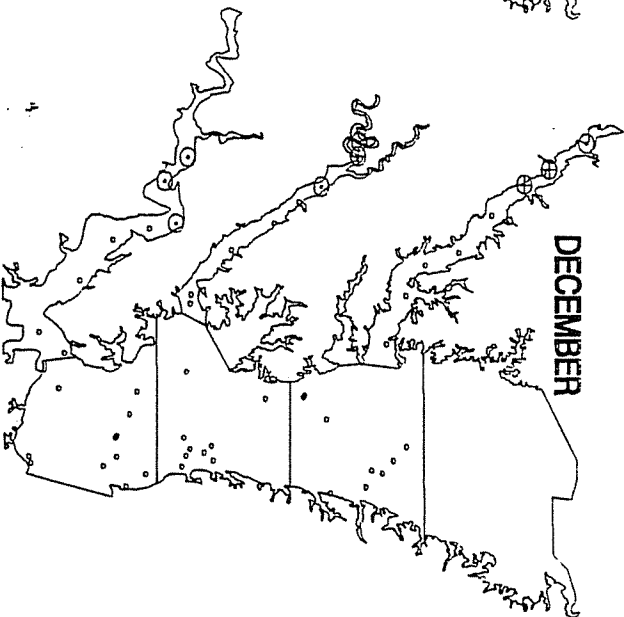
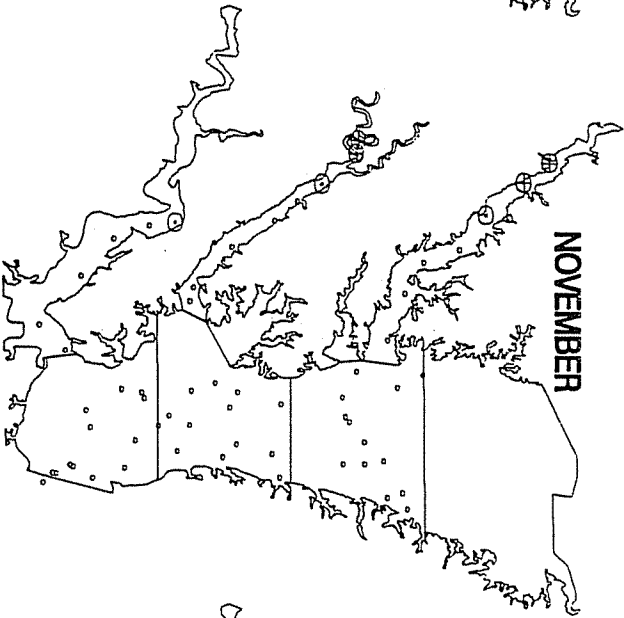
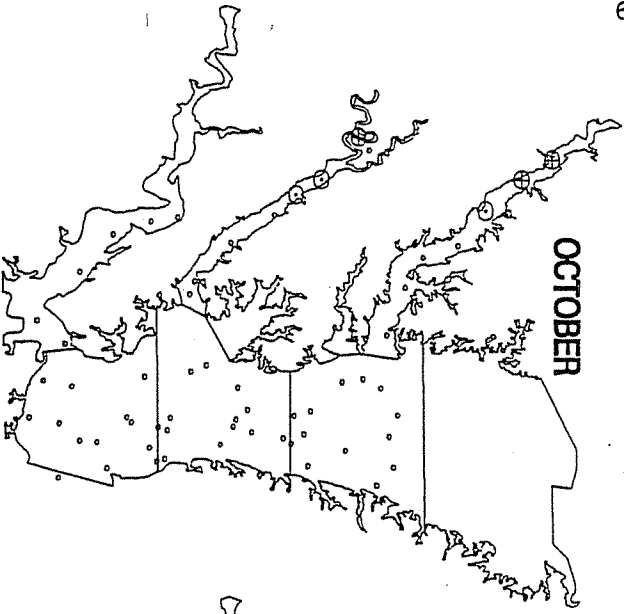
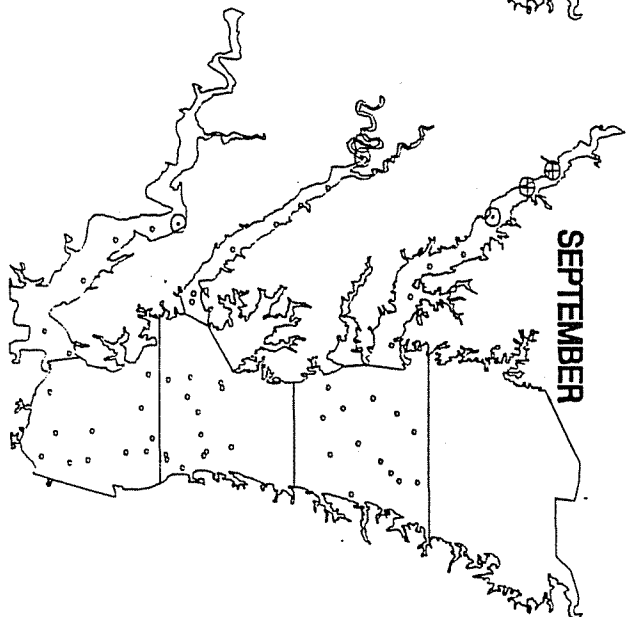
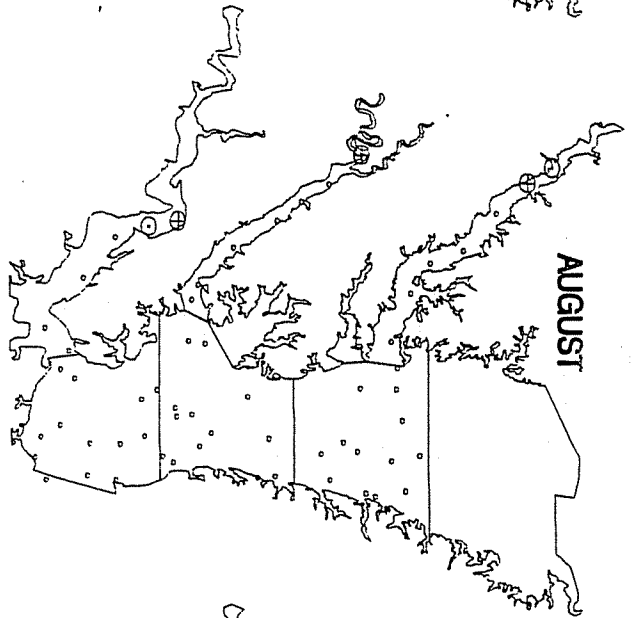
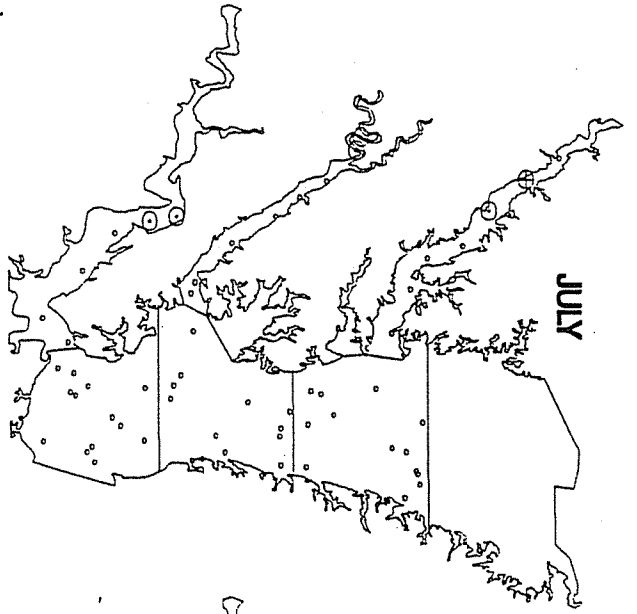


78

NUMBER CAUGHT: · = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 42

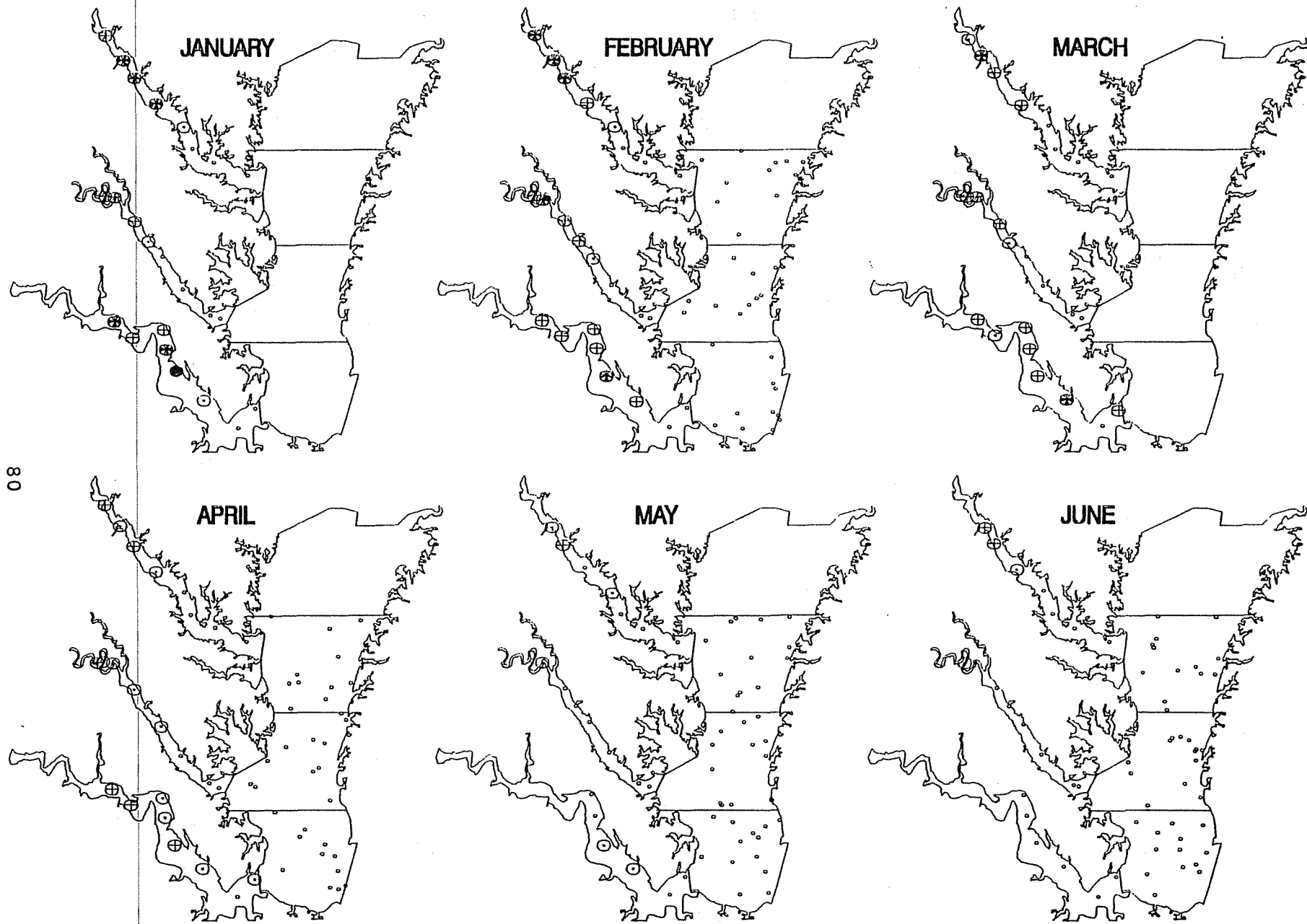
79



NUMBER CAUGHT: • = ZERO ○ = 1 to 9 ⊕ = 10 to 99 ⊕ = 100 to 999 ⊕ = ≥ 1,000

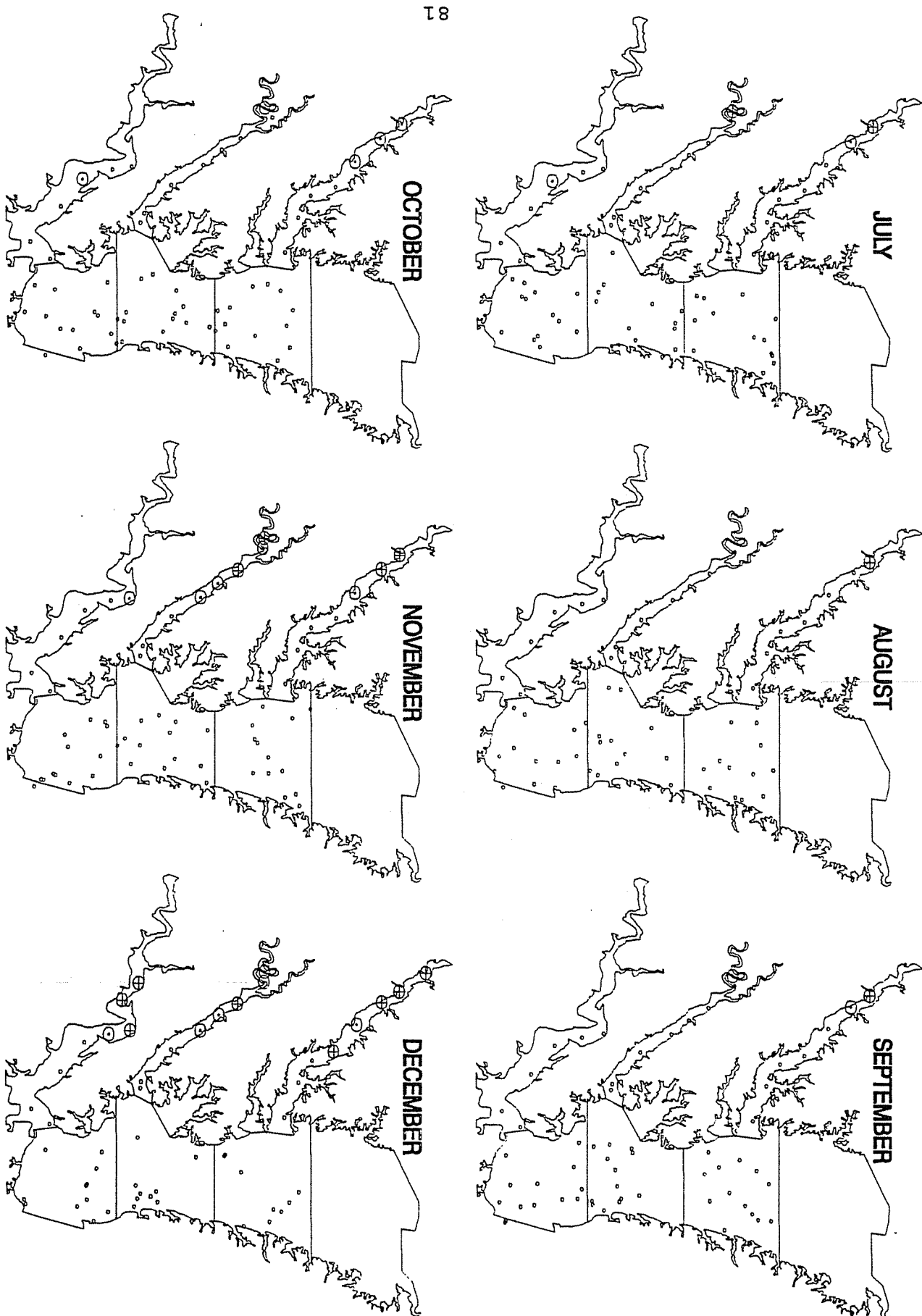
Figure 43

# White Perch



NUMBER CAUGHT: • = ZERO    ○ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000

Figure 43



NUMBER CAUGHT: . = ZERO    ⊙ = 1 to 9    ⊕ = 10 to 99    ⊗ = 100 to 999    ● = ≥ 1,000



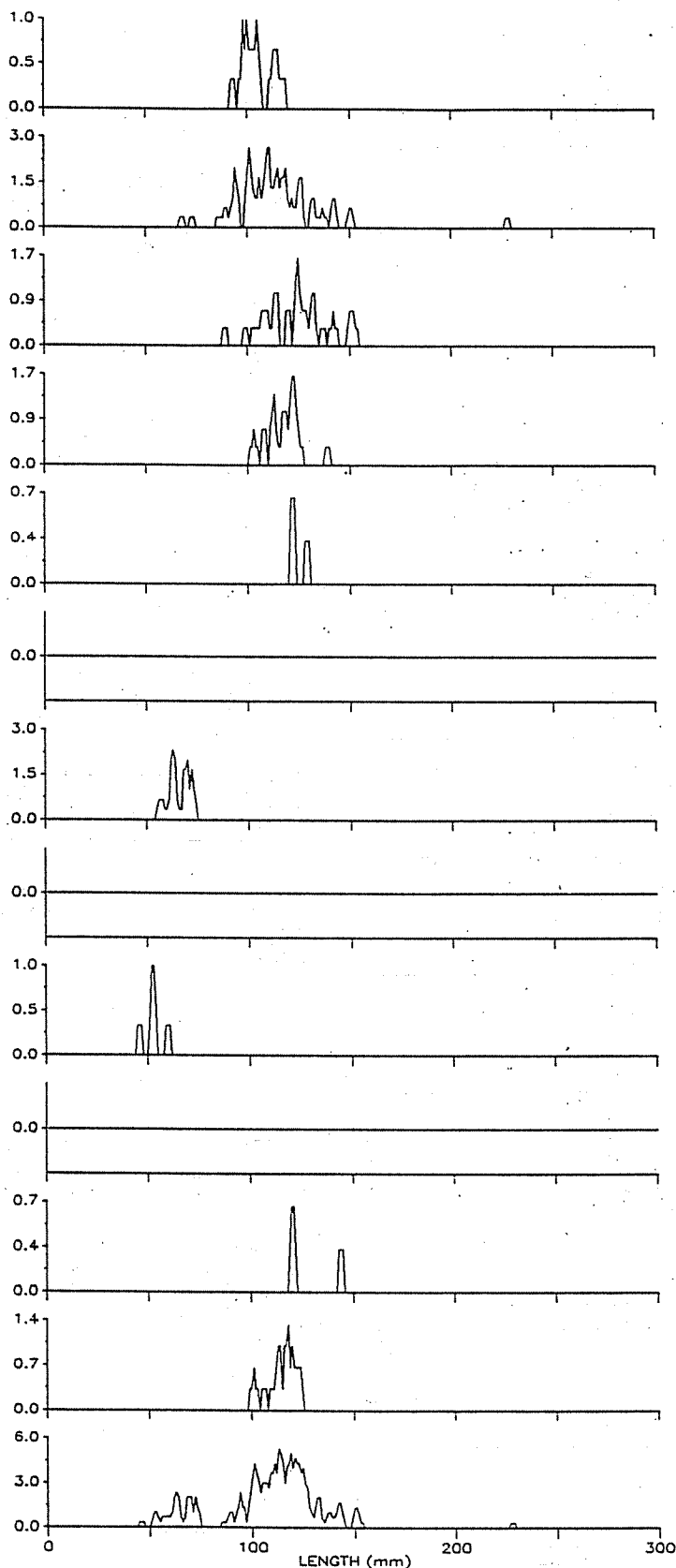
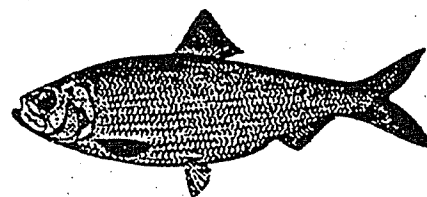
Figures 44-73. Monthly length frequency summaries for the predominant species.

Explanations:

- A. These figures represent all fish of each species presented from both the river and bay surveys.
- B. For curve smoothing, the values plotted are a moving average of three of the number of fish caught at each millimeter length group; therefore fractional values can occur.
- C. The bottom plot on each page is a summary of all fish for the entire year.
- D. The values to the right of the month name on each plot represent the inclusive dates of the cruises during the month, in format year-month-day.
- E. The catch per haul data presented here should not be used as a young-of-year (YOY) index. No distinction has been made in these calculations between YOY and older fish.

Figure 44.

Alewife



JANUARY	940110 - 940113		
NO. CGHT.	13	MEAN SIZE	103
NO. MEAS.	13	S.E. SIZE	2.1
NO. HAULS	25	MIN. SIZE	91
CAT./HAUL	0.5	MAX. SIZE	116

FEBRUARY	940201 - 940217		
NO. CGHT.	66	MEAN SIZE	112.3
NO. MEAS.	66	S.E. SIZE	2.7
NO. HAULS	58	MIN. SIZE	66
CAT./HAUL	1.1	MAX. SIZE	226

MARCH	940307 - 940315		
NO. CGHT.	28	MEAN SIZE	121.6
NO. MEAS.	28	S.E. SIZE	3
NO. HAULS	25	MIN. SIZE	87
CAT./HAUL	1.1	MAX. SIZE	151

APRIL	940404 - 940413		
NO. CGHT.	20	MEAN SIZE	115.3
NO. MEAS.	20	S.E. SIZE	1.9
NO. HAULS	58	MIN. SIZE	100
CAT./HAUL	0.3	MAX. SIZE	137

MAY	940502 - 940516		
NO. CGHT.	3	MEAN SIZE	122.3
NO. MEAS.	3	S.E. SIZE	2.3
NO. HAULS	60	MIN. SIZE	120
CAT./HAUL	0.1	MAX. SIZE	127

JUNE	940601 - 940610		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

JULY	940705 - 940713		
NO. CGHT.	21	MEAN SIZE	63.8
NO. MEAS.	21	S.E. SIZE	1.1
NO. HAULS	60	MIN. SIZE	54
CAT./HAUL	0.4	MAX. SIZE	71

AUGUST	940801 - 940810		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

SEPTEMBER	940901 - 940913		
NO. CGHT.	5	MEAN SIZE	50.8
NO. MEAS.	5	S.E. SIZE	2.2
NO. HAULS	60	MIN. SIZE	44
CAT./HAUL	0.1	MAX. SIZE	58

OCTOBER	941005 - 941024		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

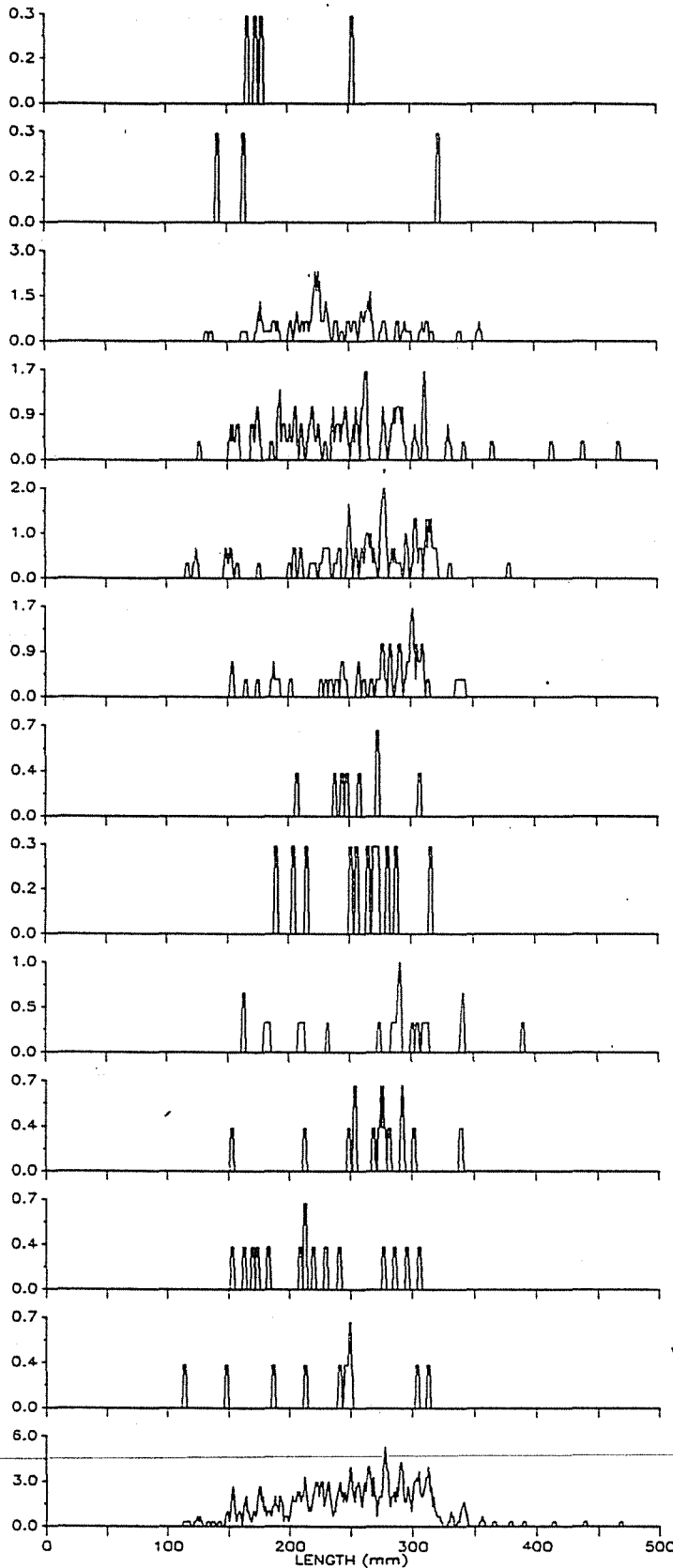
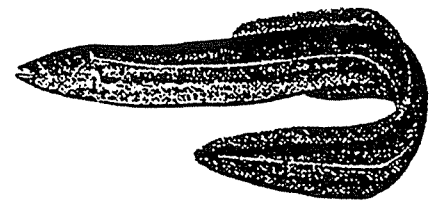
NOVEMBER	941103 - 941116		
NO. CGHT.	3	MEAN SIZE	126.3
NO. MEAS.	3	S.E. SIZE	7.8
NO. HAULS	60	MIN. SIZE	118
CAT./HAUL	0.1	MAX. SIZE	142

DECEMBER	941201 - 941208		
NO. CGHT.	15	MEAN SIZE	112.4
NO. MEAS.	15	S.E. SIZE	1.9
NO. HAULS	54	MIN. SIZE	98
CAT./HAUL	0.3	MAX. SIZE	122

JAN - DEC	940110 - 941208		
NO. CGHT.	174	MEAN SIZE	106.2
NO. MEAS.	174	S.E. SIZE	1.9
NO. HAULS	640	MIN. SIZE	44
CAT./HAUL	0.3	MAX. SIZE	226

Figure 45.

American Eel



JANUARY 940110 - 940113  
 NO. CGHT. - 4 MEAN SIZE - 191.3  
 NO. MEAS. - 4 S.E. SIZE - 20.1  
 NO. HAULS - 25 MIN. SIZE - 165  
 CAT./HAUL - 0.2 MAX. SIZE - 251

FEBRUARY 940201 - 940217  
 NO. CGHT. - 3 MEAN SIZE - 207.7  
 NO. MEAS. - 3 S.E. SIZE - 57  
 NO. HAULS - 58 MIN. SIZE - 140  
 CAT./HAUL - 0.1 MAX. SIZE - 321

MARCH 940307 - 940315  
 NO. CGHT. - 80 MEAN SIZE - 236.4  
 NO. MEAS. - 80 S.E. SIZE - 5.2  
 NO. HAULS - 25 MIN. SIZE - 131  
 CAT./HAUL - 3.2 MAX. SIZE - 355

APRIL 940404 - 940413  
 NO. CGHT. - 83 MEAN SIZE - 247.2  
 NO. MEAS. - 83 S.E. SIZE - 6.9  
 NO. HAULS - 58 MIN. SIZE - 125  
 CAT./HAUL - 1.4 MAX. SIZE - 466

MAY 940502 - 940516  
 NO. CGHT. - 76 MEAN SIZE - 256.2  
 NO. MEAS. - 76 S.E. SIZE - 6.2  
 NO. HAULS - 60 MIN. SIZE - 115  
 CAT./HAUL - 1.3 MAX. SIZE - 377

JUNE 940601 - 940610  
 NO. CGHT. - 49 MEAN SIZE - 265.4  
 NO. MEAS. - 49 S.E. SIZE - 6.9  
 NO. HAULS - 60 MIN. SIZE - 151  
 CAT./HAUL - 0.8 MAX. SIZE - 341

JULY 940705 - 940713  
 NO. CGHT. - 8 MEAN SIZE - 254  
 NO. MEAS. - 8 S.E. SIZE - 10.5  
 NO. HAULS - 60 MIN. SIZE - 205  
 CAT./HAUL - 0.1 MAX. SIZE - 305

AUGUST 940801 - 940810  
 NO. CGHT. - 11 MEAN SIZE - 253.4  
 NO. MEAS. - 11 S.E. SIZE - 11.5  
 NO. HAULS - 60 MIN. SIZE - 188  
 CAT./HAUL - 0.2 MAX. SIZE - 314

SEPTEMBER 940901 - 940913  
 NO. CGHT. - 20 MEAN SIZE - 266.3  
 NO. MEAS. - 20 S.E. SIZE - 14.4  
 NO. HAULS - 60 MIN. SIZE - 161  
 CAT./HAUL - 0.3 MAX. SIZE - 388

OCTOBER 941005 - 941024  
 NO. CGHT. - 14 MEAN SIZE - 264.4  
 NO. MEAS. - 14 S.E. SIZE - 11.7  
 NO. HAULS - 60 MIN. SIZE - 151  
 CAT./HAUL - 0.2 MAX. SIZE - 338

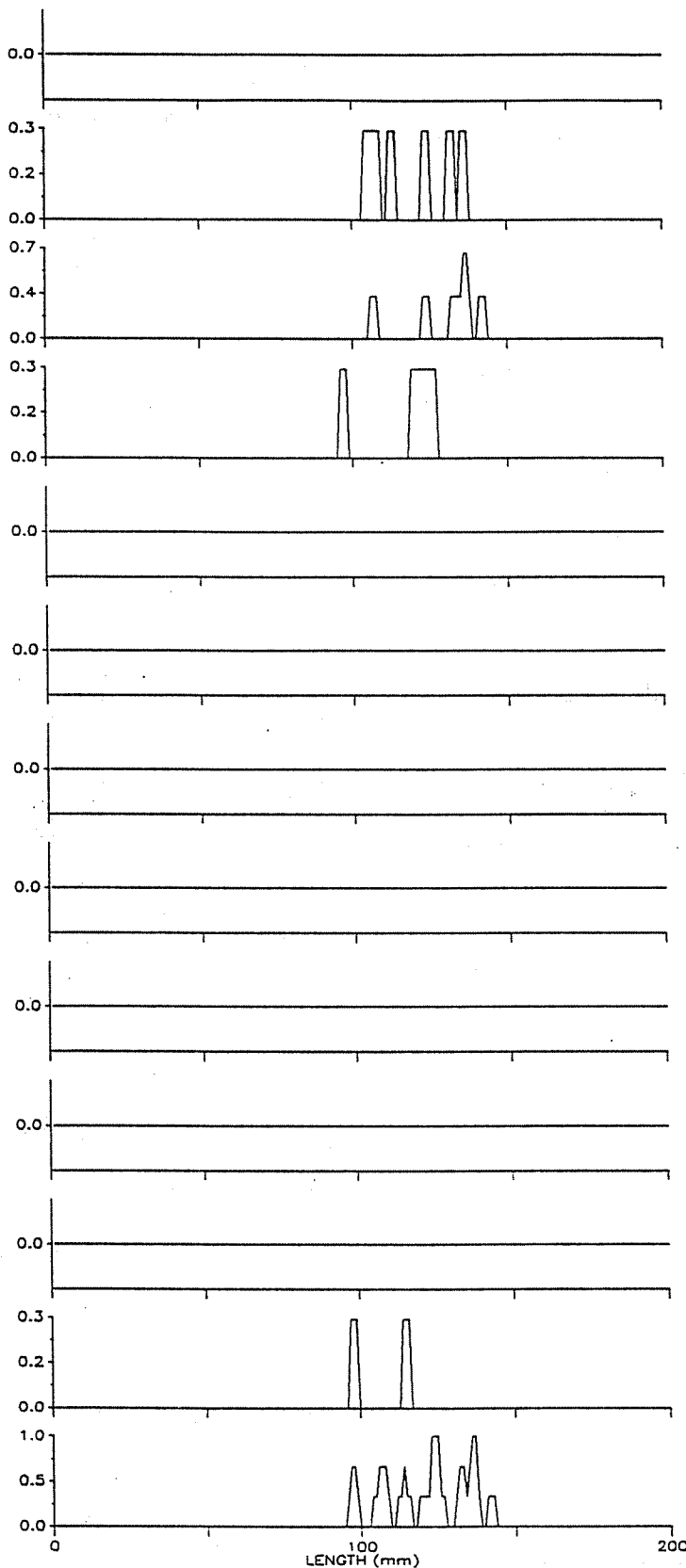
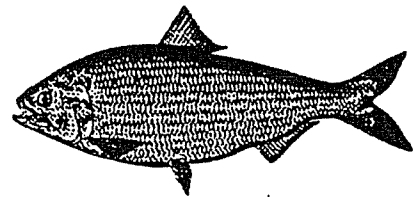
NOVEMBER 941103 - 941116  
 NO. CGHT. - 15 MEAN SIZE - 220.3  
 NO. MEAS. - 15 S.E. SIZE - 12.9  
 NO. HAULS - 60 MIN. SIZE - 151  
 CAT./HAUL - 0.3 MAX. SIZE - 304

DECEMBER 941201 - 941208  
 NO. CGHT. - 10 MEAN SIZE - 224.5  
 NO. MEAS. - 10 S.E. SIZE - 19.9  
 NO. HAULS - 54 MIN. SIZE - 112  
 CAT./HAUL - 0.2 MAX. SIZE - 311

JAN - DEC 940110 - 941208  
 NO. CGHT. - 373 MEAN SIZE - 248.5  
 NO. MEAS. - 373 S.E. SIZE - 2.9  
 NO. HAULS - 640 MIN. SIZE - 112  
 CAT./HAUL - 0.6 MAX. SIZE - 466

Figure 46.

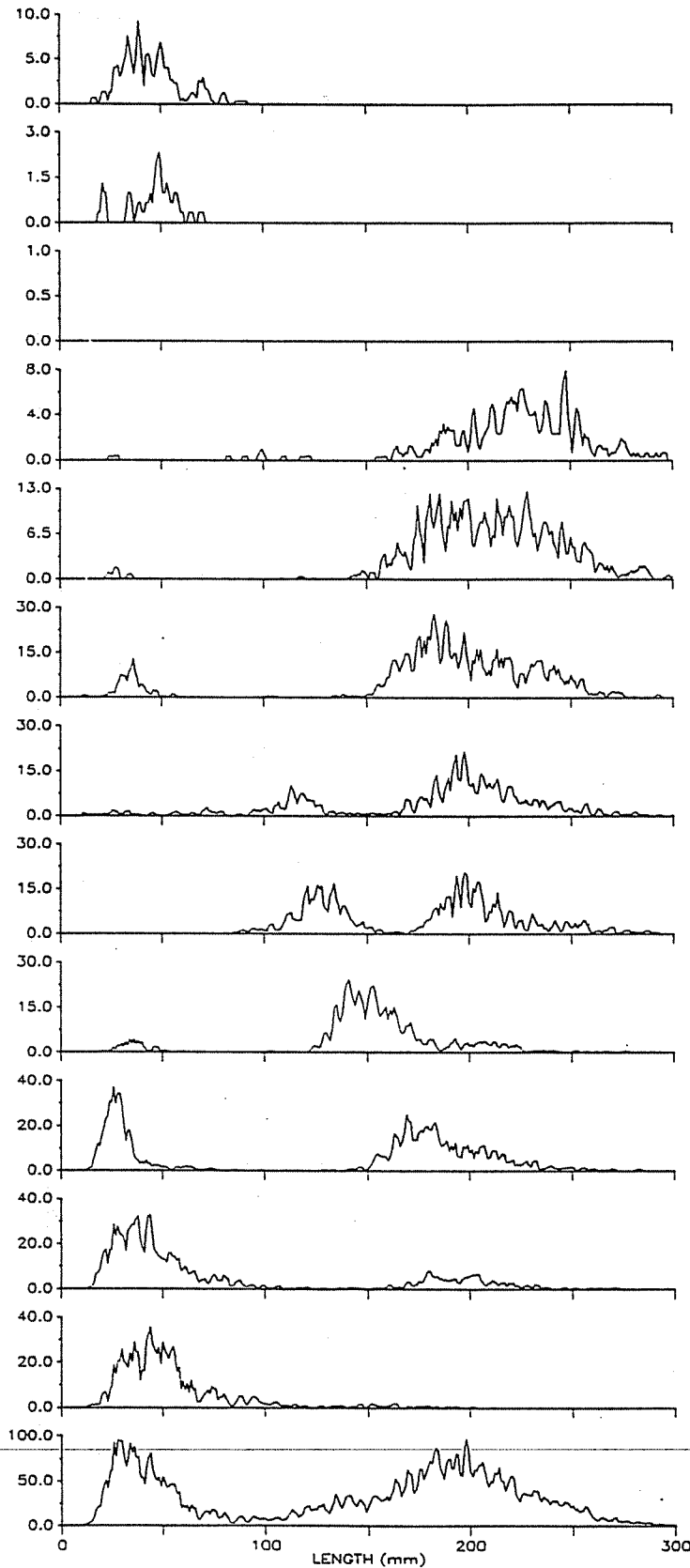
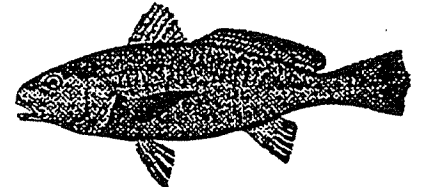
American Shad



JANUARY	940110 - 940113		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
FEBRUARY	940201 - 940217		
NO. CGHT.	6	MEAN SIZE	- 117.7
NO. MEAS.	6	S.E. SIZE	- 5.3
NO. HAULS	58	MIN. SIZE	- 103
CAT./HAUL	0.1	MAX. SIZE	- 134
MARCH	940307 - 940315		
NO. CGHT.	6	MEAN SIZE	- 127.8
NO. MEAS.	6	S.E. SIZE	- 5.2
NO. HAULS	25	MIN. SIZE	- 105
CAT./HAUL	0.2	MAX. SIZE	- 140
APRIL	940404 - 940413		
NO. CGHT.	4	MEAN SIZE	- 114.5
NO. MEAS.	4	S.E. SIZE	- 6.5
NO. HAULS	58	MIN. SIZE	- 95
CAT./HAUL	0.1	MAX. SIZE	- 124
MAY	940502 - 940516		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
JUNE	940601 - 940610		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
JULY	940705 - 940713		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
AUGUST	940801 - 940810		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
SEPTEMBER	940901 - 940913		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
OCTOBER	941005 - 941024		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
NOVEMBER	941103 - 941116		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
DECEMBER	941201 - 941208		
NO. CGHT.	2	MEAN SIZE	- 104.5
NO. MEAS.	2	S.E. SIZE	- 8.5
NO. HAULS	54	MIN. SIZE	- 96
CAT./HAUL	0	MAX. SIZE	- 113
JAN - DEC	940110 - 941208		
NO. CGHT.	18	MEAN SIZE	- 118.9
NO. MEAS.	18	S.E. SIZE	- 3.3
NO. HAULS	640	MIN. SIZE	- 95
CAT./HAUL	0	MAX. SIZE	- 140

Figure 47.

Atlantic Croaker



JANUARY		940110 - 940113	
NO. CGHT.	- 498	MEAN SIZE	- 43.2
NO. MEAS.	- 183	S.E. SIZE	- 1.1
NO. HAULS	- 25	MIN. SIZE	- 15
CAT./HAUL	- 19.9	MAX. SIZE	- 89

FEBRUARY		940201 - 940217	
NO. CGHT.	- 84	MEAN SIZE	- 43.8
NO. MEAS.	- 31	S.E. SIZE	- 2.2
NO. HAULS	- 58	MIN. SIZE	- 18
CAT./HAUL	- 1.4	MAX. SIZE	- 68

MARCH		940307 - 940315	
NO. CGHT.	- 0	MEAN SIZE	- .
NO. MEAS.	- 0	S.E. SIZE	- .
NO. HAULS	- 25	MIN. SIZE	- .
CAT./HAUL	- 0	MAX. SIZE	- .

APRIL		940404 - 940413	
NO. CGHT.	- 543	MEAN SIZE	- 220.4
NO. MEAS.	- 316	S.E. SIZE	- 2.1
NO. HAULS	- 58	MIN. SIZE	- 23
CAT./HAUL	- 9.4	MAX. SIZE	- 329

MAY		940502 - 940516	
NO. CGHT.	- 1887	MEAN SIZE	- 208.2
NO. MEAS.	- 758	S.E. SIZE	- 1.4
NO. HAULS	- 60	MIN. SIZE	- 11
CAT./HAUL	- 31.5	MAX. SIZE	- 339

JUNE		940601 - 940610	
NO. CGHT.	- 2426	MEAN SIZE	- 184.8
NO. MEAS.	- 1333	S.E. SIZE	- 1.5
NO. HAULS	- 60	MIN. SIZE	- 19
CAT./HAUL	- 40.4	MAX. SIZE	- 291

JULY		940705 - 940713	
NO. CGHT.	- 2034	MEAN SIZE	- 181.3
NO. MEAS.	- 904	S.E. SIZE	- 1.7
NO. HAULS	- 60	MIN. SIZE	- 13
CAT./HAUL	- 33.9	MAX. SIZE	- 317

AUGUST		940801 - 940810	
NO. CGHT.	- 2150	MEAN SIZE	- 175.7
NO. MEAS.	- 993	S.E. SIZE	- 1.5
NO. HAULS	- 60	MIN. SIZE	- 84
CAT./HAUL	- 35.8	MAX. SIZE	- 328

SEPTEMBER		940901 - 940913	
NO. CGHT.	- 1157	MEAN SIZE	- 150.1
NO. MEAS.	- 847	S.E. SIZE	- 1.4
NO. HAULS	- 60	MIN. SIZE	- 19
CAT./HAUL	- 19.3	MAX. SIZE	- 275

OCTOBER		941005 - 941024	
NO. CGHT.	- 1901	MEAN SIZE	- 127.7
NO. MEAS.	- 1383	S.E. SIZE	- 2.1
NO. HAULS	- 60	MIN. SIZE	- 12
CAT./HAUL	- 31.7	MAX. SIZE	- 281

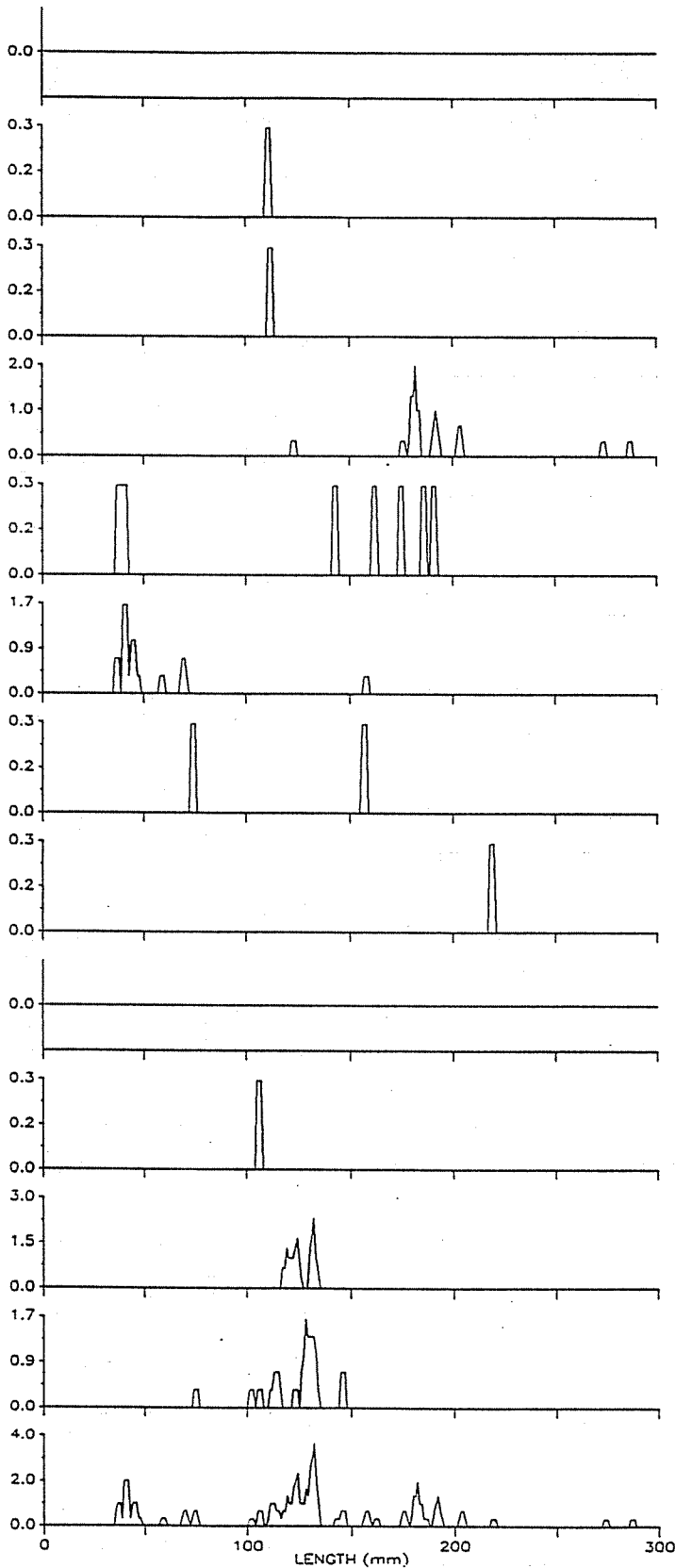
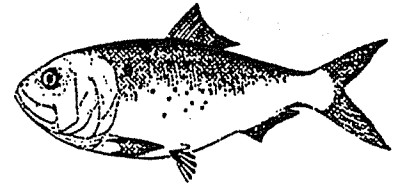
NOVEMBER		941103 - 941116	
NO. CGHT.	- 3501	MEAN SIZE	- 75.2
NO. MEAS.	- 1276	S.E. SIZE	- 1.8
NO. HAULS	- 60	MIN. SIZE	- 12
CAT./HAUL	- 58.4	MAX. SIZE	- 270

DECEMBER		941201 - 941208	
NO. CGHT.	- 5413	MEAN SIZE	- 51.1
NO. MEAS.	- 1069	S.E. SIZE	- 0.8
NO. HAULS	- 54	MIN. SIZE	- 10
CAT./HAUL	- 100.2	MAX. SIZE	- 199

JAN - DEC		940110 - 941208	
NO. CGHT.	- 21594	MEAN SIZE	- 140.3
NO. MEAS.	- 9093	S.E. SIZE	- 0.8
NO. HAULS	- 640	MIN. SIZE	- 10
CAT./HAUL	- 33.7	MAX. SIZE	- 339

Figure 48.

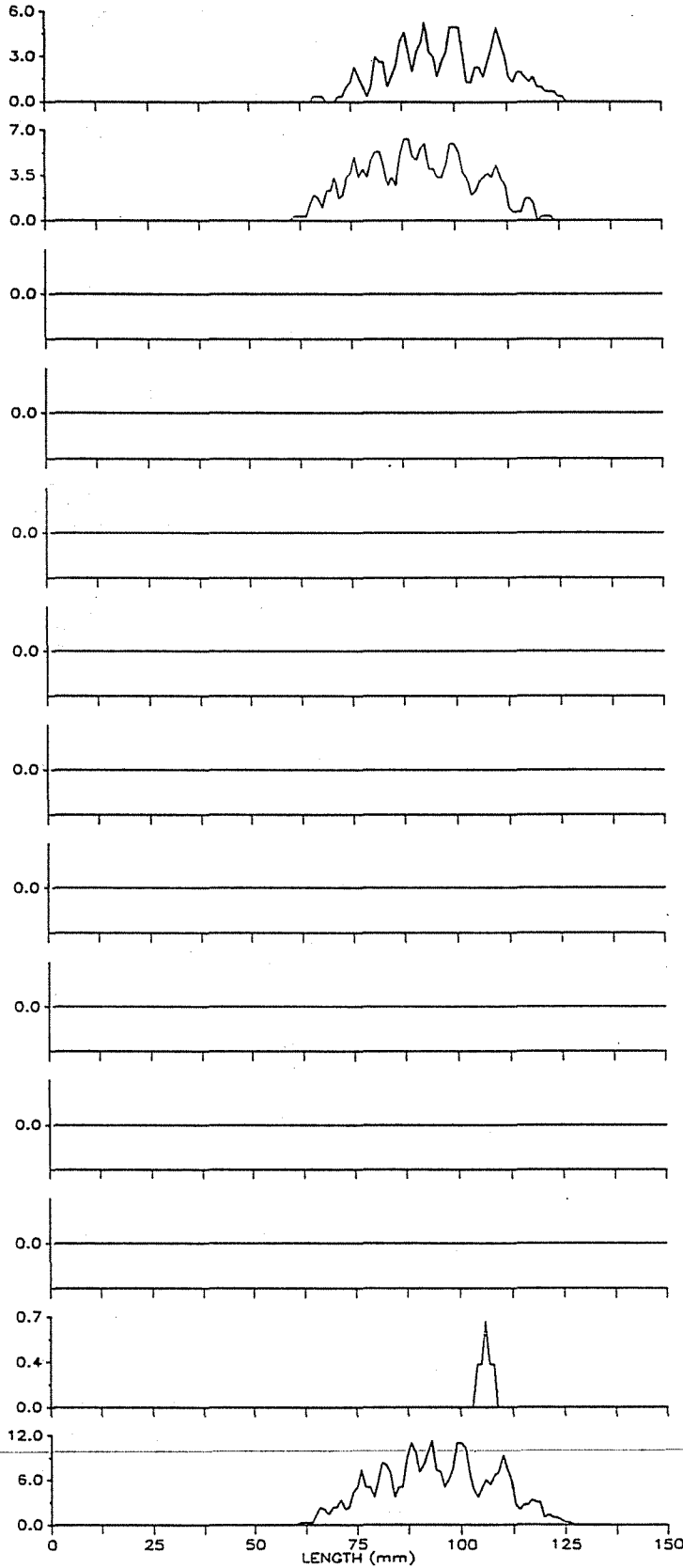
Atlantic Menhaden



JANUARY	940110 - 940113		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
FEBRUARY	940201 - 940217		
NO. CGHT.	1	MEAN SIZE	- 109
NO. MEAS.	1	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	- 109
CAT./HAUL	0	MAX. SIZE	- 109
MARCH	940307 - 940315		
NO. CGHT.	1	MEAN SIZE	- 110
NO. MEAS.	1	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	- 110
CAT./HAUL	0	MAX. SIZE	- 110
APRIL	940404 - 940413		
NO. CGHT.	16	MEAN SIZE	- 192.7
NO. MEAS.	16	S.E. SIZE	- 9.5
NO. HAULS	58	MIN. SIZE	- 121
CAT./HAUL	0.3	MAX. SIZE	- 285
MAY	940502 - 940516		
NO. CGHT.	8	MEAN SIZE	- 131.7
NO. MEAS.	7	S.E. SIZE	- 25.1
NO. HAULS	60	MIN. SIZE	- 36
CAT./HAUL	0.1	MAX. SIZE	- 189
JUNE	940601 - 940610		
NO. CGHT.	15	MEAN SIZE	- 52.4
NO. MEAS.	15	S.E. SIZE	- 7.9
NO. HAULS	60	MIN. SIZE	- 35
CAT./HAUL	0.3	MAX. SIZE	- 156
JULY	940705 - 940713		
NO. CGHT.	2	MEAN SIZE	- 113.5
NO. MEAS.	2	S.E. SIZE	- 41.5
NO. HAULS	60	MIN. SIZE	- 72
CAT./HAUL	0	MAX. SIZE	- 155
AUGUST	940801 - 940810		
NO. CGHT.	1	MEAN SIZE	- 217
NO. MEAS.	1	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	- 217
CAT./HAUL	0	MAX. SIZE	- 217
SEPTEMBER	940901 - 940913		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
OCTOBER	941005 - 941024		
NO. CGHT.	1	MEAN SIZE	- 104
NO. MEAS.	1	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	- 104
CAT./HAUL	0	MAX. SIZE	- 104
NOVEMBER	941103 - 941116		
NO. CGHT.	17	MEAN SIZE	- 123.8
NO. MEAS.	17	S.E. SIZE	- 1.3
NO. HAULS	60	MIN. SIZE	- 116
CAT./HAUL	0.3	MAX. SIZE	- 131
DECEMBER	941201 - 941208		
NO. CGHT.	19	MEAN SIZE	- 121
NO. MEAS.	19	S.E. SIZE	- 3.8
NO. HAULS	54	MIN. SIZE	- 73
CAT./HAUL	0.4	MAX. SIZE	- 144
JAN - DEC	940110 - 941208		
NO. CGHT.	81	MEAN SIZE	- 124.5
NO. MEAS.	80	S.E. SIZE	- 6.1
NO. HAULS	640	MIN. SIZE	- 35
CAT./HAUL	0.1	MAX. SIZE	- 285

Figure 49.

Atlantic Silverside



JANUARY	940110 - 940113		
NO. CGHT.	126	MEAN SIZE	95.8
NO. MEAS.	126	S.E. SIZE	1.1
NO. HAULS	25	MIN. SIZE	65
CAT./HAUL	5	MAX. SIZE	123

FEBRUARY	940201 - 940217		
NO. CGHT.	189	MEAN SIZE	89.1
NO. MEAS.	189	S.E. SIZE	1
NO. HAULS	58	MIN. SIZE	60
CAT./HAUL	3.3	MAX. SIZE	120

MARCH	940307 - 940315		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	25	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

APRIL	940404 - 940413		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	58	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

MAY	940502 - 940516		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

JUNE	940601 - 940610		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

JULY	940705 - 940713		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

AUGUST	940801 - 940810		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

SEPTEMBER	940901 - 940913		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

OCTOBER	941005 - 941024		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

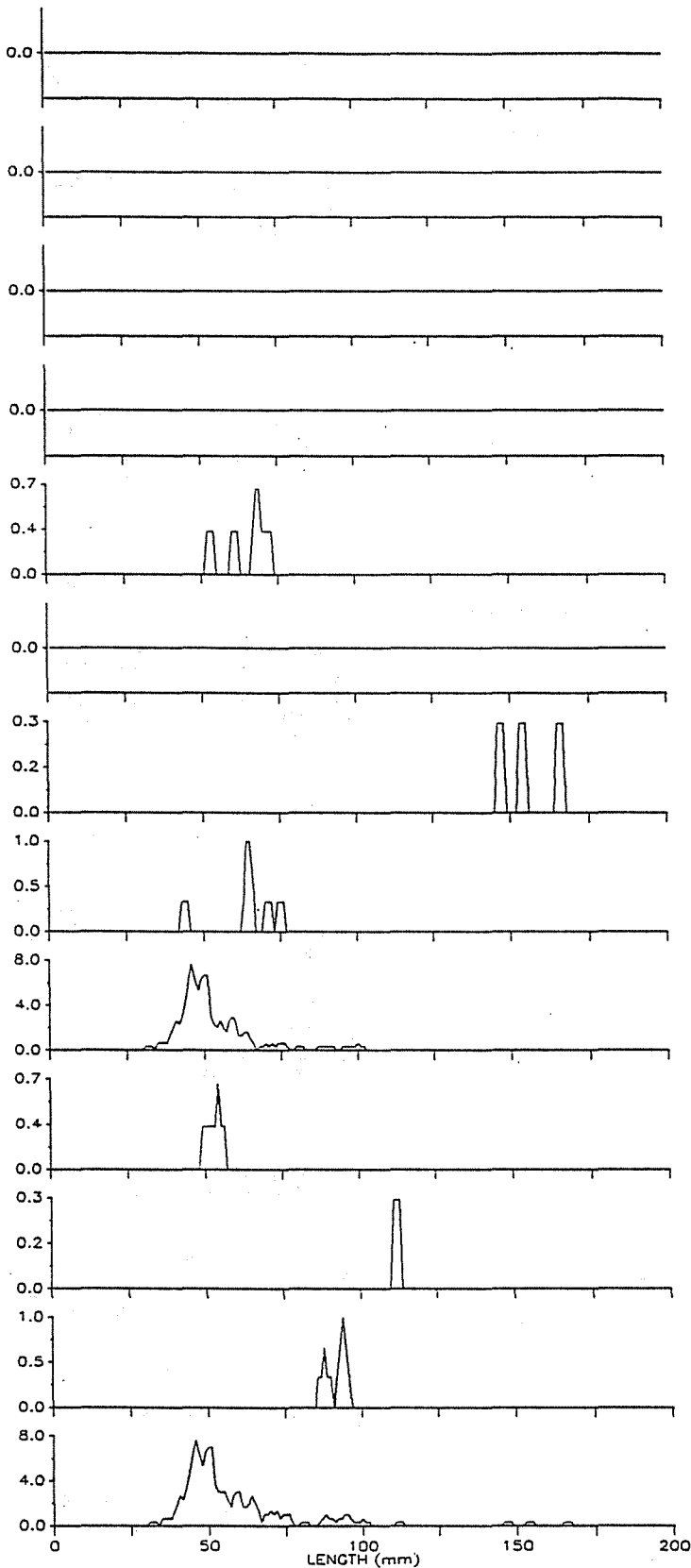
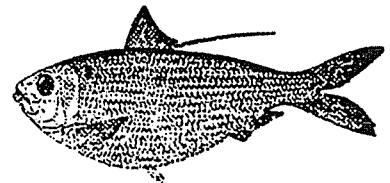
NOVEMBER	941103 - 941116		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

DECEMBER	941201 - 941208		
NO. CGHT.	2	MEAN SIZE	104
NO. MEAS.	2	S.E. SIZE	1
NO. HAULS	54	MIN. SIZE	103
CAT./HAUL	0	MAX. SIZE	105

JAN - DEC	940110 - 941208		
NO. CGHT.	317	MEAN SIZE	91.9
NO. MEAS.	317	S.E. SIZE	0.8
NO. HAULS	640	MIN. SIZE	60
CAT./HAUL	0.5	MAX. SIZE	123

Figure 50.

Atlantic Thread Herring

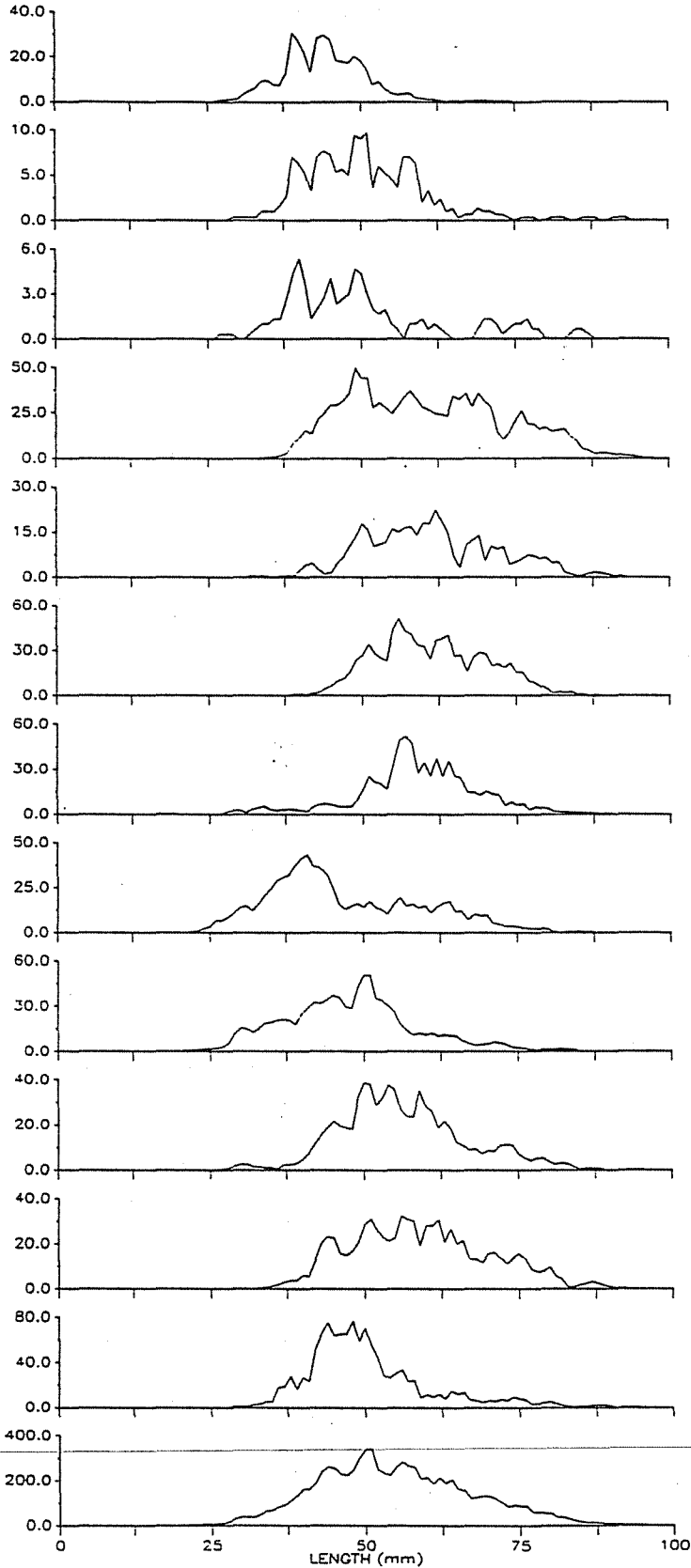


JANUARY	940110 - 940113		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
FEBRUARY	940201 - 940217		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MARCH	940307 - 940315		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
APRIL	940404 - 940413		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MAY	940502 - 940516		
NO. CGHT.	5	MEAN SIZE	62.6
NO. MEAS.	5	S.E. SIZE	3.4
NO. HAULS	60	MIN. SIZE	51
CAT./HAUL	0.1	MAX. SIZE	70
JUNE	940601 - 940610		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
JULY	940705 - 940713		
NO. CGHT.	3	MEAN SIZE	153.7
NO. MEAS.	3	S.E. SIZE	5.5
NO. HAULS	60	MIN. SIZE	145
CAT./HAUL	0.1	MAX. SIZE	164
AUGUST	940801 - 940810		
NO. CGHT.	6	MEAN SIZE	62
NO. MEAS.	6	S.E. SIZE	4.4
NO. HAULS	60	MIN. SIZE	42
CAT./HAUL	0.1	MAX. SIZE	73
SEPTEMBER	940901 - 940913		
NO. CGHT.	105	MEAN SIZE	51.2
NO. MEAS.	105	S.E. SIZE	1.3
NO. HAULS	60	MIN. SIZE	30
CAT./HAUL	1.8	MAX. SIZE	99
OCTOBER	941005 - 941024		
NO. CGHT.	3	MEAN SIZE	50.7
NO. MEAS.	3	S.E. SIZE	1.5
NO. HAULS	60	MIN. SIZE	48
CAT./HAUL	0.1	MAX. SIZE	53
NOVEMBER	941103 - 941116		
NO. CGHT.	1	MEAN SIZE	110
NO. MEAS.	1	S.E. SIZE	-
NO. HAULS	60	MIN. SIZE	110
CAT./HAUL	0	MAX. SIZE	110
DECEMBER	941201 - 941208		
NO. CGHT.	5	MEAN SIZE	89.6
NO. MEAS.	5	S.E. SIZE	1.5
NO. HAULS	54	MIN. SIZE	85
CAT./HAUL	0.1	MAX. SIZE	93
JAN - DEC	940110 - 941208		
NO. CGHT.	128	MEAN SIZE	56.5
NO. MEAS.	128	S.E. SIZE	1.9
NO. HAULS	640	MIN. SIZE	30
CAT./HAUL	0.2	MAX. SIZE	164



Figure 51.

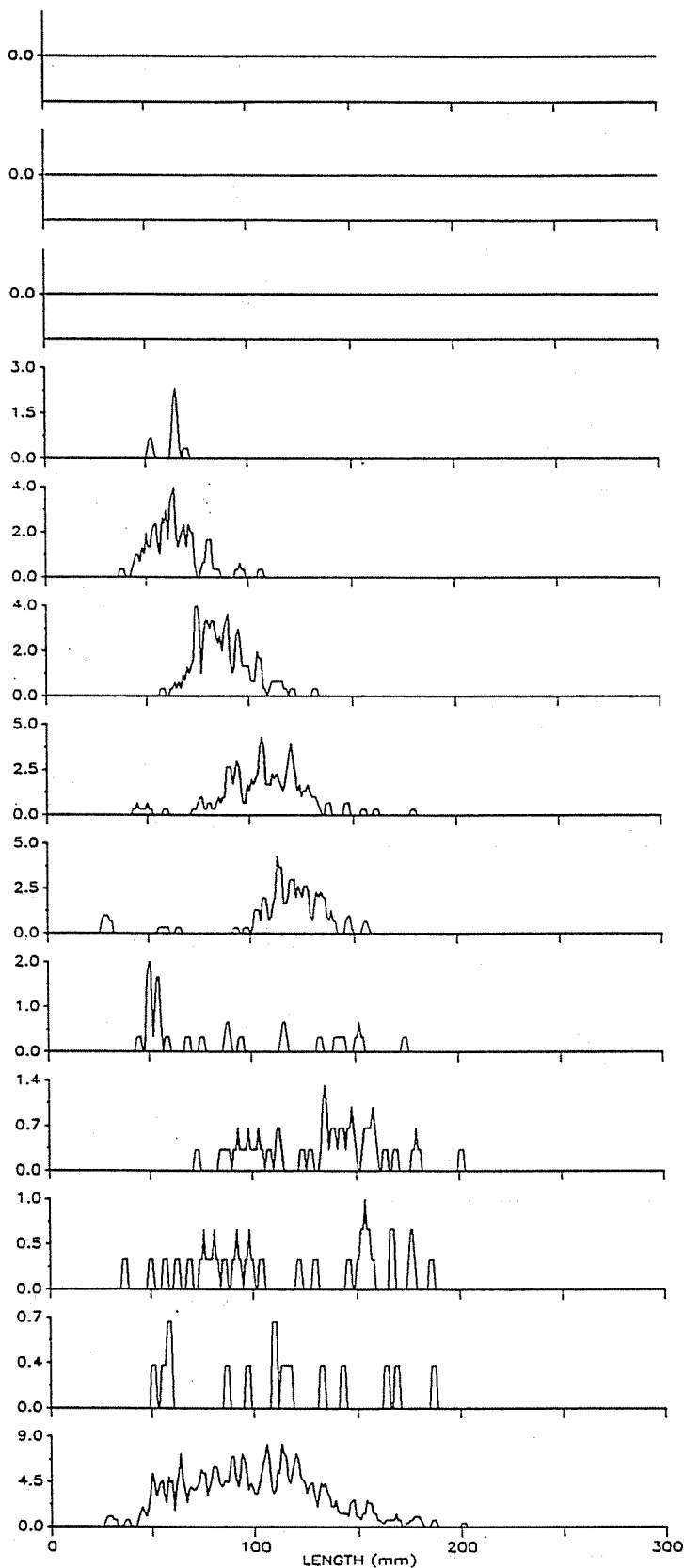
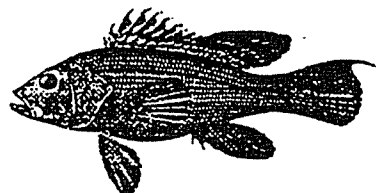
Bay Anchovy



JANUARY	940110 - 940113		
NO. CGHT.	- 3576	MEAN SIZE	- 42.2
NO. MEAS.	- 398	S.E. SIZE	- 0.3
NO. HAULS	- 25	MIN. SIZE	- 26
CAT./HAUL	- 143	MAX. SIZE	- 71
FEBRUARY	940201 - 940217		
NO. CGHT.	- 400	MEAN SIZE	- 48.9
NO. MEAS.	- 163	S.E. SIZE	- 0.8
NO. HAULS	- 58	MIN. SIZE	- 28
CAT./HAUL	- 6.9	MAX. SIZE	- 90
MARCH	940307 - 940315		
NO. CGHT.	- 149	MEAN SIZE	- 48.5
NO. MEAS.	- 78	S.E. SIZE	- 1.5
NO. HAULS	- 25	MIN. SIZE	- 26
CAT./HAUL	- 6	MAX. SIZE	- 84
APRIL	940404 - 940413		
NO. CGHT.	- 15705	MEAN SIZE	- 58.8
NO. MEAS.	- 1212	S.E. SIZE	- 0.4
NO. HAULS	- 58	MIN. SIZE	- 33
CAT./HAUL	- 270.8	MAX. SIZE	- 94
MAY	940502 - 940516		
NO. CGHT.	- 777	MEAN SIZE	- 59.4
NO. MEAS.	- 433	S.E. SIZE	- 0.5
NO. HAULS	- 60	MIN. SIZE	- 31
CAT./HAUL	- 13	MAX. SIZE	- 89
JUNE	940601 - 940610		
NO. CGHT.	- 29572	MEAN SIZE	- 59.2
NO. MEAS.	- 909	S.E. SIZE	- 0.3
NO. HAULS	- 60	MIN. SIZE	- 37
CAT./HAUL	- 492.9	MAX. SIZE	- 87
JULY	940705 - 940713		
NO. CGHT.	- 6889	MEAN SIZE	- 56.7
NO. MEAS.	- 755	S.E. SIZE	- 0.4
NO. HAULS	- 60	MIN. SIZE	- 16
CAT./HAUL	- 114.8	MAX. SIZE	- 87
AUGUST	940801 - 940810		
NO. CGHT.	- 40745	MEAN SIZE	- 45.1
NO. MEAS.	- 869	S.E. SIZE	- 0.4
NO. HAULS	- 60	MIN. SIZE	- 21
CAT./HAUL	- 679.1	MAX. SIZE	- 84
SEPTEMBER	940901 - 940913		
NO. CGHT.	- 39686	MEAN SIZE	- 45.9
NO. MEAS.	- 948	S.E. SIZE	- 0.4
NO. HAULS	- 60	MIN. SIZE	- 20
CAT./HAUL	- 661.4	MAX. SIZE	- 88
OCTOBER	941005 - 941024		
NO. CGHT.	- 7596	MEAN SIZE	- 54.4
NO. MEAS.	- 766	S.E. SIZE	- 0.4
NO. HAULS	- 60	MIN. SIZE	- 26
CAT./HAUL	- 126.6	MAX. SIZE	- 92
NOVEMBER	941103 - 941116		
NO. CGHT.	- 9249	MEAN SIZE	- 57
NO. MEAS.	- 810	S.E. SIZE	- 0.4
NO. HAULS	- 60	MIN. SIZE	- 32
CAT./HAUL	- 154.2	MAX. SIZE	- 89
DECEMBER	941201 - 941208		
NO. CGHT.	- 59853	MEAN SIZE	- 48.5
NO. MEAS.	- 1202	S.E. SIZE	- 0.3
NO. HAULS	- 54	MIN. SIZE	- 28
CAT./HAUL	- 1108.4	MAX. SIZE	- 91
JAN - DEC	940110 - 941208		
NO. CGHT.	- 214197	MEAN SIZE	- 52.8
NO. MEAS.	- 8543	S.E. SIZE	- 0.1
NO. HAULS	- 640	MIN. SIZE	- 16
CAT./HAUL	- 334.7	MAX. SIZE	- 94

Figure 52.

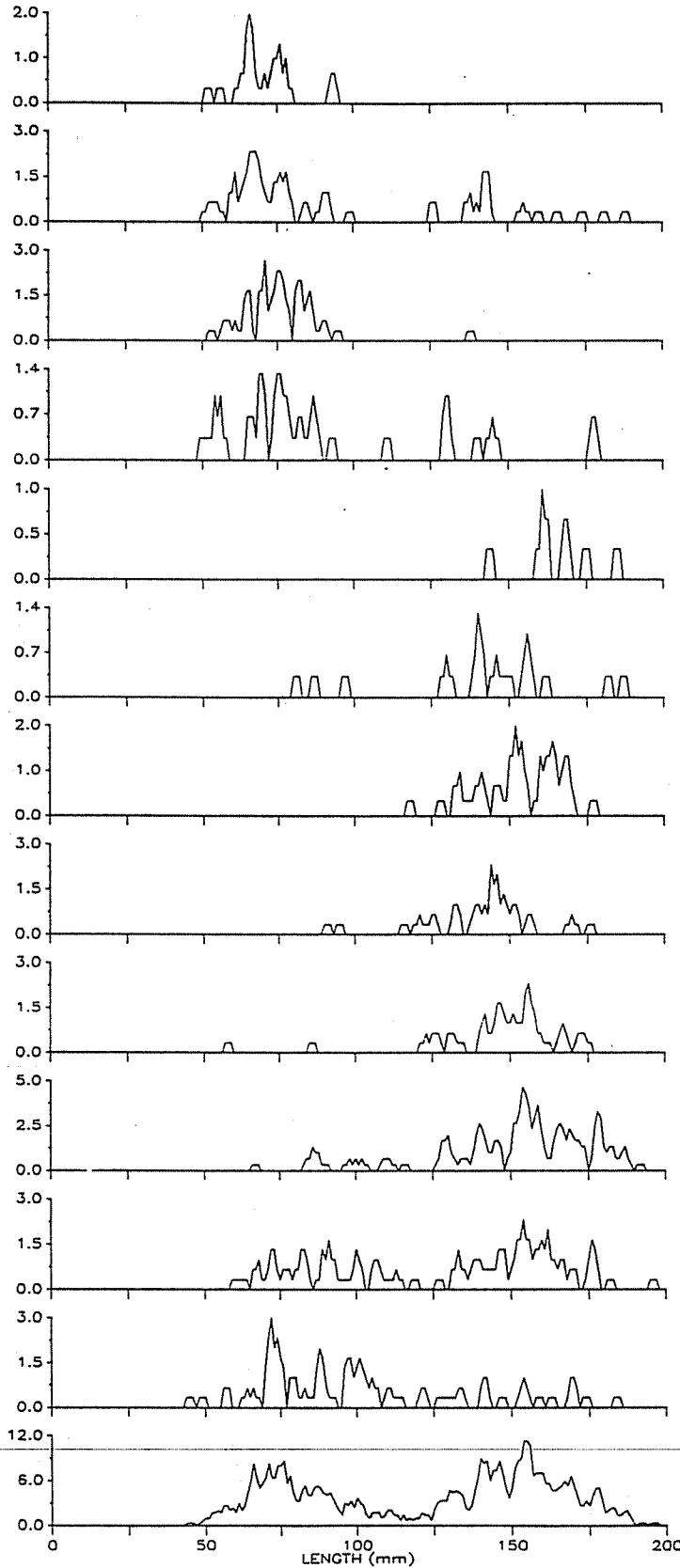
Black Seabass



JANUARY	940110 - 940113		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
FEBRUARY	940201 - 940217		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MARCH	940307 - 940315		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
APRIL	940404 - 940413		
NO. CGHT.	10	MEAN SIZE	- 60.9
NO. MEAS.	10	S.E. SIZE	- 1.8
NO. HAULS	58	MIN. SIZE	- 50
CAT./HAUL	0.2	MAX. SIZE	- 68
MAY	940502 - 940516		
NO. CGHT.	70	MEAN SIZE	- 62.1
NO. MEAS.	70	S.E. SIZE	- 1.5
NO. HAULS	60	MIN. SIZE	- 36
CAT./HAUL	1.2	MAX. SIZE	- 104
JUNE	940601 - 940610		
NO. CGHT.	94	MEAN SIZE	- 85.3
NO. MEAS.	94	S.E. SIZE	- 1.4
NO. HAULS	60	MIN. SIZE	- 56
CAT./HAUL	1.6	MAX. SIZE	- 130
JULY	940705 - 940713		
NO. CGHT.	113	MEAN SIZE	- 104.7
NO. MEAS.	113	S.E. SIZE	- 2.1
NO. HAULS	60	MIN. SIZE	- 42
CAT./HAUL	1.9	MAX. SIZE	- 177
AUGUST	940801 - 940810		
NO. CGHT.	92	MEAN SIZE	- 112.9
NO. MEAS.	92	S.E. SIZE	- 2.7
NO. HAULS	60	MIN. SIZE	- 26
CAT./HAUL	1.5	MAX. SIZE	- 154
SEPTEMBER	940901 - 940913		
NO. CGHT.	26	MEAN SIZE	- 83.4
NO. MEAS.	26	S.E. SIZE	- 8.1
NO. HAULS	60	MIN. SIZE	- 43
CAT./HAUL	0.4	MAX. SIZE	- 172
OCTOBER	941005 - 941024		
NO. CGHT.	36	MEAN SIZE	- 130.9
NO. MEAS.	36	S.E. SIZE	- 5
NO. HAULS	60	MIN. SIZE	- 71
CAT./HAUL	0.6	MAX. SIZE	- 199
NOVEMBER	941103 - 941116		
NO. CGHT.	28	MEAN SIZE	- 112.3
NO. MEAS.	28	S.E. SIZE	- 8.4
NO. HAULS	60	MIN. SIZE	- 35
CAT./HAUL	0.5	MAX. SIZE	- 184
DECEMBER	941201 - 941208		
NO. CGHT.	15	MEAN SIZE	- 108.4
NO. MEAS.	15	S.E. SIZE	- 11.2
NO. HAULS	54	MIN. SIZE	- 49
CAT./HAUL	0.3	MAX. SIZE	- 185
JAN - DEC	940110 - 941208		
NO. CGHT.	484	MEAN SIZE	- 96.8
NO. MEAS.	484	S.E. SIZE	- 1.5
NO. HAULS	640	MIN. SIZE	- 26
CAT./HAUL	0.8	MAX. SIZE	- 199

Figure 53.

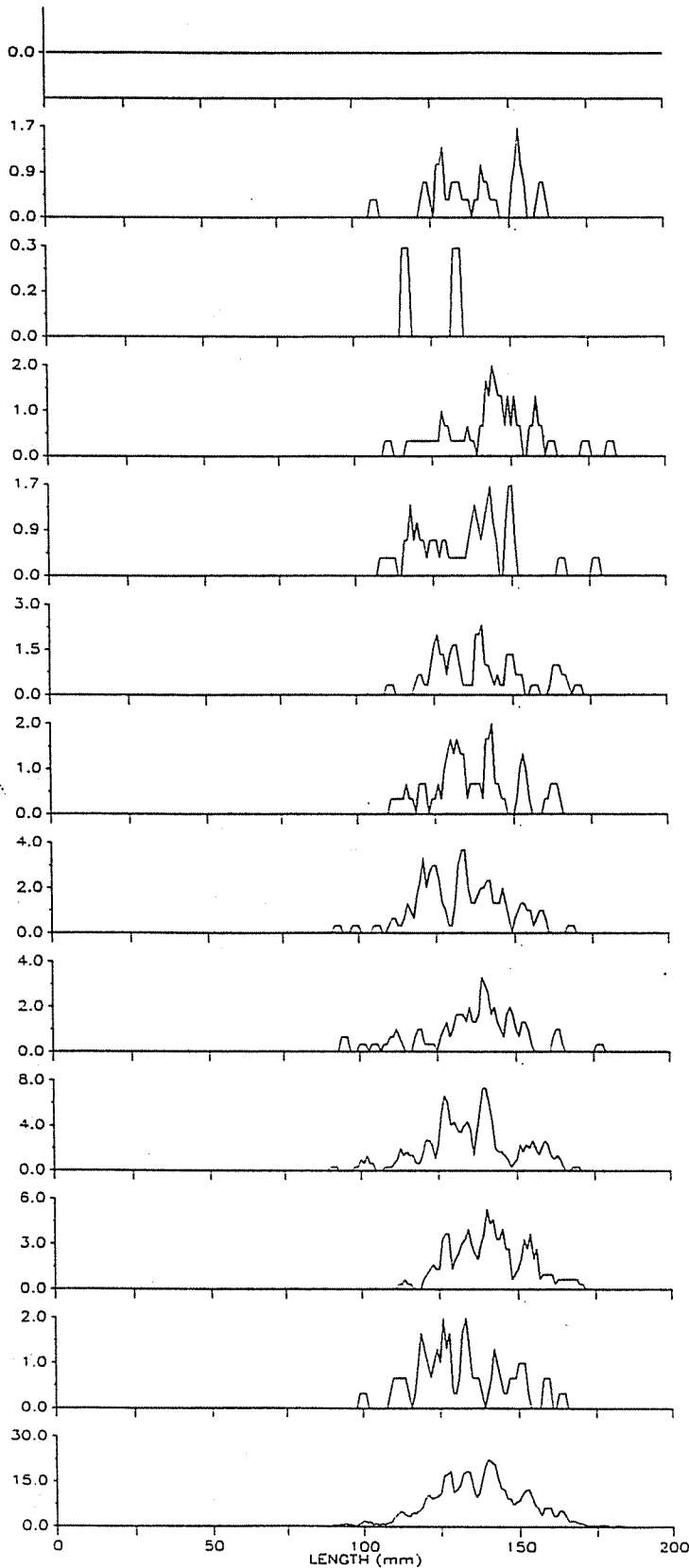
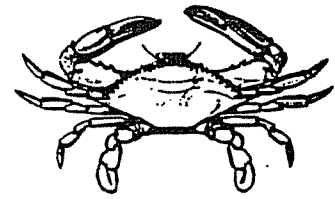
Blackcheek Tonguefish



JANUARY	940110 - 940113	MEAN SIZE	68.9
NO. CGHT.	20	S.E. SIZE	2.3
NO. MEAS.	20	MIN. SIZE	50
NO. HAULS	25	MAX. SIZE	92
CAT./HAUL	0.8		
FEBRUARY	940201 - 940217	MEAN SIZE	93.3
NO. CGHT.	59	S.E. SIZE	5.1
NO. MEAS.	59	MIN. SIZE	49
NO. HAULS	58	MAX. SIZE	186
CAT./HAUL	1		
MARCH	940307 - 940315	MEAN SIZE	74.3
NO. CGHT.	44	S.E. SIZE	2
NO. MEAS.	44	MIN. SIZE	51
NO. HAULS	25	MAX. SIZE	136
CAT./HAUL	1.8		
APRIL	940404 - 940413	MEAN SIZE	89.5
NO. CGHT.	33	S.E. SIZE	6.1
NO. MEAS.	33	MIN. SIZE	48
NO. HAULS	58	MAX. SIZE	176
CAT./HAUL	0.6		
MAY	940502 - 940516	MEAN SIZE	163.6
NO. CGHT.	8	S.E. SIZE	4.2
NO. MEAS.	8	MIN. SIZE	142
NO. HAULS	60	MAX. SIZE	183
CAT./HAUL	0.1		
JUNE	940601 - 940610	MEAN SIZE	138.4
NO. CGHT.	18	S.E. SIZE	6.7
NO. MEAS.	18	MIN. SIZE	79
NO. HAULS	60	MAX. SIZE	185
CAT./HAUL	0.3		
JULY	940705 - 940713	MEAN SIZE	150.9
NO. CGHT.	36	S.E. SIZE	2.2
NO. MEAS.	36	MIN. SIZE	116
NO. HAULS	60	MAX. SIZE	175
CAT./HAUL	0.6		
AUGUST	940801 - 940810	MEAN SIZE	138.5
NO. CGHT.	33	S.E. SIZE	3.2
NO. MEAS.	33	MIN. SIZE	89
NO. HAULS	60	MAX. SIZE	174
CAT./HAUL	0.6		
SEPTEMBER	940901 - 940913	MEAN SIZE	144
NO. CGHT.	41	S.E. SIZE	3.4
NO. MEAS.	41	MIN. SIZE	56
NO. HAULS	60	MAX. SIZE	173
CAT./HAUL	0.7		
OCTOBER	941005 - 941024	MEAN SIZE	148.7
NO. CGHT.	265	S.E. SIZE	2.4
NO. MEAS.	120	MIN. SIZE	65
NO. HAULS	60	MAX. SIZE	190
CAT./HAUL	4.4		
NOVEMBER	941103 - 941116	MEAN SIZE	126.1
NO. CGHT.	87	S.E. SIZE	4
NO. MEAS.	87	MIN. SIZE	58
NO. HAULS	60	MAX. SIZE	203
CAT./HAUL	1.5		
DECEMBER	941201 - 941208	MEAN SIZE	100.6
NO. CGHT.	70	S.E. SIZE	4.1
NO. MEAS.	70	MIN. SIZE	43
NO. HAULS	54	MAX. SIZE	182
CAT./HAUL	1.3		
JAN - DEC	940110 - 941208	MEAN SIZE	120.7
NO. CGHT.	714	S.E. SIZE	1.7
NO. MEAS.	569	MIN. SIZE	43
NO. HAULS	640	MAX. SIZE	203
CAT./HAUL	1.1		

Figure 54.

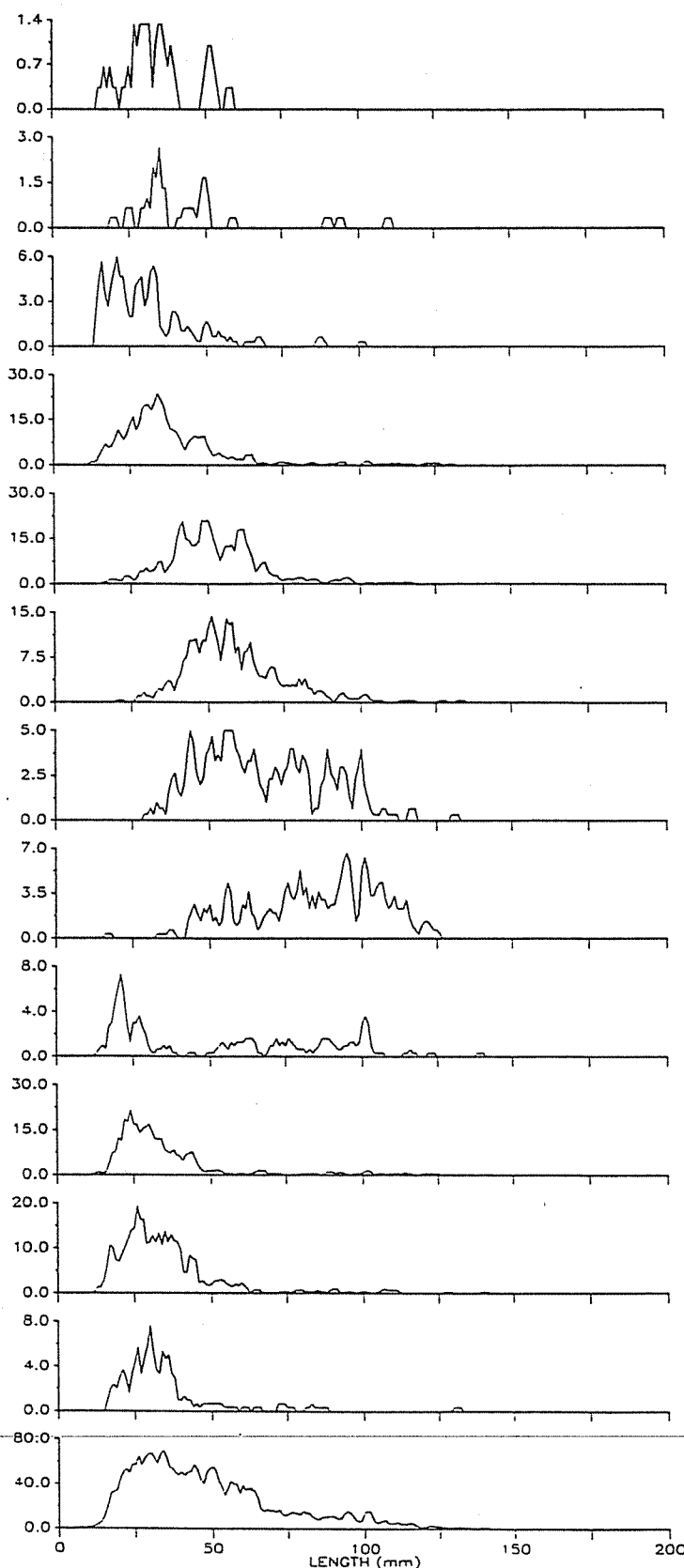
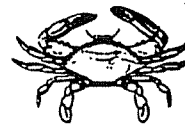
Blue Crab – Adult Female



JANUARY		940110 – 940113	
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
FEBRUARY		940201 – 940217	
NO. CGHT.	21	MEAN SIZE	- 137.3
NO. MEAS.	21	S.E. SIZE	- 3.1
NO. HAULS	58	MIN. SIZE	- 105
CAT./HAUL	0.4	MAX. SIZE	- 159
MARCH		940307 – 940315	
NO. CGHT.	2	MEAN SIZE	- 123
NO. MEAS.	2	S.E. SIZE	- 8
NO. HAULS	25	MIN. SIZE	- 115
CAT./HAUL	0.1	MAX. SIZE	- 131
APRIL		940404 – 940413	
NO. CGHT.	33	MEAN SIZE	- 142
NO. MEAS.	33	S.E. SIZE	- 2.7
NO. HAULS	58	MIN. SIZE	- 109
CAT./HAUL	0.6	MAX. SIZE	- 180
MAY		940502 – 940516	
NO. CGHT.	31	MEAN SIZE	- 133.7
NO. MEAS.	31	S.E. SIZE	- 2.8
NO. HAULS	73	MIN. SIZE	- 107
CAT./HAUL	0.4	MAX. SIZE	- 175
JUNE		940601 – 940610	
NO. CGHT.	42	MEAN SIZE	- 138
NO. MEAS.	42	S.E. SIZE	- 2.2
NO. HAULS	73	MIN. SIZE	- 109
CAT./HAUL	0.6	MAX. SIZE	- 169
JULY		940705 – 940713	
NO. CGHT.	34	MEAN SIZE	- 135.3
NO. MEAS.	34	S.E. SIZE	- 2.3
NO. HAULS	73	MIN. SIZE	- 110
CAT./HAUL	0.5	MAX. SIZE	- 162
AUGUST		940801 – 940810	
NO. CGHT.	78	MEAN SIZE	- 131
NO. MEAS.	78	S.E. SIZE	- 1.6
NO. HAULS	73	MIN. SIZE	- 91
CAT./HAUL	1.1	MAX. SIZE	- 166
SEPTEMBER		940901 – 940913	
NO. CGHT.	60	MEAN SIZE	- 134
NO. MEAS.	60	S.E. SIZE	- 2.1
NO. HAULS	73	MIN. SIZE	- 93
CAT./HAUL	0.8	MAX. SIZE	- 175
OCTOBER		941005 – 941024	
NO. CGHT.	147	MEAN SIZE	- 133.3
NO. MEAS.	147	S.E. SIZE	- 1.2
NO. HAULS	73	MIN. SIZE	- 89
CAT./HAUL	2	MAX. SIZE	- 167
NOVEMBER		941103 – 941116	
NO. CGHT.	110	MEAN SIZE	- 138.9
NO. MEAS.	110	S.E. SIZE	- 1.1
NO. HAULS	73	MIN. SIZE	- 111
CAT./HAUL	1.5	MAX. SIZE	- 168
DECEMBER		941201 – 941208	
NO. CGHT.	41	MEAN SIZE	- 130.1
NO. MEAS.	41	S.E. SIZE	- 2.3
NO. HAULS	54	MIN. SIZE	- 98
CAT./HAUL	0.8	MAX. SIZE	- 162
JAN – DEC		940110 – 941208	
NO. CGHT.	599	MEAN SIZE	- 134.9
NO. MEAS.	599	S.E. SIZE	- 0.6
NO. HAULS	731	MIN. SIZE	- 89
CAT./HAUL	0.8	MAX. SIZE	- 180

Figure 55.

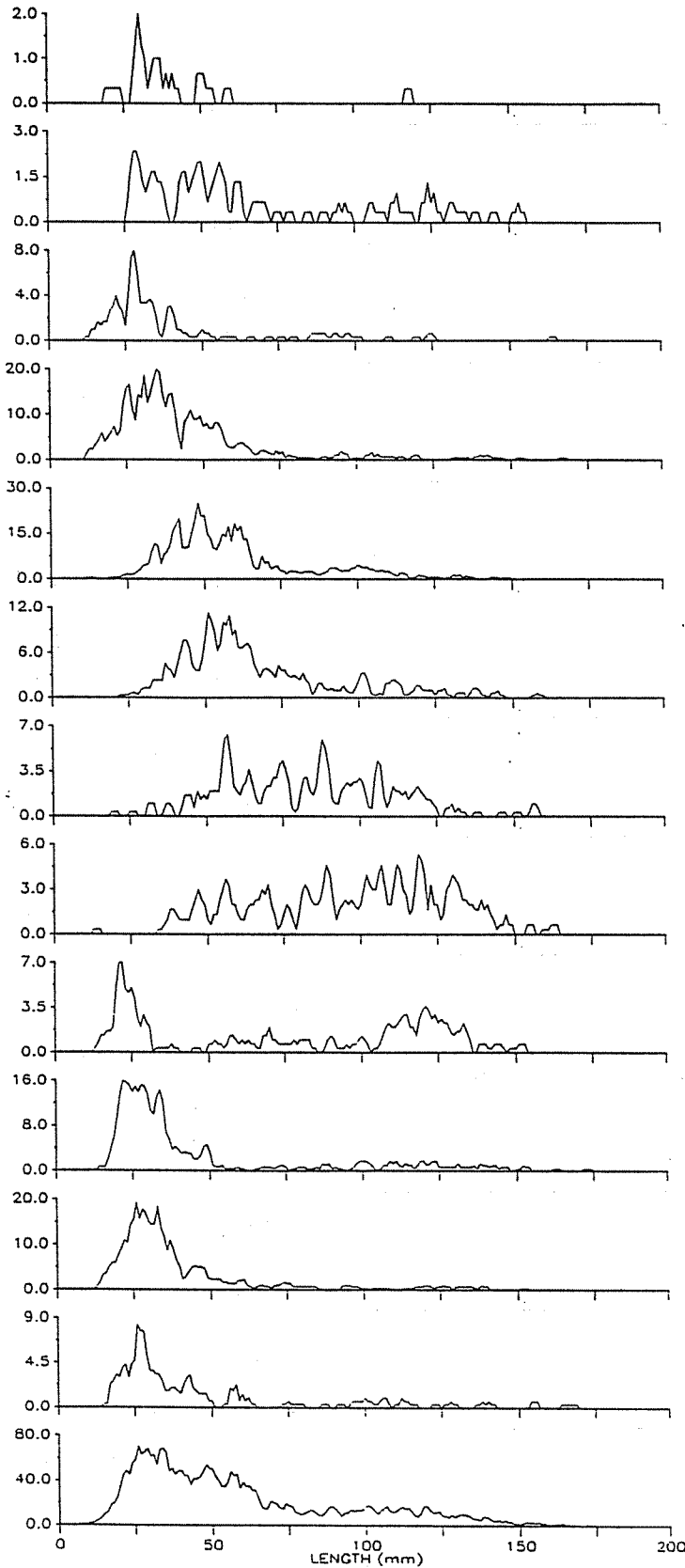
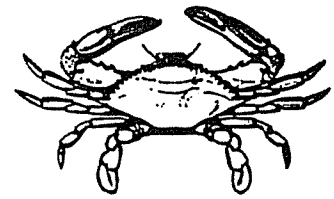
Blue Crab – Juvenile Female



JANUARY	940110 – 940113		
NO. CGHT.	25	MEAN SIZE	32.7
NO. MEAS.	25	S.E. SIZE	2.2
NO. HAULS	25	MIN. SIZE	14
CAT./HAUL	1	MAX. SIZE	56
FEBRUARY	940201 – 940217		
NO. CGHT.	28	MEAN SIZE	42.8
NO. MEAS.	28	S.E. SIZE	4
NO. HAULS	58	MIN. SIZE	18
CAT./HAUL	0.5	MAX. SIZE	108
MARCH	940307 – 940315		
NO. CGHT.	117	MEAN SIZE	29.5
NO. MEAS.	117	S.E. SIZE	1.5
NO. HAULS	25	MIN. SIZE	8
CAT./HAUL	4.7	MAX. SIZE	99
APRIL	940404 – 940413		
NO. CGHT.	539	MEAN SIZE	36.3
NO. MEAS.	504	S.E. SIZE	0.8
NO. HAULS	58	MIN. SIZE	10
CAT./HAUL	9.3	MAX. SIZE	128
MAY	940502 – 940516		
NO. CGHT.	714	MEAN SIZE	50.4
NO. MEAS.	540	S.E. SIZE	0.7
NO. HAULS	73	MIN. SIZE	7
CAT./HAUL	9.8	MAX. SIZE	114
JUNE	940601 – 940610		
NO. CGHT.	370	MEAN SIZE	56.8
NO. MEAS.	370	S.E. SIZE	0.8
NO. HAULS	73	MIN. SIZE	19
CAT./HAUL	5.1	MAX. SIZE	131
JULY	940705 – 940713		
NO. CGHT.	199	MEAN SIZE	66.1
NO. MEAS.	199	S.E. SIZE	1.4
NO. HAULS	73	MIN. SIZE	28
CAT./HAUL	2.7	MAX. SIZE	129
AUGUST	940801 – 940810		
NO. CGHT.	226	MEAN SIZE	82.3
NO. MEAS.	226	S.E. SIZE	1.5
NO. HAULS	73	MIN. SIZE	15
CAT./HAUL	3.1	MAX. SIZE	123
SEPTEMBER	940901 – 940913		
NO. CGHT.	126	MEAN SIZE	52.9
NO. MEAS.	126	S.E. SIZE	3
NO. HAULS	73	MIN. SIZE	10
CAT./HAUL	1.7	MAX. SIZE	137
OCTOBER	941005 – 941024		
NO. CGHT.	367	MEAN SIZE	32.4
NO. MEAS.	367	S.E. SIZE	0.9
NO. HAULS	73	MIN. SIZE	11
CAT./HAUL	5	MAX. SIZE	122
NOVEMBER	941103 – 941116		
NO. CGHT.	412	MEAN SIZE	33.2
NO. MEAS.	387	S.E. SIZE	0.9
NO. HAULS	73	MIN. SIZE	11
CAT./HAUL	5.6	MAX. SIZE	138
DECEMBER	941201 – 941208		
NO. CGHT.	230	MEAN SIZE	32.7
NO. MEAS.	110	S.E. SIZE	1.6
NO. HAULS	54	MIN. SIZE	4
CAT./HAUL	4.3	MAX. SIZE	129
JAN – DEC	940110 – 941208		
NO. CGHT.	3353	MEAN SIZE	46.3
NO. MEAS.	2999	S.E. SIZE	0.4
NO. HAULS	731	MIN. SIZE	4
CAT./HAUL	4.6	MAX. SIZE	138

Figure 56.

Blue Crab — Male



JANUARY 940110 - 940113			
NO. CGHT.	- 20	MEAN SIZE	- 38.7
NO. MEAS.	- 20	S.E. SIZE	- 4.6
NO. HAULS	- 25	MIN. SIZE	- 18
CAT./HAUL	- 0.8	MAX. SIZE	- 116

FEBRUARY 940201 - 940217			
NO. CGHT.	- 79	MEAN SIZE	- 66.8
NO. MEAS.	- 79	S.E. SIZE	- 4.1
NO. HAULS	- 58	MIN. SIZE	- 25
CAT./HAUL	- 1.4	MAX. SIZE	- 152

MARCH 940307 - 940315			
NO. CGHT.	- 111	MEAN SIZE	- 39
NO. MEAS.	- 111	S.E. SIZE	- 2.7
NO. HAULS	- 25	MIN. SIZE	- 8
CAT./HAUL	- 4.4	MAX. SIZE	- 162

APRIL 940404 - 940413			
NO. CGHT.	- 556	MEAN SIZE	- 41.5
NO. MEAS.	- 518	S.E. SIZE	- 1.1
NO. HAULS	- 58	MIN. SIZE	- 9
CAT./HAUL	- 9.6	MAX. SIZE	- 165

MAY 940502 - 940516			
NO. CGHT.	- 813	MEAN SIZE	- 57.9
NO. MEAS.	- 657	S.E. SIZE	- 0.9
NO. HAULS	- 73	MIN. SIZE	- 6
CAT./HAUL	- 11.1	MAX. SIZE	- 146

JUNE 940601 - 940610			
NO. CGHT.	- 347	MEAN SIZE	- 65.3
NO. MEAS.	- 347	S.E. SIZE	- 1.4
NO. HAULS	- 73	MIN. SIZE	- 21
CAT./HAUL	- 4.8	MAX. SIZE	- 157

JULY 940705 - 940713			
NO. CGHT.	- 210	MEAN SIZE	- 80.8
NO. MEAS.	- 210	S.E. SIZE	- 1.9
NO. HAULS	- 73	MIN. SIZE	- 18
CAT./HAUL	- 2.9	MAX. SIZE	- 155

AUGUST 940801 - 940810			
NO. CGHT.	- 257	MEAN SIZE	- 94.1
NO. MEAS.	- 257	S.E. SIZE	- 1.9
NO. HAULS	- 73	MIN. SIZE	- 12
CAT./HAUL	- 3.5	MAX. SIZE	- 161

SEPTEMBER 940901 - 940913			
NO. CGHT.	- 179	MEAN SIZE	- 75.1
NO. MEAS.	- 179	S.E. SIZE	- 3.3
NO. HAULS	- 73	MIN. SIZE	- 12
CAT./HAUL	- 2.5	MAX. SIZE	- 150

OCTOBER 941005 - 941024			
NO. CGHT.	- 366	MEAN SIZE	- 44.6
NO. MEAS.	- 365	S.E. SIZE	- 1.9
NO. HAULS	- 73	MIN. SIZE	- 13
CAT./HAUL	- 5	MAX. SIZE	- 171

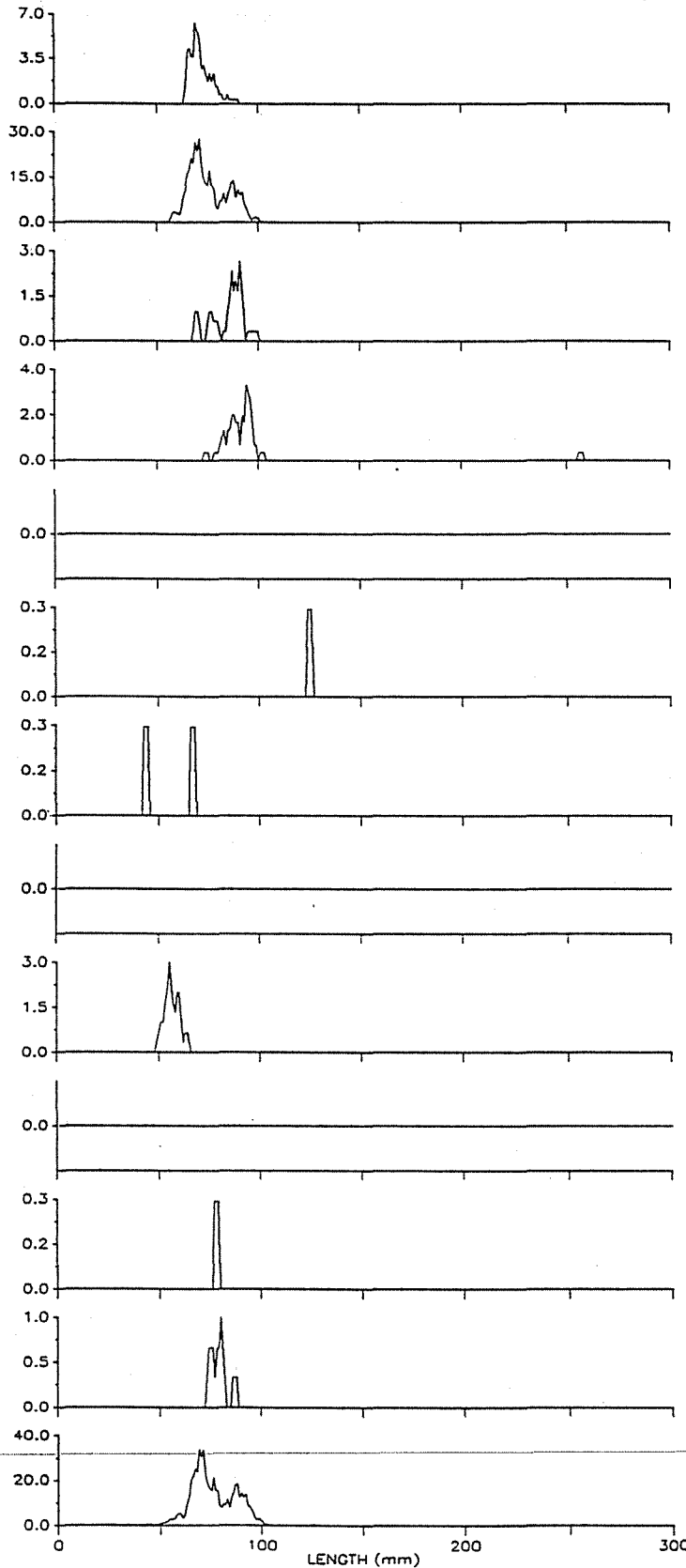
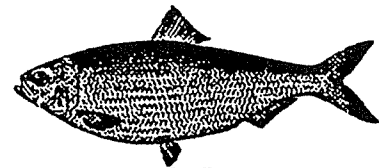
NOVEMBER 941103 - 941116			
NO. CGHT.	- 424	MEAN SIZE	- 37.6
NO. MEAS.	- 398	S.E. SIZE	- 1.3
NO. HAULS	- 73	MIN. SIZE	- 12
CAT./HAUL	- 5.8	MAX. SIZE	- 150

DECEMBER 941201 - 941208			
NO. CGHT.	- 340	MEAN SIZE	- 46.3
NO. MEAS.	- 146	S.E. SIZE	- 3
NO. HAULS	- 54	MIN. SIZE	- 9
CAT./HAUL	- 6.3	MAX. SIZE	- 166

JAN - DEC 940110 - 941208			
NO. CGHT.	- 3702	MEAN SIZE	- 56.3
NO. MEAS.	- 3287	S.E. SIZE	- 0.6
NO. HAULS	- 731	MIN. SIZE	- 6
CAT./HAUL	- 5.1	MAX. SIZE	- 171

Figure 57.

Blueback Herring



JANUARY	940110 - 940113		
NO. CGHT.	57	MEAN SIZE	69.8
NO. MEAS.	57	S.E. SIZE	0.7
NO. HAULS	25	MIN. SIZE	63
CAT./HAUL	2.3	MAX. SIZE	87

FEBRUARY	940201 - 940217		
NO. CGHT.	782	MEAN SIZE	73.7
NO. MEAS.	435	S.E. SIZE	0.5
NO. HAULS	58	MIN. SIZE	55
CAT./HAUL	13.5	MAX. SIZE	98

MARCH	940307 - 940315		
NO. CGHT.	26	MEAN SIZE	83.2
NO. MEAS.	26	S.E. SIZE	1.6
NO. HAULS	25	MIN. SIZE	67
CAT./HAUL	1	MAX. SIZE	97

APRIL	940404 - 940413		
NO. CGHT.	34	MEAN SIZE	93.2
NO. MEAS.	34	S.E. SIZE	5
NO. HAULS	58	MIN. SIZE	72
CAT./HAUL	0.6	MAX. SIZE	255

MAY	940502 - 940516		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

JUNE	940601 - 940610		
NO. CGHT.	1	MEAN SIZE	123
NO. MEAS.	1	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	123
CAT./HAUL	0	MAX. SIZE	123

JULY	940705 - 940713		
NO. CGHT.	2	MEAN SIZE	53.5
NO. MEAS.	2	S.E. SIZE	11.5
NO. HAULS	60	MIN. SIZE	42
CAT./HAUL	0	MAX. SIZE	65

AUGUST	940801 - 940810		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

SEPTEMBER	940901 - 940913		
NO. CGHT.	22	MEAN SIZE	54.5
NO. MEAS.	22	S.E. SIZE	0.8
NO. HAULS	60	MIN. SIZE	48
CAT./HAUL	0.4	MAX. SIZE	62

OCTOBER	941005 - 941024		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.

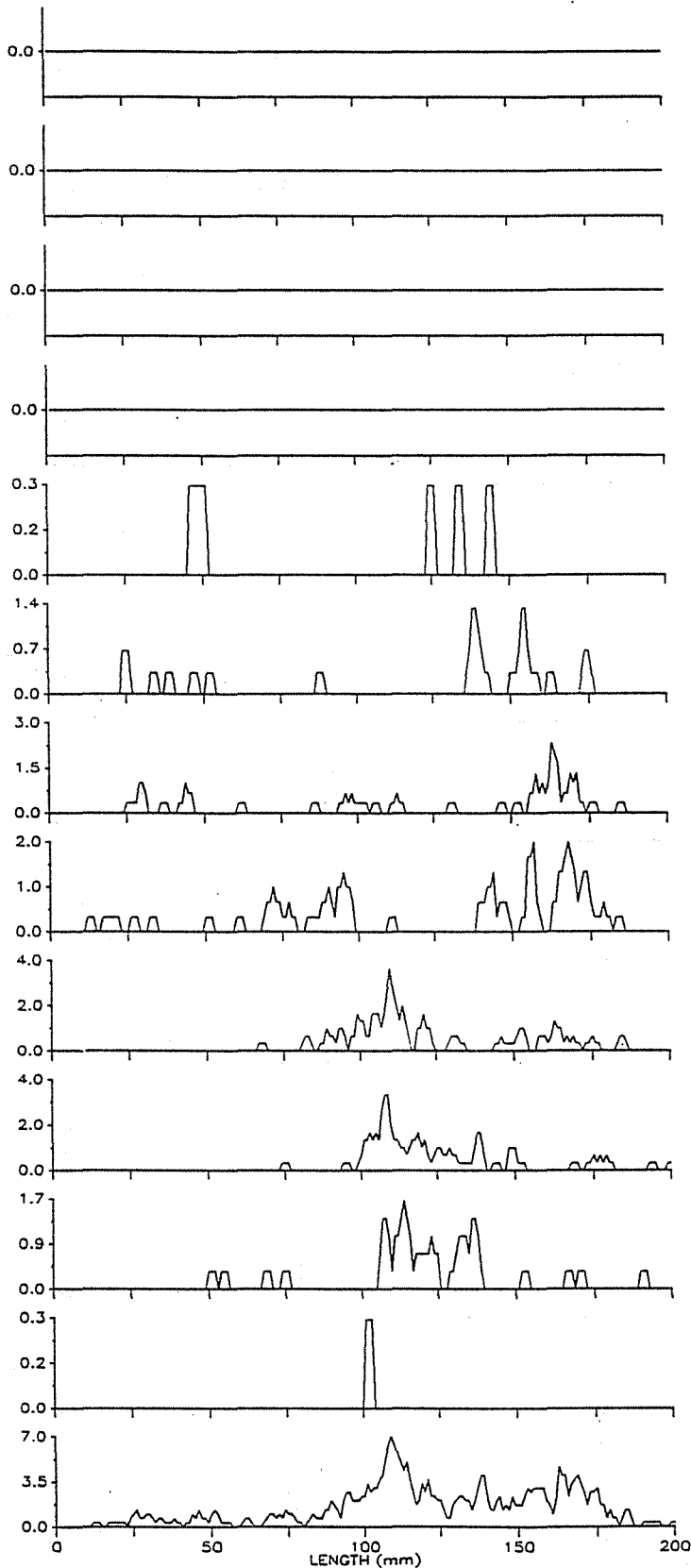
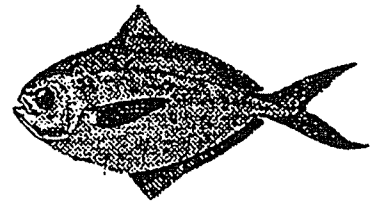
NOVEMBER	941103 - 941116		
NO. CGHT.	1	MEAN SIZE	76
NO. MEAS.	1	S.E. SIZE	.
NO. HAULS	60	MIN. SIZE	76
CAT./HAUL	0	MAX. SIZE	76

DECEMBER	941201 - 941208		
NO. CGHT.	7	MEAN SIZE	77
NO. MEAS.	7	S.E. SIZE	1.5
NO. HAULS	54	MIN. SIZE	72
CAT./HAUL	0.1	MAX. SIZE	85

JAN - DEC	940110 - 941208		
NO. CGHT.	932	MEAN SIZE	74.2
NO. MEAS.	585	S.E. SIZE	0.5
NO. HAULS	640	MIN. SIZE	42
CAT./HAUL	1.5	MAX. SIZE	255

Figure 58.

Butterfish

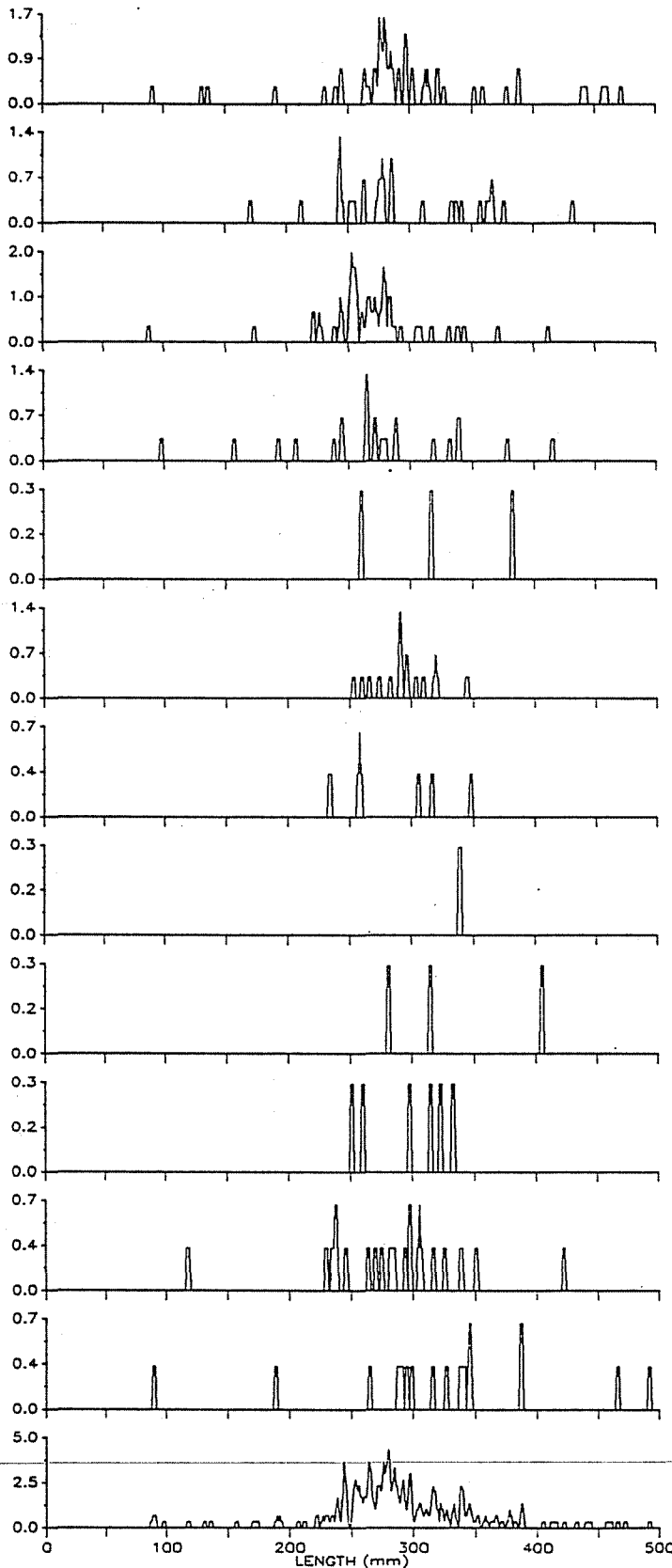
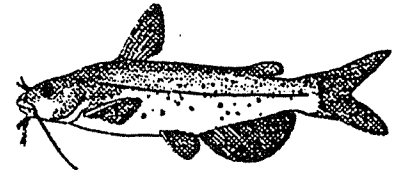


JANUARY		940110 - 940113	
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
FEBRUARY		940201 - 940217	
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MARCH		940307 - 940315	
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
APRIL		940404 - 940413	
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MAY		940502 - 940516	
NO. CGHT.	5	MEAN SIZE	98
NO. MEAS.	5	S.E. SIZE	21.2
NO. HAULS	60	MIN. SIZE	45
CAT./HAUL	0.1	MAX. SIZE	142
JUNE		940601 - 940610	
NO. CGHT.	22	MEAN SIZE	115.5
NO. MEAS.	22	S.E. SIZE	11.4
NO. HAULS	60	MIN. SIZE	23
CAT./HAUL	0.4	MAX. SIZE	173
JULY		940705 - 940713	
NO. CGHT.	40	MEAN SIZE	120.6
NO. MEAS.	40	S.E. SIZE	8.3
NO. HAULS	60	MIN. SIZE	24
CAT./HAUL	0.7	MAX. SIZE	183
AUGUST		940801 - 940810	
NO. CGHT.	59	MEAN SIZE	121.4
NO. MEAS.	59	S.E. SIZE	6.4
NO. HAULS	60	MIN. SIZE	11
CAT./HAUL	1	MAX. SIZE	182
SEPTEMBER		940901 - 940913	
NO. CGHT.	68	MEAN SIZE	120.5
NO. MEAS.	68	S.E. SIZE	3.4
NO. HAULS	60	MIN. SIZE	66
CAT./HAUL	1.1	MAX. SIZE	183
OCTOBER		941005 - 941024	
NO. CGHT.	62	MEAN SIZE	123.2
NO. MEAS.	62	S.E. SIZE	3.2
NO. HAULS	60	MIN. SIZE	73
CAT./HAUL	1	MAX. SIZE	198
NOVEMBER		941103 - 941116	
NO. CGHT.	35	MEAN SIZE	118.2
NO. MEAS.	35	S.E. SIZE	4.8
NO. HAULS	60	MIN. SIZE	49
CAT./HAUL	0.6	MAX. SIZE	189
DECEMBER		941201 - 941208	
NO. CGHT.	1	MEAN SIZE	100
NO. MEAS.	1	S.E. SIZE	-
NO. HAULS	54	MIN. SIZE	100
CAT./HAUL	0	MAX. SIZE	100
JAN - DEC		940110 - 941208	
NO. CGHT.	292	MEAN SIZE	120.2
NO. MEAS.	292	S.E. SIZE	2.3
NO. HAULS	640	MIN. SIZE	11
CAT./HAUL	0.5	MAX. SIZE	198



Figure 59.

Channel Catfish



JANUARY	940110 - 940113
NO. CGHT.	52 MEAN SIZE - 300.3
NO. MEAS.	52 S.E. SIZE - 11.2
NO. HAULS	25 MIN. SIZE - 89
CAT./HAUL	2.1 MAX. SIZE - 516

FEBRUARY	940201 - 940217
NO. CGHT.	29 MEAN SIZE - 300.2
NO. MEAS.	29 S.E. SIZE - 13.7
NO. HAULS	58 MIN. SIZE - 169
CAT./HAUL	0.5 MAX. SIZE - 544

MARCH	940307 - 940315
NO. CGHT.	84 MEAN SIZE - 266.9
NO. MEAS.	53 S.E. SIZE - 6.3
NO. HAULS	25 MIN. SIZE - 86
CAT./HAUL	3.4 MAX. SIZE - 410

APRIL	940404 - 940413
NO. CGHT.	23 MEAN SIZE - 269.3
NO. MEAS.	23 S.E. SIZE - 14.3
NO. HAULS	58 MIN. SIZE - 96
CAT./HAUL	0.4 MAX. SIZE - 413

MAY	940502 - 940516
NO. CGHT.	3 MEAN SIZE - 317.7
NO. MEAS.	3 S.E. SIZE - 35.2
NO. HAULS	60 MIN. SIZE - 258
CAT./HAUL	0.1 MAX. SIZE - 380

JUNE	940601 - 940610
NO. CGHT.	16 MEAN SIZE - 291.4
NO. MEAS.	16 S.E. SIZE - 5.9
NO. HAULS	60 MIN. SIZE - 251
CAT./HAUL	0.3 MAX. SIZE - 343

JULY	940705 - 940713
NO. CGHT.	6 MEAN SIZE - 284.8
NO. MEAS.	6 S.E. SIZE - 17.8
NO. HAULS	60 MIN. SIZE - 232
CAT./HAUL	0.1 MAX. SIZE - 346

AUGUST	940801 - 940810
NO. CGHT.	1 MEAN SIZE - 337
NO. MEAS.	1 S.E. SIZE -
NO. HAULS	60 MIN. SIZE - 337
CAT./HAUL	0 MAX. SIZE - 337

SEPTEMBER	940901 - 940913
NO. CGHT.	3 MEAN SIZE - 331.7
NO. MEAS.	3 S.E. SIZE - 37
NO. HAULS	60 MIN. SIZE - 279
CAT./HAUL	0.1 MAX. SIZE - 403

OCTOBER	941005 - 941024
NO. CGHT.	6 MEAN SIZE - 294.7
NO. MEAS.	6 S.E. SIZE - 13.9
NO. HAULS	60 MIN. SIZE - 249
CAT./HAUL	0.1 MAX. SIZE - 331

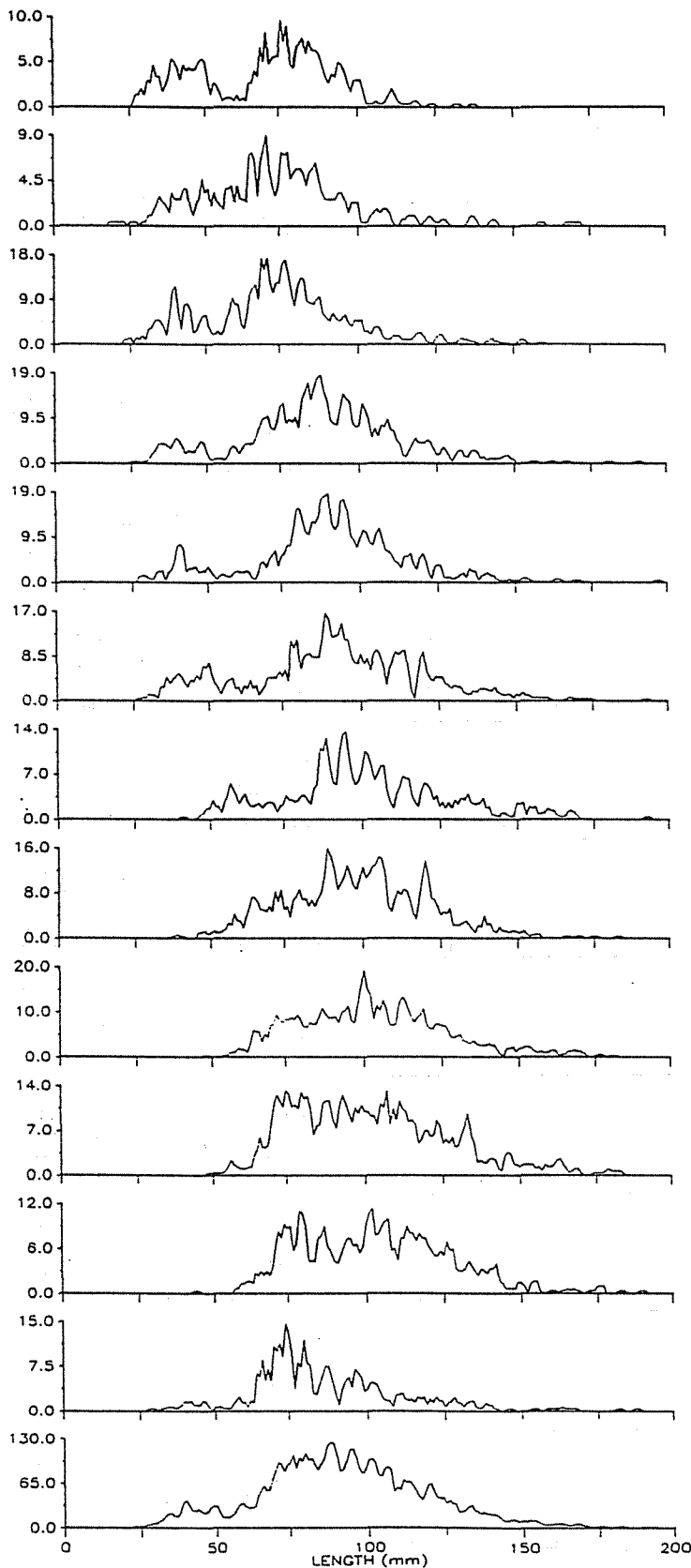
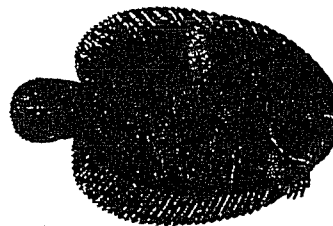
NOVEMBER	941103 - 941116
NO. CGHT.	21 MEAN SIZE - 280.8
NO. MEAS.	21 S.E. SIZE - 12.9
NO. HAULS	60 MIN. SIZE - 116
CAT./HAUL	0.4 MAX. SIZE - 420

DECEMBER	941201 - 941208
NO. CGHT.	17 MEAN SIZE - 319.3
NO. MEAS.	17 S.E. SIZE - 22.5
NO. HAULS	54 MIN. SIZE - 88
CAT./HAUL	0.3 MAX. SIZE - 490

JAN - DEC	940110 - 941208
NO. CGHT.	261 MEAN SIZE - 288.7
NO. MEAS.	230 S.E. SIZE - 4.4
NO. HAULS	640 MIN. SIZE - 86
CAT./HAUL	0.4 MAX. SIZE - 544

Figure 60.

Hogchoker



JANUARY	940110 - 940113		
NO. CGHT.	- 2777	MEAN SIZE	- 68.3
NO. MEAS.	- 307	S.E. SIZE	- 1.3
NO. HAULS	- 25	MIN. SIZE	- 25
CAT./HAUL	- 111.1	MAX. SIZE	- 135

FEBRUARY	940201 - 940217		
NO. CGHT.	- 855	MEAN SIZE	- 71.7
NO. MEAS.	- 292	S.E. SIZE	- 1.4
NO. HAULS	- 58	MIN. SIZE	- 17
CAT./HAUL	- 14.7	MAX. SIZE	- 169

MARCH	940307 - 940315		
NO. CGHT.	- 4175	MEAN SIZE	- 71.5
NO. MEAS.	- 599	S.E. SIZE	- 1
NO. HAULS	- 25	MIN. SIZE	- 22
CAT./HAUL	- 167	MAX. SIZE	- 157

APRIL	940404 - 940413		
NO. CGHT.	- 5286	MEAN SIZE	- 85.8
NO. MEAS.	- 668	S.E. SIZE	- 1
NO. HAULS	- 58	MIN. SIZE	- 24
CAT./HAUL	- 91.1	MAX. SIZE	- 189

MAY	940502 - 940516		
NO. CGHT.	- 1657	MEAN SIZE	- 87.3
NO. MEAS.	- 623	S.E. SIZE	- 1
NO. HAULS	- 60	MIN. SIZE	- 26
CAT./HAUL	- 27.6	MAX. SIZE	- 195

JUNE	940601 - 940610		
NO. CGHT.	- 1722	MEAN SIZE	- 88.9
NO. MEAS.	- 640	S.E. SIZE	- 1.1
NO. HAULS	- 60	MIN. SIZE	- 25
CAT./HAUL	- 28.7	MAX. SIZE	- 191

JULY	940705 - 940713		
NO. CGHT.	- 1008	MEAN SIZE	- 98.6
NO. MEAS.	- 444	S.E. SIZE	- 1.3
NO. HAULS	- 60	MIN. SIZE	- 39
CAT./HAUL	- 16.8	MAX. SIZE	- 191

AUGUST	940801 - 940810		
NO. CGHT.	- 1989	MEAN SIZE	- 96
NO. MEAS.	- 624	S.E. SIZE	- 0.9
NO. HAULS	- 60	MIN. SIZE	- 36
CAT./HAUL	- 33.2	MAX. SIZE	- 181

SEPTEMBER	940901 - 940913		
NO. CGHT.	- 2680	MEAN SIZE	- 101
NO. MEAS.	- 677	S.E. SIZE	- 0.9
NO. HAULS	- 60	MIN. SIZE	- 46
CAT./HAUL	- 44.7	MAX. SIZE	- 179

OCTOBER	941005 - 941024		
NO. CGHT.	- 2485	MEAN SIZE	- 99.8
NO. MEAS.	- 708	S.E. SIZE	- 0.9
NO. HAULS	- 60	MIN. SIZE	- 47
CAT./HAUL	- 41.4	MAX. SIZE	- 181

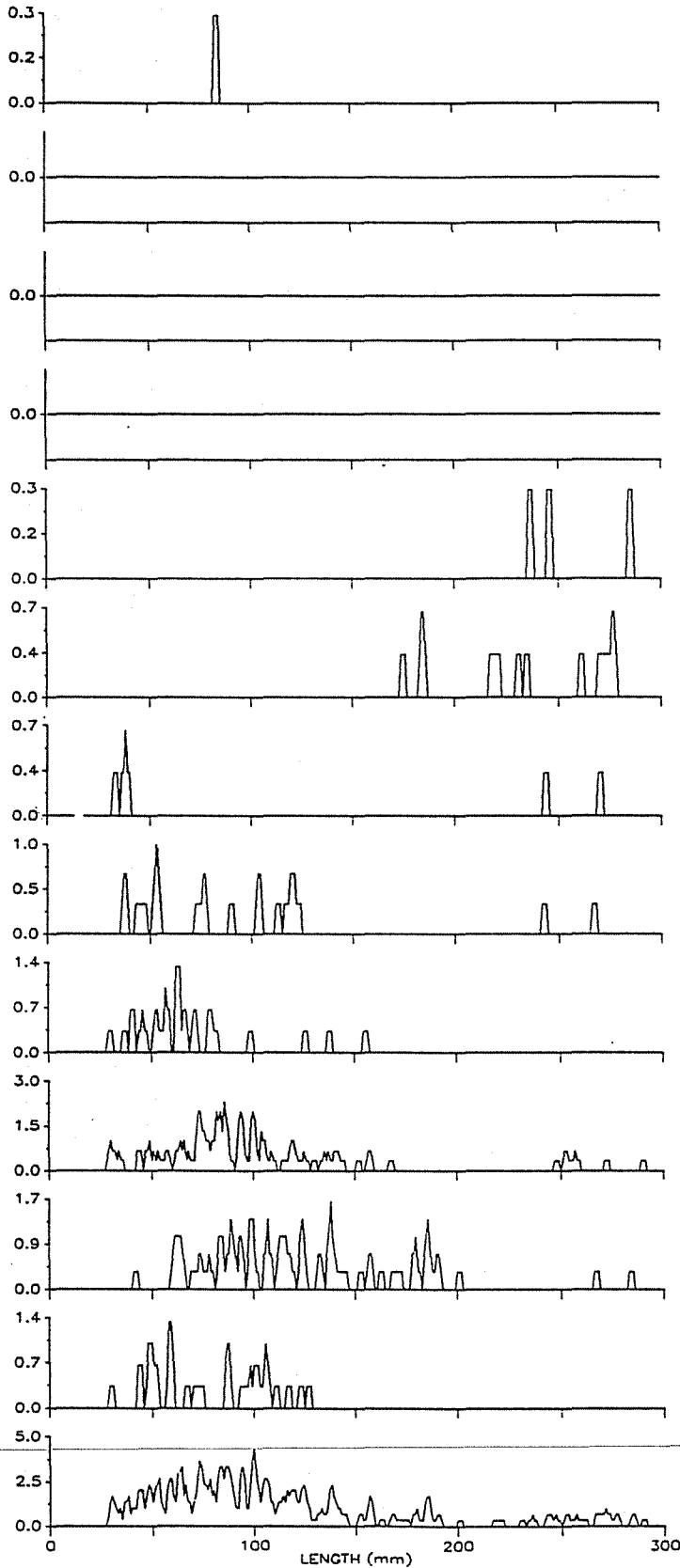
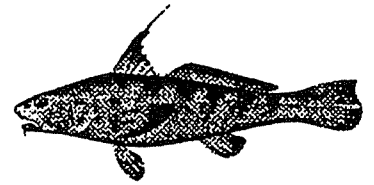
NOVEMBER	941103 - 941116		
NO. CGHT.	- 2014	MEAN SIZE	- 101
NO. MEAS.	- 511	S.E. SIZE	- 1.1
NO. HAULS	- 60	MIN. SIZE	- 42
CAT./HAUL	- 33.6	MAX. SIZE	- 188

DECEMBER	941201 - 941208		
NO. CGHT.	- 2597	MEAN SIZE	- 84.4
NO. MEAS.	- 361	S.E. SIZE	- 1.3
NO. HAULS	- 54	MIN. SIZE	- 27
CAT./HAUL	- 48.1	MAX. SIZE	- 186

JAN - DEC	940110 - 941208		
NO. CGHT.	- 29245	MEAN SIZE	- 89.6
NO. MEAS.	- 6454	S.E. SIZE	- 0.3
NO. HAULS	- 640	MIN. SIZE	- 17
CAT./HAUL	- 45.7	MAX. SIZE	- 195

Figure 61.

Kingfish



JANUARY 940110 - 940113			
NO. CGHT.	- 1	MEAN SIZE	- 82
NO. MEAS.	- 1	S.E. SIZE	- .
NO. HAULS	- 25	MIN. SIZE	- 82
CAT./HAUL	- 0	MAX. SIZE	- 82

FEBRUARY 940201 - 940217			
NO. CGHT.	- 0	MEAN SIZE	- .
NO. MEAS.	- 0	S.E. SIZE	- .
NO. HAULS	- 58	MIN. SIZE	- .
CAT./HAUL	- 0	MAX. SIZE	- .

MARCH 940307 - 940315			
NO. CGHT.	- 0	MEAN SIZE	- .
NO. MEAS.	- 0	S.E. SIZE	- .
NO. HAULS	- 25	MIN. SIZE	- .
CAT./HAUL	- 0	MAX. SIZE	- .

APRIL 940404 - 940413			
NO. CGHT.	- 0	MEAN SIZE	- .
NO. MEAS.	- 0	S.E. SIZE	- .
NO. HAULS	- 58	MIN. SIZE	- .
CAT./HAUL	- 0	MAX. SIZE	- .

MAY 940502 - 940516			
NO. CGHT.	- 3	MEAN SIZE	- 254
NO. MEAS.	- 3	S.E. SIZE	- 14.7
NO. HAULS	- 60	MIN. SIZE	- 235
CAT./HAUL	- 0.1	MAX. SIZE	- 283

JUNE 940601 - 940610			
NO. CGHT.	- 12	MEAN SIZE	- 231.8
NO. MEAS.	- 12	S.E. SIZE	- 11
NO. HAULS	- 60	MIN. SIZE	- 173
CAT./HAUL	- 0.2	MAX. SIZE	- 275

JULY 940705 - 940713			
NO. CGHT.	- 5	MEAN SIZE	- 122.6
NO. MEAS.	- 5	S.E. SIZE	- 54.2
NO. HAULS	- 60	MIN. SIZE	- 31
CAT./HAUL	- 0.1	MAX. SIZE	- 268

AUGUST 940801 - 940810			
NO. CGHT.	- 21	MEAN SIZE	- 106.6
NO. MEAS.	- 21	S.E. SIZE	- 17.1
NO. HAULS	- 60	MIN. SIZE	- 35
CAT./HAUL	- 0.4	MAX. SIZE	- 327

SEPTEMBER 940901 - 940913			
NO. CGHT.	- 26	MEAN SIZE	- 67.4
NO. MEAS.	- 26	S.E. SIZE	- 6
NO. HAULS	- 60	MIN. SIZE	- 28
CAT./HAUL	- 0.4	MAX. SIZE	- 154

OCTOBER 941005 - 941024			
NO. CGHT.	- 135	MEAN SIZE	- 100.9
NO. MEAS.	- 90	S.E. SIZE	- 5.8
NO. HAULS	- 60	MIN. SIZE	- 27
CAT./HAUL	- 2.3	MAX. SIZE	- 288

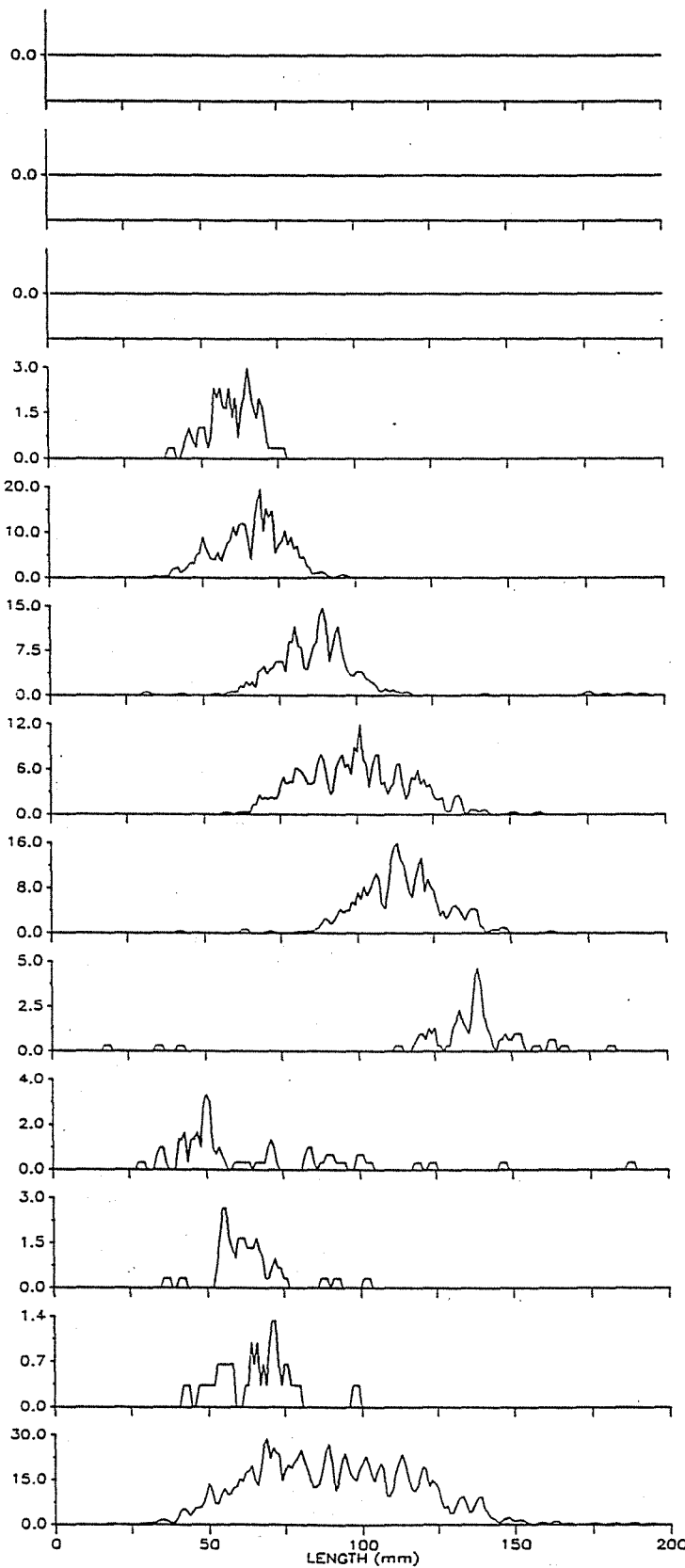
NOVEMBER 941103 - 941116			
NO. CGHT.	- 90	MEAN SIZE	- 123.9
NO. MEAS.	- 71	S.E. SIZE	- 6.2
NO. HAULS	- 60	MIN. SIZE	- 40
CAT./HAUL	- 1.5	MAX. SIZE	- 316

DECEMBER 941201 - 941208			
NO. CGHT.	- 30	MEAN SIZE	- 76.8
NO. MEAS.	- 30	S.E. SIZE	- 5
NO. HAULS	- 54	MIN. SIZE	- 28
CAT./HAUL	- 0.6	MAX. SIZE	- 125

JAN. - DEC 940110 - 941208			
NO. CGHT.	- 323	MEAN SIZE	- 109.7
NO. MEAS.	- 259	S.E. SIZE	- 4
NO. HAULS	- 640	MIN. SIZE	- 27
CAT./HAUL	- 0.5	MAX. SIZE	- 327

Figure 62.

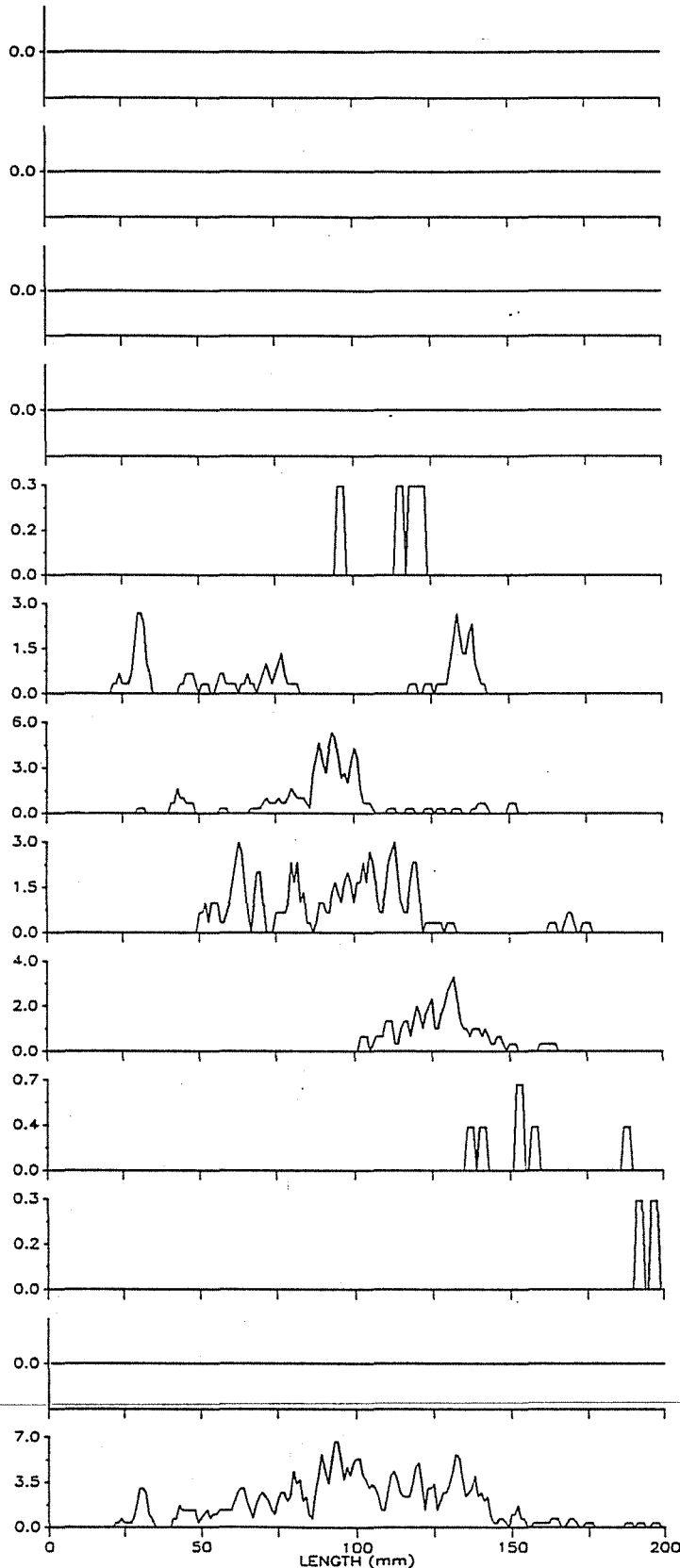
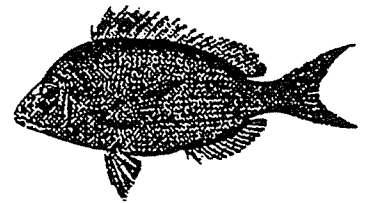
Northern Seabroin



JANUARY	940110 - 940113		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	25	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.
FEBRUARY	940201 - 940217		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	58	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.
MARCH	940307 - 940315		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	25	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.
APRIL	940404 - 940413		
NO. CGHT.	43	MEAN SIZE	58
NO. MEAS.	43	S.E. SIZE	1.2
NO. HAULS	58	MIN. SIZE	38
CAT./HAUL	0.7	MAX. SIZE	74
MAY	940502 - 940516		
NO. CGHT.	341	MEAN SIZE	63.9
NO. MEAS.	341	S.E. SIZE	0.6
NO. HAULS	60	MIN. SIZE	32
CAT./HAUL	5.7	MAX. SIZE	94
JUNE	940601 - 940610		
NO. CGHT.	305	MEAN SIZE	85.7
NO. MEAS.	282	S.E. SIZE	1.2
NO. HAULS	60	MIN. SIZE	29
CAT./HAUL	5.1	MAX. SIZE	212
JULY	940705 - 940713		
NO. CGHT.	341	MEAN SIZE	97.6
NO. MEAS.	317	S.E. SIZE	1
NO. HAULS	60	MIN. SIZE	55
CAT./HAUL	5.7	MAX. SIZE	157
AUGUST	940801 - 940810		
NO. CGHT.	413	MEAN SIZE	111.8
NO. MEAS.	356	S.E. SIZE	0.8
NO. HAULS	60	MIN. SIZE	40
CAT./HAUL	6.9	MAX. SIZE	161
SEPTEMBER	940901 - 940913		
NO. CGHT.	53	MEAN SIZE	131.1
NO. MEAS.	53	S.E. SIZE	3.9
NO. HAULS	60	MIN. SIZE	16
CAT./HAUL	0.9	MAX. SIZE	180
OCTOBER	941005 - 941024		
NO. CGHT.	48	MEAN SIZE	64.9
NO. MEAS.	48	S.E. SIZE	4.5
NO. HAULS	60	MIN. SIZE	27
CAT./HAUL	0.8	MAX. SIZE	186
NOVEMBER	941103 - 941116		
NO. CGHT.	34	MEAN SIZE	61.4
NO. MEAS.	34	S.E. SIZE	2.1
NO. HAULS	60	MIN. SIZE	35
CAT./HAUL	0.6	MAX. SIZE	100
DECEMBER	941201 - 941208		
NO. CGHT.	20	MEAN SIZE	63.4
NO. MEAS.	20	S.E. SIZE	2.8
NO. HAULS	54	MIN. SIZE	41
CAT./HAUL	0.4	MAX. SIZE	96
JAN - DEC	940110 - 941208		
NO. CGHT.	1598	MEAN SIZE	88.8
NO. MEAS.	1494	S.E. SIZE	0.7
NO. HAULS	640	MIN. SIZE	16
CAT./HAUL	2.5	MAX. SIZE	212

Figure 63.

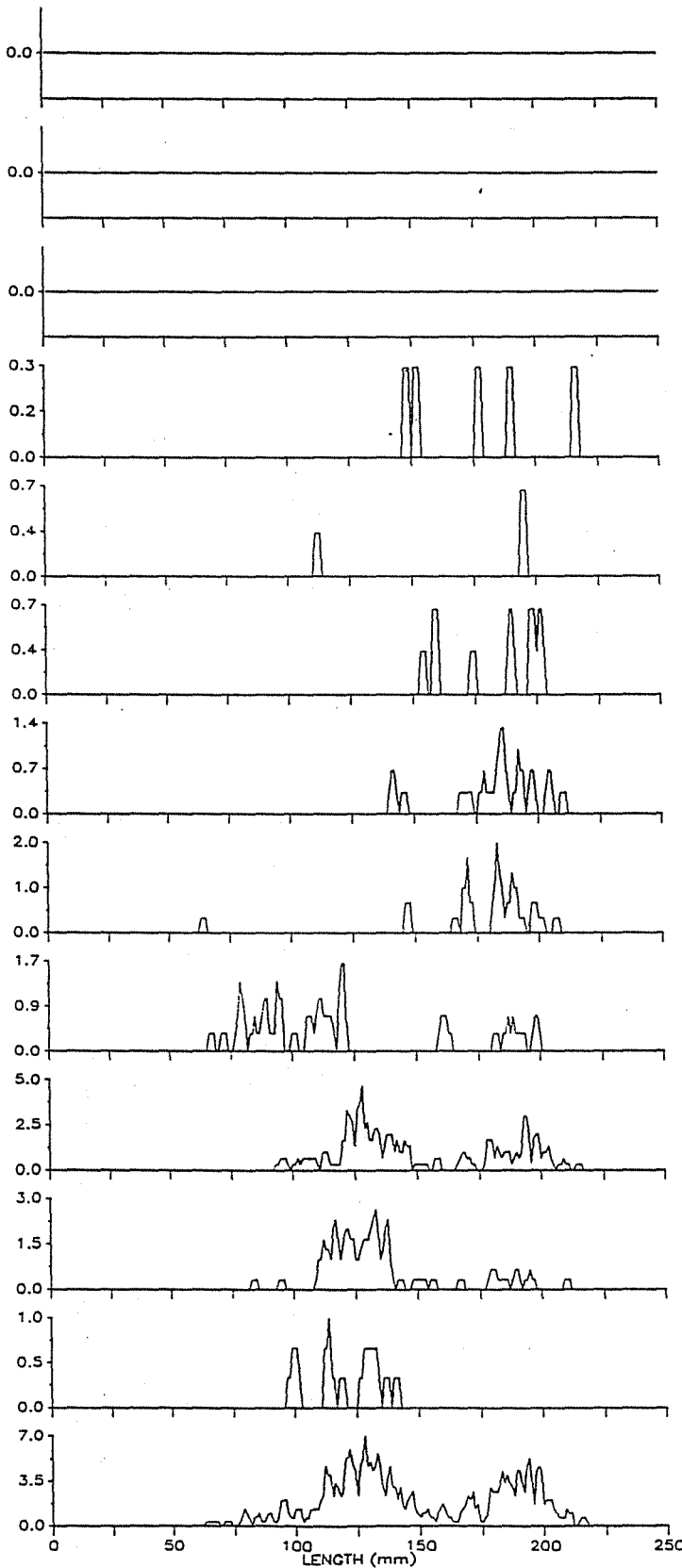
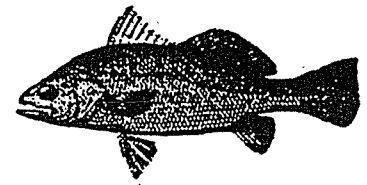
Scup



JANUARY		940110 - 940113	
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
FEBRUARY		940201 - 940217	
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MARCH		940307 - 940315	
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
APRIL		940404 - 940413	
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MAY		940502 - 940516	
NO. CGHT.	4	MEAN SIZE	111
NO. MEAS.	4	S.E. SIZE	5.8
NO. HAULS	60	MIN. SIZE	94
CAT./HAUL	0.1	MAX. SIZE	120
JUNE		940601 - 940610	
NO. CGHT.	51	MEAN SIZE	80.2
NO. MEAS.	51	S.E. SIZE	6.2
NO. HAULS	60	MIN. SIZE	21
CAT./HAUL	0.9	MAX. SIZE	139
JULY		940705 - 940713	
NO. CGHT.	92	MEAN SIZE	89.1
NO. MEAS.	92	S.E. SIZE	2.3
NO. HAULS	60	MIN. SIZE	29
CAT./HAUL	1.5	MAX. SIZE	149
AUGUST		940801 - 940810	
NO. CGHT.	256	MEAN SIZE	102.6
NO. MEAS.	107	S.E. SIZE	4.1
NO. HAULS	60	MIN. SIZE	49
CAT./HAUL	4.3	MAX. SIZE	242
SEPTEMBER		940901 - 940913	
NO. CGHT.	57	MEAN SIZE	125.5
NO. MEAS.	57	S.E. SIZE	1.7
NO. HAULS	60	MIN. SIZE	101
CAT./HAUL	1	MAX. SIZE	162
OCTOBER		941005 - 941024	
NO. CGHT.	6	MEAN SIZE	153
NO. MEAS.	6	S.E. SIZE	7.4
NO. HAULS	60	MIN. SIZE	135
CAT./HAUL	0.1	MAX. SIZE	186
NOVEMBER		941103 - 941116	
NO. CGHT.	2	MEAN SIZE	192.5
NO. MEAS.	2	S.E. SIZE	2.5
NO. HAULS	60	MIN. SIZE	190
CAT./HAUL	0	MAX. SIZE	195
DECEMBER		941201 - 941208	
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	54	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
JAN - DEC		940110 - 941208	
NO. CGHT.	468	MEAN SIZE	100.8
NO. MEAS.	319	S.E. SIZE	2.1
NO. HAULS	640	MIN. SIZE	21
CAT./HAUL	0.7	MAX. SIZE	242

Figure 64.

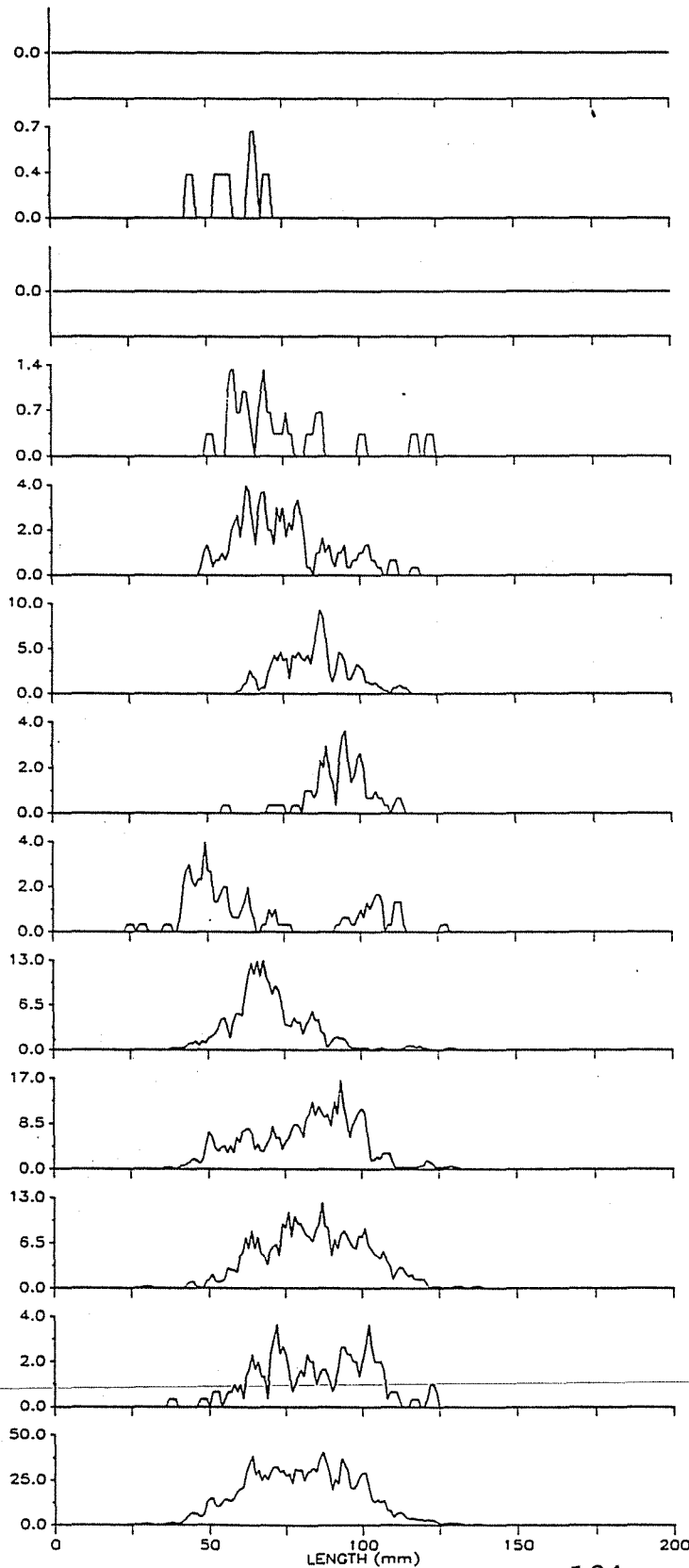
Silver Perch



JANUARY	940110 - 940113		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
FEBRUARY	940201 - 940217		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MARCH	940307 - 940315		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
APRIL	940404 - 940413		
NO. CGHT.	5	MEAN SIZE	- 174.6
NO. MEAS.	5	S.E. SIZE	- 12.6
NO. HAULS	58	MIN. SIZE	- 146
CAT./HAUL	0.1	MAX. SIZE	- 214
MAY	940502 - 940516		
NO. CGHT.	3	MEAN SIZE	- 165.3
NO. MEAS.	3	S.E. SIZE	- 27.7
NO. HAULS	60	MIN. SIZE	- 110
CAT./HAUL	0.1	MAX. SIZE	- 193
JUNE	940601 - 940610		
NO. CGHT.	10	MEAN SIZE	- 180.4
NO. MEAS.	10	S.E. SIZE	- 6
NO. HAULS	60	MIN. SIZE	- 152
CAT./HAUL	0.2	MAX. SIZE	- 200
JULY	940705 - 940713		
NO. CGHT.	21	MEAN SIZE	- 180.2
NO. MEAS.	21	S.E. SIZE	- 4.2
NO. HAULS	60	MIN. SIZE	- 139
CAT./HAUL	0.4	MAX. SIZE	- 208
AUGUST	940801 - 940810		
NO. CGHT.	25	MEAN SIZE	- 174.8
NO. MEAS.	25	S.E. SIZE	- 5.5
NO. HAULS	60	MIN. SIZE	- 62
CAT./HAUL	0.4	MAX. SIZE	- 205
SEPTEMBER	940901 - 940913		
NO. CGHT.	39	MEAN SIZE	- 118.2
NO. MEAS.	39	S.E. SIZE	- 6.4
NO. HAULS	60	MIN. SIZE	- 65
CAT./HAUL	0.7	MAX. SIZE	- 197
OCTOBER	941005 - 941024		
NO. CGHT.	118	MEAN SIZE	- 148.7
NO. MEAS.	118	S.E. SIZE	- 3
NO. HAULS	60	MIN. SIZE	- 92
CAT./HAUL	2	MAX. SIZE	- 213
NOVEMBER	941103 - 941116		
NO. CGHT.	65	MEAN SIZE	- 133.2
NO. MEAS.	65	S.E. SIZE	- 3.2
NO. HAULS	60	MIN. SIZE	- 82
CAT./HAUL	1.1	MAX. SIZE	- 208
DECEMBER	941201 - 941208		
NO. CGHT.	14	MEAN SIZE	- 118.6
NO. MEAS.	14	S.E. SIZE	- 3.8
NO. HAULS	54	MIN. SIZE	- 96
CAT./HAUL	0.3	MAX. SIZE	- 139
JAN - DEC	940110 - 941208		
NO. CGHT.	300	MEAN SIZE	- 146
NO. MEAS.	300	S.E. SIZE	- 2.1
NO. HAULS	640	MIN. SIZE	- 62
CAT./HAUL	0.5	MAX. SIZE	- 214

Figure 65.

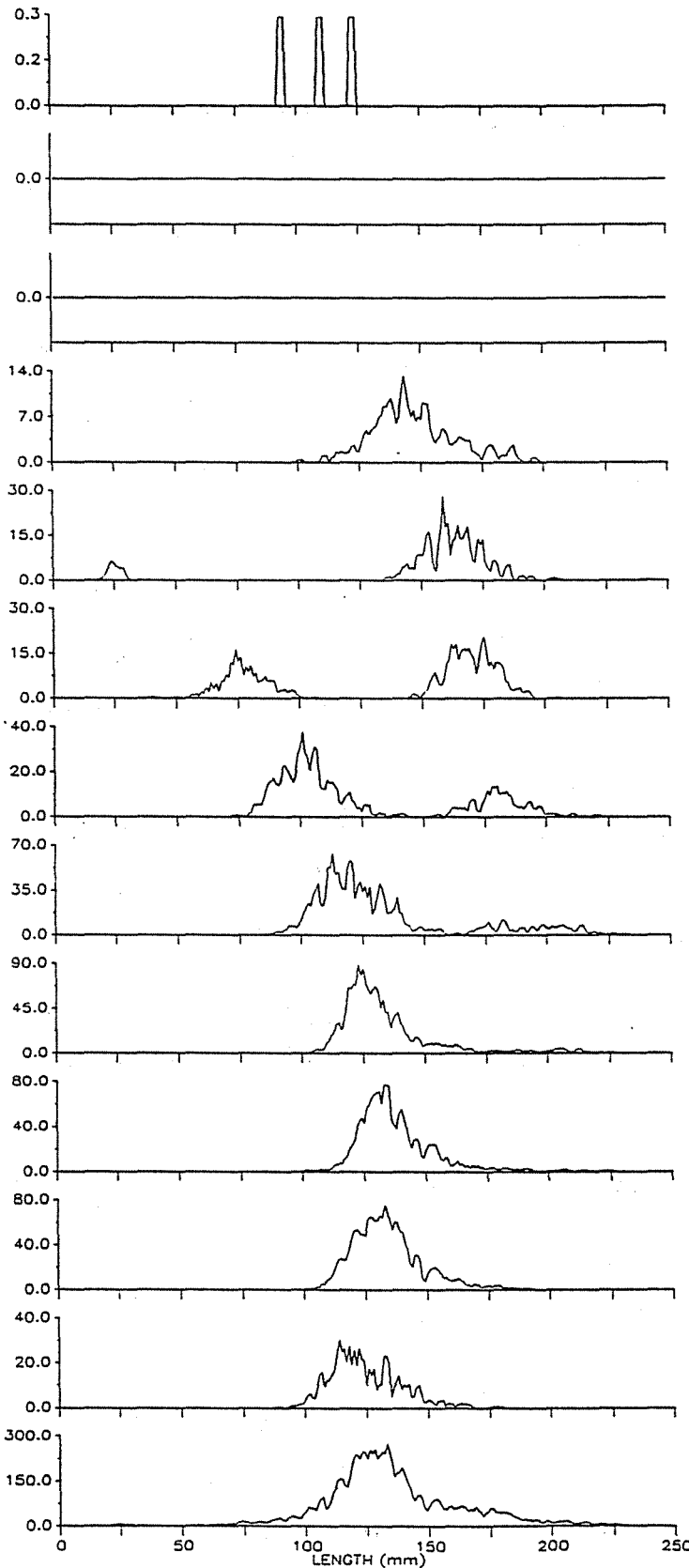
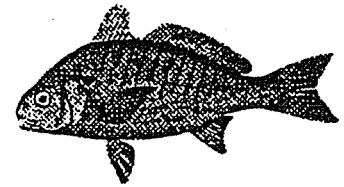
Smallmouth Flounder



JANUARY	940110 - 940113		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	25	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.
FEBRUARY	940201 - 940217		
NO. CGHT.	6	MEAN SIZE	57.5
NO. MEAS.	6	S.E. SIZE	3.8
NO. HAULS	58	MIN. SIZE	43
CAT./HAUL	0.1	MAX. SIZE	68
MARCH	940307 - 940315		
NO. CGHT.	0	MEAN SIZE	.
NO. MEAS.	0	S.E. SIZE	.
NO. HAULS	25	MIN. SIZE	.
CAT./HAUL	0	MAX. SIZE	.
APRIL	940404 - 940413		
NO. CGHT.	22	MEAN SIZE	72.2
NO. MEAS.	22	S.E. SIZE	4.1
NO. HAULS	58	MIN. SIZE	49
CAT./HAUL	0.4	MAX. SIZE	121
MAY	940502 - 940516		
NO. CGHT.	94	MEAN SIZE	73
NO. MEAS.	94	S.E. SIZE	1.6
NO. HAULS	60	MIN. SIZE	47
CAT./HAUL	1.6	MAX. SIZE	116
JUNE	940601 - 940610		
NO. CGHT.	148	MEAN SIZE	83.2
NO. MEAS.	148	S.E. SIZE	0.9
NO. HAULS	60	MIN. SIZE	59
CAT./HAUL	2.5	MAX. SIZE	113
JULY	940705 - 940713		
NO. CGHT.	48	MEAN SIZE	91
NO. MEAS.	48	S.E. SIZE	1.5
NO. HAULS	60	MIN. SIZE	54
CAT./HAUL	0.8	MAX. SIZE	111
AUGUST	940801 - 940810		
NO. CGHT.	72	MEAN SIZE	64.7
NO. MEAS.	72	S.E. SIZE	3.1
NO. HAULS	60	MIN. SIZE	23
CAT./HAUL	1.2	MAX. SIZE	125
SEPTEMBER	940901 - 940913		
NO. CGHT.	274	MEAN SIZE	68.3
NO. MEAS.	255	S.E. SIZE	0.8
NO. HAULS	60	MIN. SIZE	37
CAT./HAUL	4.6	MAX. SIZE	127
OCTOBER	941005 - 941024		
NO. CGHT.	437	MEAN SIZE	79.3
NO. MEAS.	436	S.E. SIZE	0.8
NO. HAULS	60	MIN. SIZE	35
CAT./HAUL	7.3	MAX. SIZE	128
NOVEMBER	941103 - 941116		
NO. CGHT.	392	MEAN SIZE	82.2
NO. MEAS.	392	S.E. SIZE	0.9
NO. HAULS	60	MIN. SIZE	28
CAT./HAUL	6.5	MAX. SIZE	135
DECEMBER	941201 - 941208		
NO. CGHT.	102	MEAN SIZE	82.7
NO. MEAS.	102	S.E. SIZE	1.8
NO. HAULS	54	MIN. SIZE	36
CAT./HAUL	1.9	MAX. SIZE	121
JAN - DEC	940110 - 941208		
NO. CGHT.	1595	MEAN SIZE	78
NO. MEAS.	1575	S.E. SIZE	0.4
NO. HAULS	640	MIN. SIZE	23
CAT./HAUL	2.5	MAX. SIZE	135

Figure 66.

Spot



JANUARY 940110 - 940113  
 NO. CGHT. - 3 MEAN SIZE - 107  
 NO. MEAS. - 3 S.E. SIZE - 8.4  
 NO. HAULS - 25 MIN. SIZE - 92  
 CAT./HAUL - 0.1 MAX. SIZE - 121

FEBRUARY 940201 - 940217  
 NO. CGHT. - 0 MEAN SIZE - .  
 NO. MEAS. - 0 S.E. SIZE - .  
 NO. HAULS - 58 MIN. SIZE - .  
 CAT./HAUL - 0 MAX. SIZE - .

MARCH 940307 - 940315  
 NO. CGHT. - 0 MEAN SIZE - .  
 NO. MEAS. - 0 S.E. SIZE - .  
 NO. HAULS - 25 MIN. SIZE - .  
 CAT./HAUL - 0 MAX. SIZE - .

APRIL 940404 - 940413  
 NO. CGHT. - 355 MEAN SIZE - 145.3  
 NO. MEAS. - 331 S.E. SIZE - 0.9  
 NO. HAULS - 58 MIN. SIZE - 99  
 CAT./HAUL - 6.1 MAX. SIZE - 195

MAY 940502 - 940516  
 NO. CGHT. - 978 MEAN SIZE - 150  
 NO. MEAS. - 495 S.E. SIZE - 1.8  
 NO. HAULS - 60 MIN. SIZE - 18  
 CAT./HAUL - 16.3 MAX. SIZE - 238

JUNE 940601 - 940610  
 NO. CGHT. - 738 MEAN SIZE - 133.9  
 NO. MEAS. - 685 S.E. SIZE - 1.8  
 NO. HAULS - 60 MIN. SIZE - 37  
 CAT./HAUL - 12.3 MAX. SIZE - 203

JULY 940705 - 940713  
 NO. CGHT. - 1150 MEAN SIZE - 122.2  
 NO. MEAS. - 1003 S.E. SIZE - 1.2  
 NO. HAULS - 60 MIN. SIZE - 71  
 CAT./HAUL - 19.2 MAX. SIZE - 218

AUGUST 940801 - 940810  
 NO. CGHT. - 5232 MEAN SIZE - 130.6  
 NO. MEAS. - 1841 S.E. SIZE - 0.7  
 NO. HAULS - 60 MIN. SIZE - 84  
 CAT./HAUL - 87.2 MAX. SIZE - 232

SEPTEMBER 940901 - 940913  
 NO. CGHT. - 3531 MEAN SIZE - 132.4  
 NO. MEAS. - 1940 S.E. SIZE - 0.5  
 NO. HAULS - 60 MIN. SIZE - 97  
 CAT./HAUL - 58.9 MAX. SIZE - 224

OCTOBER 941005 - 941024  
 NO. CGHT. - 2552 MEAN SIZE - 136  
 NO. MEAS. - 1820 S.E. SIZE - 0.4  
 NO. HAULS - 60 MIN. SIZE - 82  
 CAT./HAUL - 42.5 MAX. SIZE - 248

NOVEMBER 941103 - 941116  
 NO. CGHT. - 3239 MEAN SIZE - 131.9  
 NO. MEAS. - 2001 S.E. SIZE - 0.3  
 NO. HAULS - 60 MIN. SIZE - 99  
 CAT./HAUL - 54 MAX. SIZE - 195

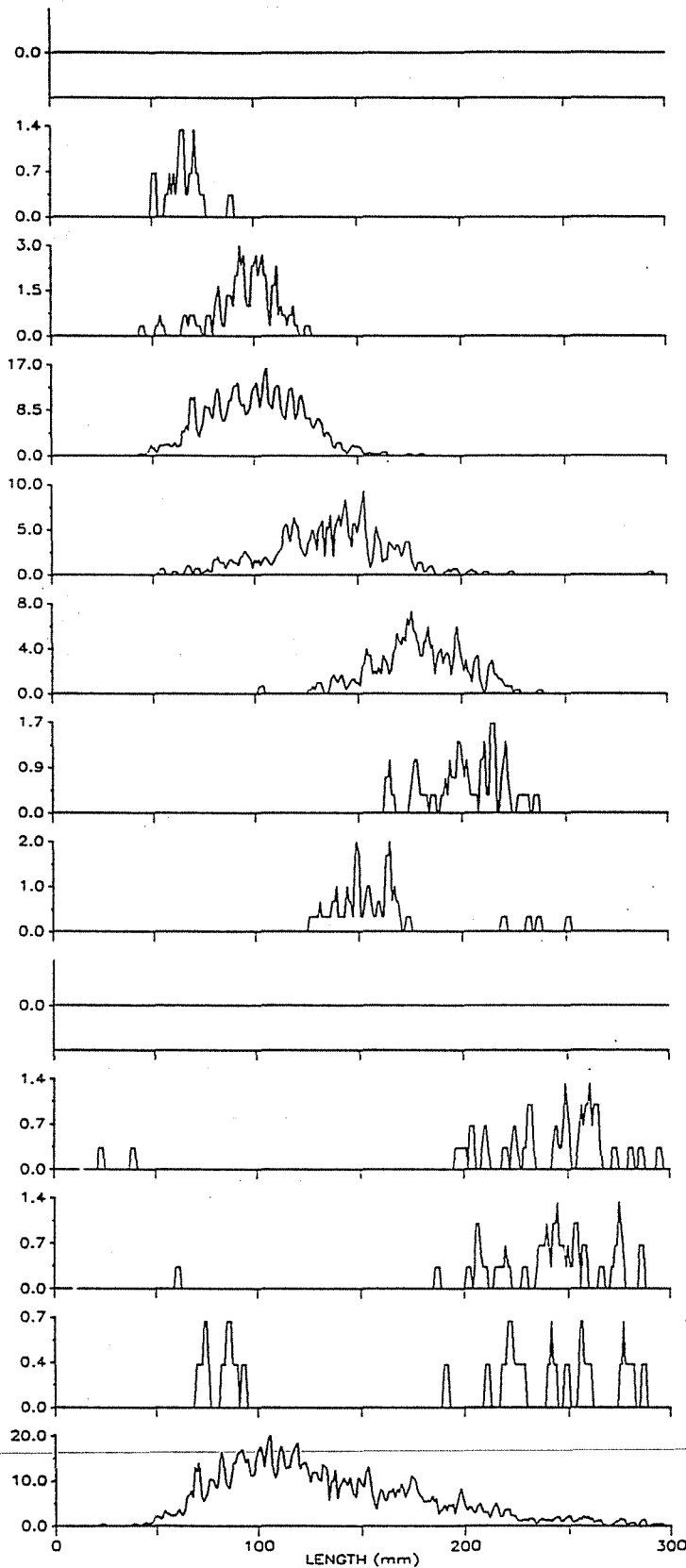
DECEMBER 941201 - 941208  
 NO. CGHT. - 1514 MEAN SIZE - 122.4  
 NO. MEAS. - 743 S.E. SIZE - 0.5  
 NO. HAULS - 54 MIN. SIZE - 87  
 CAT./HAUL - 28 MAX. SIZE - 177

JAN - DEC 940110 - 941208  
 NO. CGHT. - 19292 MEAN SIZE - 132.3  
 NO. MEAS. - 10862 S.E. SIZE - 0.3  
 NO. HAULS - 640 MIN. SIZE - 18  
 CAT./HAUL - 30.1 MAX. SIZE - 248



Figure 67.

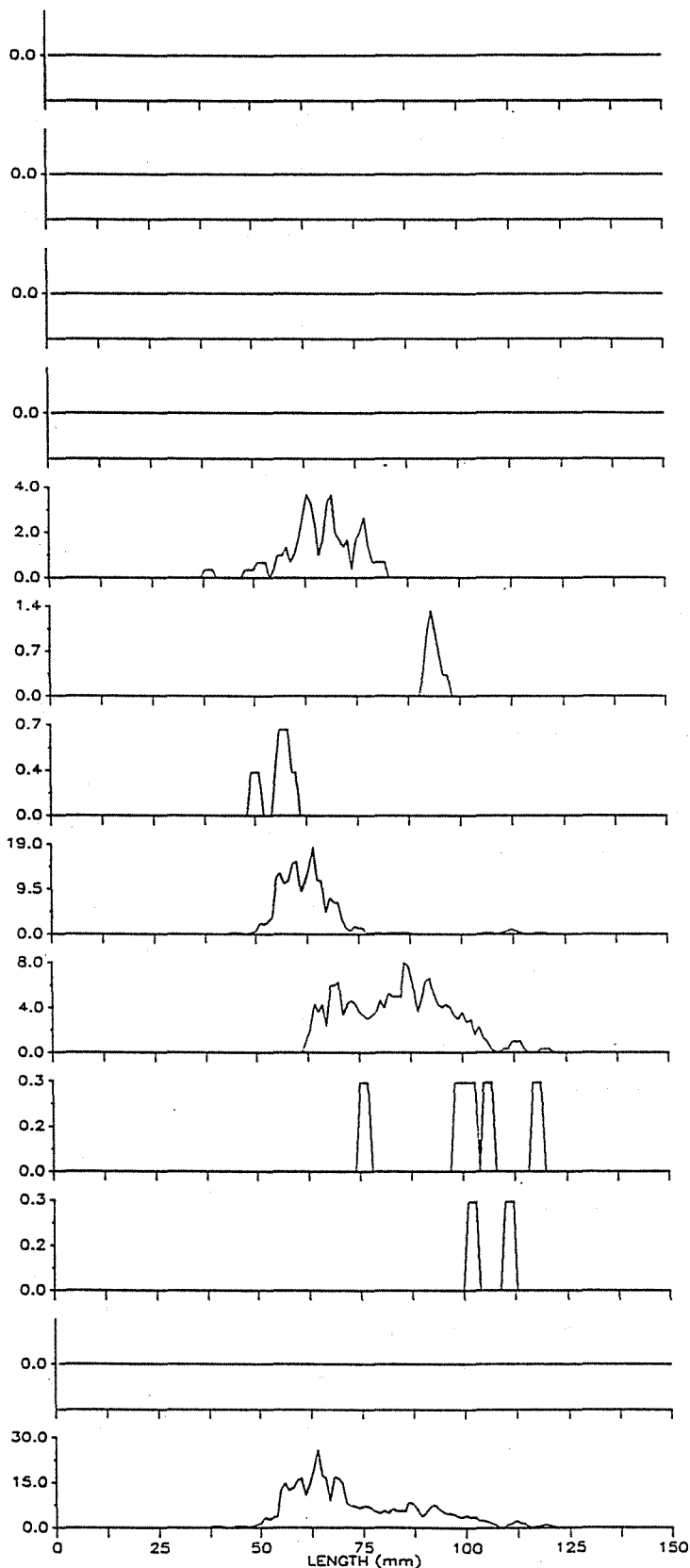
Spotted Hake



JANUARY		940110 - 940113	
NO. CGHT.	-	0	MEAN SIZE - .
NO. MEAS.	-	0	S.E. SIZE - .
NO. HAULS	-	25	MIN. SIZE - .
CAT./HAUL	-	0	MAX. SIZE - .
FEBRUARY		940201 - 940217	
NO. CGHT.	-	16	MEAN SIZE - 64
NO. MEAS.	-	16	S.E. SIZE - 2.3
NO. HAULS	-	58	MIN. SIZE - 49
CAT./HAUL	-	0.3	MAX. SIZE - 87
MARCH		940307 - 940315	
NO. CGHT.	-	68	MEAN SIZE - 92.8
NO. MEAS.	-	68	S.E. SIZE - 1.9
NO. HAULS	-	25	MIN. SIZE - 43
CAT./HAUL	-	2.7	MAX. SIZE - 124
APRIL		940404 - 940413	
NO. CGHT.	-	1086	MEAN SIZE - 98.8
NO. MEAS.	-	708	S.E. SIZE - 0.8
NO. HAULS	-	58	MIN. SIZE - 42
CAT./HAUL	-	18.7	MAX. SIZE - 179
MAY		940502 - 940516	
NO. CGHT.	-	351	MEAN SIZE - 134
NO. MEAS.	-	351	S.E. SIZE - 1.6
NO. HAULS	-	60	MIN. SIZE - 52
CAT./HAUL	-	5.9	MAX. SIZE - 290
JUNE		940601 - 940610	
NO. CGHT.	-	308	MEAN SIZE - 177.1
NO. MEAS.	-	248	S.E. SIZE - 1.4
NO. HAULS	-	60	MIN. SIZE - 101
CAT./HAUL	-	5.1	MAX. SIZE - 236
JULY		940705 - 940713	
NO. CGHT.	-	65	MEAN SIZE - 199.3
NO. MEAS.	-	37	S.E. SIZE - 3.1
NO. HAULS	-	60	MIN. SIZE - 162
CAT./HAUL	-	1.1	MAX. SIZE - 234
AUGUST		940801 - 940810	
NO. CGHT.	-	36	MEAN SIZE - 159.3
NO. MEAS.	-	36	S.E. SIZE - 4.9
NO. HAULS	-	60	MIN. SIZE - 125
CAT./HAUL	-	0.6	MAX. SIZE - 249
SEPTEMBER		940901 - 940913	
NO. CGHT.	-	0	MEAN SIZE - .
NO. MEAS.	-	0	S.E. SIZE - .
NO. HAULS	-	60	MIN. SIZE - .
CAT./HAUL	-	0	MAX. SIZE - .
OCTOBER		941005 - 941024	
NO. CGHT.	-	35	MEAN SIZE - 229.8
NO. MEAS.	-	35	S.E. SIZE - 9.5
NO. HAULS	-	60	MIN. SIZE - 21
CAT./HAUL	-	0.6	MAX. SIZE - 293
NOVEMBER		941103 - 941116	
NO. CGHT.	-	37	MEAN SIZE - 237.9
NO. MEAS.	-	37	S.E. SIZE - 6.6
NO. HAULS	-	60	MIN. SIZE - 59
CAT./HAUL	-	0.6	MAX. SIZE - 302
DECEMBER		941201 - 941208	
NO. CGHT.	-	27	MEAN SIZE - 199
NO. MEAS.	-	27	S.E. SIZE - 16.1
NO. HAULS	-	54	MIN. SIZE - 69
CAT./HAUL	-	0.5	MAX. SIZE - 319
JAN - DEC		940110 - 941208	
NO. CGHT.	-	2029	MEAN SIZE - 130.2
NO. MEAS.	-	1563	S.E. SIZE - 1.2
NO. HAULS	-	640	MIN. SIZE - 21
CAT./HAUL	-	3.2	MAX. SIZE - 319

Figure 68.

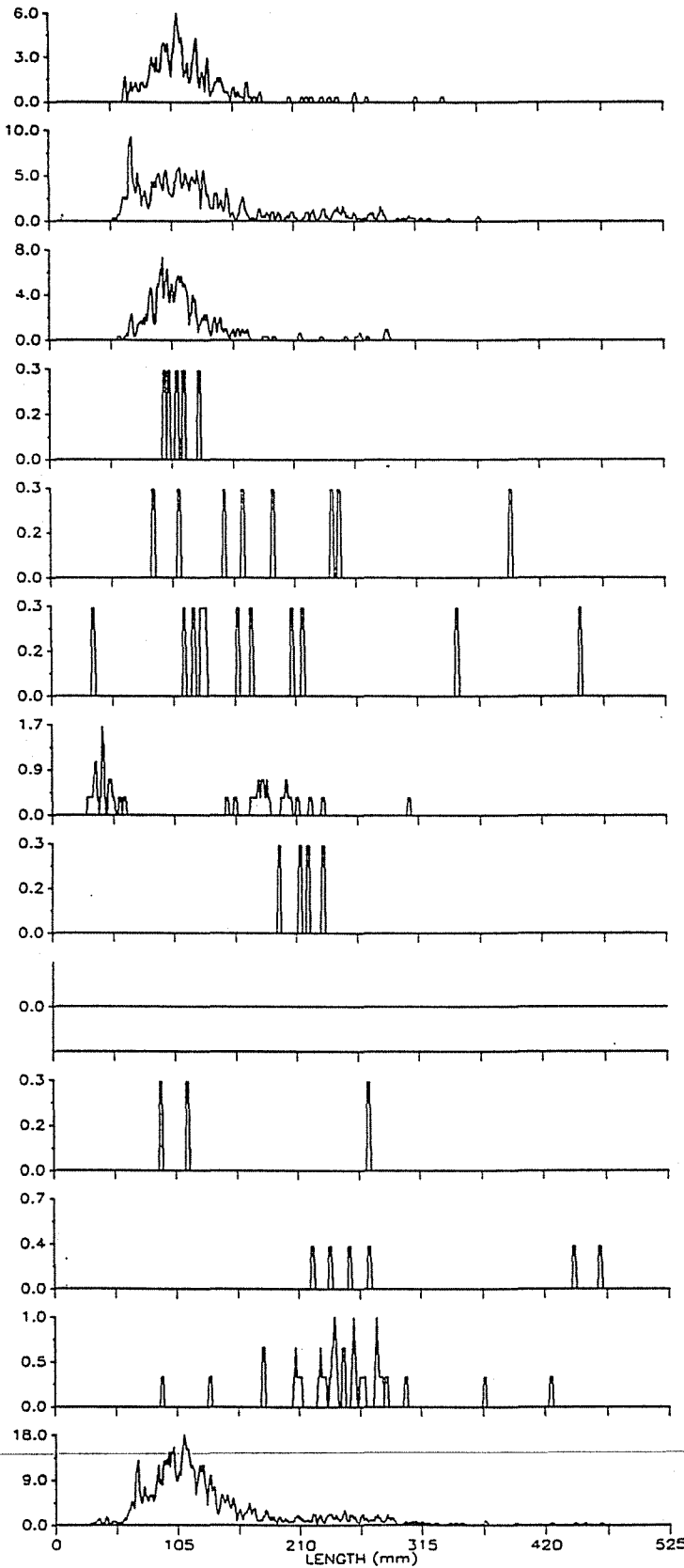
Striped Anchovy



JANUARY	940110 - 940113		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
FEBRUARY	940201 - 940217		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MARCH	940307 - 940315		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
APRIL	940404 - 940413		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MAY	940502 - 940516		
NO. CGHT.	50	MEAN SIZE	64.4
NO. MEAS.	50	S.E. SIZE	1.2
NO. HAULS	60	MIN. SIZE	37
CAT./HAUL	0.8	MAX. SIZE	79
JUNE	940601 - 940610		
NO. CGHT.	5	MEAN SIZE	91.6
NO. MEAS.	5	S.E. SIZE	0.7
NO. HAULS	60	MIN. SIZE	90
CAT./HAUL	0.1	MAX. SIZE	94
JULY	940705 - 940713		
NO. CGHT.	4	MEAN SIZE	53.5
NO. MEAS.	4	S.E. SIZE	1.9
NO. HAULS	60	MIN. SIZE	48
CAT./HAUL	0.1	MAX. SIZE	57
AUGUST	940801 - 940810		
NO. CGHT.	9983	MEAN SIZE	61.2
NO. MEAS.	208	S.E. SIZE	0.7
NO. HAULS	60	MIN. SIZE	43
CAT./HAUL	166.4	MAX. SIZE	117
SEPTEMBER	940901 - 940913		
NO. CGHT.	225	MEAN SIZE	82.1
NO. MEAS.	191	S.E. SIZE	0.9
NO. HAULS	60	MIN. SIZE	61
CAT./HAUL	3.8	MAX. SIZE	118
OCTOBER	941005 - 941024		
NO. CGHT.	5	MEAN SIZE	98.2
NO. MEAS.	5	S.E. SIZE	6.9
NO. HAULS	60	MIN. SIZE	74
CAT./HAUL	0.1	MAX. SIZE	116
NOVEMBER	941103 - 941116		
NO. CGHT.	2	MEAN SIZE	104.5
NO. MEAS.	2	S.E. SIZE	4.5
NO. HAULS	60	MIN. SIZE	100
CAT./HAUL	0	MAX. SIZE	109
DECEMBER	941201 - 941208		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	54	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
JAN - DEC	940110 - 941208		
NO. CGHT.	10274	MEAN SIZE	71
NO. MEAS.	465	S.E. SIZE	0.7
NO. HAULS	640	MIN. SIZE	37
CAT./HAUL	16.1	MAX. SIZE	118

Figure 69.

Striped Bass



JANUARY 940110 - 940113  
 NO. CGHT. - 214 MEAN SIZE - 119.5  
 NO. MEAS. - 214 S.E. SIZE - 2.8  
 NO. HAULS - 25 MIN. SIZE - 63  
 CAT./HAUL - 8.6 MAX. SIZE - 337

FEBRUARY 940201 - 940217  
 NO. CGHT. - 437 MEAN SIZE - 130.3  
 NO. MEAS. - 437 S.E. SIZE - 3  
 NO. HAULS - 58 MIN. SIZE - 53  
 CAT./HAUL - 7.5 MAX. SIZE - 368

MARCH 940307 - 940315  
 NO. CGHT. - 279 MEAN SIZE - 119.1  
 NO. MEAS. - 269 S.E. SIZE - 3.5  
 NO. HAULS - 25 MIN. SIZE - 58  
 CAT./HAUL - 11.2 MAX. SIZE - 612

APRIL 940404 - 940413  
 NO. CGHT. - 5 MEAN SIZE - 108.4  
 NO. MEAS. - 5 S.E. SIZE - 5.3  
 NO. HAULS - 58 MIN. SIZE - 96  
 CAT./HAUL - 0.1 MAX. SIZE - 126

MAY 940502 - 940516  
 NO. CGHT. - 9 MEAN SIZE - 234.9  
 NO. MEAS. - 9 S.E. SIZE - 49  
 NO. HAULS - 60 MIN. SIZE - 86  
 CAT./HAUL - 0.2 MAX. SIZE - 542

JUNE 940601 - 940610  
 NO. CGHT. - 11 MEAN SIZE - 188  
 NO. MEAS. - 11 S.E. SIZE - 35.4  
 NO. HAULS - 60 MIN. SIZE - 34  
 CAT./HAUL - 0.2 MAX. SIZE - 451

JULY 940705 - 940713  
 NO. CGHT. - 33 MEAN SIZE - 124.8  
 NO. MEAS. - 33 S.E. SIZE - 14.1  
 NO. HAULS - 60 MIN. SIZE - 29  
 CAT./HAUL - 0.6 MAX. SIZE - 305

AUGUST 940801 - 940810  
 NO. CGHT. - 4 MEAN SIZE - 213.3  
 NO. MEAS. - 4 S.E. SIZE - 7.9  
 NO. HAULS - 60 MIN. SIZE - 193  
 CAT./HAUL - 0.1 MAX. SIZE - 231

SEPTEMBER 940901 - 940913  
 NO. CGHT. - 0 MEAN SIZE - .  
 NO. MEAS. - 0 S.E. SIZE - .  
 NO. HAULS - 60 MIN. SIZE - .  
 CAT./HAUL - 0 MAX. SIZE - .

OCTOBER 941005 - 941024  
 NO. CGHT. - 3 MEAN SIZE - 157.3  
 NO. MEAS. - 3 S.E. SIZE - 56.2  
 NO. HAULS - 60 MIN. SIZE - 90  
 CAT./HAUL - 0.1 MAX. SIZE - 269

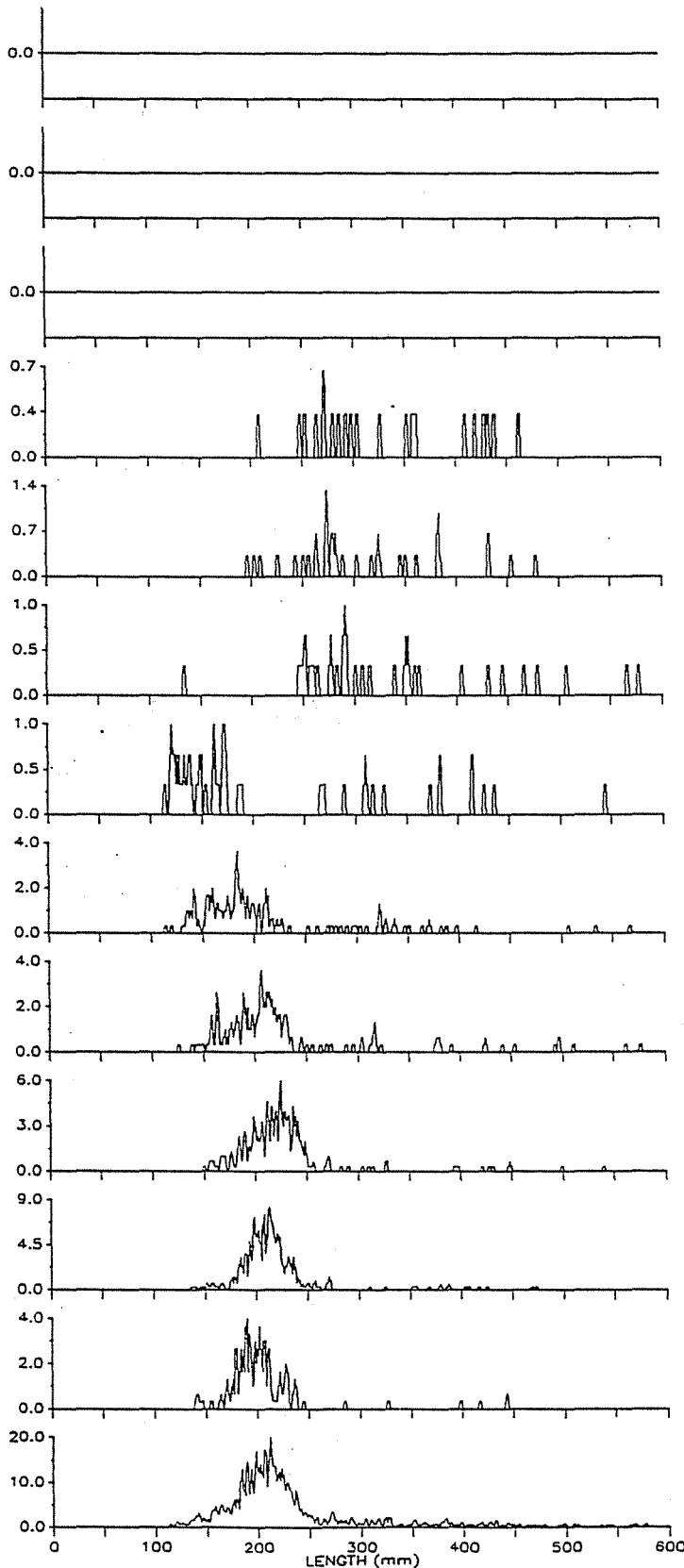
NOVEMBER 941103 - 941116  
 NO. CGHT. - 6 MEAN SIZE - 314  
 NO. MEAS. - 6 S.E. SIZE - 44.9  
 NO. HAULS - 60 MIN. SIZE - 220  
 CAT./HAUL - 0.1 MAX. SIZE - 465

DECEMBER 941201 - 941208  
 NO. CGHT. - 32 MEAN SIZE - 265.6  
 NO. MEAS. - 32 S.E. SIZE - 18.2  
 NO. HAULS - 54 MIN. SIZE - 90  
 CAT./HAUL - 0.6 MAX. SIZE - 610

JAN - DEC 940110 - 941208  
 NO. CGHT. - 1033 MEAN SIZE - 132.1  
 NO. MEAS. - 1023 S.E. SIZE - 2.2  
 NO. HAULS - 640 MIN. SIZE - 29  
 CAT./HAUL - 1.6 MAX. SIZE - 612

Figure 70.

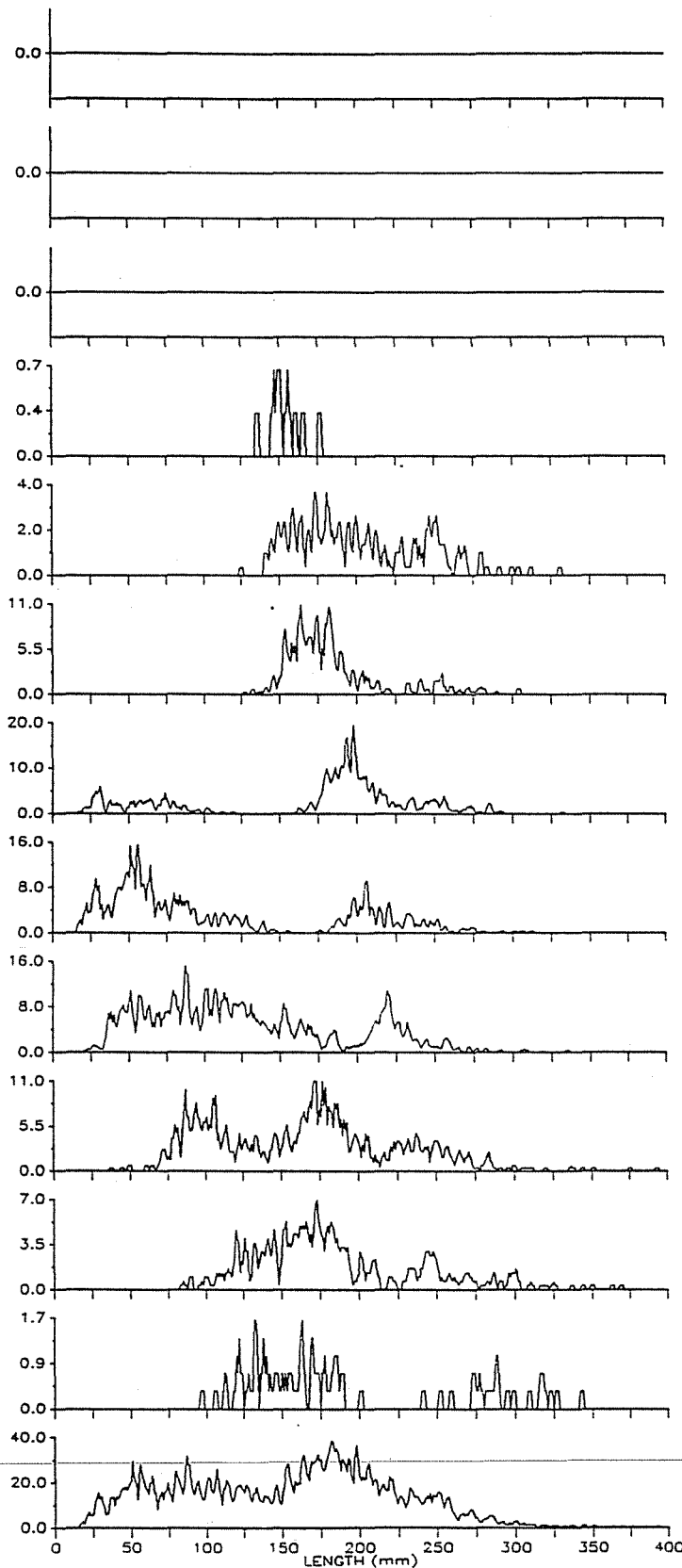
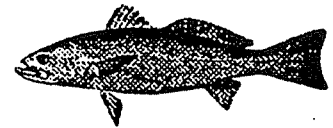
Summer Flounder



JANUARY	940110 - 940113		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
FEBRUARY	940201 - 940217		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MARCH	940307 - 940315		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
APRIL	940404 - 940413		
NO. CGHT.	21	MEAN SIZE	- 329.5
NO. MEAS.	21	S.E. SIZE	- 16.3
NO. HAULS	58	MIN. SIZE	- 206
CAT./HAUL	0.4	MAX. SIZE	- 460
MAY	940502 - 940516		
NO. CGHT.	32	MEAN SIZE	- 306.8
NO. MEAS.	32	S.E. SIZE	- 13
NO. HAULS	60	MIN. SIZE	- 194
CAT./HAUL	0.5	MAX. SIZE	- 476
JUNE	940601 - 940610		
NO. CGHT.	32	MEAN SIZE	- 336.4
NO. MEAS.	32	S.E. SIZE	- 17.8
NO. HAULS	60	MIN. SIZE	- 132
CAT./HAUL	0.5	MAX. SIZE	- 575
JULY	940705 - 940713		
NO. CGHT.	43	MEAN SIZE	- 221.4
NO. MEAS.	43	S.E. SIZE	- 17.4
NO. HAULS	60	MIN. SIZE	- 112
CAT./HAUL	0.7	MAX. SIZE	- 542
AUGUST	940801 - 940810		
NO. CGHT.	136	MEAN SIZE	- 214.4
NO. MEAS.	136	S.E. SIZE	- 7.1
NO. HAULS	60	MIN. SIZE	- 112
CAT./HAUL	2.3	MAX. SIZE	- 565
SEPTEMBER	940901 - 940913		
NO. CGHT.	152	MEAN SIZE	- 230.4
NO. MEAS.	152	S.E. SIZE	- 6.9
NO. HAULS	60	MIN. SIZE	- 124
CAT./HAUL	2.5	MAX. SIZE	- 574
OCTOBER	941005 - 941024		
NO. CGHT.	220	MEAN SIZE	- 225.5
NO. MEAS.	220	S.E. SIZE	- 3.6
NO. HAULS	60	MIN. SIZE	- 148
CAT./HAUL	3.7	MAX. SIZE	- 538
NOVEMBER	941103 - 941116		
NO. CGHT.	296	MEAN SIZE	- 216.1
NO. MEAS.	296	S.E. SIZE	- 2.7
NO. HAULS	60	MIN. SIZE	- 135
CAT./HAUL	4.9	MAX. SIZE	- 471
DECEMBER	941201 - 941208		
NO. CGHT.	130	MEAN SIZE	- 204.1
NO. MEAS.	130	S.E. SIZE	- 4.1
NO. HAULS	54	MIN. SIZE	- 138
CAT./HAUL	2.4	MAX. SIZE	- 442
JAN - DEC	940110 - 941208		
NO. CGHT.	1062	MEAN SIZE	- 227.2
NO. MEAS.	1062	S.E. SIZE	- 2.2
NO. HAULS	640	MIN. SIZE	- 112
CAT./HAUL	1.7	MAX. SIZE	- 575

Figure 71.

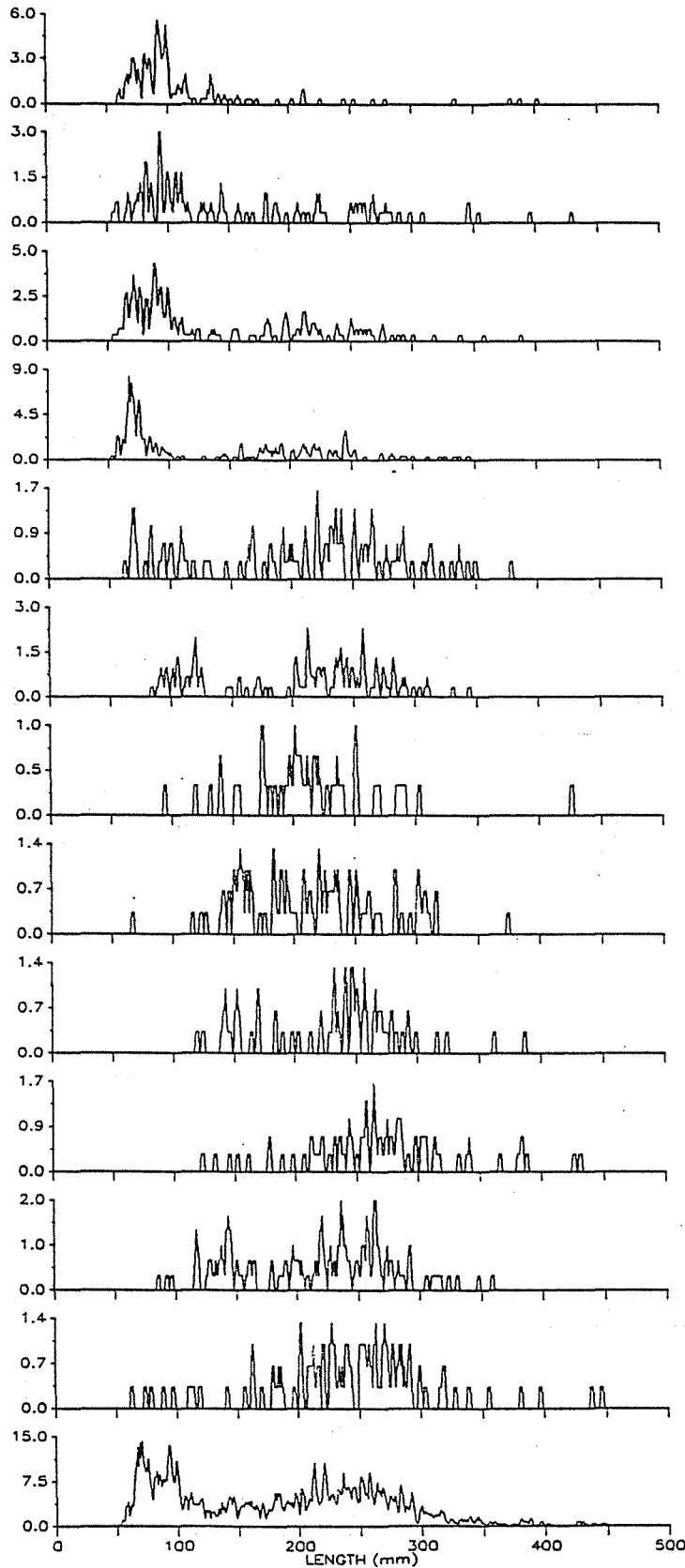
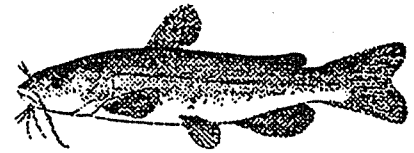
Weakfish



JANUARY	940110 - 940113		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
FEBRUARY	940201 - 940217		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	58	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
MARCH	940307 - 940315		
NO. CGHT.	0	MEAN SIZE	-
NO. MEAS.	0	S.E. SIZE	-
NO. HAULS	25	MIN. SIZE	-
CAT./HAUL	0	MAX. SIZE	-
APRIL	940404 - 940413		
NO. CGHT.	10	MEAN SIZE	- 152.7
NO. MEAS.	10	S.E. SIZE	- 3.6
NO. HAULS	58	MIN. SIZE	- 134
CAT./HAUL	0.2	MAX. SIZE	- 175
MAY	940502 - 940516		
NO. CGHT.	204	MEAN SIZE	- 200
NO. MEAS.	204	S.E. SIZE	- 2.9
NO. HAULS	60	MIN. SIZE	- 123
CAT./HAUL	3.4	MAX. SIZE	- 329
JUNE	940601 - 940610		
NO. CGHT.	410	MEAN SIZE	- 181.7
NO. MEAS.	370	S.E. SIZE	- 1.7
NO. HAULS	60	MIN. SIZE	- 125
CAT./HAUL	6.8	MAX. SIZE	- 302
JULY	940705 - 940713		
NO. CGHT.	749	MEAN SIZE	- 167.7
NO. MEAS.	655	S.E. SIZE	- 2.8
NO. HAULS	60	MIN. SIZE	- 16
CAT./HAUL	12.5	MAX. SIZE	- 330
AUGUST	940801 - 940810		
NO. CGHT.	1494	MEAN SIZE	- 106.1
NO. MEAS.	806	S.E. SIZE	- 2.6
NO. HAULS	60	MIN. SIZE	- 15
CAT./HAUL	24.9	MAX. SIZE	- 310
SEPTEMBER	940901 - 940913		
NO. CGHT.	2188	MEAN SIZE	- 123.3
NO. MEAS.	1206	S.E. SIZE	- 1.8
NO. HAULS	60	MIN. SIZE	- 20
CAT./HAUL	36.5	MAX. SIZE	- 333
OCTOBER	941005 - 941024		
NO. CGHT.	1030	MEAN SIZE	- 162.5
NO. MEAS.	842	S.E. SIZE	- 2
NO. HAULS	60	MIN. SIZE	- 36
CAT./HAUL	17.2	MAX. SIZE	- 391
NOVEMBER	941103 - 941116		
NO. CGHT.	453	MEAN SIZE	- 181.7
NO. MEAS.	432	S.E. SIZE	- 2.6
NO. HAULS	60	MIN. SIZE	- 82
CAT./HAUL	7.6	MAX. SIZE	- 367
DECEMBER	941201 - 941208		
NO. CGHT.	110	MEAN SIZE	- 189.9
NO. MEAS.	73	S.E. SIZE	- 8.1
NO. HAULS	54	MIN. SIZE	- 95
CAT./HAUL	2	MAX. SIZE	- 341
JAN - DEC	940110 - 941208		
NO. CGHT.	6648	MEAN SIZE	- 148.5
NO. MEAS.	4598	S.E. SIZE	- 1
NO. HAULS	640	MIN. SIZE	- 15
CAT./HAUL	10.4	MAX. SIZE	- 391

Figure 72.

White Catfish



JANUARY 940110 - 940113  
 NO. CGHT. - 151 MEAN SIZE - 110.7  
 NO. MEAS. - 151 S.E. SIZE - 4.9  
 NO. HAULS - 25 MIN. SIZE - 58  
 CAT./HAUL - 6 MAX. SIZE - 400

FEBRUARY 940201 - 940217  
 NO. CGHT. - 105 MEAN SIZE - 157.4  
 NO. MEAS. - 105 S.E. SIZE - 8.4  
 NO. HAULS - 58 MIN. SIZE - 53  
 CAT./HAUL - 1.8 MAX. SIZE - 427

MARCH 940307 - 940315  
 NO. CGHT. - 193 MEAN SIZE - 139.8  
 NO. MEAS. - 178 S.E. SIZE - 5.7  
 NO. HAULS - 25 MIN. SIZE - 53  
 CAT./HAUL - 7.7 MAX. SIZE - 386

APRIL 940404 - 940413  
 NO. CGHT. - 204 MEAN SIZE - 137.2  
 NO. MEAS. - 204 S.E. SIZE - 5.6  
 NO. HAULS - 58 MIN. SIZE - 51  
 CAT./HAUL - 3.5 MAX. SIZE - 343

MAY 940502 - 940516  
 NO. CGHT. - 98 MEAN SIZE - 206.2  
 NO. MEAS. - 98 S.E. SIZE - 8.1  
 NO. HAULS - 60 MIN. SIZE - 61  
 CAT./HAUL - 1.6 MAX. SIZE - 377

JUNE 940601 - 940610  
 NO. CGHT. - 111 MEAN SIZE - 202.3  
 NO. MEAS. - 111 S.E. SIZE - 6.4  
 NO. HAULS - 60 MIN. SIZE - 82  
 CAT./HAUL - 1.9 MAX. SIZE - 342

JULY 940705 - 940713  
 NO. CGHT. - 44 MEAN SIZE - 210.7  
 NO. MEAS. - 44 S.E. SIZE - 8.6  
 NO. HAULS - 60 MIN. SIZE - 92  
 CAT./HAUL - 0.7 MAX. SIZE - 424

AUGUST 940801 - 940810  
 NO. CGHT. - 86 MEAN SIZE - 212.2  
 NO. MEAS. - 86 S.E. SIZE - 6.3  
 NO. HAULS - 60 MIN. SIZE - 65  
 CAT./HAUL - 1.4 MAX. SIZE - 372

SEPTEMBER 940901 - 940913  
 NO. CGHT. - 63 MEAN SIZE - 228.4  
 NO. MEAS. - 63 S.E. SIZE - 7.3  
 NO. HAULS - 60 MIN. SIZE - 117  
 CAT./HAUL - 1.1 MAX. SIZE - 385

OCTOBER 941005 - 941024  
 NO. CGHT. - 72 MEAN SIZE - 264.4  
 NO. MEAS. - 72 S.E. SIZE - 7.4  
 NO. HAULS - 60 MIN. SIZE - 121  
 CAT./HAUL - 1.2 MAX. SIZE - 429

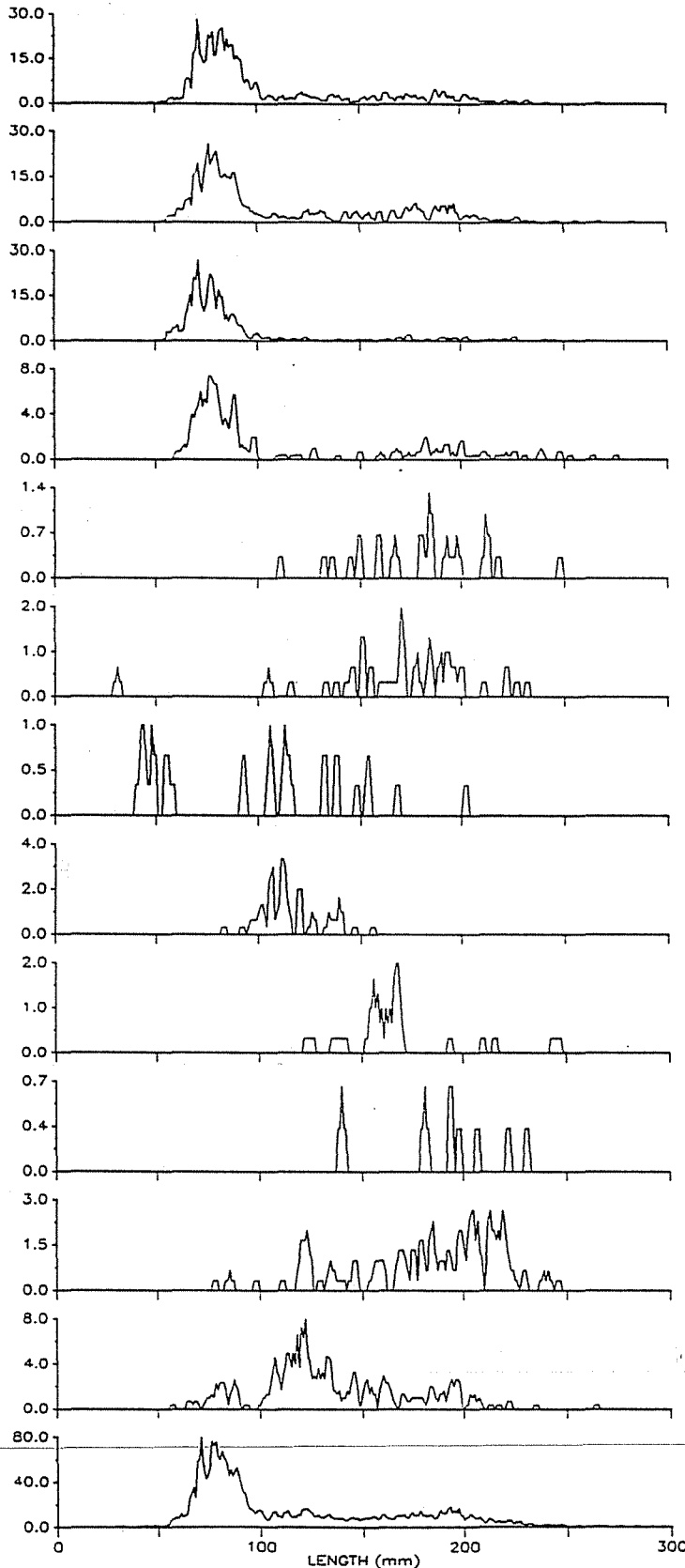
NOVEMBER 941103 - 941116  
 NO. CGHT. - 112 MEAN SIZE - 214.5  
 NO. MEAS. - 112 S.E. SIZE - 5.8  
 NO. HAULS - 60 MIN. SIZE - 84  
 CAT./HAUL - 1.9 MAX. SIZE - 357

DECEMBER 941201 - 941208  
 NO. CGHT. - 94 MEAN SIZE - 237.4  
 NO. MEAS. - 94 S.E. SIZE - 7.3  
 NO. HAULS - 54 MIN. SIZE - 61  
 CAT./HAUL - 1.7 MAX. SIZE - 444

JAN - DEC 940110 - 941208  
 NO. CGHT. - 1333 MEAN SIZE - 179.1  
 NO. MEAS. - 1318 S.E. SIZE - 2.3  
 NO. HAULS - 640 MIN. SIZE - 51  
 CAT./HAUL - 2.1 MAX. SIZE - 444

Figure 73.

White Perch



JANUARY			
NO. CGHT.	940110 - 940113	MEAN SIZE	103.9
NO. MEAS.	4158	S.E. SIZE	1.5
NO. HAULS	826	MIN. SIZE	46
CAT./HAUL	25	MAX. SIZE	265
	166.3		

FEBRUARY			
NO. CGHT.	940201 - 940217	MEAN SIZE	112.2
NO. MEAS.	2823	S.E. SIZE	1.7
NO. HAULS	802	MIN. SIZE	52
CAT./HAUL	58	MAX. SIZE	281
	48.7		

MARCH			
NO. CGHT.	940307 - 940315	MEAN SIZE	88.1
NO. MEAS.	753	S.E. SIZE	1.7
NO. HAULS	488	MIN. SIZE	49
CAT./HAUL	25	MAX. SIZE	252
	30.1		

APRIL			
NO. CGHT.	940404 - 940413	MEAN SIZE	111.3
NO. MEAS.	197	S.E. SIZE	4
NO. HAULS	197	MIN. SIZE	58
CAT./HAUL	58	MAX. SIZE	273
	3.4		

MAY			
NO. CGHT.	940502 - 940516	MEAN SIZE	176.3
NO. MEAS.	25	S.E. SIZE	6.3
NO. HAULS	25	MIN. SIZE	109
CAT./HAUL	60	MAX. SIZE	246
	0.4		

JUNE			
NO. CGHT.	940601 - 940610	MEAN SIZE	164.9
NO. MEAS.	47	S.E. SIZE	6
NO. HAULS	47	MIN. SIZE	28
CAT./HAUL	60	MAX. SIZE	230
	0.8		

JULY			
NO. CGHT.	940705 - 940713	MEAN SIZE	98.3
NO. MEAS.	28	S.E. SIZE	8.6
NO. HAULS	28	MIN. SIZE	39
CAT./HAUL	60	MAX. SIZE	200
	0.5		

AUGUST			
NO. CGHT.	940801 - 940810	MEAN SIZE	113.4
NO. MEAS.	53	S.E. SIZE	2
NO. HAULS	53	MIN. SIZE	81
CAT./HAUL	60	MAX. SIZE	154
	0.9		

SEPTEMBER			
NO. CGHT.	940901 - 940913	MEAN SIZE	165.4
NO. MEAS.	30	S.E. SIZE	5.3
NO. HAULS	30	MIN. SIZE	121
CAT./HAUL	60	MAX. SIZE	245
	0.5		

OCTOBER			
NO. CGHT.	941005 - 941024	MEAN SIZE	186.8
NO. MEAS.	10	S.E. SIZE	9.6
NO. HAULS	10	MIN. SIZE	137
CAT./HAUL	60	MAX. SIZE	229
	0.2		

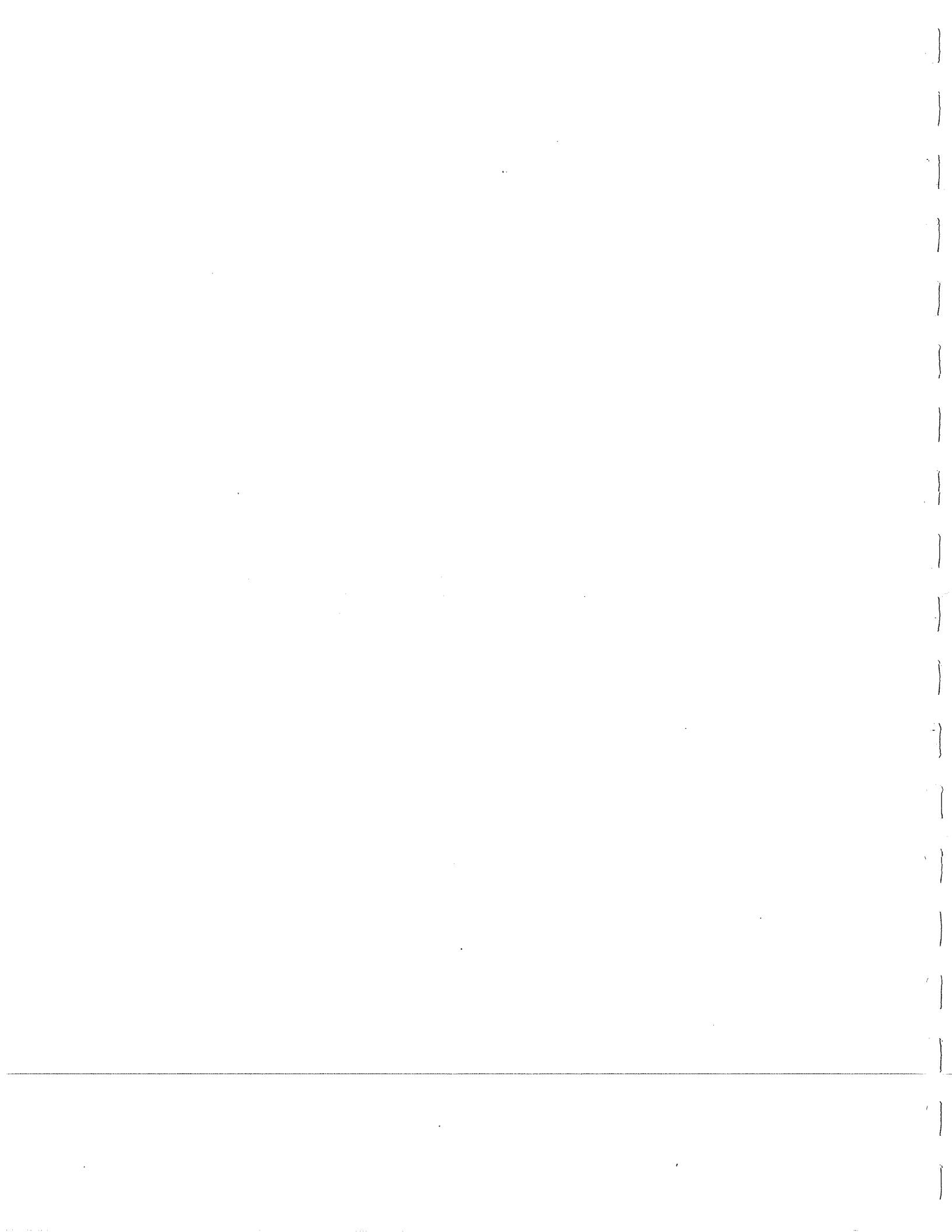
NOVEMBER			
NO. CGHT.	941103 - 941116	MEAN SIZE	179.7
NO. MEAS.	123	S.E. SIZE	3.3
NO. HAULS	123	MIN. SIZE	76
CAT./HAUL	60	MAX. SIZE	244
	2.1		

DECEMBER			
NO. CGHT.	941201 - 941208	MEAN SIZE	133.3
NO. MEAS.	270	S.E. SIZE	2.2
NO. HAULS	270	MIN. SIZE	55
CAT./HAUL	54	MAX. SIZE	262
	5		

JAN - DEC			
NO. CGHT.	940110 - 941208	MEAN SIZE	112.7
NO. MEAS.	8517	S.E. SIZE	0.9
NO. HAULS	2899	MIN. SIZE	28
CAT./HAUL	640	MAX. SIZE	281
	13.3		

Table 1. VIMS codes for selected parameters as used in the trawl survey database. These same codes appear is several of the included tables and figures.





## **TOWDIR 1: Tow Direction, up or down stream**

- 1: Upstream
- 2: Downstream
- 3: Slack

## **TOWDIR2: Tow Direction, relative to current**

- 1: With
- 2: Against
- 3: Perpendicular
- 4: Oblique with
- 5: Oblique against
- 6: Slack

## **TIDE: Tidal stage**

- 1: Early flood
- 2: Maximum flood
- 3: Late flood
- 4: Slack before ebb
- 5: Early ebb
- 6: Maximum ebb
- 7: Late ebb
- 8: Slack before flood

## **SEASTATE**

- 0: Calm-glassy 0m
- 1: Calm-rippled 0-0.1m
- 2: Smooth-wavelets 0.1-0.5m
- 3: Slight 0.5-1.25m
- 4: Moderate 1.25-2.5m
- 5: Rough 2.5-4m
- 6: Very rough 4-6m
- 7: High 6-9m
- 8: Very high 9-14m
- 9: Phenomenal >14m

## **WEATHER: Observed weather**

- 1: Clear-no cloud at any level
- 2: Partly cloudy-scattered or broken
- 3: Overcast
- 4: Sand, dust storm, or blowing snow
- 5: Fog-thick, dust, or haze
- 6: Drizzle
- 7: Rain
- 8: Snow-rain and snow mix
- 9: Showers
- 10: Thunderstorms

## **STRATUM: Geographic stratum**

- 1: Bottom Western Shore 12-30 ft
- 2: Bottom Eastern Shore 12-30 ft
- 3: Bottom Plain 30-42 ft
- 4: Bottom Deep >42 ft
- 5: Lower Western Shore 12-30 ft
- 6: Lower Eastern Shore 12-30 ft
- 7: Lower Plain 30-42 ft
- 8: Lower Deep >42 ft
- 9: Upper Western Shore 12-30 ft
- 10: Upper Eastern Shore 12-30 ft
- 11: Upper Plain 30-42 ft
- 12: Upper Deep >42 ft
- 13: Top Western Shore 12-30 ft
- 14: Top Eastern Shore 12-30 ft
- 15: Top Plain 30-42 ft
- 16: Top Deep >42 ft

Tables 2-13. Station data for the river trawl survey by month.

Explanation. To conserve space, some variables are presented as coded values. Code keys are presented in Table 1 (p. 113).

Table 2.

January													
Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940101	JA	1	19940110	3659.69	7619.66	3659.54	7619.84	389.87	7.0	1	1	1	1
940101	JA	5	19940110	3656.70	7623.23	3656.78	7623.44	351.72	5.5	1	1	1	1
940101	JA	13	19940110	3701.31	7630.57	3701.41	7630.82	422.51	12.5	1	1	1	1
940101	JA	17	19940110	3704.99	7636.44	3705.18	7636.58	411.30	5.8	1	1	1	3
940101	JA	24	19940110	3709.28	7638.54	3709.49	7638.49	396.47	6.4	1	1	1	3
940101	JA	27	19940110	3712.30	7639.04	3712.49	7639.26	485.40	9.1	1	2	1	5
940101	JA	35	19940110	3711.08	7645.65	3711.25	7645.92	517.11	9.4	1	2	1	7
940101	JA	40	19940110	3713.56	7649.65	3713.62	7649.90	395.66	3.4	1	2	0	7
940102	YK	2	19940111	3713.65	7627.00	3713.67	7627.30	457.16	11.0	1	1	1	3
940102	YK	5	19940111	3714.09	7629.13	3714.19	7629.32	342.95	12.5	1	1	1	3
940102	YK	10	19940111	3718.15	7635.05	3718.28	7635.15	284.78	8.8	1	2	1	5
940102	YK	15	19940111	3723.26	7639.37	3723.34	7639.49	234.94	7.0	1	2	0	6
940102	YK	20	19940111	3725.95	7642.46	3726.06	7642.59	283.78	6.1	1	2	1	7
940103	YK	25	19940112	3729.12	7645.28	3729.03	7645.07	359.93	8.5	2	2	1	3
940103	YK	30	19940112	3732.89	7649.60	3732.63	7649.69	500.80	8.5	1	1	1	2
940103	YK	35	19940112	3733.03	7651.70	3733.29	7651.55	532.93	6.7	1	1	1	3
940103	YK	40	19940112	3733.06	7653.01	3732.86	7653.39	685.90	3.7	1	1	1	3
940104	RA	2	19940113	3735.92	7621.36	3735.99	7621.67	488.38	18.3	1	2	0	3
940104	RA	10	19940113	3737.93	7628.50	3737.92	7628.82	486.39	18.9	1	2	0	3
940104	RA	15	19940113	3740.10	7633.11	3740.30	7633.28	451.68	14.3	1	2	0	3
940104	RA	20	19940113	3743.82	7634.96	3744.04	7635.06	435.04	12.2	1	2	1	3
940104	RA	25	19940113	3747.49	7640.80	3747.70	7641.08	576.44	7.3	1	2	0	3
940104	RA	30	19940113	3751.49	7645.43	3751.67	7645.63	451.14	6.1	1	2	0	3
940104	RA	35	19940113	3754.18	7647.79	3754.37	7648.10	587.92	7.0	1	2	0	3
940104	RA	40	19940113	3757.99	7651.69	3758.27	7651.81	549.92	3.7	1	2	0	3

Table 3.

February													
Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940201	YK	10	19940202	3718.76	7635.42	3718.62	7635.22	399.47	8.5	2	1	2	5
940201	YK	15	19940202	3723.21	7639.34	3723.07	7639.19	345.26	8.8	2	6	2	4
940201	YK	20	19940202	3725.90	7642.36	3726.08	7642.56	451.14	7.3	1	1	2	2
940201	YK	25	19940202	3729.14	7645.31	3729.04	7645.22	230.27	7.9	2	2	1	2
940201	YK	30	19940202	3732.37	7649.88	3732.49	7649.76	287.51	7.0	2	1	1	7
940201	YK	35	19940202	3733.05	7651.70	3732.86	7651.77	367.77	7.0	2	1	1	7
940201	YK	40	19940202	3733.02	7653.04	3732.92	7653.21	317.81	3.0	1	2	1	7
940202	YK	2	19940203	3713.67	7627.25	3713.66	7626.95	456.03	11.3	2	1	2	7
940202	YK	5	19940203	3714.05	7629.15	3714.04	7628.83	486.39	13.4	2	1	2	7
940203	RA	2	19940208	3735.81	7621.14	3735.89	7621.42	450.37	18.0	1	1	1	3
940203	RA	10	19940208	3737.97	7628.44	3737.95	7628.72	426.89	18.3	1	1	1	3
940203	RA	15	19940208	3740.24	7633.09	3740.45	7633.11	390.31	15.8	1	2	1	5
940203	RA	20	19940208	3743.87	7634.85	3744.11	7634.98	486.58	13.1	1	2	1	5
940203	RA	25	19940208	3747.53	7640.71	3747.67	7640.92	411.14	9.1	1	2	1	7
940203	RA	30	19940208	3751.36	7645.40	3751.56	7645.55	435.03	5.5	1	2	1	7
940203	RA	35	19940208	3754.13	7647.74	3754.29	7647.99	481.75	7.0	1	2	1	7
940203	RA	40	19940208	3757.96	7651.69	3758.24	7651.74	524.37	3.7	1	2	0	7
940204	JA	1	19940216	3659.73	7619.44	3659.62	7619.69	430.96	7.9	1	1	1	1
940204	JA	5	19940216	3656.79	7623.15	3656.79	7623.41	394.90	5.2	1	1	1	1
940204	JA	13	19940216	3701.12	7630.13	3701.25	7630.39	462.58	11.0	1	1	2	1
940204	JA	17	19940216	3705.04	7636.52	3705.26	7636.65	452.96	6.1	1	1	1	2
940204	JA	24	19940216	3709.38	7638.50	3709.62	7638.57	457.25	7.0	1	1	1	2
940204	JA	27	19940216	3712.33	7639.04	3712.43	7639.26	382.09	10.1	1	1	1	2
940204	JA	35	19940216	3711.23	7645.88	3711.41	7646.09	461.50	8.8	1	1	2	2
940204	JA	40	19940216	3713.58	7649.98	3713.63	7650.29	479.87	3.0	1	1	2	3

Table 8.

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940701	RA	2	19940707	3735.93	7621.42	3736.07	7621.65	435.13	16.2	1	1	1	2
940701	RA	10	19940707	3738.03	7628.22	3738.00	7628.50	428.90	16.2	1	1	1	2
940701	RA	15	19940707	3739.92	7633.00	3740.13	7633.12	429.70	13.1	1	1	1	2
940701	RA	15	19940707	3740.23	7633.12	3740.10	7632.98	321.32	14.9	2	2	1	2
940701	RA	20	19940707	3743.88	7634.90	3744.02	7635.12	423.03	14.9	1	1	1	3
940701	RA	20	19940707	3744.10	7635.17	3743.93	7635.07	349.72	14.9	2	2	1	3
940701	RA	25	19940707	3747.18	7640.37	3747.35	7640.55	417.10	8.5	1	1	1	3
940701	RA	25	19940707	3747.42	7640.63	3747.32	7640.48	293.67	8.5	2	2	1	3
940701	RA	30	19940707	3751.33	7645.27	3751.53	7645.45	460.53	6.4	1	1	1	2
940701	RA	30	19940707	3751.52	7645.53	3751.37	7645.40	340.94	6.1	2	2	1	2
940701	RA	35	19940707	3754.70	7648.53	3754.80	7648.75	382.09	4.9	1	1	1	2
940701	RA	35	19940707	3754.78	7648.73	3754.88	7648.90	317.81	5.5	2	2	1	2
940702	JA	1	19940711	3659.70	7619.72	3659.57	7619.92	387.69	6.7	1	1	1	3
940702	JA	5	19940711	3656.78	7623.42	3656.82	7623.70	431.69	5.5	1	1	1	3
940702	JA	13	19940711	3701.40	7630.70	3701.55	7630.95	470.57	11.9	1	1	1	3
940702	JA	13	19940711	3701.73	7631.20	3701.63	7631.07	270.78	12.5	2	2	1	3
940702	JA	17	19940711	3705.07	7636.58	3705.27	7636.72	427.27	4.9	1	1	2	3
940702	JA	17	19940711	3705.32	7636.78	3705.18	7636.65	326.02	5.5	2	2	2	3
940702	JA	24	19940711	3709.40	7638.47	3709.68	7638.58	545.08	6.1	1	1	2	3
940702	JA	24	19940711	3709.73	7638.63	3709.60	7638.55	269.80	5.5	2	2	2	3
940702	JA	27	19940711	3712.45	7639.22	3712.60	7639.50	508.05	8.8	1	1	1	3
940702	JA	27	19940711	3712.45	7639.93	3712.58	7639.47	739.03	8.8	2	2	1	3
940703	YK	2	19940712	3713.68	7627.35	3713.70	7627.10	381.52	11.0	2	2	2	1
940703	YK	5	19940712	3714.13	7629.02	3714.20	7629.30	444.62	11.9	1	1	1	1
940703	YK	10	19940712	3718.30	7635.15	3718.52	7635.30	467.00	8.2	1	1	1	3
940703	YK	10	19940712	3718.52	7635.32	3718.35	7635.20	363.94	8.2	2	2	1	3
940703	YK	15	19940712	3723.18	7639.32	3723.40	7639.57	557.11	8.2	1	1	1	3
940703	YK	15	19940712	3723.37	7639.50	3723.23	7639.38	317.05	7.9	2	2	1	3
940704	YK	20	19940713	3725.82	7642.25	3725.97	7642.37	332.38	6.7	1	2	1	5
940704	YK	20	19940713	3725.97	7642.42	3725.80	7642.23	427.21	6.4	2	2	1	5
940704	YK	25	19940713	3728.78	7644.85	3728.98	7644.95	400.52	8.2	1	1	2	1
940704	YK	25	19940713	3729.00	7644.05				8.5	2	2		1
940704	YK	30	19940713	3732.48	7649.72	3732.65	7649.75	318.29	6.1	2	1	1	6
940704	YK	35	19940713	3733.00	7651.73	3733.22	7651.63	435.04	6.4	1	2	1	6

Table 9.

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940801	RA	2	19940803	3735.80	7621.17	3735.85	7621.43	405.63	17.7	1	2	1	5
940801	RA	10	19940803	3737.95	7628.45	3737.90	7628.75	464.98	20.1	1	2	1	5
940801	RA	15	19940803	3740.13	7633.03	3740.37	7633.00	447.05	14.9	1	6	1	4
940801	RA	15	19940803	3740.37	7633.10	3740.17	7633.05	378.30	15.2	2	6	1	4
940801	RA	20	19940803	3743.87	7634.97	3744.05	7635.10	387.60	13.7	1	6	1	4
940801	RA	20	19940803	3744.05	7635.12	3743.85	7635.00	412.99	17.7	2	6	1	4
940801	RA	25	19940803	3747.51	7640.72	3747.66	7640.90	389.87	7.6	1	6	1	5
940801	RA	25	19940803	3747.68	7640.97	3747.52	7640.75	446.72	6.7	2	1	1	5
940801	RA	30	19940803	3751.38	7645.42	3751.53	7645.53	324.30	5.8	1	2	1	5
940801	RA	30	19940803	3751.58	7645.59	3751.41	7645.40	427.21	5.8	2	1	1	5
940801	RA	35	19940803	3754.15	7647.73	3754.29	7647.88	345.26	6.4	1	2	1	5
940801	RA	35	19940803	3754.27	7648.03	3754.15	7647.75	479.90	5.5	2	1	1	5
940802	YK	15	19940808	3723.19	7639.40	3723.43	7639.67	604.94	9.8	1	1	0	2
940802	YK	15	19940808	3723.54	7639.73	3723.42	7639.61	287.51	9.4	2	2	0	2
940802	YK	20	19940808	3725.90	7642.36	3726.12	7642.60	546.87	7.3	1	1	0	2
940802	YK	20	19940808	3726.21	7642.65	3726.11	7642.53	259.92	7.0	2	2	0	2
940802	YK	25	19940808	3728.95	7645.02	3729.07	7645.20	352.40	8.2	1	1	0	3
940802	YK	25	19940808	3729.11	7645.25	3728.96	7645.04	423.07	7.6	2	2	0	2
940802	YK	30	19940808	3732.91	7649.55	3732.73	7649.67	380.09	5.8	1	1	0	2
940802	YK	35	19940808	3733.08	7651.67	3733.33	7651.56	492.46	7.3	1	1	0	2
940803	YK	2	19940809	3713.64	7627.24	3713.62	7627.08	245.83	11.3	2	2	1	1
940803	YK	5	19940809	3714.36	7629.51	3714.25	7629.28	404.45	13.1	2	2	1	1
940803	YK	10	19940809	3718.35	7635.22	3718.57	7635.34	446.55	8.5	1	2	1	7
940803	YK	10	19940809	3718.51	7635.34	3718.33	7635.24	366.49	8.8	2	1	1	7
940804	JA	1	19940810	3659.75	7619.46	3659.62	7619.68	411.93	7.9	1	1	1	2
940804	JA	5	19940810	3656.97	7622.87	3656.91	7623.21	528.24	5.8	1	1	1	2
940804	JA	13	19940810	3701.37	7630.49	3701.50	7630.73	436.93	7.9	1	1	1	2
940804	JA	13	19940810	3701.54	7630.77	3701.45	7630.66	236.06	8.2	2	2	1	2
940804	JA	17	19940810	3704.98	7636.69	3705.20	7636.82	452.96	7.0	1	1	0	2
940804	JA	17	19940810	3705.32	7636.86	3705.13	7636.75	389.70	7.3	2	2	1	2
940804	JA	24	19940810	3709.18	7638.45	3709.43	7638.49	467.22	10.1	1	1	1	3
940804	JA	24	19940810	3709.38	7638.44	3709.23	7638.48	284.51	8.2	2	2	1	3
940804	JA	27	19940810	3712.45	7639.30	3712.66	7639.55	543.70	8.8	1	1	0	2
940804	JA	27	19940810	3712.66	7639.55	3712.52	7639.41	335.43	8.2	2	2		2

Table 10.

September

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940901	YK	2	19940901	3713.66	7627.42	3713.65	7627.13	440.86	11.3	2	1	1	5
940901	YK	5	19940901	3713.85	7628.67	3713.83	7628.42	381.52	15.2	2	1	1	5
940901	YK	10	19940901	3718.21	7635.38	3718.40	7635.41	355.01	8.2	1	2	1	6
940901	YK	10	19940901	3718.28	7635.41	3718.06	7635.24	482.55	8.2	2	1	1	6
940901	YK	15	19940901	3723.04	7639.25	3723.19	7639.32	297.59	8.5	2	2	1	7
940901	YK	15	19940901	3723.21	7639.31	3723.03	7639.15	412.68	7.3	2	2	1	7
940901	YK	20	19940901	3725.79	7642.18	3725.92	7642.34	342.18	7.0	2	1	1	7
940901	YK	20	19940901	3725.87	7642.30	3725.68	7642.45	419.36	6.7	2	1	1	7
940901	YK	25	19940901	3728.79	7644.91	3728.96	7645.02	356.57	7.3	1	2	1	7
940901	YK	25	19940901	3728.98	7645.04	3728.84	7644.89	345.26	8.2	2	2	1	7
940902	YK	30	19940902	3732.97	7649.57	3732.76	7649.65	407.66	8.2	1	1	1	2
940902	YK	35	19940902	3732.99	7651.71	3733.25	7651.61	505.16	6.7	1	1	1	2
940903	JA	1	19940906	3659.72	7619.51	3659.65	7619.75	386.92	9.1	1	1	2	2
940903	JA	5	19940906	3656.93	7622.86	3656.88	7623.14	435.25	6.7	1	1	2	2
940903	JA	13	19940906	3701.36	7630.54	3701.54	7630.79	505.40	8.5	1	1	2	2
940903	JA	13	19940906	3701.52	7630.78	3701.40	7630.61	340.76	8.5	2	2	2	2
940903	JA	17	19940906	3704.99	7636.66	3705.24	7636.76	487.51	5.5	2	1	2	2
940903	JA	17	19940906	3705.30	7636.79	3705.14	7636.70	326.48	7.0	2	2	2	2
940903	JA	24	19940906	3709.17	7638.40	3709.44	7638.43	502.38	12.8	1	1	2	2
940903	JA	24	19940906	3709.44	7638.40	3709.22	7638.37	410.20	9.8	2	2	2	2
940903	JA	27	19940906	3712.49	7639.27	3712.66	7639.54	517.11	9.1	1	1	2	2
940903	JA	27	19940906	3712.65	7639.53	3712.51	7639.37	355.47	8.8	2	2	2	2
940904	RA	2	19940912	3735.81	7621.14	3735.88	7621.32	302.60	17.4	1	2	2	6
940904	RA	10	19940912	3737.94	7628.46	3737.93	7628.66	304.34	18.0	1	2	2	6
940904	RA	15	19940912	3740.07	7633.08	3740.24	7633.07	315.38	13.1	1	2	2	6
940904	RA	15	19940912	3740.30	7633.08	3740.04	7633.03	487.73	15.2	2	1	2	6
940904	RA	20	19940912	3743.83	7634.93	3744.00	7635.05	363.94	11.0	2	2	2	6
940904	RA	20	19940912	3744.03	7635.00	3743.78	7634.87	503.58	15.8	2	1	2	6
940904	RA	25	19940912	3747.45	7640.68	3747.61	7640.80	348.02	7.0	1	2	1	7
940904	RA	25	19940912	3747.61	7640.82	3747.45	7640.61	435.47	6.7	2	1	1	7
940904	RA	30	19940912	3751.28	7645.31	3751.42	7645.38	280.36	5.2	2	2	1	7
940904	RA	30	19940912	3751.52	7645.51	3751.31	7645.34	467.00	5.2	2	1	1	7
940904	RA	35	19940912	3754.16	7647.80	3754.27	7647.93	283.78	5.8	1	2	1	7
940904	RA	35	19940912	3754.26	7647.98	3754.12	7647.70	498.16	5.2	2	1	1	7

Table 11.

October

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
941001	YK	15	19941005	3723.29	7639.44	3723.54	7639.67	580.20	7.6	1	1	2	2
941001	YK	15	19941005	3723.39	7639.58	3723.31	7639.45	246.91	9.4	2	2	2	2
941001	YK	20	19941005	3726.08	7642.64	3726.26	7642.88	494.09	7.0	1	1	2	2
941001	YK	20	19941005	3726.26	7642.89	3726.14	7642.77	287.51	7.3	2	2	2	2
941001	YK	25	19941005	3728.97	7645.04	3729.11	7645.29	459.87	8.5	1	1	2	3
941001	YK	25	19941005	3729.09	7645.21	3728.94	7645.07	349.96	7.6	2	2	2	3
941001	YK	30	19941005	3733.96	7649.57	3733.78	7649.66	360.47	5.2	1	2	1	5
941001	YK	35	19941005	3733.12	7651.67	3733.38	7651.53	526.62	7.0	1	2	1	5
941002	YK	2	19941006	3713.69	7627.26	3713.66	7627.02	368.74	11.3	2	1	1	5
941002	YK	5	19941006	3714.27	7629.25	3714.26	7628.97	425.68	11.6	2	1	2	5
941002	YK	10	19941006	3718.37	7635.18	3718.59	7635.37	499.47	8.2	1	1	2	3
941002	YK	10	19941006	3718.52	7635.34	3718.40	7635.30	230.51	9.1	2	2	2	3
941003	JA	1	19941017	3659.73	7619.61	3659.66	7619.77	275.47	7.3	1	1	2	3
941003	JA	5	19941017	3656.73	7623.25	3656.80	7623.43	302.60	5.5	1	1	2	3
941003	JA	13	19941017	3701.36	7630.66	3701.44	7630.91	407.62	11.6	1	2	1	5
941003	JA	13	19941017	3701.42	7630.92	3701.31	7630.68	417.64	13.4	2	1	1	5
941003	JA	17	19941017	3705.06	7636.47	3705.19	7636.60	311.47	5.5	1	2	1	5
941003	JA	17	19941017	3705.24	7636.63	3705.04	7636.49	427.27	6.7	2	1	1	5
941003	JA	24	19941017	3709.33	7638.49	3709.51	7638.51	334.92	7.3	1	2	1	6
941003	JA	24	19941017	3709.50	7638.49	3709.27	7638.51	427.27	7.0	2	2	1	6
941003	JA	27	19941017	3712.34	7639.11	3712.47	7639.27	342.18	8.8	1	2	1	6
941003	JA	27	19941017	3712.44	7639.25	3712.29	7639.04	423.07	8.8	2	1	1	6
941004	RA	2	19941019	3735.90	7621.02	3735.99	7621.29	442.70	15.8	1	1	1	2
941004	RA	10	19941019	3737.96	7628.37	3737.96	7628.66	440.47	19.5	1	1	1	2
941004	RA	15	19941019	3739.94	7633.01	3740.15	7633.09	407.66	14.0	1	1	1	2
941004	RA	15	19941019	3740.22	7633.13	3740.09	7633.05	269.80	15.5	2	2	1	2
941004	RA	20	19941019	3743.81	7634.89	3744.04	7635.05	490.61	14.9	1	1	1	2
941004	RA	20	19941019	3744.14	7635.02	3743.93	7634.99	391.79	17.4	2	2	1	2
941004	RA	25	19941019	3747.23	7640.33	3747.49	7640.59	622.94	9.4	1	6	1	4
941004	RA	25	19941019	3747.46	7640.68	3747.36	7640.51	317.81	9.4	2	6	1	4
941004	RA	30	19941019	3751.23	7645.22	3751.46	7645.40	506.34	7.0	1	1	1	3
941004	RA	30	19941019	3751.53	7645.44	3751.39	7645.37	280.36	7.0	2	2	1	3
941004	RA	35	19941019	3754.58	7648.33	3754.72	7648.57	447.41	5.5	1	1	1	3
941004	RA	35	19941019	3754.75	7648.62	3754.62	7648.48	321.32	5.8	2	2	1	3

Table 12.

November

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
941101	RA	2	19941109	3735.92	7621.21	3735.98	7621.36	253.51	15.5	1	2	1	7
941101	RA	10	19941109	3737.86	7628.29	3737.88	7628.50	321.11	19.2	1	2	1	7
941101	RA	15	19941109	3739.93	7632.97	3740.10	7633.07	349.72	13.1	1	2	1	6
941101	RA	15	19941109	3740.18	7633.01	3739.97	7633.03	390.31	13.1	2	1	1	6
941101	RA	20	19941109	3743.90	7634.98	3744.04	7635.10	317.05	16.2	1	1	1	6
941101	RA	20	19941109	3743.99	7635.03	3743.80	7634.92	389.70	16.8	2	1	1	6
941101	RA	25	19941109	3747.16	7640.37	3747.29	7640.58	399.70	8.2	1	1	1	7
941101	RA	25	19941109	3747.36	7640.60	3747.19	7640.39	448.29	7.3	2	1	1	7
941101	RA	30	19941109	3751.33	7645.38	3751.48	7645.47	309.75	5.2	1	2	1	7
941101	RA	30	19941109	3751.45	7645.43	3751.24	7645.29	443.44	5.5	2	1	1	7
941101	RA	35	19941109	3754.16	7648.38				4.6	1	2	0	7
941101	RA	35	19941109	3754.75	7648.66	3754.61	7648.44	423.03	4.9	2	1	1	7
941102	JA	1	19941114	3659.72	7619.48	3659.63	7619.70	373.45	7.9	1	1	1	2
941102	JA	5	19941114	3656.90	7623.37	3656.78	7623.15	401.37	6.1	2	2	1	2
941102	JA	13	19941114	3701.45	7630.77	3701.53	7630.95	311.00	11.6	1	1	1	2
941102	JA	13	19941114	3701.49	7630.92	3701.37	7630.72	376.46	11.9	2	2	1	3
941102	JA	17	19941114	3705.07	7636.49	3705.25	7636.60	373.05	6.4	1	2	1	5
941102	JA	17	19941114	3705.17	7636.55	3704.95	7636.42	452.96	6.7	2	1	1	5
941102	JA	24	19941114	3709.09	7638.52	3709.29	7638.53	370.91	6.4	1	1	1	5
941102	JA	24	19941114	3709.37	7638.51	3709.16	7638.49	390.31	7.0	2	1	1	5
941102	JA	27	19941114	3712.34	7639.05	3712.44	7639.23	330.27	9.4	1	2	1	6
941102	JA	27	19941114	3712.43	7639.21	3712.29	7638.97	447.41	9.1	2	1	1	6
941103	YK	2	19941115	3713.65	7626.97	3713.68	7627.23	398.80	11.3	1	6	1	4
941103	YK	5	19941115	3714.03	7629.08	3714.09	7629.33	395.66	14.0	1	2	1	5
941103	YK	10	19941115	3718.40	7635.26	3718.54	7635.26	259.42	8.5	1	2	0	5
941103	YK	10	19941115	3718.54	7635.33	3718.34	7635.23	400.52	9.1	2	1	1	5
941103	YK	15	19941115	3723.21	7639.31	3723.32	7639.47	317.18	7.9	1	2	0	5
941103	YK	15	19941115	3723.26	7639.40	3723.05	7639.18	512.91	8.2	2	1	1	5
941103	YK	25	19941115	3728.96	7644.97	3729.06	7645.21	408.92	8.2	1	1	0	5
941103	YK	25	19941115	3728.93	7645.07	3728.77	7644.83	469.87	7.9	2	1	1	5
941103	YK	30	19941115	3732.77	7649.65	3733.01	7649.56	465.26	6.1	2	1	0	6
941103	YK	35	19941115	3733.00	7651.71	3733.17	7651.69	316.47	6.7	1	2	0	6
941104	YK	20	19941116	3725.81	7642.26	3725.95	7642.45	388.04	7.6	1	2	2	6
941104	YK	20	19941116	3726.09	7642.60	3725.99	7642.44	305.60	7.0	2	1	1	6

Table 13.

December

Cruise Number	River	River Mile	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
941201	JA	1	19941201	3659.70	7619.52	3659.58	7619.75	414.10	10.1	1	2	2	5
941201	JA	5	19941201	3656.94	7622.71	3656.95	7622.94	349.83	6.1	1	2	2	5
941201	JA	13	19941201	3701.36	7630.49	3701.44	7630.69	338.01	9.1	1	2	1	5
941201	JA	17	19941201	3705.03	7636.68	3705.24	7636.81	436.36	6.7	1	2	1	5
941201	JA	24	19941201	3709.15	7638.45	3709.34	7638.54	377.68	9.5	1	2	0	5
941201	JA	27	19941201	3712.49	7639.29	3712.63	7639.49	399.47	8.8	1	2	1	5
941201	JA	35	19941201	3711.21	7645.70	3711.33	7645.80	269.28	7.3	1	2	1	6
941201	JA	40	19941201	3713.78	7649.31	3713.88	7649.53	382.09	5.5	1	2	1	6
941202	RA	2	19941206	3735.83	7621.11	3735.84	7621.41	456.03	17.4	1	6	0	8
941202	RA	10	19941206	3737.98	7628.42	3737.96	7628.91	745.16	18.3	1	1	0	1
941202	RA	15	19941206	3740.14	7633.07	3740.36	7633.04	410.20	13.7	1	1	0	1
941202	RA	20	19941206	3743.83	7634.99	3744.05	7635.01	408.79	11.0	1	1	0	1
941202	RA	25	19941206	3747.45	7640.70	3747.59	7640.92	423.03	7.0	1	1	0	1
941202	RA	30	19941206	3751.37	7645.47	3751.62	7645.57	487.51	6.1	1	2	0	7
941202	RA	35	19941206	3754.11	7647.80	3754.32	7648.02	512.91	6.1	1	2	1	7
941202	RA	40	19941206	3758.19	7651.72	3758.38	7651.77	360.17	5.2	1	2	0	7
941203	YK	2	19941207	3713.70	7627.11	3713.68	7627.34	351.30	11.3	1	2	2	5
941203	YK	5	19941207	3713.82	7628.46	3713.85	7628.68	338.74	16.5	1	2	2	6
941204	YK	10	19941208	3718.37	7635.24	3718.51	7635.38	335.43	8.5	1	2	2	7
941204	YK	15	19941208	3723.17	7639.30	3723.41	7639.30	444.72	8.2	1	2	1	6
941204	YK	20	19941208	3726.00	7642.57	3726.09	7642.74	307.38	5.8	1	2	2	7
941204	YK	25	19941208	3728.89	7644.96	3729.03	7645.12	355.47	7.6	1	2	2	7
941204	YK	30	19941208	3732.98	7649.56	3732.87	7649.59	208.86	4.6	1	2	1	7
941204	YK	35	19941208	3733.10	7651.74	3733.23	7651.66	269.80	6.1	1	2	1	7
941204	YK	40	19941208	3732.98	7653.13	3732.93	7653.31	288.67	3.7	1	2	1	7

Tables 14-23. Station data for the Chesapeake Bay trawl survey by month.

Explanation: To conserve space, some variables are presented as coded values.  
Code keys are presented in Table 1 (p. 113).



Table 14.

February

Cruise Number	Station Number	Stratum Code	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940201	1	1	19940201	3656.59	7607.70	3656.69	7607.97	450.01	8.2	1	2	1	5
940201	2	1	19940201	3657.07	7613.53	3657.22	7613.74	423.07	8.2	1	2	1	5
940201	5	2	19940201	3702.76	7600.81	3702.62	7600.72	293.23	8.8	2	2	1	3
940201	7	2	19940201	3707.60	7601.71	3707.47	7601.55	342.18	7.3	2	2	1	1
940201	9	3	19940201	3659.10	7601.37	3658.98	7601.20	340.76	12.5	1	2	1	3
940201	10	3	19940201	3658.58	7600.17	3658.49	7600.07	225.57	11.9	2	2	1	3
940201	11	3	19940201	3703.52	7601.31	3703.37	7601.22	309.75	7.3	2	2	1	1
940201	12	3	19940201	3709.60	7614.10	3709.41	7614.11	352.40	11.0	2	2	1	1
940201	13	4	19940201	3658.92	7608.86	3658.99	7609.13	430.12	12.8	1	2	1	1
940201	14	4	19940201	3656.35	7601.30	3656.40	7601.61	479.87	16.2	2	2	1	3
940201	15	4	19940201	3657.87	7559.83	3657.69	7559.97	395.56	24.4	1	1	1	3
940201	19	5	19940201	3715.57	7613.47	3715.36	7613.46	389.43	6.7	1	2	1	2
940202	22	6	19940207	3715.69	7601.82	3715.86	7601.84	316.47	4.9	1	2	1	6
940202	24	6	19940207	3721.42	7600.88	3721.59	7600.75	371.78	8.2	1	2	1	6
940202	26	7	19940207	3714.36	7608.28	3714.50	7608.05	435.13	11.3	1	6	1	4
940202	27	7	19940207	3716.74	7604.82	3716.92	7604.63	441.05	11.9	1	2	1	5
940202	28	7	19940207	3717.22	7603.94	3717.39	7603.97	318.29	10.1	1	1	1	6
940202	29	8	19940207	3715.72	7606.40	3715.86	7606.16	447.41	15.5	1	6	1	4
940202	31	8	19940207	3722.97	7609.71	3723.08	7609.60	263.55	17.4	1	2	1	6
940202	32	8	19940207	3720.59	7605.63	3720.56	7605.87	368.74	17.7	1	2	1	6
940202	36	9	19940207	3738.33	7616.54	3738.18	7616.35	400.67	4.9	2	2	1	1
940202	38	10	19940207	3737.97	7555.15	3738.10	7555.03	302.07	4.6	1	2	1	7
940202	40	10	19940207	3735.94	7556.71	3736.07	7556.58	311.47	6.1	1	1	1	7
940202	41	11	19940207	3726.66	7608.62	3726.77	7608.45	328.96	11.3	1	2	1	6
940202	42	11	19940207	3732.71	7600.66	3732.81	7600.50	305.60	13.1	1	2	1	6
940202	43	11	19940207	3737.87	7600.92	3737.67	7601.07	435.03	10.4	1	2	1	7
940202	44	11	19940207	3738.12	7558.61	3737.98	7558.82	411.14	7.6	1	1	1	7
940202	47	12	19940207	3736.70	7602.32	3736.49	7602.42	417.72	13.1	1	2	1	7
940202	48	12	19940207	3739.82	7608.24	3740.02	7608.07	451.68	14.0	1	1	1	7
940203	35	9	19940208	3734.71	7611.28	3734.46	7611.27	463.50	12.5	2	1	3	7
940203	45	12	19940208	3731.76	7613.20	3731.51	7613.20	463.25	9.1	2	1	3	7
940204	17	5	19940217	3716.27	7619.17	3716.47	7619.09	390.01	2.7	1	1	1	2
940204	25	7	19940217	3714.50	7620.12	3714.52	7620.40	426.89	12.2	1	1	1	2

Table 15.

April

Cruise Number	Station Number	Stratum Code	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940401	2	1	19940405	3700.87	7613.59	3700.92	7613.33	405.63	6.7	2	1	0	5
940401	4	1	19940405	3709.73	7615.16	3709.97	7615.21	451.16	8.2	1	2	0	7
940401	5	2	19940405	3702.96	7602.42	3702.75	7602.15	565.33	8.5	2	1	0	5
940401	6	2	19940405	3704.78	7604.51	3704.96	7604.54	336.64	7.0	1	2	0	5
940401	9	3	19940405	3658.12	7603.44	3658.11	7603.16	425.68	11.3	2	1	0	5
940401	10	3	19940405	3658.42	7600.22	3658.66	7600.27	451.16	11.0	1	2	0	5
940401	11	3	19940405	3700.68	7601.81	3700.78	7602.00	342.95	9.8	1	2	0	5
940401	12	3	19940405	3705.95	7609.97	3706.08	7610.11	321.32	10.4	1	2	0	7
940401	13	4	19940405	3657.88	7601.70	3657.82	7601.40	469.02	13.7	2	1	0	5
940401	14	4	19940405	3703.29	7605.16	3703.41	7605.31	318.35	15.5	1	2	0	5
940401	16	4	19940405	3707.05	7608.88	3707.11	7609.09	337.78	13.1	1	2	0	7
940401	25	7	19940405	3711.50	7603.33	3711.72	7603.25	425.38	10.1	1	2	0	7
940401	26	7	19940405	3713.65	7619.36	3713.73	7619.28	191.68	11.6	1	1	1	1
940401	27	7	19940405	3714.06	7620.36	3714.19	7620.64	488.76	11.9	1	1	1	1
940401	30	8	19940405	3715.96	7607.07	3716.17	7607.11	393.84	13.1	1	2	0	7
940401	31	8	19940405	3716.53	7605.79	3716.70	7605.86	332.47	28.3	1	2	0	7
940402	18	5	19940412	3717.64	7616.71	3717.66	7616.49	336.20	4.0	2	1	2	7
940402	19	5	19940412	3719.75	7612.83	3719.87	7612.78	234.97	7.9	1	2	2	7
940402	23	6	19940412	3723.86	7600.02	3724.12	7600.08	490.32	4.9	1	2	1	7
940402	24	6	19940412	3724.82	7601.04	3725.05	7601.03	426.46	6.1	1	2	1	7
940402	28	7	19940412	3720.80	7607.01	3720.97	7606.83	417.10	11.6	1	2	2	7
940402	32	8	19940412	3720.28	7604.58	3720.48	7604.45	419.92	15.5	1	2	2	7
940402	35	9	19940412	3725.65	7611.76	3725.92	7611.81	506.04	8.2	1	6	1	8
940402	36	9	19940412	3729.54	7612.12	3729.80	7612.25	520.67	9.1	1	1	1	1
940402	37	10	19940412	3729.57	7558.95	3729.80	7558.86	447.58	5.8	1	1	2	2
940402	40	10	19940412	3739.26	7556.95	3739.44	7556.77	431.27	6.1	1	1	2	2
940402	41	11	19940412	3729.64	7610.09	3729.43	7610.07	390.31	10.7	1	1	1	1
940402	42	11	19940412	3730.84	7610.41	3730.68	7610.32	326.48	10.7	1	1	0	1
940402	43	11	19940412	3739.87	7616.02	3739.64	7616.08	435.82	10.1	2	2	2	3
940402	44	11	19940412	3737.92	7603.47	3737.71	7603.67	493.66	13.1	2	2	1	2
940402	45	12	19940412	3727.08	7604.27	3727.26	7604.45	431.27	17.1	1	2	1	7
940402	46	12	19940412	3728.93	7603.05	3729.17	7603.02	447.05	17.1	1	1	1	2
940402	47	12	19940412	3733.60	7601.66	3733.86	7601.81	532.93	14.3	1	1	2	2

Table 16.

May													
Cruise Number	Station Number	Stratum Code	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940501	1	1	19940509	3657.07	7607.97	3657.11	7608.17	312.68	7.0	1	2	1	5
940501	2	1	19940509	3702.81	7616.11	3702.58	7616.26	483.26	4.9	2	1	0	7
940501	4	1	19940509	3702.04	7609.57	3702.23	7609.53	357.27	6.4	1	2	1	7
940501	6	2	19940509	3707.58	7602.55	3707.42	7602.38	393.15	7.0	2	1	3	5
940501	7	2	19940509	3708.48	7559.53	3708.35	7559.39	321.32	7.3	2	2	3	5
940501	8	2	19940509	3706.53	7605.23	3706.44	7605.46	387.10	7.6	2	1	3	5
940501	10	3	19940509	3705.88	7604.12	3705.69	7604.04	372.45	9.8	2	2	3	5
940501	11	3	19940509	3705.24	7607.89	3705.08	7607.67	446.72	11.9	2	1	5	5
940501	12	3	19940509	3708.24	7609.46	3708.17	7609.23	372.64	12.2	2	1	1	2
940501	13	4	19940509	3657.32	7601.92	3657.38	7602.12	323.48	15.5	2	1	1	2
940501	14	4	19940509	3700.57	7602.60	3700.37	7602.38	499.00	15.2	2	1	1	5
940501	15	4	19940509	3702.87	7604.47	3702.71	7604.27	424.47	15.8	2	2	1	5
940501	21	6	19940509	3711.55	7601.18	3711.44	7601.00	341.01	4.6	2	2	3	3
940501	22	6	19940509	3711.74	7601.32	3711.62	7601.23	261.02	5.5	2	1	3	5
940501	25	7	19940509	3710.81	7611.76	3710.64	7611.77	315.38	10.4	2	1	3	1
940501	26	7	19940509	3711.11	7612.07	3711.03	7611.83	393.51	10.1	2	1	3	1
940501	27	7	19940509	3710.90	7609.76	3710.81	7609.58	320.24	11.0	2	1	2	1
940502	9	3	19940510	3708.99	7613.55	3709.18	7613.53	353.38	10.1	1	2	2	6
940503	18	5	19940511	3716.30	7613.83	3716.38	7613.60	379.49	8.8	1	1	2	2
940503	23	6	19940511	3718.39	7602.47	3718.62	7602.42	432.90	7.3	1	1	0	2
940503	28	7	19940511	3720.66	7602.56	3720.81	7602.57	278.37	12.2	1	1	0	2
940503	29	8	19940511	3723.49	7607.12	3723.73	7607.19	457.25	12.5	1	1	0	2
940503	31	8	19940511	3724.36	7604.21	3724.23	7604.27	257.55	14.0	2	2	0	3
940503	32	8	19940511	3720.08	7605.33	3720.27	7605.41	372.45	19.2	1	1	0	2
940503	33	9	19940511	3725.14	7609.47	3725.00	7609.44	263.39	8.8	2	2	1	3
940503	36	9	19940511	3736.08	7615.22	3735.89	7615.20	353.38	9.1	2	1	4	5
940503	38	10	19940511	3733.32	7557.97	3733.12	7558.01	375.55	5.2	2	1	2	5
940503	39	10	19940511	3735.00	7557.57	3735.21	7557.75	475.57	5.5	1	1	2	3
940503	40	10	19940511	3739.71	7557.51	3739.89	7557.51	335.54	7.6	1	2	3	5
940503	41	11	19940511	3727.66	7608.45	3727.84	7608.29	412.68	11.3	1	1	1	3
940503	42	11	19940511	3728.10	7607.94	3728.25	7607.76	389.87	11.6	1	1	1	3
940503	43	11	19940511	3733.46	7605.56	3733.69	7605.58	427.27	11.9	1	1	1	3
940503	44	11	19940511	3739.35	7603.61	3739.22	7603.85	436.93	11.6	2	1	3	5
940503	45	12	19940511	3728.91	7604.14	3729.03	7603.89	440.03	14.9	1	1	1	3
940503	47	12	19940511	3739.56	7608.90	3739.37	7608.87	355.01	13.1	2	2	3	5
940503	48	12	19940511	3739.03	7609.91	3738.87	7609.80	340.32	15.8	2	2	3	5
940504	19	5	19940516	3722.12	7612.02	3721.87	7612.05	465.49	5.2	2	1	1	7
940504	20	5	19940516	3720.06	7613.78	3719.88	7613.91	387.60	6.4	2	1	1	7
940504	35	9	19940516	3730.86	7612.02	3730.60	7611.96	490.32	8.8	2	1	1	7

Table 17.

June													
Cruise Number	Station Number	Stratum Code	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940601	2	1	19940607	3656.97	7611.45	3656.89	7611.20	407.62	6.1	2	2	2	3
940601	3	1	19940607	3704.02	7611.31	3703.83	7611.28	355.01	7.0	2	1	2	6
940601	4	1	19940607	3708.21	7615.44	3708.35	7615.46	261.19	4.9	1	2	2	7
940601	5	2	19940607	3703.52	7600.77	3703.66	7600.88	308.57	6.1	1	2	2	5
940601	7	2	19940607	3707.79	7601.50	3707.53	7601.46	485.60	6.4	2	1	2	5
940601	8	2	19940607	3708.03	7607.94	3708.15	7607.73	388.82	10.1	2	1	2	7
940601	9	3	19940607	3701.30	7605.65	3701.18	7605.80	318.35	9.4	1	2	2	5
940601	10	3	19940607	3701.69	7602.92	3701.80	7603.06	294.55	9.1	1	2	2	5
940601	11	3	19940607	3704.00	7606.38	3703.80	7606.32	381.64	11.9	2	1	2	6
940601	12	3	19940607	3706.61	7611.03	3706.62	7610.77	395.34	11.0	1	2	1	6
940601	14	4	19940607	3700.16	7613.13	3700.06	7612.89	408.92	15.8	2	2	2	3
940601	15	4	19940607	3700.54	7602.20	3700.44	7601.99	368.88	16.5	2	1	2	5
940601	16	4	19940607	3705.66	7606.28	3705.47	7606.20	372.45	12.8	1	2	3	6
940601	17	5	19940607	3710.77	7613.05	3710.86	7612.81	400.86	8.5	1	2	1	7
940602	22	6	19940608	3719.25	7601.75	3719.50	7601.68	475.29	4.6	1	1	2	2
940602	23	6	19940608	3717.68	7603.02	3717.90	7602.93	429.97	8.5	1	1	3	2
940602	24	6	19940608	3719.37	7602.98	3719.57	7602.93	378.30	8.5	1	1	2	2
940602	25	7	19940608	3712.03	7602.02	3712.23	7602.17	435.03	9.4	1	1	2	2
940602	26	7	19940608	3719.08	7603.22	3719.27	7603.35	403.66	11.0	1	1	3	3
940602	27	7	19940608	3720.67	7608.52	3720.42	7608.58	472.13	11.3	2	2	3	3
940602	28	7	19940608	3721.08	7608.07	3720.87	7608.17	417.72	11.6	2	1	3	3
940602	29	8	19940608	3714.12	7605.35	3713.88	7605.27	461.02	14.0	2	2	2	2
940602	30	8	19940608	3721.28	7606.32	3721.47	7606.40	372.45	13.1	1	1	3	3
940602	32	8	19940608	3720.75	7604.52	3720.97	7604.57	414.67	15.8	1	1	3	3
940602	37	10	19940608	3730.90	7559.00				7.6	2	1	3	5
940602	38	10	19940608	3733.33	7558.33	3733.47	7558.28	270.31	6.7	1	2	2	6
940602	40	10	19940608	3739.73	7558.85	3739.87	7558.95	300.61	8.5	1	2	3	7
940602	45	12	19940608	3732.07	7603.07	3732.18	7603.22	305.70	14.0	1	2	2	5
940602	47	12	19940608	3731.00	7601.95	3731.17	7602.05	349.72	16.2	2	2	2	5
940602	48	12	19940608	3739.80	7611.02	3739.60	7611.20	460.53	13.1	1	1	2	7
940603	19	5	19940610	3717.35	7617.20	3717.25	7616.87	534.38	7.3	2	2	1	3
940603	20	5	19940610	3715.68	7616.60	3715.43	7616.68	478.92	8.2	2	2	0	3
940603	33	9	19940610	3734.95	7611.83	3734.70	7611.82	463.50	5.8	2	2	0	1
940603	34	9	19940610	3731.12	7614.10	3730.90	7614.05	414.67	8.8	2	2	0	2
940603	35	9	19940610	3735.43	7612.15	3735.63	7612.17	371.84	5.8	1	1	0	1
940603	41	11	19940610	3725.37	7609.07	3725.15	7609.07	407.66	11.0	2	2	1	2
940603	42	11	19940610	3726.67	7609.52	3726.48	7609.55	355.01	11.0	2	2	1	2
940603	43	11	19940610	3731.47	7606.85	3731.23	7606.95	469.94	11.6	2	2	0	2
940603	44	11	19940610	3736.35	7611.33	3736.55	7611.45	412.99	12.2	1	1	0	1

Table 18.  
July

Cruise Number	Station Number	Stratum Code	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940701	2	1	19940705	3658.55	7615.77	3658.50	7615.55	346.75	5.2	2	1	1	6
940701	3	1	19940705	3702.00	7613.00	3701.82	7613.08	354.98	5.2	2	1	1	5
940701	4	1	19940705	3700.57	7611.57	3700.72	7611.68	324.30	6.1	1	2	1	6
940701	5	2	19940705	3702.75	7601.33	3702.63	7601.12	388.82	8.2	2	1	1	6
940701	6	2	19940705	3701.87	7602.87	3701.97	7603.03	305.60	5.2	2	1	1	6
940701	7	2	19940705	3708.40	7604.68	3708.58	7604.62	345.77	7.6	1	2	2	7
940701	9	3	19940705	3656.85	7604.48	3656.70	7604.32	369.21	9.1	2	1	1	6
940701	10	3	19940705	3659.98	7612.07	3659.92	7611.83	381.10	10.7	2	1	1	6
940701	11	3	19940705	3704.73	7608.22	3704.72	7608.35	198.32	9.4	1	2	1	6
940701	12	3	19940705	3708.50	7612.75	3708.27	7612.70	432.90	10.1	1	1	2	5
940701	14	4	19940705	3702.42	7603.68	3702.23	7603.60	372.45	12.5	2	1	2	6
940701	15	4	19940705	3700.38	7615.00	3700.37	7614.75	380.17	14.0	2	1	1	6
940701	16	4	19940705	3705.67	7606.92	3705.83	7606.98	310.17	15.5	1	2	2	7
940701	17	5	19940705	3713.95	7621.50	3713.85	7621.32	330.27	4.0	2	2	2	3
940701	18	5	19940705	3712.50	7614.73	3712.43	7614.50	372.64	5.2	2	2	2	3
940701	19	5	19940705	3711.73	7613.18	3711.60	7613.03	331.56	9.1	2	1	2	5
940701	21	6	19940705	3713.77	7601.60	3713.98	7601.63	391.79	4.3	1	2	1	7
940701	22	6	19940705	3714.87	7601.95	3715.08	7601.92	391.79	4.0	1	2	1	7
940701	25	7	19940705	3711.38	7611.13	3711.32	7610.88	395.66	10.4	2	1	2	5
940701	29	8	19940705	3716.43	7605.47	3716.52	7605.72	414.72	25.6	2	2	1	5
940702	23	6	19940706	3717.45	7602.93	3717.67	7602.82	440.57	5.5	1	1	1	3
940702	26	7	19940706	3724.63	7609.28	3724.88	7609.30	464.25	8.8	1	2	2	5
940702	27	7	19940706	3723.63	7601.00	3723.82	7600.90	383.44	8.5	1	2	1	5
940702	28	7	19940706	3723.63	7606.67	3723.87	7606.65	445.76	12.2	1	2	1	3
940702	31	8	19940706	3723.53	7605.47	3723.77	7605.45	445.76	13.7	1	2	1	3
940702	32	8	19940706	3720.03	7610.68	3719.82	7610.72	393.84	13.4	2	2	1	3
940702	36	9	19940706	3734.18	7612.92	3734.00	7612.98	345.77	8.5	2	1	3	7
940702	37	10	19940706	3726.47	7600.75	3726.65	7600.70	342.08	7.6				
940702	39	10	19940706	3737.38	7556.18	3737.58	7556.20	371.84	5.2	1	2	3	5
940702	40	10	19940706	3739.02	7558.25	3738.95	7558.50	401.26	7.3	1	2	3	6
940702	42	11	19940706	3726.67	7607.32	3726.88	7607.27	396.47	11.9	1	2	2	5
940702	43	11	19940706	3738.63	7600.28	3738.63	7600.55	410.09	10.1	1	2	3	6
940702	44	11	19940706	3738.80	7559.83	3738.73	7600.05	358.44	10.4	2	2	3	6
940702	46	12	19940706	3735.95	7603.80	3736.13	7603.97	421.80	12.5	1	2	2	5
940702	47	12	19940706	3739.35	7607.75	3739.47	7607.90	318.35	12.8	1	2	3	7
940702	48	12	19940706	3737.55	7603.20	3737.75	7603.18	371.84	14.9	1	2	3	5
940703	34	9	19940708	3726.98	7612.50				7.3	1	1	2	2
940703	35	9	19940708	3728.10	7612.03	3728.35	7612.02	463.50	8.5	1	1	3	1
940703	41	11	19940708	3729.55	7608.83	3729.85	7608.65	619.49	11.0	1	1	3	1

Table 19.  
August

Cruise Number	Station Number	Stratum Code	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940801	2	1	19940801	3656.48	7606.32	3656.55	7606.60	444.62	7.6	1	2	1	6
940801	3	1	19940801	3702.10	7605.37	3702.20	7605.62	422.51	10.4	1	2	1	6
940801	5	2	19940801	3701.85	7600.53	3701.60	7600.33	553.97	5.5	2	1	1	6
940801	7	2	19940801	3705.55	7605.30	3705.30	7605.22	478.92	6.1	2	1	1	6
940801	8	2	19940801	3708.33	7606.53	3708.10	7606.50	428.62	7.0	2	1	1	6
940801	9	3	19940801	3655.83	7603.20	3655.77	7603.48	439.57	11.6	1	2	1	6
940801	10	3	19940801	3707.98	7612.07	3708.17	7612.17	383.44	10.4	1	1	1	2
940801	11	3	19940801	3709.72	7613.53	3709.92	7613.65	412.99	10.7	1	1	1	2
940801	12	3	19940801	3705.05	7559.90	3705.15	7600.03	270.78	7.9	1	2	1	6
940801	13	4	19940801	3658.70	7608.12	3658.75	7608.40	435.25	12.2	1	1	1	1
940801	14	4	19940801	3657.08	7559.82	3657.10	7600.07	381.52	25.6	1	2	1	6
940801	22	6	19940801	3710.37	7603.47	3710.12	7603.40	475.29	8.5	2	1	1	6
940801	25	7	19940801	3711.93	7609.48	3712.20	7609.48	500.31	10.4	1	1	1	2
940801	26	7	19940801	3711.78	7610.80	3712.03	7610.75	469.43	10.4	1	1	1	2
940801	27	7	19940801	3713.65	7609.80	3713.43	7609.73	421.30	10.1	2	1	1	6
940801	29	8	19940801	3711.57	7602.57	3711.37	7602.43	427.27	13.7	2	1	1	6
940802	23	6	19940802	3721.00	7600.38	3721.20	7600.30	390.01	3.0	1	2	1	5
940802	24	6	19940802	3722.95	7600.58	3723.13	7600.53	342.08	5.8	1	2	1	5
940802	28	7	19940802	3722.27	7606.25	3722.43	7606.28	299.96	11.9	1	2	1	5
940802	30	8	19940802	3714.53	7605.00	3714.72	7605.10	383.44	13.7	1	2	0	5
940802	32	8	19940802	3715.83	7607.03	3715.62	7607.03	389.13	13.4	2	1	1	5
940802	37	10	19940802	3733.03	7558.10	3733.20	7558.00	349.72	4.3	1	2	1	5
940802	38	10	19940802	3734.03	7557.63	3734.22	7557.62	352.40	4.9	1	2	1	5
940802	39	10	19940802	3737.37	7558.42	3737.55	7558.48	345.77	7.0	1	2	1	5
940802	41	11	19940802	3729.05	7600.08				9.8	1	2	1	1
940802	42	11	19940802	3730.53	7605.77	3730.72	7605.80	355.01	11.3	1	2	1	5
940802	43	11	19940802	3732.07	7604.38	3732.18	7604.22	317.18	12.2	1	2	1	5
940802	44	11	19940802	3738.95	7603.83				11.6	1	2	2	5
940802	45	12	19940802	3728.05	7604.00	3728.23	7604.10	366.49	16.2	1	2	1	5
940802	47	12	19940802	3737.02	7609.12	3737.03	7609.73	926.69	13.4	1	2	2	5
940802	48	12	19940802	3735.83	7603.00	3735.75	7603.27	436.06	14.6	2	2	2	5
940803	18	5	19940804	3713.30	7621.04	3713.10	7620.88	443.17	4.9	1	1	1	5
940803	19	5	19940804	3715.12	7620.63	3715.18	7620.35	439.57	4.0	1	1	2	3
940803	20	5	19940804	3719.91	7612.57	3719.77	7612.43	335.43	8.2	2	2	2	2
940803	33	9	19940804	3732.40	7613.97	3732.25	7614.02	288.14	8.5	2	1	1	2
940803	34	9	19940804	3736.48	7617.11	3736.38	7616.93	330.27	2.4	2	1	1	2
940803	35	9	19940804	3736.36	7613.88	3736.21	7613.72	369.21	6.4	2	1	1	2
940804	1	1	19940809	3658.75	7616.57	3658.68	7616.21	561.96	5.5	2	2	1	2
940804	16	4	19940809	3700.39	7615.19	3700.40	7614.93	395.34	16.2	2	2	1	2

Table 20.

September

Cruise Number	Station Number	Stratum Code	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
940901	4	1	19940906	3708.73	7616.38	3708.54	7616.32	363.67	5.2	2	2	2	2
940901	12	3	19940906	3707.96	7611.36	3707.79	7611.27	343.39	11.3	2	2	2	2
940901	26	7	19940906	3710.99	7615.66	3710.82	7615.53	371.78	11.0	2	2	2	2
940902	1	1	19940907	3657.53	7613.65	3657.68	7613.90	470.57	7.3	1	1	2	2
940902	2	1	19940907	3702.38	7607.79	3702.58	7607.89	400.52	8.5	1	1	2	3
940902	6	2	19940907	3708.54	7604.72	3708.76	7604.72	407.66	7.9	1	1	2	5
940902	7	2	19940907	3706.18	7604.56	3706.37	7604.51	360.17	9.4	1	1	2	3
940902	8	2	19940907	3709.19	7606.75	3709.37	7606.80	342.08	8.2	1	1	2	5
940902	9	3	19940907	3659.79	7602.92	3700.01	7603.12	508.39	11.0	1	1	1	3
940902	10	3	19940907	3656.57	7603.87	3656.58	7603.66	319.50	9.8	2	2	2	2
940902	11	3	19940907	3658.22	7607.45	3658.25	7607.73	428.90	9.1	1	1	2	2
940902	14	4	19940907	3657.52	7600.10	3657.51	7559.95	228.58	22.9	2	2	1	2
940902	15	4	19940907	3657.45	7559.64	3657.41	7559.46	283.26	25.3	2	2	1	2
940902	16	4	19940907	3701.92	7603.34	3701.84	7603.21	246.91	13.4	2	2	2	3
940902	17	5	19940907	3713.49	7616.07	3713.70	7616.07	389.13	6.7	1	1	2	5
940902	21	6	19940907	3712.61	7602.32	3712.81	7602.29	373.39	4.6	1	1	2	5
940902	23	6	19940907	3710.83	7603.52	3711.00	7603.32	437.62	9.1	1	1	1	5
940902	24	6	19940907	3710.73	7604.27	3710.94	7604.16	423.48	9.1	1	1	1	5
940903	18	5	19940908	3716.88	7615.29	3716.69	7615.45	427.80	5.5	2	2	2	2
940903	19	5	19940908	3717.02	7614.46	3716.85	7614.53	332.47	7.9	2	2	2	2
940903	25	7	19940908	3713.14	7613.10	3712.97	7613.26	397.86	9.4	2	2	2	1
940903	27	7	19940908	3714.32	7610.80	3714.15	7610.93	371.78	11.0	2	2	2	2
940903	28	7	19940908	3714.65	7607.36	3714.48	7607.52	397.86	12.5	2	2	2	1
940903	29	8	19940908	3714.98	7604.17	3714.86	7604.13	230.51	23.8	2	2	2	2
940903	30	8	19940908	3718.10	7605.52	3717.97	7605.46	257.55	21.3	1	2	3	2
940903	31	8	19940908	3715.28	7604.78	3715.15	7604.83	252.58	36.3	2	2	2	1
940904	34	9	19940913	3728.85	7614.69	3728.68	7614.68	315.38	6.4	2	2	2	7
940904	35	9	19940913	3730.51	7611.56	3730.69	7611.67	373.05	9.1	1	1	2	7
940904	36	9	19940913	3733.77	7613.09	3733.94	7612.96	371.78	9.1	1	1	2	6
940904	37	10	19940913	3731.40	7558.47	3731.16	7558.55	461.02	3.4	2	1	2	7
940904	39	10	19940913	3735.75	7601.78	3735.94	7601.89	389.70	7.3	1	2	2	6
940904	40	10	19940913	3736.68	7600.56	3736.44	7600.58	445.76	7.9	2	1	2	6
940904	41	11	19940913	3728.27	7610.08	3728.45	7610.10	334.92	10.7	1	2	1	7
940904	42	11	19940913	3732.20	7606.22	3731.96	7606.17	451.16	11.3	2	1	2	7
940904	43	11	19940913	3738.71	7600.34	3738.46	7600.47	503.58	10.1	2	1	3	6
940904	44	11	19940913	3736.42	7610.83	3736.59	7610.91	337.63	12.2	1	2	2	6
940904	45	12	19940913	3729.09	7604.46	3728.82	7604.43	502.38	13.7	1	1	2	7
940904	47	12	19940913	3734.64	7603.52	3734.43	7603.35	467.00	12.5	2	1	2	6
940904	48	12	19940913	3738.35	7608.06	3738.52	7608.16	349.72	12.5	1	2	3	6

Table 21.

October

Cruise Number	Station Number	Stratum Code	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
941001	1	1	19941019	3655.80	7608.26	3655.88	7608.48	365.55	6.4	1	1	2	2
941001	2	1	19941018	3657.39	7614.00	3657.54	7614.21	423.07	8.5	1	1	2	2
941001	4	1	19941018	3708.54	7614.56	3708.66	7614.64	253.39	7.9	2	2	6	6
941001	5	2	19941018	3704.30	7600.44	3704.14	7600.44	543.62	7.3	2	2	3	2
941001	9	3	19941018	3659.09	7607.37	3659.19	7607.58	368.88	9.4	1	1	2	3
941001	10	3	19941018	3659.00	7559.05	3659.09	7559.30	414.72	10.7	1	1	4	3
941001	11	3	19941018	3701.30	7604.69	3701.28	7604.41	426.89	9.1	1	2	2	2
941001	12	3	19941018	3700.45	7613.06	3700.41	7612.83	357.11	11.3	2	2	2	5
941001	13	4	19941018	3703.22	7604.48	3703.45	7604.46	427.27	13.7	1	2	2	5
941001	14	4	19941018	3707.06	7607.53	3707.19	7607.72	375.91	13.1	1	2	2	6
941001	16	4	19941018	3706.56	7608.29	3706.71	7608.13	369.21	13.1	1	2	2	6
941001	17	5	19941018	3713.80	7615.37	3713.93	7615.39	242.80	7.6	1	1	1	7
941001	19	5	19941018	3715.54	7616.32	3715.76	7616.35	410.20	8.2	1	2	1	7
941002	18	5	19941020	3719.12	7612.89	3719.00	7613.11	401.37	7.9	2	1	1	5
941002	28	7	19941020	3720.18	7609.45	3719.94	7609.40	451.16	9.4	2	2	1	5
941002	32	8	19941020	3724.18	7605.08	3723.95	7604.99	447.58	17.4	2	6	2	4
941002	34	9	19941020	3730.86	7613.77	3731.01	7613.96	400.67	8.8	1	1	2	1
941002	35	9	19941020	3733.18	7614.27	3733.01	7614.19	337.63	8.8	2	1	2	1
941002	36	9	19941020	3735.20	7612.87	3735.44	7612.79	461.02	4.9	1	1	2	1
941002	37	10	19941020	3727.03	7600.84	3726.87	7600.91	314.97	7.0	2	2	2	3
941002	38	10	19941020	3734.71	7557.95	3734.56	7557.95	277.95	6.1	2	2	1	3
941002	40	10	19941020	3736.62	7600.73	3736.57	7600.56	274.32	8.8	2	2	2	1
941002	41	11	19941020	3727.32	7609.27	3727.19	7609.18	276.97	11.0	2	2	1	3
941002	42	11	19941020	3725.45	7608.58	3725.34	7608.39	353.31	11.9	2	2	1	3
941002	43	11	19941020	3725.09	7604.27	3725.15	7604.03	381.10	12.5	2	2	2	3
941002	44	11	19941020	3736.13	7605.43	3735.96	7605.41	316.47	12.5	2	2	2	1
941002	45	12	19941020	3726.58	7605.72	3726.44	7605.74	261.19	14.9	2	2	2	3
941002	47	12	19941020	3731.21	7603.21	3731.05	7603.28	314.97	14.9	2	2	2	2
941002	48	12	19941020	3737.10	7608.74	3737.25	7608.57	379.38	13.7	1	1	2	1
941003	31	8	19941021	3720.66	7606.01	3720.78	7606.13	287.51	16.5	1	1	3	1
941004	7	2	19941024	3709.10	7603.61	3709.25	7603.85	458.40	8.2	1	1	1	1
941004	8	2	19941024	3709.96	7601.51	3709.82	7601.48	263.39	8.2	2	2	1	1
941004	21	6	19941024	3711.46	7608.23	3711.63	7608.42	427.21	9.1	2	1	1	1
941004	22	6	19941024	3710.11	7606.79	3710.33	7606.95	474.60	9.8	1	1	1	1
941004	23	6	19941024	3711.13	7606.32	3711.29	7606.55	458.19	10.1	1	1	1	1
941004	25	7	19941024	3710.82	7601.92	3710.66	7601.96	302.64	11.0	2	2	1	1
941004	26	7	19941024	3717.11	7604.11	3716.92	7604.21	383.44	10.4	2	1	1	7
941004	27	7	19941024	3718.91	7607.97	3718.76	7608.09	332.38	11.6	2	1	1	7
941004	30	8	19941024	3718.58	7606.88	3718.40	7606.97	360.47	16.5	2	1	1	7

Table 22.

November

Cruise Number	Station Number	Stratum Code	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
941101	2	1	19941103	3701.99	7610.34	3701.89	7610.13	368.88	7.0	2	2	1	3
941101	3	1	19941103	3702.46	7607.79	3702.43	7607.53	398.80	9.4	2	2	1	3
941101	4	1	19941103	3705.93	7613.54	3705.73	7613.53	370.91	6.7	2	2	1	2
941101	5	2	19941103	3702.71	7600.13	3702.86	7559.93	411.74	7.9	2	2	1	5
941101	6	2	19941103	3706.29	7601.64	3706.36	7601.78	249.08	5.2	1	2	1	5
941101	7	2	19941103	3707.48	7605.82	3707.49	7606.03	319.50	6.1	1	3	2	6
941101	9	3	19941103	3658.72	7600.79	3658.53	7600.63	427.80	10.7	2	2	1	3
941101	10	3	19941103	3700.56	7601.86	3700.72	7601.92	310.17	11.6	1	2	1	3
941101	11	3	19941103	3708.19	7613.06	3708.04	7613.02	284.51	10.4	2	2	2	3
941101	12	3	19941103	3708.50	7612.19	3708.37	7612.03	342.18	11.3	2	2	2	2
941101	13	4	19941103	3658.33	7600.89	3658.14	7600.67	485.40	14.6	2	2	1	3
941101	14	4	19941103	3657.31	7559.43	3657.15	7559.16	506.04	25.0	2	2	1	3
941101	15	4	19941103	3700.22	7602.10	3700.06	7601.97	356.21	15.5	2	2	2	3
941101	17	5	19941103	3713.78	7613.33	3713.95	7613.43	349.72	8.5	1	2	3	6
941101	21	6	19941103	3710.12	7608.03	3710.21	7608.17	270.24	7.3	1	2	2	6
941101	25	7	19941103	3711.28	7609.56	3711.36	7609.75	324.43	9.8	1	2	2	6
941102	19	5	19941104	3719.01	7613.11	3718.89	7613.18	246.47	8.5	2	2	2	2
941102	20	5	19941104	3723.89	7611.33	3723.63	7611.30	483.93	4.6	2	1	2	6
941102	23	6	19941104	3717.34	7603.29	3717.51	7603.29	315.01	8.5	1	1	1	3
941102	24	6	19941104	3723.74	7600.26	3723.65	7600.42	294.74	6.1	2	1	1	1
941102	26	7	19941104	3712.21	7604.19	3712.11	7604.11	221.59	11.0	2	2	1	3
941102	27	7	19941104	3713.60	7608.15	3713.39	7608.11	393.84	11.0	2	2	2	3
941102	28	7	19941104	3716.51	7614.49	3716.39	7614.45	230.51	11.6	2	2	2	2
941102	29	8	19941104	3718.15	7610.81	3718.05	7610.79	187.77	12.8	2	2	2	2
941102	31	8	19941104	3718.91	7605.27	3719.18	7605.17	522.86	19.5	1	2	1	5
941102	32	8	19941104	3722.90	7603.83	3723.17	7603.75	514.85	13.1	1	2	1	5
941102	35	9	19941104	3730.83	7612.43	3730.64	7612.38	360.17	8.5	2	1	2	6
941102	41	11	19941104	3731.14	7609.49	3730.93	7609.57	407.66	10.7	2	1	1	1
941102	42	11	19941104	3731.59	7608.72	3731.40	7608.66	363.67	11.3	2	1	1	1
941102	47	12	19941104	3730.93	7602.34	3731.11	7602.41	350.08	17.7	1	2	1	1
941103	36	9	19941108	3737.01	7613.97	3737.23	7614.01	412.16	7.6	1	1	2	1
941103	38	10	19941108	3738.13	7555.59	3738.03	7555.67	221.59	4.3	2	1	3	7
941103	39	10	19941108	3735.88	7557.31	3735.76	7557.43	287.51	6.1	2	1	3	6
941103	40	10	19941108	3737.56	7558.04	3737.41	7558.13	309.75	8.2	2	1	3	7
941103	43	11	19941108	3733.31	7605.68	3733.06	7605.76	478.92	11.6	2	1	3	7
941103	44	11	19941108	3739.85	7615.95	3739.69	7615.92	299.96	10.4	2	2	3	1
941103	46	12	19941108	3733.35	7602.36	3733.17	7602.44	354.98	18.0	2	1	3	7
941103	48	12	19941108	3735.48	7602.85	3735.37	7602.91	223.28	14.3	2	1	3	7
941104	34	9	19941109	3732.43	7616.36	3732.34	7616.18	320.24	6.1	2	2	1	2

Table 23.

December

Cruise Number	Station Number	Stratum Code	Station Date	Beginning Latitude	Beginning Longitude	Ending Latitude	Ending Longitude	Tow Dist. (m)	Depth (m)	Tow Direct. Up or Down Stream	Tow Direct. Rel. to Current	Sea State	Tidal Stage
941201	1	1	19941202	3659.11	7614.20	3659.11	7613.94	394.90	6.1	2	2	1	2
941201	4	1	19941202	3707.78	7613.77	3707.89	7613.88	263.55	7.9	1	2	1	6
941201	6	2	19941202	3706.50	7559.37	3706.62	7559.39	224.43	7.0	1	2	1	5
941201	8	2	19941202	3708.74	7601.27	3708.93	7600.96	587.92	6.1	1	2	2	5
941201	9	3	19941202	3655.84	7603.84	3655.89	7603.62	346.75	10.1	2	2	1	3
941201	10	3	19941202	3703.99	7602.42	3704.16	7602.41	315.38	9.5	1	6	1	4
941201	11	3	19941202	3706.93	7610.36	3707.07	7610.52	355.47	10.1	1	2	1	1
941201	12	3	19941202	3705.48	7603.85	3705.65	7603.83	316.47	10.1	1	2	1	5
941201	13	4	19941202	3656.07	7602.88	3656.14	7602.74	249.08	13.1	2	2	1	1
941201	15	4	19941202	3705.51	7607.01	3705.68	7607.15	380.06	13.4	1	2	1	1
941201	16	4	19941202	3705.35	7606.76	3705.51	7606.67	326.48	13.7	1	2	1	5
941201	17	5	19941202	3713.32	7616.79	3713.47	7616.96	379.38	4.9	1	2	1	6
941202	21	6	19941205	3712.82	7602.44	3712.69	7602.39	252.58	5.5	2	2	3	2
941202	23	6	19941205	3716.33	7603.37	3716.54	7603.31	399.66	7.6	1	2	2	6
941202	25	7	19941205	3713.03	7606.83	3712.95	7606.66	297.73	12.2	2	2	3	2
941202	26	7	19941205	3713.28	7604.09	3713.15	7604.11	242.80	12.5	2	2	3	2
941202	29	8	19941205	3713.74	7605.14	3713.86	7604.93	388.82	14.0	2	2	3	2
941202	31	8	19941205	3715.32	7604.55	3715.58	7604.66	509.93	25.6	1	1	2	2
941202	32	8	19941205	3716.15	7605.59	3716.15	7605.85	394.90	30.2	2	1	2	5
941202	37	10	19941205	3729.57	7558.43	3729.79	7558.37	417.72	6.1	1	2	1	6
941202	40	10	19941205	3735.41	7601.51	3735.66	7601.38	503.58	10.4	1	1	2	3
941202	43	11	19941205	3733.55	7559.40	3733.78	7559.31	447.58	10.7	1	1	2	3
941202	44	11	19941205	3738.10	7605.59	3738.35	7605.49	487.51	12.5	1	1	2	3
941202	46	12	19941205	3734.17	7602.00	3734.07	7602.12	259.92	14.6	2	2	2	3
941202	48	12	19941205	3736.60	7603.43	3736.83	7603.32	457.77	15.3	1	1	2	3
941203	19	5	19941207	3722.21	7612.77	3722.12	7612.80	172.88	5.8	2	2	2	2
941203	33	9	19941207	3726.67	7613.32	3726.53	7613.36	266.44	5.2	2	2	2	1
941203	34	9	19941207	3726.54	7613.05	3726.41	7613.08	245.16	5.5	2	2	2	1
941203	41	11	19941207	3729.15	7609.75	3728.90	7609.70	469.43	10.7	2	2	2	1

Tables 24-35. Atmospheric and hydrographic data for the river trawl survey by month.

Explanation:

- A. To conserve space, some variables are presented as coded values. Code keys are presented in Table 1 (p.113).
- B. Due to measurement error (calibration differences and instrument drift) associated with the hydrographic equipment used to measure temperature, salinity, and dissolved oxygen, some calculated saturation values presented here are greater than 100 %.

Table 24.

January

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
940101	JA	1	2.0	10	320	0	1.2	3.90	20.1	12.30	107.2	3.96	20.6	12.09	105.9
940101	JA	5	3.0	8	320	0	1.1	4.60	19.6	12.20	107.8	4.60	19.7	12.00	106.1
940101	JA	13	6.0	8	320	0	1.0	4.21	14.1	13.50	113.9	4.50	16.3	12.60	108.6
940101	JA	17	4.0	8	320	0	0.8	4.11	9.7	13.60	111.1	4.21	11.2	12.70	105.0
940101	JA	24	3.0	10	320	0	0.4	4.45	3.6	12.60	99.6	4.21	5.1	12.30	97.6
940101	JA	27	8.0	10	320	0	0.2	4.55	2.4	12.70	99.9	4.45	3.7	12.43	98.4
940101	JA	35	7.0	10	320	0	0.2	4.18	0.7	13.00	100.1	4.15	0.8	12.71	97.9
940101	JA	40	7.0	8	320	1	1.5	3.98	0.3	14.85	113.5	3.96	0.3	13.18	100.6
940102	YK	2	.	5	360	1	1.3	4.56	20.4	11.43	101.5	4.65	20.5	10.88	96.9
940102	YK	5	.	5	360	1	1.8	4.11	18.0	11.59	100.1	4.70	20.0	10.80	95.9
940102	YK	10	.	5	320	2	1.3	4.20	17.4	11.30	97.4	4.16	18.0	11.10	96.0
940102	YK	15	5.0	0	0	2	0.8	3.70	11.1	11.50	93.8	3.90	14.5	11.10	93.1
940102	YK	20	6.0	0	0	2	0.8	3.49	7.8	11.57	91.8	3.54	11.4	11.03	89.8
940103	YK	25	6.0	2	220	5	0.6	3.66	8.7	11.21	89.9	3.66	11.5	11.04	90.2
940103	YK	30	5.0	2	220	5	0.2	3.29	0.7	11.52	86.7	3.33	0.9	11.30	85.2
940103	YK	35	5.0	2	220	5	0.3	3.16	0.1	11.82	88.2	3.12	0.1	11.76	87.7
940103	YK	40	5.0	2	220	5	0.3	3.33	0.1	11.81	88.6	3.22	0.1	11.86	88.7
940104	RA	2	5.0	0	4	4	1.6	3.43	15.1	12.32	102.6	3.34	15.7	12.10	100.9
940104	RA	10	5.0	0	4	4	1.9	3.39	15.2	12.46	103.7	3.46	16.6	11.97	100.7
940104	RA	15	5.0	0	4	4	1.8	3.31	12.7	12.33	100.7	3.54	15.1	11.83	98.8
940104	RA	20	4.0	2	320	4	1.5	3.19	12.6	12.22	99.4	3.54	14.5	11.77	97.9
940104	RA	25	4.0	0	4	4	1.0	3.11	11.2	11.89	95.6	3.41	13.2	11.63	95.5
940104	RA	30	4.0	0	4	4	0.7	2.57	6.9	11.87	91.4	2.97	10.5	11.68	93.1
940104	RA	35	4.0	0	4	4	0.5	2.38	6.1	11.79	89.8	2.47	7.3	11.82	91.0
940104	RA	40	4.0	0	4	4	0.3	1.84	1.6	12.51	91.1	1.84	1.4	12.59	91.5

Table 25.

February

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
940201	YK	10	3.0	5	40	2	1.4	2.70	17.5	12.59	104.5	2.75	18.2	12.54	104.8
940201	YK	15	5.0	5	40	1	1.0	2.53	14.1	12.12	97.9	2.77	16.0	12.33	101.5
940201	YK	20	1.0	8	40	2	0.6	2.38	9.7	12.72	99.3	2.75	11.6	11.94	95.4
940201	YK	25	5.0	5	40	1	0.8	2.52	7.6	11.90	91.9	2.65	10.9	11.55	91.6
940201	YK	30	4.0	5	40	1	0.3	2.16	0.4	12.17	88.6	1.97	1.0	12.01	87.4
940201	YK	35	4.0	8	40	1	0.4	1.80	0.1	12.52	90.1	1.79	0.1	12.37	89.0
940201	YK	40	4.0	5	40	1	0.5	2.14	0.1	12.92	93.8	2.14	0.0	12.51	90.8
940202	YK	2	2.0	7	220	0	1.6	2.40	19.1	11.90	99.1	2.50	18.8	12.10	100.8
940202	YK	5	1.0	6	220	0	1.5	2.10	18.5	12.00	98.8	2.60	19.1	11.90	99.6
940203	RA	2	7.0	5	220	2	2.8	2.60	12.7	12.20	97.8	1.69	16.9	11.60	93.4
940203	RA	10	8.0	5	140	2	3.0	2.70	12.3	12.30	98.6	1.63	16.4	11.50	92.2
940203	RA	15	9.0	5	140	2	3.0	2.69	11.3	12.37	98.4	1.65	16.6	11.85	95.1
940203	RA	20	9.0	5	140	2	3.0	3.07	9.5	12.24	97.2	1.75	15.0	11.93	95.0
940203	RA	25	9.0	5	140	2	1.8	2.55	9.9	12.07	94.8	1.96	14.2	11.57	92.1
940203	RA	30	5.0	5	320	2	0.5	2.60	5.7	12.20	93.2	2.50	8.7	11.70	91.0
940203	RA	35	4.0	5	320	5	0.5	2.55	4.3	12.29	92.9	2.43	5.8	11.81	89.9
940203	RA	40	4.0	5	320	2	0.1	2.30	0.6	12.66	92.7	2.31	0.7	12.39	90.8
940204	JA	1	12.0	3	40	0	1.7	3.69	14.0	12.07	100.4	2.89	21.2	11.50	98.4
940204	JA	5	12.0	3	40	0	1.3	3.78	11.2	12.19	99.7	3.49	16.3	11.94	100.4
940204	JA	13	14.0	3	40	0	1.0	4.05	6.5	12.43	99.2	3.37	13.5	11.45	94.1
940204	JA	17	15.0	4	40	0	0.3	4.03	0.9	12.40	95.2	3.76	5.9	11.63	91.7
940204	JA	24	17.0	4	40	0	0.2	4.51	0.2	12.26	94.9	4.28	0.2	12.00	92.3
940204	JA	27	17.0	8	40	0	0.2	4.15	0.1	11.88	91.0	4.06	0.1	11.78	90.1
940204	JA	35	17.0	10	320	0	0.2	4.41	0.1	12.13	93.6	4.19	0.1	11.86	91.0
940204	JA	40	15.0	10	320	0	0.3	4.50	0.1	12.15	94.0	4.44	0.1	11.93	92.1

Table 26.

March

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
940301	YK	10	11.8	6	180	0	0.4	6.95	6.3	12.36	106.0	5.21	17.0	9.50	83.8
940301	YK	15	19.9	8	180	0	0.2	8.21	2.1	9.95	85.6	5.86	11.2	8.95	77.2
940301	YK	20	17.4	6	180	0	0.3	6.82	4.5	11.23	94.9	6.78	4.6	10.62	89.7
940301	YK	25	19.6	10	180	0	0.2	7.00	1.1	10.40	86.3	6.29	4.7	9.50	79.3
940301	YK	30	19.9	8	180	0	0.3	6.83	0.0	10.60	87.0	6.78	0.0	4.80	39.3
940301	YK	35	21.1	8	180	0	0.3	6.80	0.0	10.50	86.1	6.68	0.0	10.20	83.4
940301	YK	40	21.4	8	180	0	0.1	7.30	0.0	10.54	87.5	7.01	0.0	9.99	82.3
940302	YK	2	18.0	4	200	1	1.6	7.93	9.9	11.56	103.9	5.01	17.3	9.62	84.6
940302	YK	5	17.5	2	220	1	1.9	7.29	12.7	11.19	100.9	5.08	18.2	10.12	89.7
940303	RA	2	8.4	2	360	2	1.4	6.70	9.3	11.70	101.7	5.39	14.4	10.90	94.9
940303	RA	10	11.2	2	360	1	1.3	6.76	8.7	11.30	98.0	5.64	12.5	10.20	88.2
940303	RA	15	12.4	2	360	1	1.0	6.70	7.1	11.50	98.5	5.74	11.7	9.78	84.3
940303	RA	20	13.8	2	360	1	0.9	6.78	6.8	11.22	96.1	5.59	11.9	9.42	81.0
940303	RA	25	12.6	5	360	1	0.3	6.93	4.7	10.66	90.4	6.11	7.7	9.36	79.3
940303	RA	30	12.4	5	360	1	0.2	7.47	1.6	9.96	83.9	6.72	3.2	9.86	82.4
940303	RA	35	13.1	2	360	0	0.1	7.54	0.1	10.24	85.5	7.44	0.1	10.38	86.5
940303	RA	40	18.1	2	360	0	0.1	7.57	0.1	10.28	85.9	7.38	0.0	10.42	86.7
940304	JA	1	12.1	2	220	1	0.9	8.23	9.5	10.48	94.6	7.36	15.4	10.19	93.7
940304	JA	5	16.1	2	220	1	0.8	8.44	8.4	10.55	95.1	7.72	12.4	9.95	90.5
940304	JA	13	14.3	1	220	1	0.3	9.05	2.7	10.36	91.3	7.74	10.6	10.40	93.5
940304	JA	17	16.3	3	220	1	0.3	8.85	0.1	10.56	91.1	8.61	0.1	10.65	91.3
940304	JA	24	19.3	4	220	1	0.3	9.33	0.0	10.57	92.2	9.08	0.0	10.71	92.8
940304	JA	27	19.2	4	220	1	0.4	9.85	0.0	10.42	92.0	9.23	0.0	10.59	92.1
940304	JA	35	18.2	5	220	1	0.4	9.54	0.0	10.26	89.9	9.44	0.0	10.35	90.5
940304	JA	40	17.2	7	220	1	0.4	9.66	0.0	10.16	89.3	9.59	0.0	10.26	90.0

Table 27.

April									Surface				Bottom			
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	
940401	JA	1	12.3	8	360	1	1.0	12.58	9.2	11.00	109.5	11.80	11.3	10.60	105.1	
940401	JA	5	12.3	8	360	1	0.4	12.70	6.4	9.80	96.2	11.30	12.8	9.30	92.1	
940401	JA	13	19.1	2	360	1	0.4	13.74	0.5	9.70	93.9	11.10	12.9	8.88	87.6	
940401	JA	17	23.4	2	360	1	0.2	13.50	0.2	9.40	90.3	13.50	0.2	8.90	85.5	
940401	JA	24	18.3	5	360	0	0.2	14.17	0.1	9.40	91.6	14.10	0.1	8.06	78.4	
940401	JA	27	18.6	5	360	0	0.2	13.70	0.0	9.60	92.5	13.50	0.1	9.02	86.6	
940401	JA	35	23.9	2	360	0	1.5	13.60	0.0	9.40	90.4	13.20	0.0	9.30	88.7	
940401	JA	40	22.8	5	360	0	1.5	13.80	0.0	9.99	96.5	13.70	0.0	9.13	88.0	
940402	YK	10	14.6	5	220	5	0.6	14.10	4.5	10.70	107.0	11.80	11.9	8.10	80.6	
940402	YK	15	14.5	5	220	5	0.4	14.10	1.6	8.70	85.4	12.30	8.9	7.20	71.1	
940402	YK	20	14.7	5	220	5	0.4	14.10	1.3	9.50	93.1	12.70	6.6	7.10	69.8	
940402	YK	25	15.0	5	220	5	0.4	13.90	0.3	9.20	89.2	13.90	0.7	8.76	85.2	
940402	YK	30	14.9	5	220	5	0.3	14.07	0.0	8.10	78.7	14.10	0.0	8.30	80.7	
940402	YK	35	15.2	5	220	5	0.3	14.14	0.0	9.30	90.5	14.10	0.0	9.12	88.7	
940402	YK	40	15.4	5	220	5	0.3	14.40	0.0	9.00	88.1	14.40	0.0	8.90	87.1	
940403	YK	2	17.4	2	270	0	0.5	13.39	8.8	10.60	107.2	11.10	13.6	10.02	99.3	
940403	YK	5	.	2	270	0	0.4	13.77	7.8	10.67	108.1	11.40	12.9	10.48	104.1	
940404	RA	2	17.7	2	180	2	0.8	13.67	8.1	10.80	109.4	11.94	8.9	10.53	103.6	
940404	RA	10	18.1	2	180	2	.	13.92	7.1	10.08	102.0	12.29	8.7	9.10	89.8	
940404	RA	15	18.3	2	180	2	0.7	14.10	6.4	9.56	96.7	12.50	8.3	7.60	75.1	
940404	RA	20	17.6	2	180	2	0.8	14.39	5.6	9.08	92.0	12.48	7.8	7.10	69.9	
940404	RA	25	.	2	180	2	0.2	14.70	3.7	8.64	87.1	14.54	4.4	7.70	77.7	
940404	RA	30	18.6	2	180	2	0.1	15.20	0.4	9.03	90.2	14.89	1.0	8.52	84.8	
940404	RA	35	18.6	2	180	2	0.1	15.19	0.1	8.96	89.3	15.14	0.1	8.85	88.1	
940404	RA	40	18.5	2	180	2	0.1	15.29	0.0	8.88	88.6	15.19	0.0	8.63	85.9	

Table 28.

May									Surface				Bottom			
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	
940501	YK	10	.	2	320	0	0.5	19.56	9.6	8.50	98.1	17.75	13.0	5.39	61.2	
940501	YK	15	18.1	2	320	0	0.4	20.20	6.9	9.50	109.2	19.08	11.1	5.07	58.5	
940501	YK	20	.	2	320	0	.	20.31	5.2	8.50	97.0	19.58	6.3	6.52	73.8	
940501	YK	25	14.6	5	320	0	0.2	20.10	4.1	7.26	82.0	20.10	6.3	5.70	65.2	
940501	YK	30	13.7	2	320	0	0.1	20.80	0.4	7.50	84.0	20.90	0.5	6.90	77.5	
940501	YK	35	13.1	2	320	0	0.2	20.80	0.1	7.56	84.5	20.80	0.1	7.39	82.6	
940503	YK	2	13.3	8	320	2	1.5	16.48	12.9	7.36	81.5	16.19	14.3	5.67	62.9	
940503	YK	5	12.4	8	320	5	1.2	16.64	12.3	7.20	79.7	16.81	12.8	6.82	75.9	
940504	JA	1	17.9	9	220	1	1.2	16.90	13.5	8.60	96.3	16.20	16.3	8.50	95.5	
940504	JA	5	18.9	7	220	1	1.1	16.80	14.0	8.00	89.7	16.60	14.0	7.80	87.1	
940504	JA	13	18.9	8	320	1	0.6	18.30	8.0	7.80	87.0	17.10	12.3	7.00	78.2	
940504	JA	17	18.9	8	320	1	0.6	18.70	2.8	7.50	81.7	18.10	5.9	6.70	73.5	
940504	JA	24	20.2	10	320	1	0.4	19.80	0.6	7.90	86.8	19.00	1.7	7.00	76.2	
940504	JA	27	20.7	15	360	1	0.4	19.50	0.3	8.20	89.4	19.20	0.3	7.70	83.5	
940505	RA	2	19.1	7	250	2	2.4	17.27	8.0	9.27	101.2	16.78	8.6	7.39	80.2	
940505	RA	10	18.9	8	270	2	2.0	17.41	7.4	9.22	100.6	16.34	8.5	4.36	46.8	
940505	RA	15	19.6	5	270	2	1.7	17.49	6.9	8.94	97.4	16.95	7.9	4.96	53.8	
940505	RA	20	21.0	5	270	2	1.0	17.97	5.9	9.96	108.9	17.10	7.3	5.94	64.4	
940505	RA	25	21.3	4	290	2	0.5	17.97	4.5	9.06	98.3	17.71	4.9	8.00	86.5	
940505	RA	30	22.9	6	320	1	0.4	18.15	1.4	8.55	91.4	17.98	2.0	8.24	88.1	
940505	RA	35	23.7	7	320	1	0.4	18.43	0.5	8.55	91.4	18.15	0.7	8.47	90.1	

Table 29.

June									Surface				Bottom			
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	
940601	YK	2	21.3	3	140	0	1.4	20.38	14.1	8.93	107.5	19.96	13.8	7.75	92.4	
940601	YK	5	21.3	3	140	0	1.8	20.42	14.1	10.50	126.5	19.46	14.5	7.12	84.4	
940601	YK	10	28.0	5	140	0	0.4	22.68	10.5	7.74	95.3	20.94	12.5	6.54	78.8	
940601	YK	15	29.7	4	140	0	0.2	23.27	9.4	7.83	96.8	21.33	11.6	5.95	71.9	
940602	YK	20	20.2	5	360	1	0.2	22.63	9.5	6.73	82.3	22.00	10.9	5.91	72.0	
940602	YK	25	22.0	5	360	1	0.2	23.00	7.2	7.34	89.2	22.73	8.1	5.54	67.3	
940602	YK	30	19.0	5	360	2	0.1	22.72	4.1	6.94	82.4	22.75	4.2	6.50	77.3	
940602	YK	35	20.0	2	360	2	0.2	22.41	1.6	6.04	70.3	22.52	1.9	5.52	64.5	
940603	JA	1	23.0	5	220	1	1.9	21.38	16.1	9.35	116.1	19.72	19.3	7.49	91.8	
940603	JA	5	23.0	5	220	2	1.3	21.65	14.7	8.50	105.2	20.50	17.9	7.45	91.9	
940603	JA	13	24.0	5	220	2	0.9	22.39	10.4	7.48	91.5	21.36	14.8	6.92	85.2	
940603	JA	17	25.0	5	220	2	0.7	23.04	7.7	6.99	85.3	23.08	7.8	6.81	83.2	
940603	JA	24	25.0	2	220	2	0.6	23.70	4.2	8.20	99.2	23.35	5.1	6.85	82.8	
940603	JA	27	26.0	7	220	2	0.5	24.11	2.3	7.43	89.6	23.67	3.0	6.23	74.8	
940604	RA	2	20.1	5	40	1	2.2	22.50	9.2	7.66	93.3	19.81	13.9	3.83	45.6	
940604	RA	10	21.2	5	40	1	2.1	22.34	8.9	6.95	84.2	19.63	13.6	3.20	37.9	
940604	RA	15	21.4	8	40	1	1.8	22.45	8.2	6.53	79.0	19.65	12.6	2.89	34.0	
940604	RA	20	22.2	5	40	1	1.2	22.32	7.7	6.10	73.4	19.51	11.7	2.37	27.7	
940604	RA	25	22.5	5	40	1	0.4	23.29	6.3	6.87	83.5	20.57	9.2	2.25	26.4	
940604	RA	30	24.5	1	320	1	0.2	24.66	4.6	7.55	93.2	23.64	4.9	5.32	64.6	
940604	RA	35	22.9	5	320	1	0.2	24.02	2.8	7.00	84.5	23.93	3.2	5.27	63.7	



Table 30.

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
								940701	RA	2	39.9	4	320	2	1.3
940701	RA	10	39.9	4	320	2	1.4	28.49	11.4	6.90	94.7	24.61	14.5	0.09	1.2
940701	RA	15	39.2	3	290	1	1.4	29.26	8.3	10.10	138.1	24.79	14.0	1.00	13.1
940701	RA	20	30.9	1	290	1	1.1	29.13	9.8	7.67	105.5	24.94	14.3	0.12	1.6
940701	RA	25	31.8	1	290	1	1.0	30.31	7.8	7.65	106.2	26.68	10.7	1.13	15.0
940701	RA	30	31.0	1	320	1	0.9	29.42	5.0	6.28	84.6	28.10	8.2	2.32	31.1
940701	RA	35	33.0	2	320	1	0.8	29.54	4.0	5.53	74.2	29.32	3.9	5.20	69.5
940702	JA	1	.	8	90	2	1.2	25.55	20.8	5.68	78.1	24.28	22.3	5.37	72.8
940702	JA	5	.	8	90	2	0.9	25.38	20.9	5.42	74.4	25.38	20.9	5.34	73.3
940702	JA	13	.	8	90	2	1.1	27.20	16.6	5.67	78.4	26.00	19.7	4.84	66.7
940702	JA	17	.	5	90	2	0.9	28.32	11.1	5.20	71.1	27.87	13.4	4.77	65.5
940702	JA	24	.	5	90	2	0.7	29.03	7.0	5.94	80.3	28.85	8.4	5.13	69.7
940702	JA	27	.	2	90	2	0.5	29.76	4.7	6.31	85.3	29.03	7.0	5.24	70.9
940703	YK	2	29.0	0	140	2	1.3	27.33	18.5	6.14	86.0	25.37	20.7	2.86	39.2
940703	YK	5	29.3	1	140	2	1.2	27.54	17.2	6.32	88.2	24.37	21.7	2.49	33.7
940703	YK	10	32.4	0	0	4	0.5	26.93	18.6	5.22	72.6	25.89	19.6	3.21	44.1
940703	YK	15	31.2	2	140	4	0.6	28.49	16.1	5.99	84.4	26.57	18.7	2.46	34.0
940704	YK	20	.	5	220	2	0.5	28.22	12.6	4.26	58.6	28.24	13.8	3.64	50.4
940704	YK	25	.	5	220	2	0.2	28.67	12.6	5.26	72.9	28.42	12.8	3.70	51.1
940704	YK	30	.	5	220	2	0.2	29.52	4.7	4.25	57.2	29.30	5.5	3.89	52.4
940704	YK	35	.	5	220	2	0.3	29.14	1.5	5.16	67.8	29.16	1.5	4.72	62.1

Table 31.

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
								940801	RA	2	25.0	2	290	2	1.6
940801	RA	10	25.0	2	290	2	1.8	27.01	11.7	7.01	94.0	26.45	15.8	0.10	1.4
940801	RA	15	26.0	2	290	2	1.6	27.20	10.8	7.30	97.7	26.60	15.1	0.09	1.2
940801	RA	20	27.0	2	290	2	1.7	27.60	9.8	5.80	77.7	26.60	14.7	0.10	1.4
940801	RA	25	28.0	2	290	2	1.0	27.95	6.9	6.32	83.8	26.90	13.4	0.12	1.6
940801	RA	30	29.0	2	290	1	0.7	28.20	3.8	7.55	98.9	27.20	9.6	0.60	8.0
940801	RA	35	30.0	0	2	1	0.9	28.80	3.8	6.50	86.0	27.50	6.4	2.46	32.3
940802	YK	15	23.0	2	320	1	0.7	25.01	14.3	5.67	74.4	24.59	18.9	2.79	37.3
940802	YK	20	24.0	2	320	1	0.5	25.33	13.3	6.67	87.6	25.14	15.4	3.61	47.8
940802	YK	25	27.0	2	320	1	0.4	26.64	13.4	7.64	102.7	25.20	15.1	3.81	50.4
940802	YK	30	26.0	2	320	1	0.3	26.44	6.3	5.24	67.4	25.94	7.5	4.36	56.0
940802	YK	35	26.0	3	320	1	0.3	26.85	2.1	5.08	64.3	26.64	2.4	4.44	56.1
940803	YK	2	25.0	5	40	1	2.1	24.77	18.0	7.86	104.9	23.86	20.5	4.75	63.3
940803	YK	5	24.0	5	40	1	0.4	24.77	18.8	8.67	116.3	24.20	19.8	6.17	82.4
940803	YK	10	23.0	1	360	1	0.9	24.83	17.0	5.43	72.2	24.28	18.8	4.70	62.5
940804	JA	1	24.0	2	220	1	1.8	23.64	21.4	6.69	89.3	23.62	21.4	6.64	88.6
940804	JA	5	24.0	2	220	1	1.2	23.73	19.9	6.72	89.0	23.71	20.7	6.33	84.2
940804	JA	13	26.0	2	220	1	1.2	24.50	16.1	6.63	87.1	24.31	17.8	5.88	77.8
940804	JA	17	26.0	1	220	1	1.1	25.70	10.2	6.35	82.5	25.20	14.0	5.75	75.6
940804	JA	24	27.0	2	220	1	0.8	27.04	6.2	7.34	95.4	26.27	8.3	6.08	78.9
940804	JA	27	29.0	2	220	1	0.5	26.81	4.7	6.92	88.9	26.68	5.3	6.23	80.1

Table 32.

Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
								940901	YK	2	25.0	3	220	0	2.2
940901	YK	5	25.7	3	220	4	2.0	26.00	18.1	9.90	135.1	24.20	22.5	0.70	9.5
940901	YK	10	28.0	5	270	1	1.4	26.40	16.0	7.24	98.4	25.30	19.7	3.29	44.8
940901	YK	15	29.0	3	320	2	1.2	26.90	12.4	7.45	100.0	25.80	17.7	2.56	34.7
940901	YK	20	29.0	6	320	1	0.9	27.20	11.2	7.13	95.6	26.00	15.6	2.95	39.7
940901	YK	25	29.0	6	320	1	1.0	27.20	9.6	7.48	99.4	26.20	13.3	3.20	42.7
940902	YK	30	18.0	1	40	5	0.5	26.17	9.1	4.78	62.2	26.23	9.3	4.53	59.1
940902	YK	35	20.0	2	40	6	0.5	26.38	4.4	4.66	59.3	26.49	4.5	4.50	57.4
940903	JA	1	19.0	5	270	2	1.7	22.09	20.2	6.67	85.9	22.09	20.7	6.43	83.1
940903	JA	5	19.0	5	270	2	1.4	22.09	20.6	6.32	81.6	22.13	20.6	6.19	80.0
940903	JA	13	20.0	3	220	2	1.4	22.52	18.2	7.24	92.9	22.61	17.8	6.90	88.5
940903	JA	17	21.0	4	220	2	1.2	22.68	14.8	6.89	87.0	22.54	15.0	6.95	87.6
940903	JA	24	24.0	2	220	2	1.0	23.78	10.1	6.31	79.1	23.31	11.0	6.22	77.7
940903	JA	27	23.0	2	220	2	1.0	23.87	7.3	6.52	80.6	23.78	8.5	6.15	76.4
940904	RA	2	20.0	4	320	0	2.7	23.71	13.6	7.16	91.5	23.53	15.8	3.29	42.4
940904	RA	10	21.0	1	320	0	2.1	23.96	12.8	6.73	86.0	23.66	14.2	2.56	32.8
940904	RA	15	22.0	4	320	0	1.9	23.82	12.5	7.09	90.2	23.95	13.5	2.69	34.5
940904	RA	20	22.0	4	320	0	1.4	23.75	12.8	7.10	90.3	23.98	13.1	2.48	31.7
940904	RA	25	23.0	4	320	0	0.5	23.93	9.0	7.13	89.1	23.60	10.4	5.91	74.0
940904	RA	30	24.0	5	340	0	0.4	23.95	6.3	6.91	85.0	23.67	7.5	5.78	71.2
940904	RA	35	24.0	4	340	0	0.8	24.20	4.4	7.49	91.6	23.70	5.2	6.55	79.7

Table 33.

October															
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
941001	YK	15	17.0	5	340	2	0.7	19.75	17.9	7.40	90.0	20.07	18.2	6.46	79.2
941001	YK	20	21.0	5	340	1	0.6	19.82	16.5	6.34	76.6	19.79	16.8	6.23	75.4
941001	YK	25	21.0	5	340	1	0.5	19.60	13.9	7.10	84.1	19.70	15.4	6.40	76.6
941001	YK	30	19.0	5	340	1		19.70	9.8	5.90	68.4	19.51	11.6	5.98	69.8
941001	YK	35	19.0	5	340	1	0.5	20.20	6.2	5.30	60.7	20.20	6.7	5.20	59.7
941002	YK	2	20.0	2	70	1		20.10	20.4	6.20	77.1	20.30	20.4	5.60	69.9
941002	YK	5	19.0	1	70	1		20.30	19.6	6.40	79.5	20.40	20.9	5.50	68.9
941002	YK	10	18.0	8	40	0	0.8	19.62	19.7	5.79	71.0	19.75	19.8	5.55	68.3
941003	JA	1	18.0	1	360	0	1.4	16.71	21.0	8.20	95.8	16.63	21.1	7.86	91.7
941003	JA	5		3	360	0	1.7	17.07	20.5	8.37	98.1	16.95	20.8	7.76	90.9
941003	JA	13	20.0	7	360	0	1.3	17.01	18.2	8.34	96.3	17.15	19.7	7.59	88.7
941003	JA	17	20.0	7	360	0	2.0	17.24	15.1	8.30	94.5	16.90	16.9	7.84	89.7
941003	JA	24	23.0	4	40	0	1.5	17.81	10.9	8.44	94.8	17.17	12.8	7.99	89.6
941003	JA	27	22.0	4	360	0		17.90	9.7	8.41	94.0	17.52	11.7	7.70	86.4
941004	RA	2	21.0	3	220	1	3.4	17.19	15.1	8.70	99.0	16.91	16.8	7.81	89.3
941004	RA	10	21.0	4	220	1	3.5	17.30	14.8	8.54	97.2	16.93	15.5	6.88	78.1
941004	RA	15	19.0	3	220	1	2.8	17.41	14.9	8.57	97.8	17.51	14.7	6.79	77.6
941004	RA	20	21.0	1	220	1	1.8	17.27	13.9	8.31	94.0	17.52	14.1	6.93	78.9
941004	RA	25	23.0	1	220	1	1.2	17.13	12.7	8.56	95.9	17.13	13.1	7.71	86.6
941004	RA	30	20.0	2	220	1	0.8	16.93	10.7	8.24	90.8	16.59	10.7	7.65	83.7
941004	RA	35	18.0	2	220	1	0.7	16.76	8.8	8.08	87.7	16.59	8.6	7.65	82.7

Table 34.

November															
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
941101	RA	2	18.0	5	250	0	3.5	15.30	16.2	8.60	95.2	15.60	17.4	8.10	90.5
941101	RA	10	18.0	5	250	0	3.5	15.30	15.3	8.80	96.5	15.80	17.8	7.70	86.6
941101	RA	15	20.0	4	270	0	3.2	15.10	14.4	9.80	106.4	15.90	16.4	7.60	84.9
941101	RA	20	22.0	4	270	0	2.6	15.10	13.6	9.80	105.9	15.80	15.4	7.50	83.1
941101	RA	25	22.0	3	270	0	1.2	15.00	10.7	9.50	100.6	15.30	13.3	8.40	91.0
941101	RA	30	22.0	3	270	0	0.8	14.70	7.7	9.60	99.2	14.70	9.3	8.60	89.7
941101	RA	35	23.0	3	220	0	0.7	14.90	5.4	10.10	103.3	14.50	5.7	9.40	95.5
941102	JA	1	21.0	5	140	0	2.0	14.32	21.3	9.18	102.3	14.27	20.7	9.09	100.8
941102	JA	5	21.0	5	140	0	3.0	14.74	20.5	8.26	92.4	14.70	22.2	8.05	90.9
941102	JA	13	21.0	5	140	0	3.2	14.67	17.1	8.62	94.3	14.59	18.4	8.23	90.6
941102	JA	17	22.0	0	0	0	2.9	14.92	12.8	8.73	93.5	14.34	17.3	8.44	91.8
941102	JA	24	22.0	0	0	0	1.0	15.44	9.8	8.37	89.0	14.64	11.0	8.35	87.9
941102	JA	27	23.0	0	0	0	1.1	15.22	7.7	8.45	88.3	14.87	9.9	8.10	85.1
941103	YK	2	15.9	0	0	1	2.1	14.70	19.4	8.55	94.9	14.54	20.1	8.10	90.0
941103	YK	5	16.2	0	0	1	2.2	14.72	19.1	8.30	92.0	14.55	20.7	7.86	87.7
941103	YK	10	18.3	0	0	1	1.6	14.74	18.5	8.24	91.0	14.72	18.9	7.80	86.4
941103	YK	15	21.9	0	0	1	1.0	14.40	15.9	9.07	97.9	14.55	17.3	8.05	87.9
941103	YK	25	25.4	0	0	1	0.5	14.95	13.3	10.21	109.7	14.29	14.5	8.82	94.2
941103	YK	30	25.5	0	0	1	0.2	15.10	9.9	8.04	84.9	14.27	11.2	7.73	80.9
941103	YK	35	27.2	0	0	1	0.4	15.82	6.9	7.68	80.8	14.37	8.0	7.06	72.6
941104	YK	20	15.2	5	360	2	0.6	14.50	15.9	8.73	94.5	14.52	16.2	8.40	91.1

Table 35.

December															
Cruise Number	River	River Mile	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
941201	JA	1	9.9	8	40	0	2.2	11.78	21.0	8.63	90.9	11.81	21.2	8.59	90.7
941201	JA	5	11.1	8	40	0	1.4	12.01	21.6	8.81	93.7	11.97	21.6	8.68	92.2
941201	JA	13	14.3	5	40	0	2.7	12.02	17.4	8.88	92.0	12.04	19.6	8.91	93.6
941201	JA	17	16.0	5	40	0	2.7	12.04	14.1	9.48	96.2	11.79	15.5	8.41	85.6
941201	JA	24	17.7	2	40	0	1.0	11.74	10.1	9.16	90.0	11.94	9.7	9.54	94.0
941201	JA	27	15.9	2	40	0	0.8	12.40	6.2	9.54	92.9	12.04	8.3	9.24	90.4
941201	JA	35	14.9	2	40	0	0.7	12.27	4.7	9.81	94.3	12.22	5.1	9.72	93.6
941201	JA	40	12.7	2	40	0	0.6	12.34	3.1	10.40	99.2	11.92	3.7	9.95	94.3
941202	RA	2	17.0	0	0	4	2.7	11.63	16.3	8.23	83.9	11.53	11.6	8.90	87.9
941202	RA	10	14.0	0	0	4	2.5	12.06	16.3	8.67	89.2	11.46	17.2	8.51	86.9
941202	RA	15	13.5	0	0	4	2.4	11.89	15.4	8.40	85.7	11.76	17.0	8.23	84.5
941202	RA	20	14.0	0	0	4	2.6	11.99	15.1	8.32	84.9	11.74	16.4	8.24	84.3
941202	RA	25	16.0	0	0	4	1.0	11.59	11.2	7.57	74.7	11.66	14.9	7.70	77.9
941202	RA	30	14.0	0	0	1	0.9	11.07	9.6	7.92	76.5	11.10	10.9	7.88	76.7
941202	RA	35	14.5	0	0	2	1.0	10.94	6.6	8.74	82.5	10.86	7.3	8.71	82.5
941202	RA	40	18.0	0	0	1	0.8	10.72	3.7	9.65	89.0	10.66	3.9	9.78	90.2
941203	YK	2	20.6	5	220	0	2.5	12.88	18.5	8.42	89.5	12.19	21.0	8.33	88.6
941203	YK	5	22.2	3	220	0	2.1	13.04	19.9	8.43	90.7	12.24	20.6	8.48	90.0
941204	YK	10	7.5	5	320	1	1.3	12.37	17.9	7.87	82.4	12.68	19.7	8.09	86.2
941204	YK	15	8.5	5	340	1	0.4	12.35	14.7	8.10	83.1	12.76	17.1	7.85	82.5
941204	YK	20		8	340	1	0.3	12.12	12.5	8.30	83.5	12.40	13.4	8.01	81.6
941204	YK	25	10.0	8	320	1	0.2	12.06	10.3	8.30	82.3	12.30	11.2	7.95	79.7
941204	YK	30	10.5	5	340	1	0.3	11.94	5.2	7.86	75.3	11.94	5.4	7.60	72.9
941204	YK	35	9.5	8	340	1	0.2	12.09	1.4	8.20	76.9	12.10	1.5	8.09	76.0
941204	YK	40	12.0	5	340	1	0.1	11.70	0.4	8.70	80.4	11.70	0.4	8.50	78.5

Tables 36-45. Atmospheric and hydrographic data for the Chesapeake Bay trawl survey by month.

Explanations:

- A. To conserve space, some variables are presented as coded values. Code keys are presented in Table 1 (p. 113).
- B. Due to measurement error (calibration differences and instrument drift) associated with the hydrographic equipment used to measure temperature, salinity, and dissolved oxygen, some calculated saturation values presented here are greater than 100%.

Table 36.

February

Cruise Number	Station Number	Stratum Code	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
940201	1	1	7.0	5	220	0	1.8	3.07	19.9	11.40	97.1	2.69	22.4	11.30	97.0
940201	2	1	6.0	5	220	0	1.8	2.77	20.6	11.50	97.7	2.70	20.5	11.46	97.1
940201	5	2	9.0	5	220	0	2.3	2.13	26.4	11.20	97.4	2.47	27.5	10.88	96.2
940201	7	2	5.0	5	220	0	2.5	1.89	24.6	11.29	96.4	2.35	27.8	10.87	96.0
940201	9	3	9.0	5	220	0	2.0	2.01	11.51	11.51	96.9	3.26	30.7	10.74	99.0
940201	10	3	8.0	5	220	0	2.2	2.11	23.6	11.46	97.7	3.39	31.0	10.55	97.7
940201	11	3	9.0	5	220	0	2.2	2.16	24.0	11.37	97.3	2.48	29.5	10.80	96.8
940201	12	3	5.0	5	220	0	2.0	1.60	19.1	11.50	93.8	2.28	25.8	10.90	94.8
940201	13	4	6.0	5	220	0	1.9	2.54	20.4	11.55	97.4	3.09	29.0	10.69	96.9
940201	14	4	10.0	5	220	0	1.9	2.77	22.0	11.36	97.4	3.54	31.3	10.40	96.9
940201	15	4	.	5	220	0	2.9	2.08	21.6	11.52	96.8	3.71	31.6	10.26	96.2
940201	19	5	5.0	5	220	0	1.9	1.40	19.5	13.80	112.3	1.40	20.4	12.30	100.7
940202	22	6	6.0	0	0	0	2.5	2.57	21.5	11.64	99.0	2.47	21.7	11.71	99.5
940202	24	6	9.0	0	0	0	3.1	2.51	19.9	11.97	100.5	1.94	21.7	11.72	98.2
940202	26	7	5.0	0	0	0	5.7	2.09	19.6	11.62	96.3	2.84	27.1	10.76	95.7
940202	27	7	6.0	0	0	0	4.1	1.92	21.7	11.70	98.0	2.06	22.9	11.55	97.9
940202	28	7	8.0	0	0	0	4.4	2.26	20.3	11.85	99.2	2.08	23.2	11.57	98.3
940202	29	8	6.0	0	0	0	3.6	1.57	17.2	13.64	109.7	2.31	24.3	12.09	104.1
940202	31	8	9.0	1	140	0	2.7	2.38	17.6	11.83	97.5	1.92	22.2	11.48	96.5
940202	32	8	9.0	1	140	0	4.0	2.33	18.3	11.88	98.2	2.25	24.3	11.34	97.5
940202	36	9	9.0	1	140	0	3.3	1.77	13.0	12.30	96.6	1.84	16.7	12.23	98.8
940202	38	10	12.0	1	140	0	1.9	3.17	18.4	11.73	99.2	2.85	18.3	11.95	100.2
940202	40	10	11.0	1	140	0	5.2	2.73	15.8	12.02	98.7	2.18	15.3	12.03	97.1
940202	41	11	14.0	1	140	0	4.1	2.43	16.8	12.28	100.8	1.91	23.2	11.67	98.7
940202	42	11	10.0	1	140	0	5.6	2.51	15.6	12.79	104.3	1.84	21.2	12.11	100.9
940202	43	11	12.0	1	140	0	4.3	2.16	15.5	11.90	96.1	1.70	18.2	11.77	95.7
940202	44	11	11.0	1	140	0	3.8	2.75	15.5	11.89	97.5	1.70	20.2	11.87	97.8
940202	47	12	12.0	1	140	0	4.1	2.65	14.9	12.37	100.8	1.77	22.2	11.62	97.3
940202	48	12	10.0	1	140	0	3.4	2.87	15.1	12.05	98.9	1.79	21.9	11.51	96.2
940203	35	9	1.0	8	40	2	.	1.69	15.6	12.60	100.6	.	.	.	.
940203	45	12	1.0	8	40	2	.	1.99	15.6	12.27	98.7	.	.	.	.
940204	17	5	14.0	0	0	1	3.2	3.10	17.0	12.67	105.9	2.94	17.9	12.95	108.5
940204	25	7	13.0	0	0	1	2.8	4.31	16.8	12.29	105.8	2.50	23.3	10.82	93.0

Table 37.

April

Cruise Number	Station Number	Stratum Code	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
940401	2	1	11.3	2	180	0	1.3	11.40	12.0	12.50	123.4	9.79	17.6	11.30	111.5
940401	4	1	18.2	2	140	0	1.9	12.50	12.8	11.80	120.0	9.41	16.6	10.80	105.0
940401	5	2	15.0	2	180	0	1.9	10.10	16.3	12.60	124.2	8.90	24.3	10.90	110.0
940401	6	2	15.0	2	180	0	1.8	10.20	15.2	12.60	123.6	9.56	19.2	11.70	116.0
940401	9	3	11.7	2	180	0	1.8	10.07	17.3	12.40	122.9	7.92	27.8	10.65	107.6
940401	10	3	15.5	2	180	0	1.9	9.67	19.4	12.07	120.2	8.26	27.3	10.41	105.6
940401	11	3	15.5	2	180	0	1.9	9.72	16.1	12.52	122.2	8.26	27.9	10.50	106.9
940401	12	3	16.1	2	140	0	1.8	11.86	13.6	12.70	128.0	8.46	24.7	10.30	103.2
940401	13	4	12.3	2	360	0	1.9	10.18	17.5	12.20	121.4	7.66	28.5	10.40	104.9
940401	14	4	15.0	2	180	0	1.5	12.29	11.6	12.30	123.6	7.95	28.2	10.20	103.3
940401	16	4	.	2	140	0	1.4	11.60	13.5	12.46	124.8	8.67	24.8	10.50	105.8
940401	25	7	.	2	140	0	.	10.60	15.7	12.30	122.1	9.60	14.6	11.80	113.7
940401	26	7	13.4	8	140	0	.	14.00	8.3	13.30	135.9	11.40	13.2	11.69	116.3
940401	27	7	13.7	8	140	0	.	13.90	8.5	12.60	128.6	11.20	12.7	11.34	112.0
940401	30	8	15.2	2	140	0	1.8	11.04	12.6	11.69	114.9	9.44	15.7	11.35	109.8
940401	31	8	.	2	140	0	1.9	11.00	12.8	11.93	117.3	9.36	18.5	10.30	101.2
940402	18	5	11.7	8	90	2	1.0	12.95	11.7	10.26	104.6	12.93	11.7	10.35	105.5
940402	19	5	11.4	5	90	2	1.2	11.45	11.1	10.70	105.2	11.40	11.2	10.93	107.4
940402	23	6	12.2	5	90	2	2.3	11.58	13.3	9.72	97.2	11.45	13.5	9.93	99.1
940402	24	6	13.2	5	90	2	2.1	11.20	12.0	10.05	98.8	11.05	14.0	10.10	100.2
940402	28	7	11.5	5	90	2	1.8	11.13	11.0	9.93	96.8	10.40	16.9	9.37	93.3
940402	32	8	12.9	2	90	2	2.1	11.02	12.0	10.54	103.2	10.41	18.4	8.72	87.7
940402	35	9	12.3	2	90	2	1.5	11.51	10.1	10.27	100.4	11.51	9.8	10.82	105.6
940402	36	9	15.4	2	90	2	1.5	11.30	10.6	10.46	102.1	11.23	10.0	8.50	82.6
940402	37	10	18.8	2	90	1	2.1	12.01	13.0	10.68	107.6	11.27	.	10.77	.
940402	40	10	21.6	5	320	1	2.5	12.09	12.8	10.50	105.8	11.89	11.9	10.75	107.2
940402	41	11	17.7	2	90	2	1.8	11.43	10.4	11.03	107.9	10.82	11.4	11.26	109.3
940402	42	11	16.7	2	90	2	1.7	11.02	9.7	11.47	110.7	10.97	10.4	11.02	106.7
940402	43	11	16.1	5	110	1	2.7	11.48	8.7	11.26	109.1	11.74	9.8	10.59	103.9
940402	44	11	17.2	5	320	1	2.5	11.41	11.2	12.20	119.9	10.76	12.0	10.72	104.3
940402	45	12	12.7	2	90	2	1.9	11.05	11.0	10.80	105.1	10.30	16.3	9.87	97.7
940402	46	12	.	5	320	2	2.2	11.02	11.3	11.23	109.5	10.28	16.0	9.01	89.0
940402	47	12	20.3	2	90	1	1.8	11.78	11.0	11.19	110.7	10.25	13.3	9.57	92.8

Table 38.

May															
Cruise Number	Station Number	Stratum Code	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
940501	1	1	20.1	0	0	0	1.9	17.83	14.8	9.36	107.7	14.34	22.6	6.54	73.5
940501	2	1	20.7	5	270	0	1.6	17.47	13.8	9.53	108.2	16.31	14.8	8.53	95.2
940501	4	1	20.6	2	270	0	1.8	17.40	12.2	9.10	102.2	14.90	19.0	6.70	74.5
940501	6	2	16.5	1	270	0	1.8	15.97	14.2	9.23	101.9	14.29	22.9	8.48	95.4
940501	7	2	17.1	1	270	0	1.8	15.82	17.5	9.35	105.0	14.37	21.8	8.60	96.2
940501	8	2	18.8	1	270	0	1.8	16.27	13.7	8.91	98.7	14.77	19.5	8.53	94.9
940501	10	3	18.8	1	270	0	1.8	15.59	17.1	9.49	105.8	14.39	21.5	8.12	90.7
940501	11	3	19.0	1	270	0	1.9	16.31	12.6	8.84	97.3	13.56	23.3	7.11	79.0
940501	12	3		5	270	0	1.8	15.80	11.5	9.17	99.2	13.62	24.9	7.19	80.7
940501	13	4	20.2	0	0	0	4.9	16.83	13.8	9.15	102.5	13.28	26.6	7.06	79.6
940501	14	4	18.8	3	270	0	1.9	15.94	15.0	8.85	98.1	13.28	26.7	6.97	78.6
940501	15	4	18.7	1	270	0	1.9	16.04	14.6	8.89	98.5	13.46	25.9	7.24	81.5
940501	21	6		4	270	0	1.1	15.40	17.1	9.29	103.2	15.35	17.3	9.29	103.2
940501	22	6	17.0	4	270	0	1.1	15.45	17.1	9.18	102.0	15.39	17.3	9.23	102.6
940501	25	7		5	270	0	0	15.59	10.2	9.72	103.9	13.72	24.8	7.30	82.1
940501	26	7		5	270	0	1.8	15.59	10.8	9.68	103.8	13.85	23.5	7.44	83.2
940501	27	7	15.3	5	270	0	0	15.70	10.6	9.14	98.2	13.87	20.0	7.51	82.2
940502	9	3	18.3	9	40	1	3.2	16.90	12.3	10.00	111.2	14.00	23.1	6.60	73.9
940503	18	5	16.0	3	220	0	2.7	16.12	10.2	9.28	100.3	14.97	17.3	6.48	71.4
940503	23	6	16.7	3	220	0	2.8	16.04	11.7	9.28	101.0	15.02	18.9	7.14	79.5
940503	28	7	18.9	3	220	0	2.5	16.17	11.2	9.32	101.4	14.74	20.4	7.12	79.6
940503	29	8	19.2	1	220	0	2.5	16.01	8.3	9.75	103.9	14.69	19.7	6.67	74.2
940503	31	8	19.3	3	220	0	3.0	16.02	8.4	9.60	102.4	14.54	21.7	6.83	76.6
940503	32	8	18.7	3	220	0	2.2	16.11	9.4	9.51	102.3	14.45	21.3	6.79	75.9
940503	33	9	19.7	5	220	0	2.3	17.30	8.6	9.55	104.7	14.94	18.2	6.51	72.1
940503	36	9	18.2	15	180	0	2.2	16.86	7.7	10.05	108.6	16.19	8.3	9.00	96.3
940503	38	10	19.1	9	220	0	2.3	16.93	11.9	9.30	103.2	16.88	11.6	9.67	107.1
940503	39	10	18.9	3	220	0	2.3	16.98	10.1	9.32	102.5	15.67	15.0	7.42	81.8
940503	40	10	20.8	3	220	0	2.4	17.68	11.2	9.43	105.8	16.12	12.5	8.67	95.0
940503	41	11	19.8	1	220	0	2.4	16.16	8.5	9.70	103.8	14.64	18.0	6.70	73.6
940503	42	11	19.8	1	220	0	2.3	16.73	9.3	9.30	101.2	14.55	20.0	6.15	68.3
940503	43	11	18.4	4	220	0	2.6	16.51	9.8	9.23	100.3	14.94	20.5	6.22	69.9
940503	44	11	19.1	10	220	0	2.7	17.22	10.1	8.96	99.0	14.54	19.7	5.42	60.1
940503	45	12	18.6	2	220	0	2.6	17.13	8.9	9.46	103.6	14.52	21.0	6.66	74.4
940503	47	12	19.3	10	220	0	2.5	16.83	7.2	9.77	105.2	14.49	20.1	6.30	69.9
940503	48	12	19.0	10	180	0	2.8	16.83	7.2	10.38	111.8	14.44	20.3	5.77	64.1
940504	19	5	21.5	3	320	1	2.3	17.22	12.1	7.99	89.3	16.50	13.7	7.15	79.5
940504	20	5	22.5	3	320	1	2.3	17.30	12.9	8.80	99.0	16.17	14.3	7.60	84.3
940504	35	9	22.1	4	290	1	2.9	17.85	9.2	9.58	106.6	16.12	13.8	7.67	84.7

Table 39.

June															
Cruise Number	Station Number	Stratum Code	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
940601	2	1	23.2	8	220	2	2.0	20.92	18.0	8.20	102.0	19.88	20.5	7.74	95.9
940601	3	1	26.2	5	220	2	2.0	22.61	14.9	8.51	107.3	18.48	22.9	5.70	69.7
940601	4	1	27.3	5	220	1	2.0	22.93	15.2	8.28	105.2	20.19	18.9	6.35	78.4
940601	5	2	26.4	5	220	2	2.4	21.58	18.9	8.00	101.3	20.78	21.1	7.99	101.0
940601	7	2	25.7	5	220	2	2.2	22.27	17.7	7.98	101.7	20.89	20.2	7.56	95.3
940601	8	2	26.2	5	220	2	2.6	22.77	15.0	8.60	108.9	18.81	23.2	6.54	80.6
940601	9	3	25.5	5	220	1	2.1	22.07	15.6	8.10	101.6	17.86	25.6	6.38	78.3
940601	10	3	25.7	5	220	2	2.3	21.54	17.0	8.15	102.0	16.85	26.8	6.88	83.4
940601	11	3	25.8	5	220	2	2.2	22.73	15.3	8.44	106.9	17.12	26.1	6.33	76.9
940601	12	3	25.8	2	220	2	2.0	22.61	15.1	8.54	107.8	18.14	23.2	5.99	72.9
940601	14	4	23.8	8	220	1	2.1	21.88	15.7	7.58	94.8	19.20	20.8	6.69	81.9
940601	15	4	25.6	5	220	2	2.7	21.82	16.9	8.09	101.7	16.17	27.8	6.97	83.9
940601	16	4	25.5	7	220	2	2.3	22.47	15.8	8.20	103.7	17.10	26.5	6.34	77.1
940601	17	5	28.4	2	220	2	2.7	22.72	15.0	8.68	109.8	18.74	21.7	5.40	65.9
940602	22	6	23.7	6	320	2	2.2	23.17	12.3	8.72	109.5	23.22	13.7	8.41	106.5
940602	23	6	24.2	4	320	2	2.4	22.97	13.4	8.71	109.6	20.59	17.5	5.48	67.6
940602	24	6	23.5	5	320	2	2.3	23.18	12.4	9.35	117.5	19.79	19.5	5.84	71.8
940602	25	7	26.6	4	220	1	2.4	23.06	16.8	7.86	101.1	20.96	19.7	6.88	86.5
940602	26	7	23.3	8	320	2	2.1	23.04	12.4	8.69	108.9	19.63	19.8	5.34	65.5
940602	27	7	23.1	3	320	2	2.2	22.14	11.9	8.65	106.3	19.24	19.2	4.98	60.5
940602	28	7	23.3	3	320	2	2.5	22.16	12.7	8.62	106.5	19.29	20.1	5.04	61.6
940602	29	8	26.3	3	220	1	2.6	22.95	14.2	9.10	115.0	19.22	20.9	5.80	71.1
940602	30	8	23.2	6	320	2	1.9	22.64	13.6	8.74	109.5	19.55	21.3	5.41	66.9
940602	32	8	23.2	8	320	2	2.6	22.75	12.3	8.69	108.3	19.30	21.0	5.49	67.4
940602	37	10	24.4	3	320	2	1.9	23.13	12.6	8.56	107.6	22.13	13.4	7.12	88.2
940602	38	10	22.8	6	320	2	2.1	22.99	11.9	8.58	107.1	21.93	13.7	6.27	77.5
940602	40	10	22.7	6	320	2	2.0	22.45	11.5	8.33	102.7	20.35	13.5	5.39	64.6
940602	45	12	22.9	4	320	2	2.1	22.66	11.6	8.96	111.0	19.01	18.1	4.42	53.1
940602	47	12	23.1	3	320	2	2.1	22.91	11.8	8.81	109.8	19.11	17.5	4.63	55.5
940602	48	12	22.8	3	320	2	1.8	22.07	10.2	8.82	107.2	18.94	13.9	4.28	50.1
940603	19	5	25.3	0	0	1	2.0	23.31	13.7	8.49	107.7	21.72	14.2	7.38	91.2
940603	20	5	24.7	0	0	1	1.9	22.34	13.0	8.63	107.1	21.03	14.9	6.08	74.5
940603	33	9	22.7	0	0	0	2.0	21.65	10.6	7.99	96.5	19.65	16.3	4.50	54.1
940603	34	9	24.1	0	0	0	1.8	21.93	11.1	7.98	97.2	21.10	11.9	6.40	77.1
940603	35	9	22.5	0	0	0	2.0	21.72	10.7	8.36	101.2	21.50	11.3	7.40	89.5
940603	41	11	24.7	0	0	0	2.0	22.39	12.7	9.04	112.1	19.75	19.2	4.90	60.1
940603	42	11	24.9	0	0	0	2.3	21.74	11.8	8.37	102.0	20.10	17.2	5.60	68.3
940603	43	11	22.5	0	0	0	2.0	22.05	12.3	8.78	108.0	19.69	19.2	4.93	60.4
940603	44	11	22.9	0	0	0	2.0	21.56	11.1	8.31	100.5	19.62	15.4	4.76	56.9

Table 40.

Cruise Number	Station Number	Stratum Code	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
940701	2	1	32.3	1	110	1	1.8	26.51	20.3	7.05	98.3	23.60	22.5	4.79	64.3
940701	3	1	30.9	1	110	1	1.9	26.30	20.0	7.30	101.3	25.33	19.4	5.67	77.1
940701	4	1	27.9	5	110	1	1.7	26.57	19.6	7.45	103.6	18.74	27.7	5.47	69.2
940701	5	2	25.5	7	110	1	2.2	23.82	23.2	7.50	101.4	19.88	27.4	7.34	94.7
940701	6	2	35.3	1	110	1	2.2	25.33	21.8	7.36	101.4	19.95	26.4	7.09	91.0
940701	7	2	35.9	4	110	1	1.5	27.25	17.0	8.22	114.0	20.03	26.9	6.53	84.2
940701	9	3	27.1	4	110	1	2.0	26.00	20.1	7.50	103.5	16.49	30.8	6.31	77.9
940701	10	3	27.5	2	110	1	1.8	26.40	20.0	7.58	105.3	16.26	30.1	6.28	76.8
940701	11	3	37.1	3	110	1	2.0	27.64	18.6	7.82	110.1	17.30	29.3	5.85	72.7
940701	12	3	27.9	1	110	1	1.5	26.76	18.0	6.90	95.4	18.07	28.4	4.57	57.3
940701	14	4	25.9	5	110	1	2.5	25.35	22.0	7.55	104.2	17.32	28.9	6.81	84.4
940701	15	4	27.5	5	90	1	1.9	26.04	19.5	7.42	102.2	16.36	30.2	6.04	74.1
940701	16	4	35.7	5	110	1	2.1	27.00	17.9	7.92	109.9	16.93	29.3	6.53	80.5
940701	17	5	25.9	3	110	1	1.6	27.10	16.7	7.16	98.8	27.18	17.0	6.68	92.5
940701	18	5	25.7	4	110	1	1.6	26.23	16.9	6.44	87.7	26.17	17.2	5.17	70.4
940701	19	5	25.3	5	110	1	2.0	26.17	16.5	6.74	91.5	23.55	21.3	3.81	50.7
940701	21	6	39.5	3	110	1	1.8	26.97	20.0	8.26	115.9	24.39	22.6	5.42	73.8
940701	22	6	30.0	2	110	1	1.4	27.10	19.6	7.68	107.8	27.10	21.2	7.62	107.9
940701	25	7	25.4	2	110	1	1.9	26.11	17.6	6.94	94.7	19.13	27.2	5.44	69.1
940701	29	8	39.1	1	110	1	1.7	26.83	16.9	7.96	109.5	20.00	26.4	3.98	51.1
940702	23	6	35.9	3	220	4	1.9	26.97	17.4	7.42	102.6	27.01	19.0	6.79	94.8
940702	26	7	37.3	3	220	4	1.3	26.97	14.5	7.22	98.2	23.70	21.9	2.17	29.1
940702	27	7	39.0	2	220	4	1.5	27.93	16.7	8.74	122.4	24.96	20.9	4.53	61.7
940702	28	7	37.2	3	220	4	1.5	26.80	14.4	7.51	101.8	21.63	24.6	3.80	49.8
940702	31	8	35.5	2	220	4	1.7	26.72	14.5	7.59	102.8	21.24	25.2	4.10	53.5
940702	32	8	29.4	4	220	0	1.2	26.47	15.0	7.59	102.7	22.45	23.6	2.73	36.1
940702	36	9	29.9	5	220	1	1.3	28.87	12.9	8.70	121.2	26.81	13.7	6.52	88.1
940702	37	10					1.2	27.62	15.5	8.03	111.1	25.10	20.5	3.96	53.9
940702	39	10	39.9	2	220	1	1.3	28.24	13.9	8.33	115.5	26.17	14.9	3.35	45.0
940702	40	10	30.4	5	220	1	1.6	28.63	13.2	8.60	119.5	24.96	17.2	1.48	19.7
940702	42	11	39.4	2	220	4	1.3	27.01	14.2	7.99	108.6	22.32	24.1	3.98	52.7
940702	43	11	29.9	3	220	1	1.4	28.71	13.9	8.44	117.9	23.66	21.7	1.76	23.5
940702	44	11	30.3	5	220	1	1.5	23.08	12.8	8.66	108.9	24.40	19.6	1.51	20.2
940702	46	12	39.3	3	220	0	1.1	28.40	14.4	8.86	123.5	23.06	23.6	2.95	39.4
940702	47	12	30.1	3	220	1	1.3	29.28	13.5	9.40	132.3	24.26	19.2	1.80	24.0
940702	48	12	39.9	2	220	0	1.1	27.76	13.2	8.28	113.4	23.17	22.4	2.61	34.7
940703	34	9	28.3	3	220	0	1.2	27.47	14.5	6.63	91.0	24.42	18.9	1.80	24.0
940703	35	9	28.0	4	220	0	1.6	27.07	13.8	5.70	77.4	23.64	19.9	1.31	17.3
940703	41	11	27.2	3	220	0	1.5	27.43	22.9	6.70	96.3	22.60	37.1	2.78	39.9

Table 41.

Cruise Number	Station Number	Stratum Code	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
940801	2	1	27.0	1	220	1	2.5	25.96	21.1	10.49	145.5	16.43	30.0	6.84	83.9
940801	3	1	28.0	1	220	1	3.2	26.23	20.7	10.84	150.8	16.43	30.1	7.24	88.8
940801	5	2	28.0	1	220	1	2.4	25.18	21.7	9.66	132.7	20.42	27.5	8.96	116.8
940801	7	2	28.0	1	220	1	3.1	26.80	18.6	10.12	140.5	22.11	24.1	8.11	106.9
940801	8	2	27.0	1	220	1	3.9	26.42	19.0	8.73	120.7	20.33	26.4	7.65	98.9
940801	9	3	26.0	1	220	5	3.3	26.21	22.4	9.74	136.7	15.85	29.3	7.01	84.6
940801	10	3	27.0	1	220	1	2.5	27.27	20.0	11.11	156.7	24.22	25.5	3.16	43.6
940801	11	3	28.0	2	220	1	3.3	27.06	19.7	11.09	155.6	24.86	21.3	3.22	43.9
940801	12	3	27.0	1	220	1	2.8	26.59	18.5	10.08	139.3	20.50	27.3	8.94	116.6
940801	13	4	27.0	1	220	1	2.3	26.57	20.6	11.69	163.5	15.20	30.2	7.16	85.8
940801	14	4	27.0	1	220	1	3.1	26.10	21.0	10.55	146.6	14.14	31.5	7.58	89.6
940801	22	6	27.0	1	220	1	4.5	26.34	18.8	8.70	119.9	22.95	24.8	7.73	103.9
940801	25	7	27.0	2	220	1	2.9	27.60	17.2	9.29	129.7	18.93	27.3	5.55	70.3
940801	26	7	27.0	2	220	1	3.3	27.20	18.2	9.87	137.6	25.81	18.5	3.71	50.6
940801	27	7	26.0	1	220	1	4.5	26.02	18.0	6.90	94.2	19.84	27.0	5.85	75.2
940801	29	8	27.0	1	220	1	3.1	26.32	18.0	7.19	98.6	23.33	24.3	7.68	103.6
940802	23	6	28.0	1	220	1	2.1	27.33	16.3	7.62	105.4	25.81	20.2	4.50	62.0
940802	24	6	28.0	1	220	1	2.3	27.76	16.5	7.45	103.9	25.42	20.4	2.92	40.0
940802	28	7	27.0	1	220	1	2.0	27.27	17.1	7.89	109.5	22.84	24.2	4.76	63.6
940802	30	8	27.0	0	220	1	2.8	26.85	17.3	7.65	105.5	19.53	27.2	6.54	83.7
940802	32	8	28.0	1	220	1	3.0	26.91	17.6	8.08	111.7	18.70	28.0	5.63	71.3
940802	37	10		3	220	1	1.6	29.09	14.7	7.47	105.5	27.31	15.8	7.12	98.2
940802	38	10	25.0	5	90	1	1.6	28.73	14.7	7.63	107.1	27.06	16.2	5.81	79.9
940802	39	10	26.0	4	90	1	1.7	26.62	14.6	7.70	104.2	26.17	16.3	1.78	24.1
940802	41	11	29.0	1	220	1	2.4	28.70	15.8	7.60	107.3	25.42	20.0	2.07	28.3
940802	42	11	29.0	1	220	1	1.8	28.24	14.2	7.94	110.2	24.55	22.2	2.17	29.6
940802	43	11	29.0	1	220	1	2.0	28.67	14.5	7.98	111.8	24.74	21.7	1.94	26.4
940802	44	11		2	220	2	1.9	27.79	13.5	7.78	106.8	27.16	14.8	6.08	83.1
940802	45	12	29.0	1	220	1	2.1	28.28	15.2	7.77	108.5	23.08	24.0	3.59	48.1
940802	47	12		2	220	2	1.7	20.07	13.8	7.94	94.9	25.81	18.0	0.68	9.2
940802	48	12		4	90	1	2.0	28.34	14.6	7.82	109.0	24.98	20.8	2.14	29.1
940803	18	5	30.0	7	220	4	1.5	27.91	17.8	8.00	112.7	27.81	18.8	8.10	114.5
940803	19	5	29.0	4	220	4	1.4	28.05	17.4	7.68	108.2	28.03	18.4	7.83	110.9
940803	20	5	28.0	7	220	4	1.6	27.37	14.6	7.03	96.4	23.87	22.2	1.78	24.0
940803	33	9	27.0	5	220	4	1.8	27.35	14.0	7.00	95.6	27.01	14.5	3.98	54.2
940803	34	9	27.0	3	220	0	1.6	27.20	12.8	7.06	95.5	27.22	13.2	6.57	89.1
940803	35	9	27.2	5	220	1	1.8	27.20	13.0	6.12	82.9	27.18	13.1	5.95	80.6
940804	1	1	25.0	5	140	1									
940804	16	4	24.0	5	140	1	2.8	24.83	18.9	8.70	116.9				

Table 42.

September

Cruise Number	Station Number	Stratum Code	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
940901	4	1	19.0	2	250	2	1.9	22.55	18.5	6.43	82.7	22.57	18.8	6.40	82.5
940901	12	3	20.0	2	250	2	2.1	22.63	17.3	7.66	98.0	21.70	25.9	6.44	85.2
940901	26	7	20.0	2	250	2	2.2	22.73	18.4	7.29	94.0	22.39	24.0	5.15	68.2
940902	1	1	22.0	6	290	0	1.7	22.30	20.1	7.55	97.6	22.30	20.8	6.98	90.6
940902	2	1	24.0	2	270	0	2.9	23.10	18.3	8.54	110.8	22.00	24.6	5.96	78.6
940902	6	2	25.0	2	270	0	2.7	22.10	23.1	7.60	99.6	21.80	24.0	7.00	91.7
940902	7	2	24.0	3	270	0	3.2	22.60	21.5	7.70	100.9	21.60	24.4	7.07	92.5
940902	8	2	24.0	2	270	0	2.5	23.10	16.5	8.42	108.2	21.60	27.0	5.88	78.1
940902	9	3	23.0	4	290	0	3.2	22.30	22.4	7.63	99.9	21.60	27.1	6.23	82.8
940902	10	3	22.0	2	320	0	3.0	22.40	20.0	7.87	101.8	21.50	20.2	6.14	78.2
940902	11	3	23.0	5	290	0	3.0	22.60	18.8	8.08	104.2	22.20	21.7	6.44	83.9
940902	14	4	23.0	3	290	0	3.2	22.40	21.4	7.50	97.8	21.20	28.6	6.27	83.5
940902	15	4	23.0	1	290	0	3.2	22.30	21.8	7.41	96.7	21.20	28.5	6.33	84.2
940902	16	4	23.0	3	270	0	3.5	22.00	23.4	7.55	98.9	21.30	26.4	6.88	90.6
940902	17	5	26.0	3	270	0	2.2	24.20	17.1	8.47	111.4	22.90	19.5	2.40	31.3
940902	21	6	25.0	2	270	0	3.2	22.70	20.6	8.14	106.3	21.90	23.0	7.88	102.8
940902	23	6	25.0	2	270	0	2.7	23.40	17.9	8.26	107.5	21.60	24.8	6.56	86.0
940902	24	6	25.0	1	270	0	2.8	23.30	16.9	8.50	109.8	21.90	24.7	6.26	82.5
940903	18	5	24.0	5	40	0	3.6	23.55	15.8	8.39	108.2	22.97	18.7	6.82	88.5
940903	19	5	23.0	5	40	0	2.2	23.53	16.0	8.89	114.8	22.95	18.2	6.92	89.5
940903	25	7	22.0	5	40	0	2.1	22.95	16.4	8.46	108.3	22.48	22.3	5.02	65.9
940903	27	7	22.0	5	40	0	1.8	23.06	15.8	7.73	98.8	22.91	18.6	6.17	79.9
940903	28	7	21.0	5	40	0	3.4	22.93	18.1	7.85	101.5	22.02	25.2	4.76	63.0
940903	29	8	21.0	5	40	0	3.5	22.39	24.1	7.16	94.9	21.45	26.3	5.55	73.2
940903	30	8	23.0	7	40	0	3.0	23.18	18.8	8.54	111.3	21.74	27.1	5.91	78.7
940903	31	8	22.0	5	40	0	2.6	22.54	21.3	7.48	97.8	21.35	27.4	5.55	73.6
940904	34	9	26.0	1	270	0	2.2	23.73	14.0	7.70	98.6	23.35	14.1	7.25	92.3
940904	35	9	26.0	1	270	0	2.2	23.98	13.2	7.73	99.0	23.00	17.8	3.90	50.4
940904	36	9	20.0	5	270	1	2.0	23.26	13.6	7.63	96.7	22.73	19.8	3.11	40.4
940904	37	10	26.0	5	270	1	1.9	23.00	16.2	7.35	94.1				
940904	39	10	24.0	1	270	1	2.7	22.91	16.8	7.44	95.4	22.79	21.0	4.90	64.2
940904	40	10	23.0	5	270	1	2.3	22.81	16.6	7.54	96.4	23.93	21.0	5.34	71.5
940904	41	11	26.0	5	270	1	2.2	23.46	13.6	7.70	97.9	22.66	20.8	3.80	49.6
940904	42	11	26.0	5	270	1	2.0	23.00	14.8	7.52	95.5	22.48	22.6	4.20	55.3
940904	43	11	23.0	8	270	1	2.2	22.54	19.0	7.10	91.6	22.79	21.8	4.63	61.0
940904	44	11	23.0	5	270	1	2.8	22.57	13.6	7.14	89.3	22.45	22.5	3.00	39.4
940904	45	12	24.0	1	270	1	1.9	23.36	13.2	7.52	95.2	22.59	22.2	4.66	61.3
940904	47	12	24.0	5	270	1	2.1	23.06	14.0	7.16	90.6	22.59	22.6	4.66	61.4
940904	48	12	23.0	8	270	1	2.3	22.75	16.0	7.47	95.1	22.39	22.9	3.92	51.6

Table 43.

October

Cruise Number	Station Number	Stratum Code	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Surface				Bottom			
								Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.
941001	1	1	18.0	1	270	0	1.5	16.63	20.9	7.72	90.0	16.93	26.6	6.36	77.2
941001	2	1	16.0	0		0	1.2	16.75	22.7	7.33	86.6	16.73	22.6	7.20	84.9
941001	4	1	21.0	1	220	0	2.1	17.58	19.6	8.84	104.1	17.13	25.9	6.14	74.5
941001	5	2	20.0	1	270	0	1.1	16.95	28.5	7.50	92.1	16.68	28.1	6.80	82.8
941001	9	3	20.0	4	270	0	1.8	16.61	24.0	7.79	92.5	16.73	29.2	6.70	82.3
941001	10	3	20.0	4	270	0	1.5	16.95	28.1	7.32	89.7	16.97	30.0	6.70	83.0
941001	11	3	18.0	2	90	0	1.7	17.00	23.1	8.04	95.6	16.70	28.5	6.83	83.4
941001	12	3	14.0	0		0	1.7	16.68	22.1	7.75	91.1	16.93	24.1	7.31	87.4
941001	13	4	22.0	3	270	0	1.9	17.13	24.7	7.88	94.9	16.63	29.3	6.87	84.2
941001	14	4	21.0	2	270	0	2.0	17.24	21.7	8.39	99.4	16.71	27.9	7.11	86.6
941001	16	4	20.0	2	220	0	2.0	17.29	21.5	9.08	107.6	16.71	28.2	7.37	89.9
941001	17	5	25.0	1	220	0	1.9	17.49	18.6	8.63	100.9	17.12	23.7	5.80	69.4
941001	19	5	23.0	1	220	0	1.8	17.03	19.2	8.01	93.1	16.88	19.7	7.32	85.1
941002	18	5	18.0	3	220	2	2.0	17.29	21.1	8.14	96.2	17.07	22.4	6.96	82.6
941002	28	7	19.0	3	220	2	2.7	17.34	17.3	8.56	99.0	17.00	24.6	5.70	68.4
941002	32	8	18.0	2	220	2	2.8	17.50	17.5	8.80	102.2	16.70	27.0	6.70	81.1
941002	34	9	18.0	5	220	1	2.3	16.83	17.2	7.86	89.9	17.13	20.4	6.45	75.7
941002	35	9	16.0	5	220	1	2.8	16.91	15.5	8.28	93.9	17.10	20.3	7.25	85.0
941002	36	9	17.0	5	220	1	2.8	16.93	17.0	8.67	99.3	17.08	18.2	8.05	93.1
941002	37	10	18.0	2	220	1	2.8	17.10	18.3	8.50	98.4	17.10	23.4	7.10	84.8
941002	38	10	17.0	5	220	1	2.5	16.98	18.4	8.67	100.2	16.91	17.1	8.46	96.9
941002	40	10		5	220	2	2.8	17.05	17.4	8.44	97.1	17.19	21.8	6.93	82.1
941002	41	11	19.0	2	220	2	2.8	17.40	17.2	8.60	99.5	17.10	24.3	6.30	75.6
941002	42	11	19.0	2	220	1	2.8	17.20	17.3	8.80	101.5	17.10	24.5	6.10	73.3
941002	43	11					3.0	17.37	18.7	8.63	100.7	16.90	26.4	6.20	75.1
941002	44	11	18.0	5	220	1	2.8	16.95	18.0	8.37	96.4	17.30	24.6	6.44	77.8
941002	45	12	18.0	2	220	2	2.6	17.30	17.2	9.00	103.9	16.85	26.4	6.31	76.3
941002	47	12	19.0	2	220	2	3.2	17.12	18.4	8.36	96.9	17.10	25.6	6.23	75.4
941002	48	12	17.0	5	220	1	2.9	17.00	17.2	8.27	94.9	17.29	25.1	6.20	75.1
941003	31	8	18.0	10	360	0	2.8	16.88	18.0	7.91	91.0	16.80	26.2	6.20	74.8
941004	7	2	21.0	1	360	1	2.2	17.58	22.8	8.33	100.0	17.24	24.9	7.32	88.4
941004	8	2	19.0	2	360	1	1.8	17.35	23.8	8.14	97.9	17.30	24.4	7.74	93.3
941004	21	6	21.0	1	360	1	2.8	17.56	21.8	9.01	107.5	17.10	24.8	6.20	74.7
941004	22	6	21.0	1	360	1	2.8	17.56	22.5	8.74	104.7	17.19	25.9	6.71	81.5
941004	23	6	21.0	1	360	1	2.4	17.64	21.6	8.65	103.3	17.15	25.0	6.52	78.7
941004	25	7	18.0	1	360	1	2.5	17.52	23.3	8.10	97.5	17.17	24.9	7.19	86.8
941004	26	7	17.0	2	360	1	2.5	17.29	20.6	8.65	101.9	17.02	24.6	6.77	81.3
941004	27	7	18.0	2	360	0	2.8	17.20	17.0	9.00	103.6	17.10	23.0	6.00	71.5
941004	30	8	18.0	2	360	1	2.6	17.24	18.6	8.74	101.7	17.02	25.0	6.06	72.9

Table 44.

November									Surface				Bottom			
Cruise Number	Station Number	Stratum Code	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	
941101	2	1	16.0	5	290	1	1.6	15.80	21.9	7.90	91.1	15.80	21.9	7.91	91.2	
941101	3	1	17.0	5	290	1	1.5	16.04	21.0	7.86	90.6	16.01	23.0	7.70	89.7	
941101	4	1	16.0	5	290	1	1.7	15.72	20.9	7.34	84.0	15.74	21.0	7.80	89.3	
941101	5	2	22.0	2	290	1	1.2	16.06	22.2	7.78	90.3	16.06	22.5	7.86	91.4	
941101	6	2	20.0	2	290	1	1.1	16.10	21.7	8.20	95.0	16.10	21.8	8.20	95.1	
941101	7	2	18.0	5	140	1	1.2	16.21	22.0	8.07	93.9	16.19	22.0	8.02	93.2	
941101	9	3	18.0	2	290	1	2.0	16.38	24.0	7.99	94.4	16.29	25.3	7.50	89.1	
941101	10	3	26.0	2	290	1	2.0	16.31	22.3	8.00	93.4	16.26	23.0	7.40	86.7	
941101	11	3	16.0	5	290	1	2.0	15.70	20.9	7.87	90.0	15.79	21.2	7.60	87.2	
941101	12	3	14.0	5	290	1	2.0	15.70	20.9	7.87	90.0	15.79	21.2	7.60	87.2	
941101	13	4	18.0	2	290	1	2.4	16.32	23.6	7.80	91.8	16.46	25.9	6.93	83.0	
941101	14	4	18.0	2	290	1	2.2	16.40	23.8	7.90	93.3	16.25	26.7	6.80	81.5	
941101	15	4	16.0	5	290	1	2.0	16.22	23.2	7.63	89.4	16.24	25.1	7.30	86.6	
941101	17	5	18.0	8	140	1	2.2	16.00	20.3	8.10	92.9	15.90	20.8	7.90	90.7	
941101	21	6	18.0	5	140	1	1.8	16.19	21.7	8.00	92.8	16.16	21.9	7.90	91.7	
941101	25	7	18.0	8	140	1	2.5	16.34	21.6	8.17	95.0	16.09	20.0	7.83	89.8	
941102	19	5	18.0	5	220	0	1.7	15.90	20.2	7.84	89.6	15.87	20.2	7.81	89.2	
941102	20	5	19.0	5	220	0	1.7	16.01	19.3	8.30	94.6	15.99	19.4	8.18	93.2	
941102	23	6	22.0	5	220	0	1.8	16.22	21.4	8.16	94.6	16.17	21.6	8.01	92.9	
941102	24	6	21.0	2	220	0	2.3	16.26	19.9	8.38	96.3	16.19	19.8	8.22	94.3	
941102	26	7	18.0	5	220	0	1.6	16.04	21.8	8.06	93.3	15.87	22.7	7.83	90.8	
941102	27	7	17.0	5	220	0	2.4	16.07	22.2	8.03	93.3	15.97	22.3	7.89	91.5	
941102	28	7	16.0	5	220	0	2.0	15.80	20.3	8.21	93.7	15.77	19.1	8.30	94.0	
941102	29	8	17.0	5	220	0	2.0	16.07	20.4	7.62	87.5	16.06	20.4	7.56	86.8	
941102	31	8	20.0	2	220	0	1.8	16.26	20.2	7.99	92.0	16.09	20.7	7.82	90.0	
941102	32	8	20.0	2	220	0	1.5	16.31	21.0	7.90	91.5	16.24	20.8	7.73	89.3	
941102	35	9	20.0	5	220	0	1.7	15.84	16.8	8.24	92.2	15.74	19.4	7.92	89.8	
941102	41	11	20.0	5	220	0	1.8	16.02	19.9	8.05	92.1	16.02	18.8	7.88	89.5	
941102	42	11	19.0	2	220	0	2.0	15.99	20.0	8.01	91.6	15.96	18.5	7.83	88.7	
941102	47	12	22.0	2	220	0	2.4	16.39	19.2	8.15	93.5	16.26	19.4	7.86	90.1	
941103	36	9	21.0	8	220	1	2.5	15.79	17.6	8.51	95.6	15.75	18.2	8.35	94.0	
941103	38	10	20.0	8	220	1	0.8	15.35	18.2	8.73	97.5	15.34	17.9	8.71	97.1	
941103	39	10	17.0	8	220	1	1.0	15.45	18.5	8.50	95.3	15.45	16.6	8.49	94.1	
941103	40	10	20.0	8	220	1	1.3	15.50	18.6	8.47	95.1	15.47	18.3	8.44	94.6	
941103	43	11	18.0	5	220	0	2.1	15.74	19.0	8.88	100.5	15.77	19.1	8.45	95.7	
941103	44	11	21.0	8	220	1	2.4	15.74	18.5	8.23	92.8	15.82	19.0	6.99	79.2	
941103	46	12	17.0	5	220	1	1.6	15.89	18.9	8.26	93.7	15.90	19.0	8.07	91.6	
941103	48	12	18.0	8	220	1	1.7	15.70	18.6	8.39	94.6	15.79	18.8	8.01	90.6	
941104	34	9	23.0	2	140	0	2.8	16.50	17.0	9.60	109.0	15.90	18.1	9.10	102.7	

Table 45.

December									Surface				Bottom			
Cruise Number	Station Number	Stratum Code	Air Temp. (C)	Wind Speed m/sec	Wind Direct. (deg)	Obs. Weather	Secchi (m)	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	Temp. (C)	Salin. (ppt)	DO (mg/L)	% Satur.	
941201	1	1	8.6	2	180	0	1.2	11.64	22.0	8.69	91.9	11.73	22.5	8.66	92.0	
941201	4	1	13.8	5	320	0	2.5	11.61	21.0	8.35	87.7	11.58	21.4	8.67	91.2	
941201	6	2	16.0	2	320	0	1.2	11.23	29.2	8.15	89.4	12.06	30.2	8.30	93.2	
941201	8	2	16.8	5	320	0	1.9	12.06	26.6	8.25	90.6	12.10	29.9	8.21	92.1	
941201	9	3	11.3	2	180	0	0.7	12.37	25.8	7.96	87.6	12.88	27.6	7.60	85.5	
941201	10	3	14.8	1	320	0	1.3	12.30	26.6	8.16	90.1	12.52	29.4	8.08	91.2	
941201	11	3	13.8	2	320	0	2.5	11.86	22.1	8.54	90.8	12.01	24.8	8.23	89.3	
941201	12	3	14.4	2	320	0	1.3	11.97	25.9	8.30	90.6	12.15	28.4	8.30	92.4	
941201	13	4	13.3	2	180	0	0.9	12.07	24.5	8.30	90.0	13.01	28.0	7.80	88.2	
941201	15	4	15.4	5	320	0	2.0	11.87	22.9	8.53	91.2	12.22	25.9	8.00	87.8	
941201	16	4	16.9	5	320	0	2.1	11.86	21.7	8.40	89.1	12.22	26.0	8.05	88.4	
941201	17	5	17.1	5	320	0	2.6	11.59	20.6	8.95	93.7	11.58	21.1	8.90	93.4	
941202	21	6	15.5	5	180	6	1.9	12.19	24.2	8.06	87.4	12.19	24.1	8.16	88.5	
941202	23	6	15.5	2	180	4	1.7	12.09	23.7	8.25	89.0	12.10	23.7	8.17	88.2	
941202	25	7	15.0	10	180	6	2.0	12.02	23.3	8.42	90.5	12.06	23.4	8.20	88.3	
941202	26	7	15.5	5	180	6	1.0	12.04	23.2	8.23	88.4	12.06	24.5	8.03	87.0	
941202	29	8	15.5	5	180	6	1.9	11.99	23.2	8.47	90.9	12.14	25.3	8.01	87.4	
941202	31	8	15.5	5	180	4	1.9	12.02	23.2	8.25	88.6	12.12	29.9	8.14	91.4	
941202	32	8	15.5	5	180	4	2.2	12.01	22.3	8.04	85.9	12.34	28.1	8.23	91.8	
941202	37	10	16.6	5	180	5	2.4	12.02	21.3	8.77	93.1	12.02	21.2	8.67	92.0	
941202	40	10	16.1	2	180	2	2.8	11.96	18.9	9.07	94.7	11.76	20.9	8.28	87.2	
941202	43	11	16.1	2	180	2	2.3	11.89	20.6	8.72	91.9	11.82	21.8	8.42	89.3	
941202	44	11	14.4	2	180	2	2.9	11.84	18.2	9.42	97.7	11.71	21.1	8.21	86.4	
941202	46	12	16.1	2	180	2	3.0	11.99	20.3	9.24	97.4	11.81	22.7	8.19	87.3	
941202	48	12	15.0	2	180	2	2.8	11.91	19.0	9.21	96.1	11.71	21.3	8.17	86.1	
941203	19	5	15.6	5	180	0	1.5	12.19	20.2	8.88	93.9	12.17	20.6	8.79	93.2	
941203	33	9	15.0	5	180	0	2.2	11.87	18.2	9.04	93.8	11.82	18.6	8.94	92.9	
941203	34	9	14.4	5	180	0	2.0	11.94	18.5	9.07	94.4	11.82	19.1	8.76	91.3	
941203	41	11	13.3	5	180	0	3.0	11.99	18.6	9.71	101.3	11.76	21.3	8.82	93.1	



Table 46. Species composition, number caught, catch per trawl, and length statistics for all months, all areas, Chesapeake Bay and river trawl surveys combined.

- Notes:
- A. The 'Number of Species' notation at the top of the table includes each of the three categories of blue crabs (male, juvenile female, adult female) as a different "species".
  - B. Catch per trawl for fish species is based on the figure 'Number of Fish Trawls Made' while catch per trawl for blue crabs is based on the sum of 'Number of Fish Trawls Made' and 'Number of Additional Crab Trawls Made'.
  - C. 'Adjusted Percent of Catch' excludes bay anchovy and hogchoker due to low biomass estimates in relation to number of fish caught.
  - D. Two new variables, 'Adjusted Percent of Catch' and 'Number of Index Age Fish', have replaced the variables 'Cumulative Percent' and 'Average Weight' in this year's report. The 'Average Weight' variable was misleading since it was based only on those specimens where weight was taken, not the overall catch. 'Cumulative Percent' seemed somewhat redundant with 'Percent of Catch' already existing and was removed in favor of 'Adjusted Percent of Catch', a more informative variable.

Table 46.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish YOY	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	214,197	63.69	334.68	.	196,228	53	0.13	16	94
hogchoker	29,245	8.70	45.70	.	6,574	90	0.34	17	195
Atlantic croaker	21,594	6.42	33.74	23.26	12,878	140	0.81	10	339
spot	19,292	5.74	30.14	20.78	16,738	132	0.26	18	248
striped anchovy	10,274	3.06	16.05	11.06	9,674	71	0.71	37	118
white perch	8,517	2.53	13.31	9.17	4,976	113	0.91	28	281
weakfish	6,648	1.98	10.39	7.16	4,335	148	1.01	15	391
blue crab, male	3,702	1.10	5.06	3.99	.	56	0.59	6	171
blue crab, juvenile female	3,353	1.00	4.59	3.61	.	46	0.44	4	138
spotted hake	2,029	0.60	3.17	2.19	1,973	130	1.24	21	319
northern searobin	1,598	0.48	2.50	1.72	1,538	89	0.69	16	212
smallmouth flounder	1,595	0.47	2.49	1.72	1,507	78	0.44	23	135
white catfish	1,333	0.40	2.08	1.44	407	179	2.32	51	444
Atlantic herring	1,332	0.40	2.08	1.43	.	115	8.75	41	326
summer flounder	1,062	0.32	1.66	1.14	865	227	2.23	112	575
striped bass	1,033	0.31	1.61	1.11	868	132	2.16	29	612
blueback herring	932	0.28	1.46	1.00	930	74	0.54	42	255
blue catfish	873	0.26	1.36	0.94	453	186	1.96	57	395
blackcheek tonguefish	714	0.21	1.12	0.77	229	121	1.68	43	203
blue crab, adult female	599	0.18	0.82	0.65	.	135	0.60	89	180
squid	503	0.15	0.79	0.54	.	31	1.03	6	177
black seabass	484	0.14	0.76	0.52	340	97	1.46	26	199
scup	468	0.14	0.73	0.50	352	101	2.11	21	242
American eel	373	0.11	0.58	0.40	.	248	2.85	112	466
kingfish	323	0.10	0.50	0.35	277	110	3.98	27	327
gizzard shad	320	0.10	0.50	0.34	301	140	2.27	89	368
pigfish	320	0.10	0.50	0.34	.	141	1.23	59	205
Atlantic silverside	317	0.09	0.50	0.34	317	92	0.76	60	123
silver perch	300	0.09	0.47	0.32	180	146	2.06	62	214
butterfish	292	0.09	0.46	0.31	173	120	2.28	11	198
oyster toadfish	287	0.09	0.45	0.31	.	200	4.45	24	355
inshore lizardfish	281	0.08	0.44	0.30	226	164	2.92	37	334
channel catfish	261	0.08	0.41	0.28	7	289	4.40	86	544
northern pipefish	177	0.05	0.28	0.19	.	141	2.77	62	248
alewife	174	0.05	0.27	0.19	172	106	1.90	44	226
striped searobin	168	0.05	0.26	0.18	.	120	2.87	45	230
windowpane	143	0.04	0.22	0.15	110	153	5.75	42	311
brown shrimp	141	0.04	0.22	0.15	.	124	1.66	69	177
Atlantic thread herring	128	0.04	0.20	0.14	.	57	1.89	30	164
clearnose skate	122	0.04	0.19	0.13	.	396	5.90	160	541
naked goby	96	0.03	0.15	0.10	.	38	0.63	25	50
lined seahorse	88	0.03	0.14	0.09	.	76	2.76	38	174
Atlantic menhaden	81	0.02	0.13	0.09	55	125	6.07	35	285
northern puffer	62	0.02	0.10	0.07	40	100	6.94	22	227
spottail shiner	62	0.02	0.10	0.07	.	75	1.14	47	99
harvestfish	60	0.02	0.09	0.06	59	72	3.10	16	128
white shrimp	22	0.01	0.03	0.02	.	133	4.96	83	173
fringed flounder	21	0.01	0.03	0.02	.	115	2.99	91	142
bighead searobin	20	0.01	0.03	0.02	.	92	9.83	48	190
American shad	18	0.01	0.03	0.02	18	119	3.28	95	140
dusky pipefish	18	0.01	0.03	0.02	.	128	8.67	87	203
pink shrimp	16	0.00	0.03	0.02	.	103	3.75	83	144
sea lamprey	15	0.00	0.02	0.02	.	153	4.94	116	196
feather blenny	15	0.00	0.02	0.02	.	61	4.84	33	90
bluefish	13	0.00	0.02	0.01	.	190	16.06	119	284
silver hake	12	0.00	0.02	0.01	.	110	12.55	68	196
red hake	12	0.00	0.02	0.01	.	111	13.45	49	195
skilletfish	12	0.00	0.02	0.01	.	35	3.20	17	47
spiny butterfly ray	12	0.00	0.02	0.01	.	703	61.70	515	1170
pinfish	12	0.00	0.02	0.01	.	124	2.97	103	142
longnose gar	9	0.00	0.01	0.01	.	802	58.00	517	1014
conger eel	9	0.00	0.01	0.01	.	381	26.73	266	488
rock seabass	9	0.00	0.01	0.01	.	144	7.89	89	169
silver jenny	9	0.00	0.01	0.01	.	80	2.83	67	97
banded drum	8	0.00	0.01	0.01	.	101	9.75	66	140
tautog	6	0.00	0.01	0.01	.	228	39.47	70	328
spotted seatrout	6	0.00	0.01	0.01	.	218	14.36	164	269
Atlantic spadefish	6	0.00	0.01	0.01	.	102	15.90	52	164
Atlantic cutlassfish	6	0.00	0.01	0.01	.	292	71.80	119	614
seaboard goby	5	0.00	0.01	0.01	.	31	1.43	27	35
northern stargazer	5	0.00	0.01	0.01	.	32	3.30	25	44
spiny dogfish	4	0.00	0.01	0.00	.	848	64.08	710	980
striped burrfish	4	0.00	0.01	0.00	.	198	16.26	163	230
blackwing searobin	4	0.00	0.01	0.00	.	128	5.65	115	142
common carp	3	0.00	0.00	0.00	.	516	16.83	485	543
southern stingray	3	0.00	0.00	0.00	.	542	59.72	452	655
bluntnose stingray	3	0.00	0.00	0.00	.	261	24.98	213	297
threadfin shad	3	0.00	0.00	0.00	.	84	10.27	64	97
brown bullhead	2	0.00	0.00	0.00	.	126	3.00	123	129
green goby	2	0.00	0.00	0.00	.	36	2.50	33	38
smooth dogfish	2	0.00	0.00	0.00	.	424	74.50	349	498
little skate	2	0.00	0.00	0.00	.	333	33.00	300	366
lookdown	2	0.00	0.00	0.00	.	93	5.50	87	98
cobia	1	0.00	0.00	0.00	.	960	.	960	960
winter flounder	1	0.00	0.00	0.00	.	235	.	235	235
sheepshead	1	0.00	0.00	0.00	.	139	.	139	139
round herring	1	0.00	0.00	0.00	.	93	.	93	93
bluespotted cornetfish	1	0.00	0.00	0.00	.	232	.	232	232
tessellated darter	1	0.00	0.00	0.00	.	63	.	63	63

Table 46 (cont.)

Month - All - Pooled									
River/Segment - All - Pooled									
No. of Fish Trawls Made - 640									
No. of Add'l Crab Trawls Made - 91									
No. of Species - 98									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish YOY	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
eastern silvery minnow	1	0.00	0.00	0.00	.	89	.	89	89
sheepshead minnow	1	0.00	0.00	0.00	.	36	.	36	36
striped killifish	1	0.00	0.00	0.00	.	110	.	110	110
Atlantic moonfish	1	0.00	0.00	0.00	.	47	.	47	47
star drum	1	0.00	0.00	0.00	.	94	.	94	94
striped cusk-eel	1	0.00	0.00	0.00	.	185	.	185	185
northern sennet	1	0.00	0.00	0.00	.	80	.	80	80
fourspot flounder	1	0.00	0.00	0.00	.	146	.	146	146
spottail pinfish	1	0.00	0.00	0.00	.	130	.	130	130
All Species Combined	336,298								

Tables 47-50. Species composition, number caught, catch per trawl, and length statistics for all months, by river, for the river trawl survey.

Notes:

- A. The 'Number of Species' notation at the top of the table includes each of the three categories of blue crabs (male, juvenile female, adult female) as a different "species".
- B. Catch per trawl for fish species is based on the figure 'Number of Fish Trawls Made' while catch per trawl for blue crabs is based on the sum of 'Number of Fish Trawls Made' and 'Number of Additional Crab Trawls Made'.
- C. 'Adjusted Percent of Catch' excludes bay anchovy and hogchoker due to low biomass estimates in relation to number of fish caught.
- D. Two new variables, 'Adjusted Percent of Catch' and 'Number of Index Age Fish' have replaced the variables 'Cumulative Percent' and 'Average Weight' in this year's report. The 'Average Weight' variable was misleading since it was based only on those specimens where weight was taken, not the overall catch. 'Cumulative Percent' seemed somewhat redundant with 'Percent of Catch' already existing and was removed in favor of 'Adjusted Percent of Catch', a more informative variable.

Table 47.

Month - All - Pooled

River - James

No. of Fish Trawls Made - 82

No. of Add'l Crab Trawls Made - 28

No. of Species - 61

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	64,527	73.27	786.91	.	62,642	51	0.40	20	94
hogchoker	11,435	12.98	139.45	.	3,910	71	0.54	17	175
white perch	4,708	5.35	57.41	38.90	3,617	95	1.24	46	265
Atlantic croaker	2,172	2.47	26.49	17.94	860	143	1.74	10	319
spot	1,414	1.61	17.24	11.68	1,062	135	0.74	55	224
weakfish	767	0.87	9.35	6.34	675	111	2.42	16	333
blue crab, juvenile female	553	0.63	5.03	4.57	.	50	1.06	8	129
blue crab, male	487	0.55	4.43	4.02	.	61	1.69	8	166
striped bass	189	0.21	2.30	1.56	167	122	5.62	34	542
blue catfish	185	0.21	2.26	1.53	13	214	6.81	85	336
white catfish	182	0.21	2.22	1.50	34	184	4.94	68	424
American eel	159	0.18	1.94	1.31	.	246	4.04	131	355
gizzard shad	138	0.16	1.68	1.14	127	135	3.73	89	354
smallmouth flounder	138	0.16	1.68	1.14	137	78	1.54	42	129
channel catfish	130	0.15	1.59	1.07	3	277	6.05	86	544
spotted hake	121	0.14	1.48	1.00	121	112	3.75	43	284
summer flounder	105	0.12	1.28	0.87	67	238	7.68	121	538
blue crab, adult female	87	0.10	0.79	0.72	.	140	1.29	107	169
oyster toadfish	64	0.07	0.78	0.53	.	178	8.62	92	330
Atlantic silverside	54	0.06	0.66	0.45	54	102	1.70	71	123
naked goby	48	0.05	0.59	0.40	.	38	0.83	26	49
blackcheek tonguefish	42	0.05	0.51	0.35	22	109	5.02	51	168
blueback herring	39	0.04	0.48	0.32	39	71	0.94	57	84
northern pipefish	39	0.04	0.48	0.32	.	138	4.74	80	239
black seabass	34	0.04	0.41	0.28	23	110	6.57	51	199
alewife	32	0.04	0.39	0.26	32	114	2.58	87	148
squid	24	0.03	0.29	0.20	.	42	2.80	23	91
silver perch	22	0.02	0.27	0.18	4	170	6.39	96	199
pigfish	21	0.02	0.26	0.17	.	153	6.38	80	200
brown shrimp	18	0.02	0.22	0.15	.	138	4.50	95	174
striped anchovy	17	0.02	0.21	0.14	17	78	3.88	48	95
kingfish	15	0.02	0.18	0.12	15	85	5.88	43	121
northern searobin	15	0.02	0.18	0.12	14	92	9.47	40	161
inshore lizardfish	10	0.01	0.12	0.08	4	206	16.98	144	301
butterfish	8	0.01	0.10	0.07	6	81	21.28	27	182
Atlantic thread herring	7	0.01	0.09	0.06	.	86	7.90	42	110
striped searobin	7	0.01	0.09	0.06	.	136	18.00	56	199
windowpane	6	0.01	0.07	0.05	4	161	18.36	125	247
Atlantic herring	4	0.00	0.05	0.03	.	302	9.08	282	326
Atlantic cutlassfish	4	0.00	0.05	0.03	.	221	49.61	119	353
scup	3	0.00	0.04	0.02	2	97	7.88	88	113
northern puffer	3	0.00	0.04	0.02	2	62	35.12	22	132
common carp	3	0.00	0.04	0.02	.	516	16.83	485	543
bighead searobin	3	0.00	0.04	0.02	.	82	13.53	65	109
fringed flounder	3	0.00	0.04	0.02	.	115	12.17	91	128
American shad	2	0.00	0.02	0.02	2	136	4.50	131	140
Atlantic spadefish	2	0.00	0.02	0.02	.	76	24.00	52	100
brown bullhead	2	0.00	0.02	0.02	.	126	3.00	123	129
feather blenny	2	0.00	0.02	0.02	.	78	5.00	73	83
lookdown	2	0.00	0.02	0.02	.	93	5.50	87	98
pinfish	2	0.00	0.02	0.02	.	135	7.00	128	142
threadfin shad	2	0.00	0.02	0.02	.	81	16.50	64	97
white shrimp	2	0.00	0.02	0.02	.	149	4.50	144	153
harvestfish	1	0.00	0.01	0.01	0	128	.	128	128
Atlantic menhaden	1	0.00	0.01	0.01	0	110	.	110	110
tautog	1	0.00	0.01	0.01	.	70	.	70	70
sea lamprey	1	0.00	0.01	0.01	.	165	.	165	165
green goby	1	0.00	0.01	0.01	.	33	.	33	33
clearnose skate	1	0.00	0.01	0.01	.	488	.	488	488
Atlantic moonfish	1	0.00	0.01	0.01	.	47	.	47	47
rock seabass	1	0.00	0.01	0.01	.	89	.	89	89

All Species Combined

88,066

Table 48.

Month - All - Pooled  
River - Rappahannock  
No. of Fish Trawls Made - 89  
No. of Add'l Crab Trawls Made - 35  
No. of Species - 44  
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	8,999	27.18	101.11		8,161	52	0.46	27	92
Atlantic croaker	5,891	17.79	66.19	31.80	5,192	102	2.11	10	339
hogchoker	5,582	16.86	62.72		693	87	0.61	24	179
spot	3,564	10.77	40.04	19.24	3,343	124	0.57	18	238
white perch	3,210	9.70	36.07	17.33	1,253	115	1.19	28	262
blue crab, male	1,365	4.12	11.01	7.37	.	54	0.84	6	165
blue crab, juvenile female	1,261	3.81	10.17	6.81	.	45	0.61	4	138
blue catfish	687	2.08	7.72	3.71	439	180	1.84	57	395
weakfish	593	1.79	6.66	3.20	491	132	3.42	28	391
white catfish	525	1.59	5.90	2.83	1	237	2.12	91	436
striped bass	344	1.04	3.87	1.86	252	148	4.06	58	612
American eel	169	0.51	1.90	0.91	.	255	3.96	125	437
blueback herring	165	0.50	1.85	0.89	165	67	0.48	55	97
spotted hake	155	0.47	1.74	0.84	155	115	2.63	60	197
gizzard shad	127	0.38	1.43	0.69	123	144	2.68	89	342
channel catfish	125	0.38	1.40	0.67	2	299	5.83	88	516
summer flounder	73	0.22	0.82	0.39	66	208	7.14	135	419
Atlantic menhaden	39	0.12	0.44	0.21	37	109	5.96	35	202
blackcheek tonguefish	36	0.11	0.40	0.19	29	84	4.76	54	154
alewife	35	0.11	0.39	0.19	35	84	4.17	54	124
Atlantic silverside	34	0.10	0.38	0.18	34	90	1.33	74	107
kingfish	33	0.10	0.37	0.18	32	84	7.06	35	283
oyster toadfish	20	0.06	0.22	0.11	.	201	15.75	119	326
blue crab, adult female	18	0.05	0.15	0.10	.	141	3.59	112	162
naked goby	8	0.02	0.09	0.04	.	37	2.40	27	47
silver perch	8	0.02	0.09	0.04	0	198	2.61	192	213
spottail shiner	6	0.02	0.07	0.03	.	84	4.37	73	99
Atlantic herring	5	0.02	0.06	0.03	.	216	56.55	77	323
northern searobin	5	0.02	0.06	0.03	5	41	5.03	29	52
harvestfish	4	0.01	0.04	0.02	4	44	6.96	30	63
striped anchovy	3	0.01	0.03	0.02	3	64	1.53	62	67
striped searobin	2	0.01	0.02	0.01	.	48	2.00	46	50
longnose gar	2	0.01	0.02	0.01	.	1003	11.00	992	1014
northern pipefish	2	0.01	0.02	0.01	.	192	18.50	173	210
bluefish	1	0.00	0.01	0.01	.	131	.	131	131
American shad	1	0.00	0.01	0.01	1	135	.	135	135
sheepshead	1	0.00	0.01	0.01	.	139	.	139	139
spotted seatrout	1	0.00	0.01	0.01	.	164	.	164	164
eastern silvery minnow	1	0.00	0.01	0.01	.	89	.	89	89
skilletfish	1	0.00	0.01	0.01	.	33	.	33	33
inshore lizardfish	1	0.00	0.01	0.01	0	201	.	201	201
conger eel	1	0.00	0.01	0.01	.	321	.	321	321
banded drum	1	0.00	0.01	0.01	.	81	.	81	81
white shrimp	1	0.00	0.01	0.01	.	161	.	161	161
All Species Combined	33,105								

Table 49.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	12,499	31.88	123.75	.	9,702	55	0.40	16	92
hogchoker	9,363	23.88	92.70	.	1,951	86	0.59	24	180
Atlantic croaker	6,573	16.76	65.08	37.89	3,966	130	1.46	12	312
weakfish	2,411	6.15	23.87	13.90	1,788	129	1.85	15	367
spot	2,248	5.73	22.26	12.96	1,371	136	0.98	18	223
blue crab, male	1,714	4.37	13.29	9.88	.	55	0.91	12	171
blue crab, juvenile female	1,340	3.42	10.39	7.72	.	42	0.71	10	137
white catfish	626	1.60	6.20	3.61	372	129	3.23	51	444
white perch	599	1.53	5.93	3.45	106	151	2.59	39	281
striped bass	496	1.26	4.91	2.86	447	124	2.58	29	610
oyster toadfish	160	0.41	1.58	0.92	.	213	5.61	65	346
blueback herring	137	0.35	1.36	0.79	137	76	0.88	57	100
spotted hake	132	0.34	1.31	0.76	132	120	2.45	63	206
silver perch	131	0.33	1.30	0.76	75	142	3.45	62	208
blackcheek tonguefish	118	0.30	1.17	0.68	104	80	2.21	43	154
summer flounder	95	0.24	0.94	0.55	87	214	6.43	118	575
Atlantic silverside	87	0.22	0.86	0.50	87	93	1.36	65	118
spottail shiner	56	0.14	0.55	0.32	.	74	1.11	47	91
blue crab, adult female	55	0.14	0.43	0.32	.	138	1.84	110	175
gizzard shad	52	0.13	0.51	0.30	48	145	7.31	92	368
alewife	46	0.12	0.46	0.27	45	112	3.18	44	151
kingfish	44	0.11	0.44	0.25	44	84	4.32	27	155
American eel	43	0.11	0.43	0.25	.	230	11.59	112	466
brown shrimp	33	0.08	0.33	0.19	.	125	3.02	81	157
naked goby	20	0.05	0.20	0.12	.	39	1.49	26	50
Atlantic menhaden	18	0.05	0.18	0.10	11	112	19.76	36	285
Atlantic herring	13	0.03	0.13	0.07	.	302	3.57	267	322
sea lamprey	13	0.03	0.13	0.07	.	151	5.43	116	196
white shrimp	13	0.03	0.13	0.07	.	130	7.49	83	173
butterfish	8	0.02	0.08	0.05	6	115	21.97	16	189
northern searobin	8	0.02	0.08	0.05	2	150	24.15	33	212
striped searobin	7	0.02	0.07	0.04	.	101	13.57	62	141
longnose gar	7	0.02	0.07	0.04	.	744	57.31	517	950
northern pipefish	7	0.02	0.07	0.04	.	148	14.22	103	201
harvestfish	6	0.02	0.06	0.03	6	37	11.62	16	94
channel catfish	6	0.02	0.06	0.03	2	270	59.09	89	413
American shad	3	0.01	0.03	0.02	3	120	8.41	105	134
feather blenny	3	0.01	0.03	0.02	.	73	8.33	57	85
Atlantic spadefish	2	0.01	0.02	0.01	.	85	8.00	77	93
bighead searobin	2	0.01	0.02	0.01	.	58	7.00	51	65
skilletfish	2	0.01	0.02	0.01	.	47	0.00	47	47
inshore lizardfish	2	0.01	0.02	0.01	2	154	7.50	146	161
northern stargazer	2	0.01	0.02	0.01	.	30	2.00	28	32
bluefish	1	0.00	0.01	0.01	.	119	.	119	119
squid	1	0.00	0.01	0.01	.	30	.	30	30
tessellated darter	1	0.00	0.01	0.01	.	63	.	63	63
sheepshead minnow	1	0.00	0.01	0.01	.	36	.	36	36
striped killifish	1	0.00	0.01	0.01	.	110	.	110	110
bluntnose stingray	1	0.00	0.01	0.01	.	213	.	213	213
conger eel	1	0.00	0.01	0.01	.	488	.	488	488
Atlantic cutlassfish	1	0.00	0.01	0.01	.	614	.	614	614
threadfin shad	1	0.00	0.01	0.01	.	92	.	92	92
blue catfish	1	0.00	0.01	0.01	1	154	.	154	154
All Species Combined	39,210								

Table 50.

Month - All - Pooled

River - All - Pooled

No. of Fish Trawls Made - 272

No. of Add'l Crab Trawls Made - 91

No. of Species - 75

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	86,025	53.64	316.27	.	80,505	53	0.24	16	94
hogchoker	26,380	16.45	96.99	.	6,554	82	0.36	17	180
Atlantic croaker	14,636	9.13	53.81	30.51	10,018	125	1.03	10	339
white perch	8,517	5.31	31.31	17.75	4,976	113	0.91	28	281
spot	7,226	4.51	26.57	15.06	5,776	131	0.44	18	238
weakfish	3,771	2.35	13.86	7.86	2,954	126	1.40	15	391
blue crab, male	3,566	2.22	9.82	7.43	.	55	0.59	6	171
blue crab, juvenile female	3,154	1.97	8.69	6.57	.	45	0.43	4	138
white catfish	1,333	0.83	4.90	2.78	407	179	2.32	51	444
striped bass	1,029	0.64	3.78	2.14	866	132	2.15	29	612
blue catfish	873	0.54	3.21	1.82	453	186	1.96	57	395
spotted hake	408	0.25	1.50	0.85	408	116	1.66	43	284
American eel	371	0.23	1.36	0.77	.	248	2.86	112	466
blueback herring	341	0.21	1.25	0.71	341	71	0.50	55	100
gizzard shad	317	0.20	1.17	0.66	298	140	2.29	89	368
summer flounder	273	0.17	1.00	0.57	220	222	4.23	118	575
channel catfish	261	0.16	0.96	0.54	7	289	4.40	86	544
oyster toadfish	244	0.15	0.90	0.51	.	203	4.60	65	346
blackcheek tonguefish	196	0.12	0.72	0.41	155	87	2.08	43	168
Atlantic silverside	175	0.11	0.64	0.36	175	95	0.95	65	123
silver perch	161	0.10	0.59	0.34	79	149	3.16	62	213
blue crab, adult female	160	0.10	0.44	0.33	.	139	1.02	107	175
smallmouth flounder	138	0.09	0.51	0.29	137	78	1.54	42	129
alewife	113	0.07	0.42	0.24	112	104	2.31	44	151
kingfish	92	0.06	0.34	0.19	91	84	3.41	27	283
naked goby	76	0.05	0.28	0.16	.	38	0.69	26	50
spottail shiner	62	0.04	0.23	0.13	.	75	1.14	47	99
Atlantic menhaden	58	0.04	0.21	0.12	48	110	7.29	35	285
brown shrimp	51	0.03	0.19	0.11	.	130	2.63	81	174
northern pipefish	48	0.03	0.18	0.10	.	142	4.63	80	239
black seabass	34	0.02	0.13	0.07	23	110	6.57	51	199
northern searobin	28	0.02	0.10	0.06	21	99	10.92	29	212
squid	25	0.02	0.09	0.05	.	41	2.73	23	91
Atlantic herring	22	0.01	0.08	0.05	.	282	14.36	77	326
pigfish	21	0.01	0.08	0.04	.	153	6.38	80	200
striped anchovy	20	0.01	0.07	0.04	20	76	3.48	48	95
butterfish	16	0.01	0.06	0.03	12	98	15.44	16	189
striped searobin	16	0.01	0.06	0.03	.	110	11.93	46	199
white shrimp	16	0.01	0.06	0.03	.	134	6.50	83	173
sea lamprey	14	0.01	0.05	0.03	.	152	5.13	116	196
inshore lizardfish	13	0.01	0.05	0.03	6	198	14.02	144	301
harvestfish	11	0.01	0.04	0.02	10	48	10.39	16	128
longnose gar	9	0.01	0.03	0.02	.	802	58.00	517	1014
Atlantic thread herring	7	0.00	0.03	0.01	.	86	7.90	42	110
American shad	6	0.00	0.02	0.01	6	128	5.17	105	140
windowpane	6	0.00	0.02	0.01	4	161	18.36	125	247
bighead searobin	5	0.00	0.02	0.01	.	73	9.77	51	109
feather blenny	5	0.00	0.02	0.01	.	75	4.98	57	85
Atlantic cutlassfish	5	0.00	0.02	0.01	.	300	87.49	119	614
Atlantic spadefish	4	0.00	0.01	0.01	.	81	10.65	52	100
scup	3	0.00	0.01	0.01	2	97	7.88	88	113
northern puffer	3	0.00	0.01	0.01	2	62	35.12	22	132
common carp	3	0.00	0.01	0.01	.	516	16.83	485	543
skilletfish	3	0.00	0.01	0.01	.	42	4.67	33	47
fringed flounder	3	0.00	0.01	0.01	.	115	12.17	91	128
threadfin shad	3	0.00	0.01	0.01	.	84	10.27	64	97
bluefish	2	0.00	0.01	0.00	.	125	6.00	119	131
brown bullhead	2	0.00	0.01	0.00	.	126	3.00	123	129
conger eel	2	0.00	0.01	0.00	.	405	83.50	321	488
lookdown	2	0.00	0.01	0.00	.	93	5.50	87	98
pinfish	2	0.00	0.01	0.00	.	135	7.00	128	142
northern stargazer	2	0.00	0.01	0.00	.	30	2.00	28	32
sheepshead	1	0.00	0.00	0.00	.	139	.	139	139
tautog	1	0.00	0.00	0.00	.	70	.	70	70
spotted seatrout	1	0.00	0.00	0.00	.	164	.	164	164
tessellated darter	1	0.00	0.00	0.00	.	63	.	63	63
eastern silvery minnow	1	0.00	0.00	0.00	.	89	.	89	89
sheepshead minnow	1	0.00	0.00	0.00	.	36	.	36	36
striped killifish	1	0.00	0.00	0.00	.	110	.	110	110
green goby	1	0.00	0.00	0.00	.	33	.	33	33
cleannose skate	1	0.00	0.00	0.00	.	488	.	488	488
bluntnose stingray	1	0.00	0.00	0.00	.	213	.	213	213
Atlantic moonfish	1	0.00	0.00	0.00	.	47	.	47	47
banded drum	1	0.00	0.00	0.00	.	81	.	81	81
rock seabass	1	0.00	0.00	0.00	.	89	.	89	89

All Species Combined

160,381



Tables 51-54. Species composition, number caught, catch per trawl, and length statistics for all months, by segment, for the Chesapeake Bay trawl survey.

- Notes:
- A. The 'Number of Species' notation at the top of the table includes each of the three categories of blue crabs (male, juvenile female, adult female) as a different "species".
  - B. Catch per trawl for fish species is based on the figure 'Number of Fish Trawls Made' while catch per trawl for blue crabs is based on the sum of 'Number of Fish Trawls Made' and 'Number of Additional Crab Trawls Made'.
  - C. 'Adjusted Percent of Catch' excludes bay anchovy and hogchoker due to low biomass estimates in relation to number of fish caught.
  - D. Two new variables, 'Adjusted Percent of Catch' and 'Number of Index Age Fish' have replaced the variables 'Cumulative Percent' and 'Average Weight' in this year's report. The 'Average Weight' variable was misleading since it was based only on those specimens where weight was taken, not the overall catch. 'Cumulative Percent' seemed somewhat redundant with 'Percent of Catch' already existing and was removed in favor of 'Adjusted Percent of Catch', a more informative variable.

Table 51.

Month - All - Pooled  
 Segment - Ches. Bay - Bottom  
 No. of Fish Trawls Made - 124  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 73  
 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	32,209	58.09	259.75		30,806	53	0.25	33	90
striped anchovy	8,785	15.85	70.85	39.20	8,185	72	1.29	37	117
spot	2,865	5.17	23.10	12.78	2,727	133	0.55	26	223
Atlantic croaker	2,535	4.57	20.44	11.31	1,421	172	1.46	14	280
Atlantic herring	1,306	2.36	10.53	5.83		84	7.25	41	326
spotted hake	967	1.74	7.80	4.31	922	145	1.99	21	319
hogchoker	820	1.48	6.61		9	121	1.20	58	195
smallmouth flounder	820	1.48	6.61	3.66	756	78	0.62	23	135
northern searobin	814	1.47	6.56	3.63	776	91	0.92	27	161
weakfish	697	1.26	5.62	3.11	481	172	2.02	24	373
blueback herring	558	1.01	4.50	2.49	557	79	1.14	48	255
squid	395	0.71	3.19	1.76		28	1.25	6	177
blackcheek tonguefish	379	0.68	3.06	1.69	37	144	2.03	52	203
scup	308	0.56	2.48	1.37	235	89	2.93	21	190
summer flounder	286	0.52	2.31	1.28	233	236	4.45	112	574
blue crab, adult female	190	0.34	1.53	0.85		128	1.11	89	165
black seabass	182	0.33	1.47	0.81	124	93	2.52	26	185
kingfish	144	0.26	1.16	0.64	113	124	7.36	28	288
pigfish	128	0.23	1.03	0.57		146	1.81	90	205
butterfish	122	0.22	0.98	0.54	98	110	2.86	19	169
Atlantic silverside	111	0.20	0.90	0.50	111	88	1.29	60	120
silver perch	101	0.18	0.81	0.45	75	142	2.85	92	214
striped searobin	92	0.17	0.74	0.41		115	3.20	45	215
clearnose skate	88	0.16	0.71	0.39		386	7.45	160	541
windowpane	64	0.12	0.52	0.29	44	160	9.34	42	311
alewife	48	0.09	0.39	0.21	47	116	3.20	84	226
northern pipefish	48	0.09	0.39	0.21		139	5.85	63	248
inshore lizardfish	48	0.09	0.39	0.21	35	184	5.88	95	295
brown shrimp	42	0.08	0.34	0.19		124	2.19	93	159
blue crab, juvenile female	38	0.07	0.31	0.17		85	3.31	28	111
Atlantic thread herring	35	0.06	0.28	0.16		65	5.03	44	164
lined seahorse	31	0.06	0.25	0.14		82	5.36	42	174
oyster toadfish	29	0.05	0.23	0.13		171	15.81	24	355
blue crab, male	24	0.04	0.19	0.11		87	7.77	26	152
dusky pipefish	17	0.03	0.14	0.08		129	9.04	87	203
northern puffer	14	0.03	0.11	0.06	6	142	15.80	40	227
silver hake	11	0.02	0.09	0.05		111	13.75	68	196
American shad	7	0.01	0.06	0.03	7	118	4.45	103	134
feather blenny	7	0.01	0.06	0.03		57	7.57	33	90
fringed flounder	6	0.01	0.05	0.03		121	4.94	107	142
bluefish	5	0.01	0.04	0.02		237	19.94	170	284
banded drum	5	0.01	0.04	0.02		108	12.29	73	140
pinfish	5	0.01	0.04	0.02		120	5.58	103	134
white shrimp	5	0.01	0.04	0.02		130	7.52	109	151
bighead searobin	4	0.01	0.03	0.02		131	34.60	49	190
seaboard goby	4	0.01	0.03	0.02		32	1.70	27	35
red hake	3	0.01	0.02	0.01		143	36.03	74	195
spotted seatrout	3	0.01	0.02	0.01		231	20.88	197	269
skilletfish	3	0.01	0.02	0.01		40	4.50	35	44
spiny butterfly ray	3	0.01	0.02	0.01		553	20.07	516	585
striped burrfish	3	0.01	0.02	0.01		187	17.15	163	220
Atlantic menhaden	2	0.00	0.02	0.01	1	107	2.50	104	109
naked goby	2	0.00	0.02	0.01		48	2.50	45	50
little skate	2	0.00	0.02	0.01		333	33.00	300	366
conger eel	2	0.00	0.02	0.01		448	7.00	441	455
rock seabass	2	0.00	0.02	0.01		147	4.50	142	151
silver jenny	2	0.00	0.02	0.01		78	10.50	67	88
striped bass	1	0.00	0.01	0.00	0	203		203	203
cobia	1	0.00	0.01	0.00		960		960	960
tautog	1	0.00	0.01	0.00		328		328	328
round herring	1	0.00	0.01	0.00		93		93	93
bluespotted cornetfish	1	0.00	0.01	0.00		232		232	232
sea lamprey	1	0.00	0.01	0.00		171		171	171
green goby	1	0.00	0.01	0.00		38		38	38
smooth dogfish	1	0.00	0.01	0.00		349		349	349
spiny dogfish	1	0.00	0.01	0.00		930		930	930
southern stingray	1	0.00	0.01	0.00		452		452	452
bluntnose stingray	1	0.00	0.01	0.00		297		297	297
star drum	1	0.00	0.01	0.00		94		94	94
northern sennet	1	0.00	0.01	0.00		80		80	80
fourspot flounder	1	0.00	0.01	0.00		146		146	146
spottail pinfish	1	0.00	0.01	0.00		130		130	130
pink shrimp	1	0.00	0.01	0.00		144		144	144
All Species Combined	55,442								

Table 52.

Month - All - Pooled  
 Segment - Ches. Bay - Lower  
 No. of Fish Trawls Made - 122  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 70  
 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	25,082	61.35	205.59		20,645	53	0.27	22	90
spot	6,642	16.25	54.44	45.99	6,128	133	0.42	57	248
Atlantic croaker	2,164	5.29	17.74	14.98	301	187	1.75	16	328
striped anchovy	1,397	3.42	11.45	9.67	1,397	67	0.93	43	118
hogchoker	1,360	3.33	11.15		5	111	0.78	52	189
weakfish	705	1.72	5.78	4.88	309	188	1.95	19	348
northern searobin	587	1.44	4.81	4.06	573	87	1.06	16	186
spotted hake	527	1.29	4.32	3.65	516	116	2.74	48	302
smallmouth flounder	490	1.20	4.02	3.39	476	80	0.78	40	122
summer flounder	301	0.74	2.47	2.08	232	234	4.45	112	564
blue crab, adult female	177	0.43	1.45	1.23		137	1.04	109	180
black seabass	158	0.39	1.30	1.09	110	97	2.30	42	176
scup	146	0.36	1.20	1.01	107	113	2.78	63	242
pigfish	142	0.35	1.16	0.98		136	1.61	89	183
blackcheek tonguefish	120	0.29	0.98	0.83	28	132	2.93	47	177
inshore lizardfish	85	0.21	0.70	0.59	66	177	4.69	86	334
blue crab, juvenile female	73	0.18	0.60	0.51		65	3.01	17	122
butterfish	71	0.17	0.58	0.49	36	127	4.43	11	182
squid	69	0.17	0.57	0.48		33	2.29	7	137
kingfish	62	0.15	0.51	0.43	48	141	10.18	35	327
blue crab, male	58	0.14	0.48	0.40		77	4.17	24	149
windowpane	48	0.12	0.39	0.33	40	154	9.57	47	286
striped searobin	43	0.11	0.35	0.30		128	6.04	54	218
brown shrimp	40	0.10	0.33	0.28		120	3.69	71	177
clearnose skate	33	0.08	0.27	0.23		418	7.37	276	488
lined seahorse	29	0.07	0.24	0.20		75	4.50	43	124
northern pipefish	29	0.07	0.24	0.20		151	6.12	93	225
blueback herring	24	0.06	0.20	0.17	23	77	2.74	42	123
northern puffer	24	0.06	0.20	0.17	13	110	9.87	32	201
Atlantic thread herring	19	0.05	0.16	0.13		65	3.58	45	99
silver perch	19	0.05	0.16	0.13	13	150	7.22	99	200
Atlantic silverside	13	0.03	0.11	0.09	13	89	3.27	73	109
pink shrimp	12	0.03	0.10	0.08		101	3.39	83	131
naked goby	10	0.02	0.08	0.07		37	1.78	29	47
fringed flounder	10	0.02	0.08	0.07		110	3.92	98	133
spiny butterfly ray	9	0.02	0.07	0.06		753	75.48	515	1170
red hake	8	0.02	0.07	0.06		107	12.63	50	167
alewife	8	0.02	0.07	0.06	8	76	9.04	50	107
oyster toadfish	8	0.02	0.07	0.06		182	39.20	47	333
Atlantic menhaden	6	0.01	0.05	0.04	6	127	4.41	110	144
bighead searobin	6	0.01	0.05	0.04		94	18.96	48	164
rock seabass	6	0.01	0.05	0.04		152	5.88	134	169
silver jenny	6	0.01	0.05	0.04		81	3.33	73	97
bluefish	5	0.01	0.04	0.03		171	23.06	132	233
skilletfish	5	0.01	0.04	0.03		31	5.22	17	45
pinfish	5	0.01	0.04	0.03		124	2.29	118	132
tautog	4	0.01	0.03	0.03		243	30.18	157	299
conger eel	4	0.01	0.03	0.03		350	40.82	266	447
blackwing searobin	4	0.01	0.03	0.03		128	5.65	115	142
feather blenny	3	0.01	0.02	0.02		45	5.29	35	53
spiny dogfish	3	0.01	0.02	0.02		820	81.85	710	980
harvestfish	2	0.00	0.02	0.01	2	45	1.50	43	46
Atlantic herring	2	0.00	0.02	0.01		48	0.00	48	48
striped bass	2	0.00	0.02	0.01	2	129	13.50	115	142
spotted seatrout	2	0.00	0.02	0.01		225	5.00	220	230
American eel	2	0.00	0.02	0.01		316	5.00	311	321
southern stingray	2	0.00	0.02	0.01		587	68.00	519	655
northern stargazer	2	0.00	0.02	0.01		35	9.50	25	44
silver hake	1	0.00	0.01	0.01		108		108	108
American shad	1	0.00	0.01	0.01	1	124		124	124
winter flounder	1	0.00	0.01	0.01		235		235	235
Atlantic spadefish	1	0.00	0.01	0.01		164		164	164
dusky pipefish	1	0.00	0.01	0.01		101		101	101
seaboard goby	1	0.00	0.01	0.01		29		29	29
smooth dogfish	1	0.00	0.01	0.01		498		498	498
bluntnose stingray	1	0.00	0.01	0.01		273		273	273
banded drum	1	0.00	0.01	0.01		122		122	122
striped cusk-eel	1	0.00	0.01	0.01		185		185	185
striped burrfish	1	0.00	0.01	0.01		230		230	230
white shrimp	1	0.00	0.01	0.01		128		128	128
All Species Combined	40,885								

Table 53.

Month - All - Pooled  
 Segment - Ches. Bay - Upper  
 No. of Fish Trawls Made - 122  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 52  
 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	70,881	89.06	580.99		64,272	52	0.25	21	91
spot	2,559	3.22	20.98	31.89	2,107	134	0.64	53	232
Atlantic croaker	2,259	2.84	18.52	28.15	1,138	145	2.22	12	307
weakfish	1,475	1.85	12.09	18.38	591	165	2.15	15	306
hogchoker	685	0.86	5.61		6	108	0.72	50	167
summer flounder	202	0.25	1.66	2.52	180	212	4.41	120	542
northern searobin	169	0.21	1.39	2.11	168	81	2.09	33	156
smallmouth flounder	147	0.18	1.20	1.83	138	73	1.48	27	128
inshore lizardfish	135	0.17	1.11	1.68	119	146	4.15	37	294
spotted hake	127	0.16	1.04	1.58	127	124	2.95	61	196
black seabass	110	0.14	0.90	1.37	83	99	2.85	43	184
blue crab, juvenile female	88	0.11	0.72	1.10		65	2.88	15	115
butterfish	83	0.10	0.68	1.03	27	134	4.31	23	198
striped anchovy	72	0.09	0.59	0.90	72	80	1.51	53	103
blue crab, adult female	72	0.09	0.59	0.90		137	1.47	93	164
Atlantic thread herring	67	0.08	0.55	0.83		46	0.98	30	73
blue crab, male	54	0.07	0.44	0.67		78	5.27	19	150
northern pipefish	52	0.07	0.43	0.65		135	5.46	62	239
harvestfish	47	0.06	0.39	0.59	47	79	2.33	51	118
pigfish	29	0.04	0.24	0.36		136	5.11	59	190
lined seahorse	28	0.04	0.23	0.35		71	4.19	38	127
kingfish	25	0.03	0.20	0.31	25	72	6.40	36	182
windowpane	25	0.03	0.20	0.31	22	132	12.12	62	300
northern puffer	21	0.03	0.17	0.26	19	67	6.99	22	154
blackcheek tonguefish	19	0.02	0.16	0.24	9	112	8.27	58	183
silver perch	19	0.02	0.16	0.24	13	143	7.93	82	196
Atlantic silverside	18	0.02	0.15	0.22	18	86	3.36	64	106
striped searobin	17	0.02	0.14	0.21		134	11.39	58	230
Atlantic menhaden	15	0.02	0.12	0.19	0	180	4.56	121	201
squid	14	0.02	0.11	0.17		43	3.51	29	76
scup	11	0.01	0.09	0.14	8	117	14.46	29	186
blueback herring	9	0.01	0.07	0.11	9	76	2.85	64	85
naked goby	8	0.01	0.07	0.10		33	1.62	25	39
brown shrimp	8	0.01	0.07	0.10		111	8.34	69	144
oyster toadfish	6	0.01	0.05	0.07		233	40.98	45	340
alewife	5	0.01	0.04	0.06	5	120	1.81	116	127
bighead searobin	5	0.01	0.04	0.06		76	4.55	63	85
American shad	4	0.01	0.03	0.05	4	106	6.42	95	121
gizzard shad	3	0.00	0.02	0.04	3	142	14.26	119	168
pink shrimp	3	0.00	0.02	0.04		97	2.08	94	101
Atlantic herring	2	0.00	0.02	0.02		198	110.00	88	308
fringed flounder	2	0.00	0.02	0.02		122	10.00	112	132
bluefish	1	0.00	0.01	0.01		175		175	175
red hake	1	0.00	0.01	0.01		49		49	49
striped bass	1	0.00	0.01	0.01	0	443		443	443
Atlantic spadefish	1	0.00	0.01	0.01		125		125	125
skinnerfish	1	0.00	0.01	0.01		24		24	24
conger eel	1	0.00	0.01	0.01		322		322	322
banded drum	1	0.00	0.01	0.01		66		66	66
Atlantic cutlassfish	1	0.00	0.01	0.01		256		256	256
northern stargazer	1	0.00	0.01	0.01		29		29	29
silver jenny	1	0.00	0.01	0.01		81		81	81
All Species Combined	79,590								

Table 54.

Month - All - Pooled  
 Segment - All - Pooled  
 No. of Fish Trawls Made - 368  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 82  
 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	128,172	72.86	348.29		115,723	53	0.15	21	91
spot	12,066	6.86	32.79	26.89	10,962	133	0.31	26	248
striped anchovy	10,254	5.83	27.86	22.85	9,634	71	0.72	37	118
Atlantic croaker	6,958	3.96	18.91	15.50	2,860	165	1.17	12	328
weakfish	2,877	1.64	7.82	6.41	1,381	174	1.26	15	373
hogchoker	2,865	1.63	7.79		20	112	0.52	50	195
spotted hake	1,621	0.92	4.40	3.61	1,565	135	1.52	21	319
northern searobin	1,570	0.89	4.27	3.50	1,517	89	0.67	16	186
smallmouth flounder	1,457	0.83	3.96	3.25	1,370	78	0.46	23	135
Atlantic herring	1,310	0.74	3.56	2.92		86	7.25	41	326
summer flounder	789	0.45	2.14	1.76	645	229	2.62	112	574
blueback herring	591	0.34	1.61	1.32	589	79	1.03	42	255
blackcheek tonguefish	518	0.29	1.41	1.15	74	139	1.69	47	203
squid	478	0.27	1.30	1.07		30	1.08	6	177
scup	465	0.26	1.26	1.04	350	101	2.13	21	242
black seabass	450	0.26	1.22	1.00	317	96	1.48	26	185
blue crab, adult female	439	0.25	1.19	0.98		133	0.71	89	180
pigfish	299	0.17	0.81	0.67		140	1.22	59	205
butterfish	276	0.16	0.75	0.61	161	121	2.23	11	198
inshore lizardfish	268	0.15	0.73	0.60	220	163	2.95	37	334
kingfish	231	0.13	0.63	0.51	186	123	5.50	28	327
blue crab, juvenile female	199	0.11	0.54	0.44		69	1.87	15	122
striped searobin	152	0.09	0.41	0.34		121	2.92	45	230
Atlantic silverside	142	0.08	0.39	0.32	142	88	1.13	60	120
silver perch	139	0.08	0.38	0.31	101	143	2.52	82	214
windowpane	137	0.08	0.37	0.31	106	153	5.95	42	311
blue crab, male	136	0.08	0.37	0.30		79	3.06	19	152
northern pipefish	129	0.07	0.35	0.29		140	3.40	62	248
Atlantic thread herring	121	0.07	0.33	0.27		55	1.84	30	164
cleannose skate	121	0.07	0.33	0.27		395	5.90	160	541
brown shrimp	90	0.05	0.24	0.20		121	2.08	69	177
lined seahorse	88	0.05	0.24	0.20		76	2.76	38	174
alewife	61	0.03	0.17	0.14	60	111	3.27	50	226
northern puffer	59	0.03	0.16	0.13	38	102	7.05	22	227
harvestfish	49	0.03	0.13	0.11	49	78	2.44	43	118
oyster toadfish	43	0.02	0.12	0.10		182	14.09	24	355
Atlantic menhaden	23	0.01	0.06	0.05	7	160	6.74	104	201
naked goby	20	0.01	0.05	0.04		37	1.44	25	50
dusky pipefish	18	0.01	0.05	0.04		128	8.67	87	203
fringed flounder	18	0.01	0.05	0.04		115	3.06	98	142
pink shrimp	16	0.01	0.04	0.04		103	3.75	83	144
bighead searobin	15	0.01	0.04	0.03		98	12.43	48	190
silver hake	12	0.01	0.03	0.03		110	12.55	68	196
red hake	12	0.01	0.03	0.03		111	13.45	49	195
American shad	12	0.01	0.03	0.03	12	114	3.65	95	134
spiny butterfly ray	12	0.01	0.03	0.03		703	61.70	515	1170
bluefish	11	0.01	0.03	0.02		202	16.58	132	284
feather blenny	10	0.01	0.03	0.02		54	5.66	33	90
pinfish	10	0.01	0.03	0.02		122	2.96	103	134
skilletfish	9	0.01	0.02	0.02		32	3.71	17	45
silver jenny	9	0.01	0.02	0.02		80	2.83	67	97
rock seabass	8	0.00	0.02	0.02		151	4.47	134	169
conger eel	7	0.00	0.02	0.02		374	29.30	266	455
banded drum	7	0.00	0.02	0.02		104	10.76	66	140
white shrimp	6	0.00	0.02	0.01		129	6.15	109	151
tautog	5	0.00	0.01	0.01		260	28.96	157	328
spotted seatrout	5	0.00	0.01	0.01		229	11.64	197	269
seaboard goby	5	0.00	0.01	0.01		31	1.43	27	35
striped bass	4	0.00	0.01	0.01	2	226	74.72	115	443
spiny dogfish	4	0.00	0.01	0.01		848	64.08	710	980
striped burrfish	4	0.00	0.01	0.01		198	16.26	163	230
blackwing searobin	4	0.00	0.01	0.01		128	5.65	115	142
gizzard shad	3	0.00	0.01	0.01	3	142	14.26	119	168
southern stingray	3	0.00	0.01	0.01		542	59.72	452	655
northern stargazer	3	0.00	0.01	0.01		33	5.78	25	44
American eel	2	0.00	0.01	0.00		316	5.00	311	321
Atlantic spadefish	2	0.00	0.01	0.00		145	19.50	125	164
smooth dogfish	2	0.00	0.01	0.00		424	74.50	349	498
little skate	2	0.00	0.01	0.00		333	33.00	300	366
bluntnose stingray	2	0.00	0.01	0.00		285	12.00	273	297
cobia	1	0.00	0.00	0.00		960		960	960
winter flounder	1	0.00	0.00	0.00		235		235	235
round herring	1	0.00	0.00	0.00		93		93	93
bluespotted cornetfish	1	0.00	0.00	0.00		232		232	232
sea lamprey	1	0.00	0.00	0.00		171		171	171
green goby	1	0.00	0.00	0.00		38		38	38
star drum	1	0.00	0.00	0.00		94		94	94
Atlantic cutlassfish	1	0.00	0.00	0.00		256		256	256
striped cusk-eel	1	0.00	0.00	0.00		185		185	185
northern sennet	1	0.00	0.00	0.00		80		80	80
fourspot flounder	1	0.00	0.00	0.00		146		146	146
spotail pinfish	1	0.00	0.00	0.00		130		130	130

All Species Combined

175.917

Tables 55-102. Species composition, number caught, catch per trawl, and length statistics by month and river for the river trawl survey.

Notes: A. The 'Number of Species' notation at the top of the table includes each of the three categories of blue crabs (male, juvenile female, adult female) as a different "species".

B. Tables pooled for all rivers, for each month appear as follows:

January	Table 58	Page 155
February	Table 62	Page 157
March	Table 66	Page 159
April	Table 70	Page 161
May	Table 74	Page 163
June	Table 78	Page 165
July	Table 82	Page 167
August	Table 86	Page 169
September	Table 90	Page 171
October	Table 94	Page 173
November	Table 98	Page 175
December	Table 102	Page 177

C. Catch per trawl for fish species is based on the figure 'Number of Fish Trawls Made' while catch per trawl for blue crabs is based on the sum of 'Number of Fish Trawls Made' and 'Number of Additional Crab Trawls Made'.

D. 'Adjusted Percent of Catch' excludes bay anchovy and hogchoker due to low biomass estimates in relation to number of fish caught.

E. Two new variables, 'Adjusted Percent of Catch' and 'Number of Index Age Fish' have replaced the variables 'Cumulative Percent' and 'Average Weight' in this year's report. The 'Average Weight' variable was misleading since it was based only on those specimens where weight was taken, not the overall catch. 'Cumulative Percent' seemed somewhat redundant with 'Percent of Catch' already existing and was removed in favor of 'Adjusted Percent of Catch', a more informative variable.

Table 55.

Month - January RIVER - James No. of Fish Trawls Made - 8 No. of Add'l Crab Trawls Made - 0 No. of Species - 18 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
white perch	3,121	59.84	390.13	91.98	2,605	92	2.06	46	265
hogchoker	1,693	32.46	211.63	.	779	60	2.06	25	93
bay anchovy	130	2.49	16.25	.	130	44	0.67	30	64
gizzard shad	80	1.53	10.00	2.36	79	126	2.97	89	307
Atlantic silverside	50	0.96	6.25	1.47	50	103	1.69	71	123
striped bass	35	0.67	4.38	1.03	35	113	5.43	63	168
Atlantic croaker	25	0.48	3.13	0.74	25	44	2.45	26	79
blueback herring	25	0.48	3.13	0.74	25	72	1.06	64	84
channel catfish	24	0.46	3.00	0.71	1	268	9.47	129	321
naked goby	13	0.25	1.63	0.38	.	35	1.90	26	48
white catfish	6	0.12	0.75	0.18	1	193	27.79	107	277
alewife	3	0.06	0.38	0.09	3	107	7.88	91	116
American eel	3	0.06	0.38	0.09	.	200	25.54	172	251
Atlantic herring	2	0.04	0.25	0.06	.	313	13.00	300	326
blue crab, male	2	0.04	0.25	0.06	.	38	19.50	18	57
blue crab, juvenile female	2	0.04	0.25	0.06	.	54	2.50	51	56
kingfish	1	0.02	0.13	0.03	1	82	.	82	82
blue catfish	1	0.02	0.13	0.03	0	295	.	295	295
All Species Combined	5,216								

Table 56.

Month - January RIVER - Rappahannock No. of Fish Trawls Made - 8 No. of Add'l Crab Trawls Made - 0 No. of Species - 15 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	1,661	49.23	207.63		1,661	43	0.45	30	71
white perch	933	27.65	116.63	57.17	251	112	2.13	64	232
Atlantic croaker	394	11.68	49.25	24.14	394	45	1.75	20	89
striped bass	124	3.68	15.50	7.60	112	125	4.44	63	337
gizzard shad	90	2.67	11.25	5.51	87	145	3.56	89	342
hogchoker	81	2.40	10.13	.	24	72	2.44	30	116
channel catfish	27	0.80	3.38	1.65	0	337	15.93	189	516
Atlantic silverside	27	0.80	3.38	1.65	27	90	1.54	74	104
blueback herring	24	0.71	3.00	1.47	24	67	0.73	63	76
naked goby	5	0.15	0.63	0.31	.	36	2.42	32	45
blue crab, juvenile female	4	0.12	0.50	0.25	.	31	7.06	18	49
eastern silvery minnow	1	0.03	0.13	0.06	.	89	.	89	89
skilletfish	1	0.03	0.13	0.06	.	33	.	33	33
blue catfish	1	0.03	0.13	0.06	1	84	.	84	84
blue crab, male	1	0.03	0.13	0.06	.	51	.	51	51
All Species Combined	3,374								

Table 57.

Month - January RIVER - York No. of Fish Trawls Made - 9 No. of Add'l Crab Trawls Made - 0 No. of Species - 24 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	1,785	53.41	198.33	.	1,785	40	0.61	26	67
hogchoker	1,003	30.01	111.44	.	567	72	2.00	26	135
white catfish	145	4.34	16.11	26.17	110	107	4.77	58	400
white perch	104	3.11	11.56	18.77	29	127	4.98	64	240
Atlantic croaker	79	2.36	8.78	14.26	79	41	1.56	15	80
striped bass	55	1.65	6.11	9.93	55	110	2.73	64	168
Atlantic silverside	49	1.47	5.44	8.84	49	92	1.73	65	118
blackcheek tonguefish	20	0.60	2.22	3.61	20	69	2.32	50	92
blue crab, juvenile female	19	0.57	2.11	3.43	.	31	2.04	14	50
gizzard shad	17	0.51	1.89	3.07	17	132	4.96	98	185
blue crab, male	17	0.51	1.89	3.07	.	38	5.18	21	116
alewife	10	0.30	1.11	1.81	10	102	1.77	95	112
sea lamprey	9	0.27	1.00	1.62	.	146	7.17	116	196
blueback herring	8	0.24	0.89	1.44	8	73	2.65	63	87
spottail shiner	6	0.18	0.67	1.08	.	72	1.41	68	75
naked goby	6	0.18	0.67	1.08	.	33	2.19	26	38
spot	3	0.09	0.33	0.54	3	107	8.39	92	121
Atlantic herring	1	0.03	0.11	0.18	.	307	.	307	307
channel catfish	1	0.03	0.11	0.18	1	89	.	89	89
American eel	1	0.03	0.11	0.18	.	165	.	165	165
sheepshead minnow	1	0.03	0.11	0.18	.	36	.	36	36
striped killifish	1	0.03	0.11	0.18	.	110	.	110	110
skilletfish	1	0.03	0.11	0.18	.	47	.	47	47
oyster toadfish	1	0.03	0.11	0.18	.	263	.	263	263
All Species Combined	3,342								

Table 58

Month - January RIVER - All - Pooled No. of Fish Trawls Made - 25 No. of Add'l Crab Trawls Made - 0 No. of Species - 37 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
white perch	4,158	34.85	166.32	74.53	2,885	104	1.51	46	265
bay anchovy	3,576	29.97	143.04	.	3,576	42	0.34	26	71
hogchoker	2,777	23.27	111.08	.	1,370	68	1.29	25	135
Atlantic croaker	498	4.17	19.92	8.93	498	43	1.07	15	89
striped bass	214	1.79	8.56	3.84	202	120	2.84	63	337
gizzard shad	187	1.57	7.48	3.35	183	136	2.27	89	342
white catfish	151	1.27	6.04	2.71	111	111	4.88	58	400
Atlantic silverside	126	1.06	5.04	2.26	126	96	1.13	65	123
blueback herring	57	0.48	2.28	1.02	57	70	0.73	63	87
channel catfish	52	0.44	2.08	0.93	2	300	11.22	89	516
blue crab, juvenile female	25	0.21	1.00	0.45	.	33	2.23	14	56
naked goby	24	0.20	0.96	0.43	.	35	1.25	26	48
blackcheek tonguefish	20	0.17	0.80	0.36	20	69	2.32	50	92
blue crab, male	20	0.17	0.80	0.36	.	39	4.65	18	116
alewife	13	0.11	0.52	0.23	13	103	2.13	91	116
sea lamprey	9	0.08	0.36	0.16	.	146	7.17	116	196
spottail shiner	6	0.05	0.24	0.11	.	72	1.41	68	75
American eel	4	0.03	0.16	0.07	.	191	20.07	165	251
Atlantic herring	3	0.03	0.12	0.05	.	311	7.77	300	326
spot	3	0.03	0.12	0.05	3	107	8.39	92	121
skilletfish	2	0.02	0.08	0.04	.	40	7.00	33	47
blue catfish	2	0.02	0.08	0.04	1	190	105.50	84	295
kingfish	1	0.01	0.04	0.02	1	82	.	82	82
eastern silvery minnow	1	0.01	0.04	0.02	.	89	.	89	89
sheepshead minnow	1	0.01	0.04	0.02	.	36	.	36	36
striped killifish	1	0.01	0.04	0.02	.	110	.	110	110
oyster toadfish	1	0.01	0.04	0.02	.	263	.	263	263
All Species Combined	11,932								



**Table 59.**

Month - February  
RIVER - James  
No. of Fish Trawls Made - 8  
No. of Add'l Crab Trawls Made - 0  
No. of Species - 19  
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
white perch	962	53.36	120.25	78.72	558	109	3.30	52	265
hogchoker	573	31.78	71.63		182	66	1.65	17	107
striped bass	121	6.71	15.13	9.90	112	107	5.28	53	342
gizzard shad	40	2.22	5.00	3.27	38	132	5.46	98	261
white catfish	24	1.33	3.00	1.96	3	209	13.03	76	297
channel catfish	14	0.78	1.75	1.15	0	285	22.74	169	544
alewife	13	0.72	1.63	1.06	13	110	4.34	87	136
blue catfish	10	0.55	1.25	0.82	9	112	9.32	85	187
blue crab, male	9	0.50	1.13	0.74	.	52	3.23	42	68
bay anchovy	8	0.44	1.00		8	39	4.12	28	64
blueback herring	7	0.39	0.88	0.57	7	67	2.51	57	75
blackcheek tonguefish	6	0.33	0.75	0.49	2	124	9.88	89	141
blue crab, juvenile female	5	0.28	0.63	0.41	.	59	12.99	32	108
Atlantic silverside	4	0.22	0.50	0.33	4	88	5.42	80	103
Atlantic herring	2	0.11	0.25	0.16	.	291	8.50	282	299
American eel	2	0.11	0.25	0.16	.	151	11.00	140	162
sea lamprey	1	0.06	0.13	0.08	.	165	.	165	165
brown bullhead	1	0.06	0.13	0.08	.	123	.	123	123
northern pipefish	1	0.06	0.13	0.08	.	128	.	128	128
<b>All Species Combined</b>	<b>1,803</b>								

**Table 60.**

Month - February  
RIVER - Rappahannock  
No. of Fish Trawls Made - 8  
No. of Add'l Crab Trawls Made - 0  
No. of Species - 14  
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
white perch	1,605	73.66	200.63	79.89	758	100	1.84	60	234
hogchoker	170	7.80	21.25		37	78	3.43	36	157
blueback herring	128	5.87	16.00	6.37	128	65	0.45	55	93
striped bass	123	5.64	15.38	6.12	79	156	7.08	60	325
blue crab, male	40	1.84	5.00	1.99	.	78	5.84	27	150
gizzard shad	33	1.51	4.13	1.64	32	142	3.35	122	220
blackcheek tonguefish	23	1.06	2.88	1.14	16	90	7.08	54	154
blue catfish	21	0.96	2.63	1.05	16	127	13.05	57	250
channel catfish	15	0.69	1.88	0.75	0	315	15.57	241	430
blue crab, juvenile female	9	0.41	1.13	0.45	.	40	6.71	18	88
Atlantic silverside	7	0.32	0.88	0.35	7	91	2.74	86	107
spottail shiner	3	0.14	0.38	0.15	.	76	1.76	73	79
Atlantic herring	1	0.05	0.13	0.05	.	323	.	323	323
blue crab, adult female	1	0.05	0.13	0.05	.	158	.	158	158
<b>All Species Combined</b>	<b>2,179</b>								

Table 61.

Month - February  
 RIVER - York  
 No. of Fish Trawls Made - 9  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 20  
 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	292	23.49	32.44		292	46	1.13	36	80
white perch	256	20.60	28.44	30.08	24	151	4.14	60	281
striped bass	191	15.37	21.22	22.44	181	129	3.21	74	368
hogchoker	100	8.05	11.11		39	71	2.67	32	169
Atlantic croaker	84	6.76	9.33	9.87	84	44	2.25	18	68
blueback herring	84	6.76	9.33	9.87	84	70	0.67	57	92
white catfish	81	6.52	9.00	9.52	47	142	9.55	53	427
Atlantic silverside	38	3.06	4.22	4.47	38	95	2.17	65	116
gizzard shad	32	2.57	3.56	3.76	29	146	9.09	92	326
blue crab, male	27	2.17	3.00	3.17		48	5.49	25	133
blackcheek tonguefish	13	1.05	1.44	1.53	13	68	2.67	51	90
blue crab, juvenile female	13	1.05	1.44	1.53		39	4.90	23	92
Atlantic herring	12	0.97	1.33	1.41		301	3.85	267	322
naked goby	5	0.40	0.56	0.59		39	2.56	31	46
sea lamprey	4	0.32	0.44	0.47		163	3.52	155	172
spottail shiner	4	0.32	0.44	0.47		81	1.19	79	84
alewife	2	0.16	0.22	0.24	2	69	2.50	66	71
northern pipefish	2	0.16	0.22	0.24		137	33.00	104	170
blue crab, adult female	2	0.16	0.22	0.24		136	2.00	134	138
skilletfish	1	0.08	0.11	0.12		47		47	47
All Species Combined		1.243							

Table 62.

Month - February  
 RIVER - All - Pooled  
 No. of Fish Trawls Made - 25  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 24  
 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
white perch	2,823	54.03	112.92	69.16	1,340	112	1.74	52	281
hogchoker	843	16.13	33.72		258	70	1.40	17	169
striped bass	435	8.33	17.40	10.66	372	130	2.98	53	368
bay anchovy	300	5.74	12.00		300	45	1.13	28	80
blueback herring	219	4.19	8.76	5.37	219	67	0.41	55	93
white catfish	105	2.01	4.20	2.57	50	157	8.38	53	427
gizzard shad	105	2.01	4.20	2.57	99	140	3.63	92	326
Atlantic croaker	84	1.61	3.36	2.06	84	44	2.25	18	68
blue crab, male	76	1.45	3.04	1.86		64	3.98	25	150
Atlantic silverside	49	0.94	1.96	1.20	49	94	1.79	65	116
blackcheek tonguefish	42	0.80	1.68	1.03	31	88	4.97	51	154
blue catfish	31	0.59	1.24	0.76	25	122	9.33	57	250
channel catfish	29	0.56	1.16	0.71	0	300	13.67	169	544
blue crab, juvenile female	27	0.52	1.08	0.66		43	4.10	18	108
alewife	15	0.29	0.60	0.37	15	105	5.32	66	136
Atlantic herring	15	0.29	0.60	0.37		301	3.65	267	323
spottail shiner	7	0.13	0.28	0.17		79	1.25	73	84
sea lamprey	5	0.10	0.20	0.12		163	2.77	155	172
naked goby	5	0.10	0.20	0.12		39	2.56	31	46
northern pipefish	3	0.06	0.12	0.07		134	19.29	104	170
blue crab, adult female	3	0.06	0.12	0.07		143	7.42	134	158
American eel	2	0.04	0.08	0.05		151	11.00	140	162
brown bullhead	1	0.02	0.04	0.02		123		123	123
skilletfish	1	0.02	0.04	0.02		47		47	47
All Species Combined		5.225							

Table 63.

Month - March									
RIVER - James									
No. of Fish Trawls Made - 8									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 22									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
hogchoker	3,381	77.76	422.63		1,871	63	1.20	22	124
white perch	379	8.72	47.38	40.49	344	74	0.95	49	219
blue catfish	152	3.50	19.00	16.24	1	240	7.49	110	336
channel catfish	78	1.79	9.75	8.33	2	264	6.63	86	410
white catfish	70	1.61	8.75	7.48	20	170	9.02	68	282
American eel	67	1.54	8.38	7.16	.	238	6.09	131	355
blue crab, juvenile female	55	1.26	6.88	5.88	.	28	2.32	8	86
blue crab, male	40	0.92	5.00	4.27	.	34	4.18	8	123
spotted hake	37	0.85	4.63	3.95	37	88	3.04	43	124
bay anchovy	31	0.71	3.88		29	57	2.59	32	84
striped bass	17	0.39	2.13	1.82	15	126	13.71	64	272
naked goby	12	0.28	1.50	1.28	.	40	1.18	33	47
alewife	8	0.18	1.00	0.85	8	115	5.99	87	148
northern pipefish	6	0.14	0.75	0.64	.	137	7.64	109	165
blackcheck tonguefish	6	0.14	0.75	0.64	5	84	11.73	51	136
American shad	2	0.05	0.25	0.21	2	136	4.50	131	140
blue crab, adult female	2	0.05	0.25	0.21	.	123	8.00	115	131
blueback herring	1	0.02	0.13	0.11	1	78	.	78	78
Atlantic menhaden	1	0.02	0.13	0.11	0	110	.	110	110
gizzard shad	1	0.02	0.13	0.11	0	239	.	239	239
tautog	1	0.02	0.13	0.11	.	70	.	70	70
oyster toadfish	1	0.02	0.13	0.11	.	137	.	137	137
All Species Combined	4,348								

Table 64.

Month - March									
RIVER - Rappahannock									
No. of Fish Trawls Made - 8									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 17									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
hogchoker	392	42.94	49.00		111	78	1.77	24	157
white perch	297	32.53	37.13	57.12	216	88	2.90	55	215
striped bass	69	7.56	8.63	13.27	60	135	9.70	58	612
blue crab, juvenile female	36	3.94	4.50	6.92	.	29	2.04	13	66
spotted hake	29	3.18	3.63	5.58	29	99	1.82	80	118
blue crab, male	27	2.96	3.38	5.19	.	51	7.45	16	162
white catfish	19	2.08	2.38	3.65	0	225	10.35	155	316
blueback herring	11	1.20	1.38	2.12	11	79	2.90	67	97
American eel	9	0.99	1.13	1.73	.	224	9.27	186	259
blue catfish	8	0.88	1.00	1.54	5	169	22.87	83	284
channel catfish	6	0.66	0.75	1.15	0	291	17.99	252	369
alewife	4	0.44	0.50	0.77	4	112	5.30	101	124
Atlantic herring	2	0.22	0.25	0.38	.	300	17.00	283	317
American shad	1	0.11	0.13	0.19	1	135	.	135	135
bay anchovy	1	0.11	0.13	0.19	1	68	.	68	68
spottail shiner	1	0.11	0.13	0.19	.	81	.	81	81
conger eel	1	0.11	0.13	0.19	.	321	.	321	321
All Species Combined	913								

Table 65.

Month - March

RIVER - York

No. of Fish Trawls Made - 9

No. of Add'l Crab Trawls Made - 0

No. of Species - 17

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
hogchoker	402	38.00	44.67		149	80	2.18	32	151
striped bass	193	18.24	21.44	35.81	190	113	3.36	68	598
bay anchovy	117	11.06	13.00		117	42	1.10	26	61
white catfish	104	9.83	11.56	19.29	82	108	6.55	53	386
white perch	77	7.28	8.56	14.29	18	142	6.44	66	252
blue crab, male	44	4.16	4.89	8.16		36	3.09	15	95
blackcheek tonguefish	38	3.59	4.22	7.05	38	73	1.48	55	93
blue crab, juvenile female	26	2.46	2.89	4.82		34	3.31	14	99
alewife	16	1.51	1.78	2.97	15	127	3.76	97	151
blueback herring	14	1.32	1.56	2.60	14	87	1.21	74	94
spottail shiner	12	1.13	1.33	2.23		78	2.82	63	91
American eel	4	0.38	0.44	0.74		235	10.92	214	262
American shad	3	0.28	0.33	0.56	3	120	8.41	105	134
gizzard shad	2	0.19	0.22	0.37	2	133	0.50	132	133
spotted hake	2	0.19	0.22	0.37	2	101	7.00	94	108
northern pipefish	2	0.19	0.22	0.37		116	13.00	103	129
naked goby	2	0.19	0.22	0.37		48	2.00	46	50
All Species Combined	1,058								

Table 66.

Month - March

RIVER - All - Pooled

No. of Fish Trawls Made - 25

No. of Add'l Crab Trawls Made - 0

No. of Species - 25

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
hogchoker	4,175	66.07	167.00		2,131	72	0.98	22	157
white perch	753	11.92	30.12	37.74	578	88	1.74	49	252
striped bass	279	4.42	11.16	13.98	265	119	3.52	58	612
white catfish	193	3.05	7.72	9.67	102	140	5.73	53	386
blue catfish	160	2.53	6.40	8.02	6	230	7.94	83	336
bay anchovy	149	2.36	5.96		147	49	1.47	26	84
blue crab, juvenile female	117	1.85	4.68	5.86		30	1.46	8	99
blue crab, male	111	1.76	4.44	5.56		39	2.70	8	162
channel catfish	84	1.33	3.36	4.21	2	267	6.27	86	410
American eel	80	1.27	3.20	4.01		236	5.23	131	355
spotted hake	68	1.08	2.72	3.41	68	93	1.94	43	124
blackcheek tonguefish	44	0.70	1.76	2.21	43	74	2.03	51	136
alewife	28	0.44	1.12	1.40	27	122	3.02	87	151
blueback herring	26	0.41	1.04	1.30	26	83	1.59	67	97
naked goby	14	0.22	0.56	0.70		41	1.31	33	50
spottail shiner	13	0.21	0.52	0.65		78	2.60	63	91
northern pipefish	8	0.13	0.32	0.40		132	7.02	103	165
American shad	6	0.09	0.24	0.30	6	128	5.17	105	140
gizzard shad	3	0.05	0.12	0.15	2	168	35.50	132	239
Atlantic herring	2	0.03	0.08	0.10		300	17.00	283	317
blue crab, adult female	2	0.03	0.08	0.10		123	8.00	115	131
Atlantic menhaden	1	0.02	0.04	0.05	0	110		110	110
tautog	1	0.02	0.04	0.05		70		70	70
oyster toadfish	1	0.02	0.04	0.05		137		137	137
conger eel	1	0.02	0.04	0.05		321		321	321
All Species Combined	6,319								

Table 67.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Month - April									
RIVER - James									
No. of Fish Trawls Made - 8									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 23									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
hogchoker	1,493	63.56	186.63	.	581	69	1.94	28	160
bay anchovy	265	11.28	33.13	.	240	63	1.04	42	94
white perch	120	5.11	15.00	20.30	104	83	2.40	58	208
spot	83	3.53	10.38	14.04	0	138	1.55	109	185
blue crab, juvenile female	82	3.49	10.25	13.87	0	42	1.93	21	101
spotted hake	73	3.11	9.13	12.35	73	114	3.30	68	173
blue crab, male	72	3.07	9.00	12.18	.	44	2.63	15	137
Atlantic croaker	50	2.13	6.25	8.46	2	214	5.40	96	294
American eel	31	1.32	3.88	5.25	.	234	9.13	150	310
northern pipefish	18	0.77	2.25	3.05	.	130	4.63	80	170
white catfish	16	0.68	2.00	2.71	8	143	15.89	81	273
naked goby	16	0.68	2.00	2.71	.	39	1.15	33	49
blue catfish	10	0.43	1.25	1.69	3	183	6.27	161	227
blackcheek tonguefish	7	0.30	0.88	1.18	6	85	9.82	53	129
blue crab, adult female	3	0.13	0.38	0.51	6	146	3.38	139	150
summer flounder	2	0.09	0.25	0.34	0	349	58.00	291	407
channel catfish	2	0.09	0.25	0.34	0	240	3.50	236	243
black seabass	1	0.04	0.13	0.17	1	51	.	51	51
alewife	1	0.04	0.13	0.17	1	121	.	121	121
blueback herring	1	0.04	0.13	0.17	1	72	.	72	72
gizzard shad	1	0.04	0.13	0.17	0	105	.	105	105
northern searobin	1	0.04	0.13	0.17	1	74	.	74	74
brown bullhead	1	0.04	0.13	0.17	.	129	.	129	129
All Species Combined	2,349								

Table 68.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Month - April									
RIVER - Rappahannock									
No. of Fish Trawls Made - 8									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 18									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
hogchoker	2,322	68.44	290.25	.	433	85	1.56	33	179
blue crab, juvenile female	278	8.19	34.75	29.89	.	32	0.99	10	128
blue crab, male	272	8.02	34.00	29.25	.	39	1.46	9	165
bay anchovy	141	4.16	17.63	.	123	66	1.08	33	92
spotted hake	100	2.95	12.50	10.75	100	104	2.22	60	179
white catfish	73	2.15	9.13	7.85	1	210	4.78	91	332
American eel	45	1.33	5.63	4.84	.	241	8.51	125	437
blue catfish	45	1.33	5.63	4.84	19	197	6.09	145	318
white perch	41	1.21	5.13	4.41	18	131	7.54	70	216
Atlantic croaker	36	1.06	4.50	3.87	0	251	4.19	216	329
channel catfish	20	0.59	2.50	2.15	1	265	14.61	96	376
spot	8	0.24	1.00	0.86	0	137	5.35	115	163
oyster toadfish	6	0.18	0.75	0.65	.	227	29.14	126	326
spottail shiner	2	0.06	0.25	0.22	.	98	1.50	96	99
Atlantic menhaden	1	0.03	0.13	0.11	0	202	.	202	202
sheepshead	1	0.03	0.13	0.11	.	139	.	139	139
northern pipefish	1	0.03	0.13	0.11	.	173	.	173	173
blue crab, adult female	1	0.03	0.13	0.11	.	157	.	157	157
All Species Combined	3,393								

Table 69.

Month - April RIVER - York No. of Fish Trawls Made - 9 No. of Add'l Crab Trawls Made - 0 No. of Species - 23 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
hogchoker	1,444	42.63	160.44	.	150	91	1.35	24	165
bay anchovy	740	21.85	82.22	.	727	63	0.70	38	92
Atlantic croaker	385	11.37	42.78	32.00	1	223	2.45	81	302
blue crab, male	204	6.02	22.67	16.96	.	45	1.81	16	151
blue crab, juvenile female	166	4.90	18.44	13.80	.	39	1.71	19	123
white catfish	115	3.40	12.78	9.36	103	90	5.91	51	343
spotted hake	90	2.66	10.00	7.48	90	107	1.83	63	146
spot	83	2.45	9.22	6.90	0	151	1.85	122	195
white perch	36	1.06	4.00	2.99	8	184	10.23	68	273
spottail shiner	34	1.00	3.78	2.83	.	72	1.37	47	88
blueback herring	31	0.92	3.44	2.58	31	89	1.00	77	100
alewife	16	0.47	1.78	1.33	16	115	2.34	100	137
blackcheek tonguefish	16	0.47	1.78	1.33	15	73	4.56	51	128
American eel	7	0.21	0.78	0.58	.	345	27.17	263	466
blue crab, adult female	6	0.18	0.67	0.50	.	144	1.36	141	150
striped bass	5	0.15	0.56	0.42	5	108	5.28	96	126
Atlantic menhaden	2	0.06	0.22	0.17	0	279	6.50	272	285
longnose gar	2	0.06	0.22	0.17	.	775	175.00	600	950
summer flounder	1	0.03	0.11	0.08	0	270	.	270	270
channel catfish	1	0.03	0.11	0.08	0	413	.	413	413
naked goby	1	0.03	0.11	0.08	.	38	.	38	38
oyster toadfish	1	0.03	0.11	0.08	.	124	.	124	124
blue catfish	1	0.03	0.11	0.08	1	154	.	154	154
All Species Combined	3,387								

Table 70.

Month - April RIVER - All - Pooled No. of Fish Trawls Made - 25 No. of Add'l Crab Trawls Made - 0 No. of Species - 29 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
hogchoker	5,259	57.61	210.36	.	1,164	84	0.97	24	179
bay anchovy	1,146	12.55	45.84	.	1,090	64	0.53	33	94
blue crab, male	548	6.00	21.92	20.12	.	41	1.05	9	165
blue crab, juvenile female	526	5.76	21.04	19.31	.	36	0.81	10	128
Atlantic croaker	471	5.16	18.84	17.29	3	225	2.15	81	329
spotted hake	263	2.88	10.52	9.65	263	107	1.36	60	179
white catfish	204	2.23	8.16	7.49	112	137	5.55	51	343
white perch	197	2.16	7.88	7.23	130	111	3.97	58	273
spot	174	1.91	6.96	6.39	0	144	1.28	109	195
American eel	83	0.91	3.32	3.05	.	247	6.92	125	466
blue catfish	56	0.61	2.24	2.06	23	193	5.10	145	318
spottail shiner	36	0.39	1.44	1.32	.	73	1.63	47	99
blueback herring	32	0.35	1.28	1.17	32	88	1.10	72	100
channel catfish	23	0.25	0.92	0.84	1	269	14.33	96	413
blackcheek tonguefish	23	0.25	0.92	0.84	21	77	4.39	51	129
northern pipefish	19	0.21	0.76	0.70	.	132	4.94	80	173
alewife	17	0.19	0.68	0.62	17	115	2.23	100	137
naked goby	17	0.19	0.68	0.62	.	38	1.08	33	49
blue crab, adult female	10	0.11	0.40	0.37	.	146	1.75	139	157
oyster toadfish	7	0.08	0.28	0.26	.	212	28.69	124	326
striped bass	5	0.05	0.20	0.18	5	108	5.28	96	126
summer flounder	3	0.03	0.12	0.11	0	323	42.60	270	407
Atlantic menhaden	3	0.03	0.12	0.11	0	253	25.77	202	285
longnose gar	2	0.02	0.08	0.07	.	775	175.00	600	950
black seabass	1	0.01	0.04	0.04	1	51	.	51	51
gizzard shad	1	0.01	0.04	0.04	0	105	.	105	105
sheepshead	1	0.01	0.04	0.04	.	139	.	139	139
northern searobin	1	0.01	0.04	0.04	1	74	.	74	74
brown bullhead	1	0.01	0.04	0.04	.	129	.	129	129
All Species Combined	9,129								

Table 71.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Atlantic croaker	669	47.68	111.50	60.87	24	192	4.52	11	319
hogchoker	293	20.88	48.83		56	75	1.69	32	117
spot	155	11.05	25.83	14.10	0	161	1.17	137	203
blue crab, juvenile female	68	4.85	6.80	6.19	.	55	2.77	21	114
blue crab, male	59	4.21	5.90	5.37	.	55	3.77	18	146
weakfish	46	3.28	7.67	4.19	44	184	4.97	139	310
American eel	33	2.35	5.50	3.00	.	269	7.30	151	319
oyster toadfish	16	1.14	2.67	1.46	.	191	16.88	95	301
bay anchovy	11	0.78	1.83		11	56	1.46	49	66
white catfish	10	0.71	1.67	0.91	1	170	14.34	99	231
summer flounder	8	0.57	1.33	0.73	0	283	28.36	224	476
spotted hake	8	0.57	1.33	0.73	8	158	7.68	130	196
white perch	5	0.36	0.83	0.45	0	196	6.28	181	211
gizzard shad	5	0.36	0.83	0.45	0	284	18.48	252	354
black seabass	4	0.29	0.67	0.36	4	80	5.94	66	95
striped bass	3	0.21	0.50	0.27	0	375	102.31	189	542
blackcheek tonguefish	2	0.14	0.33	0.18	0	155	12.50	142	167
blue crab, adult female	2	0.14	0.20	0.18	.	122	15.00	107	137
scup	1	0.07	0.17	0.09	0	113	.	113	113
channel catfish	1	0.07	0.17	0.09	0	380	.	380	380
windowpane	1	0.07	0.17	0.09	1	132	.	132	132
northern pipefish	1	0.07	0.17	0.09	.	128	.	128	128
green goby	1	0.07	0.17	0.09	.	33	.	33	33
silver perch	1	0.07	0.17	0.09	0	193	.	193	193
All Species Combined	1,403								

Table 72.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
blue crab, male	589	23.68	49.08	30.46	.	58	1.06	6	142
blue crab, juvenile female	535	21.51	44.58	27.66	.	49	0.64	7	83
hogchoker	484	19.46	69.14		7	95	0.96	38	161
blue catfish	280	11.26	40.00	14.48	264	181	2.20	144	258
Atlantic croaker	205	8.24	29.29	10.60	0	231	1.85	160	339
spot	153	6.15	21.86	7.91	11	154	3.12	18	238
bay anchovy	69	2.77	9.86		67	59	1.32	40	81
white catfish	61	2.45	8.71	3.15	0	250	5.92	162	348
American eel	36	1.45	5.14	1.86	.	266	7.17	174	377
weakfish	29	1.17	4.14	1.50	17	215	8.81	142	282
white perch	19	0.76	2.71	0.98	0	170	7.61	109	246
spotted hake	9	0.36	1.29	0.47	9	163	5.05	139	193
striped bass	4	0.16	0.57	0.21	0	199	25.64	147	246
oyster toadfish	4	0.16	0.57	0.21	.	182	29.92	138	270
Atlantic menhaden	3	0.12	0.43	0.16	2	90	51.00	39	141
channel catfish	2	0.08	0.29	0.10	0	287	28.50	258	315
northern searobin	2	0.08	0.29	0.10	2	52	0.00	52	52
kingfish	1	0.04	0.14	0.05	0	283	.	283	283
naked goby	1	0.04	0.14	0.05	.	27	.	27	27
blue crab, adult female	1	0.04	0.08	0.05	.	115	.	115	115
All Species Combined	2,487								

Table 73.

Month - May  
 RIVER - York  
 No. of Fish Trawls Made - 8  
 No. of Add'l Crab Trawls Made - 4  
 No. of Species - 17

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
hogchoker	838	32.29	104.75		340	74	2.40	26	162
Atlantic croaker	715	27.55	89.38	42.36	0	203	1.58	143	282
spot	559	21.54	69.88	33.12	29	122	5.84	18	193
blue crab, male	156	6.01	13.00	9.24	.	60	1.94	20	134
blue crab, juvenile female	103	3.97	8.58	6.10	.	51	1.79	23	111
bay anchovy	69	2.66	8.63		69	53	1.83	31	75
weakfish	56	2.16	7.00	3.32	37	213	4.95	123	267
spotted hake	35	1.35	4.38	2.07	35	150	2.75	114	184
white catfish	27	1.04	3.38	1.60	21	120	14.55	61	377
oyster toadfish	21	0.81	2.63	1.24	.	180	21.50	65	341
American eel	7	0.27	0.88	0.41	.	147	14.51	115	228
Atlantic menhaden	3	0.12	0.38	0.18	1	123	43.66	36	173
striped bass	2	0.08	0.25	0.12	0	97	11.00	86	108
summer flounder	1	0.04	0.13	0.06	0	359	.	359	359
white perch	1	0.04	0.13	0.06	0	192	.	192	192
silver perch	1	0.04	0.13	0.06	1	110	.	110	110
blue crab, adult female	1	0.04	0.08	0.06	.	117	.	117	117
All Species Combined	2,595								

Table 74.

Month - May  
 RIVER - All - Pooled  
 No. of Fish Trawls Made - 21  
 No. of Add'l Crab Trawls Made - 13  
 No. of Species - 29

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
hogchoker	1,615	24.90	76.90		403	85	0.99	26	162
Atlantic croaker	1,589	24.50	75.67	33.66	24	209	1.58	11	339
spot	867	13.37	41.29	18.36	40	147	2.25	18	238
blue crab, male	804	12.40	23.65	17.03	.	58	0.92	6	146
blue crab, juvenile female	706	10.89	20.76	14.95	.	51	0.66	7	114
blue catfish	280	4.32	13.33	5.93	264	181	2.20	144	258
bay anchovy	149	2.30	7.10		147	56	1.01	31	81
weakfish	131	2.02	6.24	2.77	98	203	3.55	123	310
white catfish	98	1.51	4.67	2.08	22	206	8.13	61	377
American eel	76	1.17	3.62	1.61	.	256	6.24	115	377
spotted hake	52	0.80	2.48	1.10	52	154	2.41	114	196
oyster toadfish	41	0.63	1.95	0.87	.	184	12.94	65	341
white perch	25	0.39	1.19	0.53	0	176	6.26	109	246
summer flounder	9	0.14	0.43	0.19	0	291	26.42	224	476
striped bass	9	0.14	0.43	0.19	0	235	48.98	86	542
Atlantic menhaden	6	0.09	0.29	0.13	3	110	29.96	36	173
gizzard shad	5	0.08	0.24	0.11	0	284	18.48	252	354
black seabass	4	0.06	0.19	0.08	4	80	5.94	66	95
blue crab, adult female	4	0.06	0.12	0.08	.	119	6.38	107	137
channel catfish	3	0.05	0.14	0.06	0	318	35.24	258	380
northern searobin	2	0.03	0.10	0.04	2	52	0.00	52	52
blackcheek tonguefish	2	0.03	0.10	0.04	0	155	12.50	142	167
silver perch	2	0.03	0.10	0.04	1	152	41.50	110	193
scup	1	0.02	0.05	0.02	0	113	.	113	113
kingfish	1	0.02	0.05	0.02	0	283	.	283	283
windowpane	1	0.02	0.05	0.02	1	132	.	132	132
northern pipefish	1	0.02	0.05	0.02	.	128	.	128	128
green goby	1	0.02	0.05	0.02	.	33	.	33	33
naked goby	1	0.02	0.05	0.02	.	27	.	27	27
All Species Combined	6,485								



Table 75.

Month - June									
RIVER - James									
No. of Fish Trawls Made - 6									
No. of Add'l Crab Trawls Made - 4									
No. of Species - 25									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
hogchoker	540	44.41	90.00		222	72	1.84	38	172
Atlantic croaker	250	20.56	41.67	42.88	22	180	2.12	19	262
bay anchovy	93	7.65	15.50		93	55	1.04	41	78
spot	70	5.76	11.67	12.01	15	146	4.90	55	191
weakfish	59	4.85	9.83	10.12	0	155	1.40	125	184
blue crab, juvenile female	59	4.85	5.90	10.12	.	55	2.42	19	98
blue crab, male	45	3.70	4.50	7.72	.	74	5.51	29	157
white catfish	13	1.07	2.17	2.23	0	236	12.27	115	287
American eel	13	1.07	2.17	2.23	.	275	12.83	187	338
blue crab, adult female	12	0.99	1.20	2.06	.	142	3.81	119	169
black seabass	10	0.82	1.67	1.72	10	88	6.21	67	119
oyster toadfish	10	0.82	1.67	1.72	.	171	25.95	102	322
summer flounder	9	0.74	1.50	1.54	0	295	25.69	244	477
northern pipefish	8	0.66	1.33	1.37	.	173	12.95	139	239
windowpane	5	0.41	0.83	0.86	3	166	21.38	125	247
northern searobin	4	0.33	0.67	0.69	4	76	4.94	65	87
blackcheek tonguefish	4	0.33	0.67	0.69	2	108	14.86	79	137
striped bass	3	0.25	0.50	0.51	1	277	125.32	34	451
silver perch	2	0.16	0.33	0.34	0	192	4.50	187	196
smallmouth flounder	2	0.16	0.33	0.34	2	95	8.50	86	103
butterfish	1	0.08	0.17	0.17	0	153	.	153	153
common carp	1	0.08	0.17	0.17	.	485	.	485	485
spotted hake	1	0.08	0.17	0.17	1	175	.	175	175
naked goby	1	0.08	0.17	0.17	.	28	.	28	28
feather blenny	1	0.08	0.17	0.17	.	73	.	73	73
All Species Combined	1,216								

Table 76.

Month - June									
RIVER - Rappahannock									
No. of Fish Trawls Made - 7									
No. of Add'l Crab Trawls Made - 5									
No. of Species - 20									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
hogchoker	240	20.74	34.29		36	90	2.97	28	165
blue crab, juvenile female	207	17.89	17.25	22.60	.	55	1.10	26	131
blue crab, male	177	15.30	14.75	19.32	.	60	1.66	21	155
Atlantic croaker	161	13.92	23.00	17.58	8	205	3.50	22	290
spot	153	13.22	21.86	16.70	92	114	3.84	57	191
white catfish	58	5.01	8.29	6.33	0	237	5.58	144	342
white perch	46	3.98	6.57	5.02	2	164	5.95	28	230
American eel	33	2.85	4.71	3.60	.	267	7.96	151	341
blue catfish	21	1.82	3.00	2.29	21	176	5.26	127	212
spotted hake	17	1.47	2.43	1.86	17	179	3.43	144	197
channel catfish	16	1.38	2.29	1.75	0	291	5.95	251	343
weakfish	9	0.78	1.29	0.98	0	165	4.52	143	187
Atlantic menhaden	5	0.43	0.71	0.55	5	38	1.34	35	42
northern searobin	3	0.26	0.43	0.33	3	33	3.84	29	41
Atlantic herring	2	0.17	0.29	0.22	.	79	1.50	77	80
striped bass	2	0.17	0.29	0.22	0	210	4.50	205	214
striped searobin	2	0.17	0.29	0.22	.	48	2.00	46	50
longnose gar	2	0.17	0.29	0.22	.	1003	11.00	992	1014
blue crab, adult female	2	0.17	0.17	0.22	.	162	0.50	161	162
bay anchovy	1	0.09	0.14	.	1	61	.	61	61
All Species Combined	1,157								

Table 77.

Month - June RIVER - York No. of Fish Trawls Made - 8 No. of Add'l Crab Trawls Made - 4 No. of Species - 19 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Atlantic croaker	1,018	45.84	127.25	65.98	436	157	3.34	21	291
hogchoker	648	29.18	81.00		244	69	2.90	25	157
spot	148	6.66	18.50	9.59	8	160	3.09	49	203
blue crab, male	108	4.86	9.00	7.00	.	70	2.46	28	142
blue crab, juvenile female	90	4.05	7.50	5.83	.	60	1.63	26	125
weakfish	89	4.01	11.13	5.77	0	172	1.59	147	208
white catfish	40	1.80	5.00	2.59	0	141	9.65	82	309
bay anchovy	30	1.35	3.75		30	62	1.93	38	79
oyster toadfish	11	0.50	1.38	0.71	.	190	19.43	112	307
Atlantic menhaden	10	0.45	1.25	0.65	9	60	11.29	39	156
striped bass	6	0.27	0.75	0.39	0	136	9.29	112	170
northern searobin	6	0.27	0.75	0.39	0	186	5.95	173	212
blue crab, adult female	6	0.27	0.50	0.39	.	135	2.40	127	142
spotted hake	4	0.18	0.50	0.26	4	181	10.63	154	206
American eel	3	0.14	0.38	0.19	.	210	42.10	163	294
summer flounder	1	0.05	0.13	0.06	0	575	.	575	575
white perch	1	0.05	0.13	0.06	0	225	.	225	225
longnose gar	1	0.05	0.13	0.06	.	801	.	801	801
conger eel	1	0.05	0.13	0.06	.	488	.	488	488
All Species Combined	2,221								

Table 78.

Month - June RIVER - All - Pooled No. of Fish Trawls Made - 21 No. of Add'l Crab Trawls Made - 13 No. of Species - 33 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Atlantic croaker	1,429	31.11	68.05	46.98	466	172	2.06	19	291
hogchoker	1,428	31.08	68.00		502	75	1.52	25	172
spot	371	8.08	17.67	12.20	115	135	2.60	49	203
blue crab, juvenile female	356	7.75	10.47	11.70	.	56	0.86	19	131
blue crab, male	330	7.18	9.71	10.85	.	65	1.45	21	157
weakfish	157	3.42	7.48	5.16	0	165	1.25	125	208
bay anchovy	124	2.70	5.90		124	57	0.95	38	79
white catfish	111	2.42	5.29	3.65	0	202	6.45	82	342
American eel	49	1.07	2.33	1.61	.	265	6.95	151	341
white perch	47	1.02	2.24	1.55	2	165	5.97	28	230
spotted hake	22	0.48	1.05	0.72	22	179	3.15	144	206
oyster toadfish	21	0.46	1.00	0.69	.	181	15.75	102	322
blue catfish	21	0.46	1.00	0.69	21	176	5.26	127	212
blue crab, adult female	20	0.44	0.59	0.66	.	142	2.87	119	169
channel catfish	16	0.35	0.76	0.53	0	291	5.95	251	343
Atlantic menhaden	15	0.33	0.71	0.49	14	52	7.88	35	156
northern searobin	13	0.28	0.62	0.43	7	117	19.24	29	212
striped bass	11	0.24	0.52	0.36	1	188	35.40	34	451
black seabass	10	0.22	0.48	0.33	10	88	6.21	67	119
summer flounder	10	0.22	0.48	0.33	0	323	36.23	244	575
northern pipefish	8	0.17	0.38	0.26	.	173	12.95	139	239
windowpane	5	0.11	0.24	0.16	3	166	21.38	125	247
blackcheek tonguefish	4	0.09	0.19	0.13	2	108	14.86	79	137
longnose gar	3	0.07	0.14	0.10	.	936	67.63	801	1014
Atlantic herring	2	0.04	0.10	0.07	.	79	1.50	77	80
striped searobin	2	0.04	0.10	0.07	.	48	2.00	46	50
silver perch	2	0.04	0.10	0.07	0	192	4.50	187	196
smallmouth flounder	2	0.04	0.10	0.07	2	95	8.50	86	103
butterfish	1	0.02	0.05	0.03	0	153	.	153	153
common carp	1	0.02	0.05	0.03	.	485	.	485	485
naked goby	1	0.02	0.05	0.03	.	28	.	28	28
feather blenny	1	0.02	0.05	0.03	.	73	.	73	73
conger eel	1	0.02	0.05	0.03	.	488	.	488	488
All Species Combined	4,594								

Table 79.

Month - July  
RIVER - James  
No. of Fish Trawls Made - 6  
No. of Add'l Crab Trawls Made - 4  
No. of Species - 28  
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	844	55.45	140.67		68	56	0.75	37	84
spot	198	13.01	33.00	33.79	162	122	2.97	80	209
Atlantic croaker	142	9.33	23.67	24.23	56	166	5.35	13	280
hogchoker	92	6.04	15.33		55	76	2.52	39	164
weakfish	84	5.52	14.00	14.33	72	65	6.22	16	272
blue crab, juvenile female	62	4.07	6.20	10.58	.	54	2.03	28	115
blue crab, male	43	2.83	4.30	7.34	.	64	3.94	24	144
summer flounder	8	0.53	1.33	1.37	7	179	28.47	121	371
silver perch	7	0.46	1.17	1.19	0	181	2.80	167	191
black seabass	5	0.33	0.83	0.85	4	142	10.57	117	177
blue crab, adult female	5	0.33	0.50	0.85	.	131	4.15	119	144
butterfish	4	0.26	0.67	0.68	4	37	3.83	27	43
white catfish	4	0.26	0.67	0.68	0	254	56.92	183	424
striped anchovy	4	0.26	0.67	0.68	4	54	1.94	48	57
oyster toadfish	4	0.26	0.67	0.68	.	135	8.20	112	149
Atlantic cutlassfish	3	0.20	0.50	0.51	.	177	32.39	119	231
white perch	2	0.13	0.33	0.34	0	183	17.00	166	200
scup	1	0.07	0.17	0.17	1	91	.	91	91
harvestfish	1	0.07	0.17	0.17	0	128	.	128	128
channel catfish	1	0.07	0.17	0.17	0	346	.	346	346
northern puffer	1	0.07	0.17	0.17	0	132	.	132	132
gizzard shad	1	0.07	0.17	0.17	0	281	.	281	281
pigfish	1	0.07	0.17	0.17	.	80	.	80	80
American eel	1	0.07	0.17	0.17	.	205	.	205	205
northern searobin	1	0.07	0.17	0.17	1	113	.	113	113
northern pipefish	1	0.07	0.17	0.17	.	103	.	103	103
naked goby	1	0.07	0.17	0.17	.	42	.	42	42
Atlantic moonfish	1	0.07	0.17	0.17	.	47	.	47	47
All Species Combined	1,522								

Table 80.

Month - July  
RIVER - Rappahannock  
No. of Fish Trawls Made - 7  
No. of Add'l Crab Trawls Made - 5  
No. of Species - 17  
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
blue catfish	105	26.85	15.00	32.92	104	180	3.15	128	284
bay anchovy	61	15.60	8.71		0	71	1.41	57	87
white catfish	37	9.46	5.29	11.60	0	206	7.38	117	301
blue crab, male	36	9.21	3.00	11.29	.	87	3.88	18	154
spot	27	6.91	3.86	8.46	27	91	1.20	81	104
blue crab, juvenile female	26	6.65	2.17	8.15	.	82	3.29	56	129
Atlantic croaker	21	5.37	3.00	6.58	5	228	17.23	86	317
alewife	20	5.12	2.86	6.27	20	64	1.16	54	71
weakfish	18	4.60	2.57	5.64	18	70	2.56	50	85
white perch	16	4.09	2.29	5.02	0	120	5.07	90	152
hogchoker	11	2.81	1.57		5	78	8.19	46	121
channel catfish	5	1.28	0.71	1.57	0	273	15.79	232	315
striped bass	3	0.77	0.43	0.94	0	232	38.89	172	305
American eel	2	0.51	0.29	0.63	.	281	24.50	256	305
blueback herring	1	0.26	0.14	0.31	1	65	.	65	65
Atlantic menhaden	1	0.26	0.14	0.31	1	72	.	72	72
blue crab, adult female	1	0.26	0.08	0.31	.	141	.	141	141
All Species Combined	391								

Table 81.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Atlantic croaker	549	29.64	68.63	47.04	269	167	3.32	31	312
hogchoker	482	26.03	60.25		64	98	1.91	50	159
weakfish	243	13.12	30.38	20.82	57	174	4.08	22	330
bay anchovy	203	10.96	25.38		46	57	1.46	16	81
spot	118	6.37	14.75	10.11	70	142	3.42	71	218
blue crab, male	98	5.29	8.17	8.40	.	86	2.69	30	155
blue crab, juvenile female	71	3.83	5.92	6.08	.	68	2.27	32	106
striped bass	29	1.57	3.63	2.49	15	111	13.73	29	231
silver perch	14	0.76	1.75	1.20	0	180	6.29	139	208
oyster toadfish	11	0.59	1.38	0.94	.	174	17.57	73	270
white perch	10	0.54	1.25	0.86	10	47	1.84	39	56
blue crab, adult female	10	0.54	0.83	0.86	.	138	4.69	110	161
American eel	5	0.27	0.63	0.43	.	253	7.44	236	271
summer flounder	3	0.16	0.38	0.26	3	171	6.96	160	184
white catfish	3	0.16	0.38	0.26	0	208	58.82	92	283
alewife	1	0.05	0.13	0.09	1	60	.	60	60
Atlantic menhaden	1	0.05	0.13	0.09	0	155	.	155	155
gizzard shad	1	0.05	0.13	0.09	0	368	.	368	368
All Species Combined	1,852								

Table 82.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	1,108	29.43	52.76		114	58	0.77	16	87
Atlantic croaker	712	18.91	33.90	34.36	330	170	2.85	13	317
hogchoker	585	15.54	27.86		124	89	1.66	39	164
weakfish	345	9.16	16.43	16.65	147	142	4.19	16	330
spot	343	9.11	16.33	16.55	259	127	2.22	71	218
blue crab, male	177	4.70	5.21	8.54	.	81	2.06	18	155
blue crab, juvenile female	159	4.22	4.68	7.67	.	65	1.59	28	129
blue catfish	105	2.79	5.00	5.07	104	180	3.15	128	284
white catfish	44	1.17	2.10	2.12	0	211	8.62	92	424
striped bass	32	0.85	1.52	1.54	15	122	14.28	29	305
white perch	28	0.74	1.33	1.35	10	98	8.59	39	200
alewife	21	0.56	1.00	1.01	21	64	1.12	54	71
silver perch	21	0.56	1.00	1.01	0	180	4.24	139	208
blue crab, adult female	16	0.42	0.47	0.77	.	136	3.22	110	161
oyster toadfish	15	0.40	0.71	0.72	.	164	13.66	73	270
summer flounder	11	0.29	0.52	0.53	10	177	20.41	121	371
American eel	8	0.21	0.38	0.39	.	254	10.45	205	305
channel catfish	6	0.16	0.29	0.29	0	285	17.77	232	346
black seabass	5	0.13	0.24	0.24	4	142	10.57	117	177
butterfish	4	0.11	0.19	0.19	4	37	3.83	27	43
striped anchovy	4	0.11	0.19	0.19	4	54	1.94	48	57
Atlantic cutlassfish	3	0.08	0.14	0.14	.	177	32.39	119	231
Atlantic menhaden	2	0.05	0.10	0.10	1	114	41.50	72	155
gizzard shad	2	0.05	0.10	0.10	0	325	43.50	281	368
scup	1	0.03	0.05	0.05	1	91	.	91	91
harvestfish	1	0.03	0.05	0.05	0	128	.	128	128
blueback herring	1	0.03	0.05	0.05	1	65	.	65	65
northern puffer	1	0.03	0.05	0.05	0	132	.	132	132
pigfish	1	0.03	0.05	0.05	.	80	.	80	80
northern searobin	1	0.03	0.05	0.05	1	113	.	113	113
northern pipefish	1	0.03	0.05	0.05	.	103	.	103	103
naked goby	1	0.03	0.05	0.05	.	42	.	42	42
Atlantic moonfish	1	0.03	0.05	0.05	.	47	.	47	47
All Species Combined	3,765								

Table 83.

Month - August  
RIVER - James  
No. of Fish Trawls Made - 6  
No. of Add'l Crab Trawls Made - 4  
No. of Species - 26  
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	23,117	91.77	3852.83	.	23,012	37	0.79	24	82
hogchoker	1,116	4.43	186.00	.	10	81	1.67	36	128
Atlantic croaker	262	1.04	43.67	27.41	257	140	2.37	106	241
spot	238	0.94	39.67	24.90	231	123	1.54	95	203
weakfish	219	0.87	36.50	22.91	205	104	4.31	28	259
blue crab, juvenile female	57	0.23	5.70	5.96	.	79	3.19	36	123
blue crab, male	47	0.19	4.70	4.92	.	86	5.45	33	161
summer flounder	40	0.16	6.67	4.18	31	211	8.84	145	368
white catfish	25	0.10	4.17	2.62	0	166	5.44	121	223
oyster toadfish	18	0.07	3.00	1.88	.	164	14.05	99	298
blue crab, adult female	13	0.05	1.30	1.36	.	136	3.52	113	154
inshore lizardfish	6	0.02	1.00	0.63	4	174	11.36	144	210
silver perch	5	0.02	0.83	0.52	0	179	6.73	168	199
smallmouth flounder	4	0.02	0.67	0.42	4	67	1.65	62	69
kingfish	3	0.01	0.50	0.31	3	99	13.35	75	121
American eel	3	0.01	0.50	0.31	.	282	16.23	263	314
northern searobin	3	0.01	0.50	0.31	3	140	10.73	125	161
striped anchovy	3	0.01	0.50	0.31	3	76	6.56	63	84
butterfish	2	0.01	0.33	0.21	1	116	66.50	49	182
pigfish	2	0.01	0.33	0.21	.	176	15.50	160	191
scup	1	0.00	0.17	0.10	1	88	.	88	88
black seabass	1	0.00	0.17	0.10	0	131	.	131	131
Atlantic thread herring	1	0.00	0.17	0.10	.	42	.	42	42
common carp	1	0.00	0.17	0.10	.	519	.	519	519
lookdown	1	0.00	0.17	0.10	.	87	.	87	87
brown shrimp	1	0.00	0.17	0.10	.	119	.	119	119
All Species Combined	25,189								

Table 84.

Month - August  
RIVER - Rappahannock  
No. of Fish Trawls Made - 7  
No. of Add'l Crab Trawls Made - 5  
No. of Species - 13  
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	177	24.96	25.29	.	18	60	2.70	27	75
spot	168	23.70	24.00	32.43	164	109	1.27	87	212
blue catfish	156	22.00	22.29	30.12	0	175	2.69	139	223
white perch	53	7.48	7.57	10.23	0	113	2.04	81	154
white catfish	48	6.77	6.86	9.27	0	233	6.36	148	308
Atlantic croaker	38	5.36	5.43	7.34	32	134	10.93	84	323
blue crab, male	20	2.82	1.67	3.86	.	83	3.39	44	117
hogchoker	14	1.97	2.00	.	1	73	4.93	38	97
blue crab, juvenile female	14	1.97	1.17	2.70	.	86	2.71	69	102
weakfish	11	1.55	1.57	2.12	10	77	8.64	54	153
American eel	8	1.13	1.14	1.54	.	243	13.16	188	286
channel catfish	1	0.14	0.14	0.19	0	337	.	337	337
oyster toadfish	1	0.14	0.14	0.19	.	125	.	125	125
All Species Combined	709								

Table 85.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Month - August									
RIVER - York									
No. of Fish Trawls Made - 8									
No. of Add'l Crab Trawls Made - 4									
No. of Species - 21									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
weakfish	785	37.65	98.13	51.54	625	94	3.99	15	310
hogchoker	518	24.84	64.75		0	88	1.57	45	173
Atlantic croaker	275	13.19	34.38	18.06	262	138	2.46	87	261
blue crab, male	165	7.91	13.75	10.83		99	2.38	12	161
spot	124	5.95	15.50	8.14	68	164	4.16	89	218
blue crab, juvenile female	90	4.32	7.50	5.91		81	2.53	15	120
bay anchovy	44	2.11	5.50		26	48	2.36	28	77
blue crab, adult female	20	0.96	1.67	1.31		136	3.56	110	166
silver perch	16	0.77	2.00	1.05	1	171	8.28	62	205
white catfish	13	0.62	1.63	0.85	1	223	25.43	65	372
oyster toadfish	13	0.62	1.63	0.85		193	16.23	118	278
summer flounder	6	0.29	0.75	0.39	4	216	44.65	118	362
striped bass	4	0.19	0.50	0.26	0	213	7.92	193	231
striped searobin	3	0.14	0.38	0.20		139	0.88	138	141
butterfish	2	0.10	0.25	0.13	2	21	4.50	16	25
brown shrimp	2	0.10	0.25	0.13		154	2.00	152	156
Atlantic menhaden	1	0.05	0.13	0.07	0	217		217	217
longnose gar	1	0.05	0.13	0.07		810		810	810
northern pipefish	1	0.05	0.13	0.07		154		154	154
blackcheek tonguefish	1	0.05	0.13	0.07	0	118		118	118
bluntnose stingray	1	0.05	0.13	0.07		213		213	213
All Species Combined	2,085								

Table 86.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Month - August									
RIVER - All - Pooled									
No. of Fish Trawls Made - 21									
No. of Add'l Crab Trawls Made - 13									
No. of Species - 36									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
bay anchovy	23,338	83.40	1111.33		23,056	41	0.88	24	82
hogchoker	1,648	5.89	78.48		11	84	1.14	36	173
weakfish	1,015	3.63	48.33	33.87	840	96	3.14	15	310
Atlantic croaker	575	2.05	27.38	19.19	551	138	1.88	84	323
spot	530	1.89	25.24	17.68	463	126	1.65	87	218
blue crab, male	232	0.83	6.82	7.74		95	2.08	12	161
blue crab, juvenile female	161	0.58	4.74	5.37		81	1.82	15	123
blue catfish	156	0.56	7.43	5.21	0	175	2.69	139	223
white catfish	86	0.31	4.10	2.87	1	212	6.27	65	372
white perch	53	0.19	2.52	1.77	0	113	2.04	81	154
summer flounder	46	0.16	2.19	1.53	35	212	9.37	118	368
blue crab, adult female	33	0.12	0.97	1.10		136	2.53	110	166
oyster toadfish	32	0.11	1.52	1.07		174	10.55	99	298
silver perch	21	0.08	1.00	0.70	1	172	6.48	62	205
American eel	11	0.04	0.52	0.37		253	11.51	188	314
inshore lizardfish	6	0.02	0.29	0.20	4	174	11.36	144	210
butterfish	4	0.01	0.19	0.13	3	68	38.63	16	182
striped bass	4	0.01	0.19	0.13	0	213	7.92	193	231
smallmouth flounder	4	0.01	0.19	0.13	4	67	1.65	62	69
kingfish	3	0.01	0.14	0.10	3	99	13.35	75	121
northern searobin	3	0.01	0.14	0.10	3	140	10.73	125	161
striped searobin	3	0.01	0.14	0.10		139	0.88	138	141
striped anchovy	3	0.01	0.14	0.10	3	76	6.56	63	84
brown shrimp	3	0.01	0.14	0.10		142	11.72	119	156
pigfish	2	0.01	0.10	0.07		176	15.50	160	191
scup	1	0.00	0.05	0.03	1	88		88	88
black seabass	1	0.00	0.05	0.03	0	131		131	131
Atlantic menhaden	1	0.00	0.05	0.03	0	217		217	217
Atlantic thread herring	1	0.00	0.05	0.03		42		42	42
channel catfish	1	0.00	0.05	0.03	0	337		337	337
common carp	1	0.00	0.05	0.03		519		519	519
longnose gar	1	0.00	0.05	0.03		810		810	810
northern pipefish	1	0.00	0.05	0.03		154		154	154
blackcheek tonguefish	1	0.00	0.05	0.03	0	118		118	118
bluntnose stingray	1	0.00	0.05	0.03		213		213	213
lookdown	1	0.00	0.05	0.03		87		87	87
All Species Combined	27,983								

Table 87.

Month - September									
RIVER - James									
No. of Fish Trawls Made - 6									
No. of Add'l Crab Trawls Made - 4									
No. of Species - 28									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	1,446	40.42	241.00	.	1,421	43	1.33	20	70
hogchoker	1,150	32.15	191.67	.	25	87	2.29	46	175
weakfish	334	9.34	55.67	34.05	330	101	3.01	25	333
Atlantic croaker	249	6.96	41.50	25.38	0	150	1.28	101	238
spot	215	6.01	35.83	21.92	199	134	1.95	107	224
blue crab, male	29	0.81	2.90	2.96	.	82	8.13	17	150
smallmouth flounder	23	0.64	3.83	2.34	23	75	2.59	52	96
blue crab, juvenile female	22	0.62	2.20	2.24	.	60	7.25	16	115
summer flounder	20	0.56	3.33	2.04	13	256	19.33	174	491
brown shrimp	14	0.39	2.33	1.43	.	143	4.49	116	174
oyster toadfish	13	0.36	2.17	1.33	.	180	18.49	92	284
pigfish	12	0.34	2.00	1.22	.	158	7.90	106	200
blue crab, adult female	10	0.28	1.00	1.02	.	145	2.35	137	162
striped anchovy	9	0.25	1.50	0.92	9	90	1.35	83	95
silver perch	5	0.14	0.83	0.51	2	155	18.46	109	188
striped searobin	4	0.11	0.67	0.41	.	167	12.13	142	199
white catfish	3	0.08	0.50	0.31	0	198	23.90	167	245
blackcheek tonguefish	3	0.08	0.50	0.31	1	109	26.77	56	140
inshore lizardfish	3	0.08	0.50	0.31	0	239	24.38	202	285
black seabass	2	0.06	0.33	0.20	2	60	7.50	52	67
kingfish	2	0.06	0.33	0.20	2	52	9.00	43	61
squid	2	0.06	0.33	0.20	.	75	16.00	59	91
Atlantic spadefish	2	0.06	0.33	0.20	.	76	24.00	52	100
blueback herring	1	0.03	0.17	0.10	1	62	.	62	62
American eel	1	0.03	0.17	0.10	.	289	.	289	289
lookdown	1	0.03	0.17	0.10	.	98	.	98	98
Atlantic cutlassfish	1	0.03	0.17	0.10	.	353	.	353	353
fringed flounder	1	0.03	0.17	0.10	.	128	.	128	128
All Species Combined	3,577								

Table 88.

Month - September									
RIVER - Rappahannock									
No. of Fish Trawls Made - 7									
No. of Add'l Crab Trawls Made - 5									
No. of Species - 20									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	3,147	55.87	449.57	.	2,833	49	1.54	33	88
spot	1,605	28.49	229.29	70.21	1,600	124	0.59	97	211
weakfish	363	6.44	51.86	15.88	355	95	2.96	28	304
hogchoker	200	3.55	28.57	.	0	97	1.82	67	156
Atlantic croaker	121	2.15	17.29	5.29	56	97	5.45	19	182
white catfish	51	0.91	7.29	2.23	0	236	6.99	137	385
blue crab, male	34	0.60	2.83	1.49	.	87	6.42	14	143
white perch	26	0.46	3.71	1.14	0	156	2.93	121	192
blue crab, juvenile female	24	0.43	2.00	1.05	.	51	6.39	17	121
American eel	19	0.34	2.71	0.83	.	265	15.13	161	388
summer flounder	9	0.16	1.29	0.39	8	196	24.03	147	376
kingfish	8	0.14	1.14	0.35	8	56	4.07	35	69
blue catfish	5	0.09	0.71	0.22	0	180	2.25	175	188
blue crab, adult female	5	0.09	0.42	0.22	.	137	3.70	129	149
harvestfish	4	0.07	0.57	0.17	4	44	6.96	30	63
oyster toadfish	4	0.07	0.57	0.17	.	207	34.26	151	307
channel catfish	3	0.05	0.43	0.13	0	332	36.99	279	403
striped anchovy	3	0.05	0.43	0.13	3	64	1.53	62	67
inshore lizardfish	1	0.02	0.14	0.04	0	201	.	201	201
banded drum	1	0.02	0.14	0.04	.	81	.	81	81
All Species Combined	5,633								

Table 89.

Month - September

RIVER - York

No. of Fish Trawls Made - 8

No. of Add'l Crab Trawls Made - 4

No. of Species - 19

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	1,325	39.28	165.63		1,179	50	1.03	20	80
weakfish	776	23.01	97.00	58.88	689	108	3.07	20	290
hogchoker	730	21.64	91.25		0	87	1.61	53	159
Atlantic croaker	202	5.99	25.25	15.33	0	146	2.03	122	275
blue crab, male	105	3.11	8.75	7.97		66	4.45	12	147
spot	88	2.61	11.00	6.68	81	140	2.94	112	217
blue crab, juvenile female	58	1.72	4.83	4.40		45	4.56	10	137
silver perch	34	1.01	4.25	2.58	27	113	6.45	65	197
oyster toadfish	19	0.56	2.38	1.44		193	18.61	73	346
white catfish	9	0.27	1.13	0.68	0	197	30.26	117	360
blue crab, adult female	7	0.21	0.58	0.53		146	6.21	127	175
harvestfish	5	0.15	0.63	0.38		25	2.31	16	28
summer flounder	4	0.12	0.50	0.30	4	170	19.40	137	226
white perch	4	0.12	0.50	0.30	0	227	9.48	208	245
kingfish	2	0.06	0.25	0.15	2	45	16.50	28	61
brown shrimp	2	0.06	0.25	0.15		126	2.50	123	128
alewife	1	0.03	0.13	0.08	1	44		44	44
longnose gar	1	0.03	0.13	0.08		681		681	681
white shrimp	1	0.03	0.13	0.08		133		133	133
All Species Combined	3,373								

Table 90.

Month - September

RIVER - All - Pooled

No. of Fish Trawls Made - 21

No. of Add'l Crab Trawls Made - 13

No. of Species - 36

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	5,918	47.03	281.81		5,433	48	0.73	20	88
hogchoker	2,080	16.53	99.05		25	90	1.11	46	175
spot	1,908	15.16	90.86	41.61	1,880	128	0.73	97	224
weakfish	1,473	11.71	70.14	32.13	1,374	102	1.84	20	333
Atlantic croaker	572	4.55	27.24	12.48	56	136	1.84	19	275
blue crab, male	168	1.34	4.94	3.66		73	3.44	12	150
blue crab, juvenile female	104	0.83	3.06	2.27		49	3.34	10	137
white catfish	63	0.50	3.00	1.37	0	228	7.31	117	385
silver perch	39	0.31	1.86	0.85	29	118	6.43	65	197
oyster toadfish	36	0.29	1.71	0.79		190	12.24	73	346
summer flounder	33	0.26	1.57	0.72	25	229	14.63	137	491
white perch	30	0.24	1.43	0.65	0	165	5.29	121	245
smallmouth flounder	23	0.18	1.10	0.50	23	75	2.59	52	96
blue crab, adult female	22	0.17	0.65	0.48		143	2.40	127	175
American eel	20	0.16	0.95	0.44		266	14.40	161	388
brown shrimp	16	0.13	0.76	0.35		140	4.18	116	174
kingfish	12	0.10	0.57	0.26	12	53	3.72	28	69
pigfish	12	0.10	0.57	0.26		158	7.90	106	200
striped anchovy	12	0.10	0.57	0.26	12	83	3.51	62	95
harvestfish	9	0.07	0.43	0.20	9	34	4.52	16	63
blue catfish	5	0.04	0.24	0.11	0	180	2.25	175	188
striped searobin	4	0.03	0.19	0.09		167	12.13	142	199
inshore lizardfish	4	0.03	0.19	0.09	0	230	19.68	201	285
channel catfish	3	0.02	0.14	0.07	0	332	36.99	279	403
blackcheek tonguefish	3	0.02	0.14	0.07	1	109	26.77	56	140
black seabass	2	0.02	0.10	0.04	2	60	7.50	52	67
squid	2	0.02	0.10	0.04		75	16.00	59	91
Atlantic spadefish	2	0.02	0.10	0.04		76	24.00	52	100
alewife	1	0.01	0.05	0.02	1	44		44	44
blueback herring	1	0.01	0.05	0.02	1	62		62	62
longnose gar	1	0.01	0.05	0.02		681		681	681
lookdown	1	0.01	0.05	0.02		98		98	98
banded drum	1	0.01	0.05	0.02		81		81	81
Atlantic cutlassfish	1	0.01	0.05	0.02		353		353	353
fringed flounder	1	0.01	0.05	0.02		128		128	128
white shrimp	1	0.01	0.05	0.02		133		133	133
All Species Combined	12,583								



Table 91.

Month - October									
RIVER - James									
No. of Fish Trawls Made - 6									
No. of Add'l Crab Trawls Made - 4									
No. of Species - 31									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	1,359	66.59	226.50		1,106	53	1.76	28	92
spot	218	10.68	36.33	38.79	218	133	0.75	82	190
hogchoker	120	5.88	20.00		7	75	1.36	50	110
Atlantic croaker	87	4.26	14.50	15.48	59	68	7.54	12	200
smallmouth flounder	54	2.65	9.00	9.61	54	74	2.69	42	106
blue crab, male	39	1.91	3.90	6.94	.	68	6.56	19	151
blue crab, juvenile female	38	1.86	3.80	6.76	.	43	3.51	17	108
blue crab, adult female	28	1.37	2.80	4.98	.	144	2.15	124	162
weakfish	25	1.22	4.17	4.45	24	136	7.27	73	214
summer flounder	11	0.54	1.83	1.96	9	263	28.31	210	538
blackcheek tonguefish	10	0.49	1.67	1.78	2	128	8.55	85	168
black seabass	9	0.44	1.50	1.60	0	149	9.29	106	199
squid	8	0.39	1.33	1.42	.	32	1.72	23	37
pigfish	6	0.29	1.00	1.07	.	149	7.42	132	180
white perch	3	0.15	0.50	0.53	0	194	7.31	180	205
northern searobin	3	0.15	0.50	0.53	2	75	35.00	40	145
naked goby	3	0.15	0.50	0.53	.	39	0.67	38	40
kingfish	2	0.10	0.33	0.36	2	65	18.50	46	83
striped bass	2	0.10	0.33	0.36	2	102	11.50	90	113
northern puffer	2	0.10	0.33	0.36	2	27	5.00	22	32
spotted hake	2	0.10	0.33	0.36	2	273	11.00	262	284
pinfish	2	0.10	0.33	0.36	.	135	7.00	128	142
white shrimp	2	0.10	0.33	0.36	.	149	4.50	144	153
striped anchovy	1	0.05	0.17	0.18	1	74	.	74	74
northern pipefish	1	0.05	0.17	0.18	.	110	.	110	110
feather blenny	1	0.05	0.17	0.18	.	83	.	83	83
oyster toadfish	1	0.05	0.17	0.18	.	330	.	330	330
inshore lizardfish	1	0.05	0.17	0.18	0	301	.	301	301
silver perch	1	0.05	0.17	0.18	1	132	.	132	132
rock seabass	1	0.05	0.17	0.18	.	89	.	89	89
brown shrimp	1	0.05	0.17	0.18	.	139	.	139	139
All Species Combined	2,041								

Table 92.

Month - October									
RIVER - Rappahannock									
No. of Fish Trawls Made - 7									
No. of Add'l Crab Trawls Made - 5									
No. of Species - 21									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	902	27.41	128.86		836	49	1.06	36	85
spot	847	25.74	121.00	51.46	846	128	0.57	98	219
hogchoker	743	22.58	106.14		4	95	1.46	54	162
Atlantic croaker	428	13.01	61.14	26.00	240	89	4.49	16	204
weakfish	100	3.04	14.29	6.08	50	192	8.15	63	391
blue crab, juvenile female	71	2.16	5.92	4.31	.	35	2.17	11	119
blue crab, male	63	1.91	5.25	3.83	.	57	5.38	20	161
white catfish	51	1.55	7.29	3.10	0	265	6.34	177	424
summer flounder	17	0.52	2.43	1.03	16	207	14.58	160	419
kingfish	15	0.46	2.14	0.91	15	80	3.20	56	103
American eel	13	0.40	1.86	0.79	.	265	12.59	151	338
blue catfish	13	0.40	1.86	0.79	0	192	7.95	151	258
silver perch	8	0.24	1.14	0.49	0	198	2.61	192	213
channel catfish	6	0.18	0.86	0.36	0	295	13.88	249	331
blue crab, adult female	5	0.15	0.42	0.30	.	132	6.61	112	152
white perch	3	0.09	0.43	0.18	0	170	15.86	139	192
oyster toadfish	2	0.06	0.29	0.12	.	292	30.50	261	322
bluefish	1	0.03	0.14	0.06	.	131	.	131	131
Atlantic menhaden	1	0.03	0.14	0.06	1	104	.	104	104
blackcheek tonguefish	1	0.03	0.14	0.06	1	85	.	85	85
white shrimp	1	0.03	0.14	0.06	.	161	.	161	161
All Species Combined	3,291								

Table 93.

Month - October

RIVER - York

No. of Fish Trawls Made - 8

No. of Add'l Crab Trawls Made - 4

No. of Species - 27

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
hogchoker	1,124	29.19	140.50	.	16	97	1.52	47	173
bay anchovy	1,006	26.13	125.75	.	534	63	1.16	28	85
Atlantic croaker	522	13.56	65.25	30.35	270	100	4.23	12	281
weakfish	360	9.35	45.00	20.93	303	108	3.04	36	349
blue crab, male	252	6.55	21.00	14.65	.	35	1.64	13	171
blue crab, juvenile female	244	6.34	20.33	14.19	.	28	0.82	12	122
spot	117	3.04	14.63	6.80	104	143	2.72	103	223
oyster toadfish	52	1.35	6.50	3.02	.	244	7.12	151	341
silver perch	44	1.14	5.50	2.56	24	154	5.12	95	202
summer flounder	34	0.88	4.25	1.98	33	194	4.69	148	302
kingfish	29	0.75	3.63	1.69	29	85	5.39	27	155
white catfish	21	0.55	2.63	1.22	0	263	20.68	121	429
brown shrimp	10	0.26	1.25	0.58	.	132	3.24	122	157
blackcheek tonguefish	9	0.23	1.13	0.52	2	126	9.95	65	154
white shrimp	5	0.13	0.63	0.29	.	155	6.85	131	173
white perch	4	0.10	0.50	0.23	0	195	20.72	137	229
blue crab, adult female	3	0.08	0.25	0.17	.	134	3.84	127	140
Atlantic spadefish	2	0.05	0.25	0.12	.	85	8.00	77	93
longnose gar	2	0.05	0.25	0.12	.	685	167.50	517	852
inshore lizardfish	2	0.05	0.25	0.12	2	154	7.50	146	161
northern stargazer	2	0.05	0.25	0.12	.	30	2.00	28	32
striped bass	1	0.03	0.13	0.06	0	269	.	269	269
American eel	1	0.03	0.13	0.06	.	252	.	252	252
northern searobin	1	0.03	0.13	0.06	1	33	.	33	33
bighead searobin	1	0.03	0.13	0.06	.	51	.	51	51
northern pipefish	1	0.03	0.13	0.06	.	201	.	201	201
Atlantic cutlassfish	1	0.03	0.13	0.06	.	614	.	614	614
All Species Combined	3,850								

Table 94.

Month - October

RIVER - All - Pooled

No. of Fish Trawls Made - 21

No. of Add'l Crab Trawls Made - 13

No. of Species - 42

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	3,267	35.58	155.57	.	2,476	55	0.82	28	92
hogchoker	1,987	21.64	94.62	.	27	92	0.99	47	173
spot	1,182	12.87	56.29	30.09	1,168	132	0.60	82	223
Atlantic croaker	1,037	11.29	49.38	26.40	569	92	2.89	12	281
weakfish	485	5.28	23.10	12.35	377	133	3.63	36	391
blue crab, male	354	3.86	10.41	9.01	.	43	1.79	13	171
blue crab, juvenile female	353	3.84	10.38	8.99	.	31	0.85	11	122
white catfish	72	0.78	3.43	1.83	0	264	7.43	121	429
summer flounder	62	0.68	2.95	1.58	58	210	7.46	148	538
oyster toadfish	55	0.60	2.62	1.40	.	247	7.05	151	341
smallmouth flounder	54	0.59	2.57	1.37	54	74	2.69	42	106
silver perch	53	0.58	2.52	1.35	25	160	4.82	95	213
kingfish	46	0.50	2.19	1.17	46	82	3.64	27	155
blue crab, adult female	36	0.39	1.06	0.92	.	141	2.03	112	162
blackcheek tonguefish	20	0.22	0.95	0.51	5	125	5.36	65	168
American eel	14	0.15	0.67	0.36	.	264	11.70	151	338
blue catfish	13	0.14	0.62	0.33	0	192	7.95	151	258
brown shrimp	11	0.12	0.52	0.28	.	132	3.00	122	157
white perch	10	0.11	0.48	0.25	0	187	9.57	137	229
black seabass	9	0.10	0.43	0.23	0	149	9.29	106	199
squid	8	0.09	0.38	0.20	.	32	1.72	23	37
white shrimp	8	0.09	0.38	0.20	.	154	4.43	131	173
channel catfish	6	0.07	0.29	0.15	0	295	13.88	249	331
pigfish	6	0.07	0.29	0.15	.	149	7.42	132	180
northern searobin	4	0.04	0.19	0.10	3	65	26.88	33	145
striped bass	3	0.03	0.14	0.08	2	157	56.23	90	269
naked goby	3	0.03	0.14	0.08	.	39	0.67	38	40
inshore lizardfish	3	0.03	0.14	0.08	2	203	49.36	146	301
northern puffer	2	0.02	0.10	0.05	2	27	5.00	22	32
Atlantic spadefish	2	0.02	0.10	0.05	.	85	8.00	77	93
spotted hake	2	0.02	0.10	0.05	2	273	11.00	262	284
longnose gar	2	0.02	0.10	0.05	.	685	167.50	517	852
northern pipefish	2	0.02	0.10	0.05	.	156	45.50	110	201
pinfish	2	0.02	0.10	0.05	.	135	7.00	128	142
northern stargazer	2	0.02	0.10	0.05	.	30	2.00	28	32
bluefish	1	0.01	0.05	0.03	.	131	.	131	131
Atlantic menhaden	1	0.01	0.05	0.03	1	104	.	104	104
bighead searobin	1	0.01	0.05	0.03	.	51	.	51	51
striped anchovy	1	0.01	0.05	0.03	1	74	.	74	74
feather blenny	1	0.01	0.05	0.03	.	83	.	83	83
Atlantic cutlassfish	1	0.01	0.05	0.03	.	614	.	614	614
rock seabass	1	0.01	0.05	0.03	.	89	.	89	89
All Species Combined	9,182								

Table 95.

Month - November									
RIVER - James									
No. of Fish Trawls Made - 6									
No. of Add'l Crab Trawls Made - 4									
No. of Species - 28									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	2,305	78.72	384.17		2,052	60	0.58	42	75
spot	197	6.73	32.83	38.48	197	135	1.08	106	185
hogchoker	111	3.79	18.50		6	78	1.41	56	118
blue crab, juvenile female	73	2.49	7.30	14.26		40	2.59	17	109
Atlantic croaker	68	2.32	11.33	13.28	61	66	3.76	34	168
smallmouth flounder	52	1.78	8.67	10.16	51	85	2.36	62	129
blue crab, male	50	1.71	5.00	9.77		58	6.15	14	150
squid	14	0.48	2.33	2.73		43	1.86	32	62
white perch	7	0.24	1.17	1.37	0	144	10.67	118	201
blue crab, adult female	7	0.24	0.70	1.37		141	1.39	135	146
kingfish	6	0.20	1.00	1.17	6	93	5.55	68	104
summer flounder	5	0.17	0.83	0.98	5	217	8.34	202	248
channel catfish	5	0.17	0.83	0.98	0	308	9.97	283	337
alewife	3	0.10	0.50	0.59	3	126	7.84	118	142
white catfish	3	0.10	0.50	0.59	0	253	10.02	233	264
northern searobin	3	0.10	0.50	0.59	3	80	7.75	65	90
striped searobin	3	0.10	0.50	0.59		93	20.34	56	126
bighead searobin	3	0.10	0.50	0.59		82	13.53	65	109
northern pipefish	2	0.07	0.33	0.39		112	20.00	92	132
naked goby	2	0.07	0.33	0.39		48	1.00	47	49
brown shrimp	2	0.07	0.33	0.39		114	19.00	95	133
butterfish	1	0.03	0.17	0.20	1	113		113	113
blueback herring	1	0.03	0.17	0.20	1	76		76	76
Atlantic thread herring	1	0.03	0.17	0.20		110		110	110
gizzard shad	1	0.03	0.17	0.20	1	128		128	128
blackcheek tonguefish	1	0.03	0.17	0.20	1	104		104	104
oyster toadfish	1	0.03	0.17	0.20		307		307	307
clearnose skate	1	0.03	0.17	0.20		488		488	488
All Species Combined	2,928								

Table 96.

Month - November									
RIVER - Rappahannock									
No. of Fish Trawls Made - 7									
No. of Add'l Crab Trawls Made - 5									
No. of Species - 21									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Atlantic croaker	1,694	37.56	242.00	62.58	1,664	41	1.14	15	157
bay anchovy	947	21.00	135.29		856	54	1.17	32	87
hogchoker	856	18.98	122.29		35	90	2.17	42	174
spot	603	13.37	86.14	22.28	603	122	0.51	99	188
blue crab, male	85	1.88	7.08	3.14		29	1.50	12	119
weakfish	63	1.40	9.00	2.33	41	176	10.30	82	335
white catfish	61	1.35	8.71	2.25	0	247	5.70	140	357
white perch	44	0.98	6.29	1.63	0	163	4.61	109	220
blue crab, juvenile female	44	0.98	3.67	1.63		32	3.57	15	138
summer flounder	41	0.91	5.86	1.51	36	211	10.00	135	386
Atlantic menhaden	16	0.35	2.29	0.59	16	123	1.36	116	131
channel catfish	14	0.31	2.00	0.52	0	286	13.77	228	420
blackcheek tonguefish	12	0.27	1.71	0.44	12	72	1.80	61	81
kingfish	9	0.20	1.29	0.33	9	93	5.85	71	115
blue catfish	8	0.18	1.14	0.30	0	211	9.58	177	242
American eel	4	0.09	0.57	0.15		222	33.28	161	284
oyster toadfish	3	0.07	0.43	0.11		133	8.72	119	149
naked goby	2	0.04	0.29	0.07		43	4.00	39	47
blue crab, adult female	2	0.04	0.17	0.07		150	5.50	144	155
striped bass	1	0.02	0.14	0.04	0	465		465	465
spotted seatrout	1	0.02	0.14	0.04		164		164	164
All Species Combined	4,510								

Table 97.

Month - November									
RIVER - York									
No. of Fish Trawls Made - 8									
No. of Add'l Crab Trawls Made - 4									
No. of Species - 27									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	4,762	58.34	595.25		3,047	62	0.89	33	89
Atlantic croaker	882	10.81	110.25	34.11	773	74	2.86	23	218
hogchoker	814	9.97	101.75		21	97	1.78	58	174
spot	788	9.65	98.50	30.47	788	130	0.89	104	190
blue crab, juvenile female	275	3.37	22.92	10.63	.	31	0.89	11	108
blue crab, male	274	3.36	22.83	10.60	.	35	1.18	12	129
weakfish	102	1.25	12.75	3.94	77	180	6.30	109	367
white perch	72	0.88	9.00	2.78	3	193	4.13	76	244
white catfish	48	0.59	6.00	1.86	3	171	7.92	84	291
summer flounder	29	0.36	3.63	1.12	27	235	9.69	195	471
oyster toadfish	21	0.26	2.63	0.81	.	223	12.51	118	336
silver perch	21	0.26	2.63	0.81	21	120	2.30	93	137
brown shrimp	18	0.22	2.25	0.70	.	121	3.74	84	149
American eel	11	0.13	1.38	0.43	.	220	14.10	151	304
kingfish	10	0.12	1.25	0.39	10	91	5.02	75	110
blackcheek tonguefish	9	0.11	1.13	0.35	7	101	6.43	79	142
butterfish	6	0.07	0.75	0.23	4	147	10.08	128	189
striped bass	4	0.05	0.50	0.15	0	244	10.59	220	269
white shrimp	4	0.05	0.50	0.15	.	118	9.45	99	139
striped searobin	3	0.04	0.38	0.12	.	73	5.51	62	79
channel catfish	2	0.02	0.25	0.08	1	175	58.50	116	233
naked goby	2	0.02	0.25	0.08	.	44	3.00	41	47
bluefish	1	0.01	0.13	0.04	.	119	.	119	119
harvestfish	1	0.01	0.13	0.04	1	94	.	94	94
squid	1	0.01	0.13	0.04	.	30	.	30	30
Atlantic menhaden	1	0.01	0.13	0.04	1	130	.	130	130
bighead searobin	1	0.01	0.13	0.04	.	65	.	65	65
All Species Combined	8,162								

Table 98.

Month - November									
RIVER - All - Pooled									
No. of Fish Trawls Made - 21									
No. of Add'l Crab Trawls Made - 13									
No. of Species - 38									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	8,014	51.37	381.62		5,955	59	0.60	32	89
Atlantic croaker	2,644	16.95	125.90	45.55	2,498	58	1.56	15	218
hogchoker	1,781	11.42	84.81		62	90	1.19	42	174
spot	1,588	10.18	75.62	27.36	1,588	127	0.47	99	190
blue crab, male	409	2.62	12.03	7.05	.	37	1.23	12	150
blue crab, juvenile female	392	2.51	11.53	6.75	.	33	0.92	11	138
weakfish	165	1.06	7.86	2.84	118	178	5.52	82	367
white perch	123	0.79	5.86	2.12	3	180	3.34	76	244
white catfish	112	0.72	5.33	1.93	3	215	5.81	84	357
summer flounder	75	0.48	3.57	1.29	68	221	6.72	135	471
smallmouth flounder	52	0.33	2.48	0.90	51	85	2.36	62	129
kingfish	25	0.16	1.19	0.43	25	92	3.15	68	115
oyster toadfish	25	0.16	1.19	0.43	.	215	12.65	118	336
blackcheek tonguefish	22	0.14	1.05	0.38	20	85	4.21	61	142
channel catfish	21	0.13	1.00	0.36	1	281	12.92	116	420
silver perch	21	0.13	1.00	0.36	21	120	2.30	93	137
brown shrimp	20	0.13	0.95	0.34	.	120	3.66	84	149
Atlantic menhaden	17	0.11	0.81	0.29	17	124	1.34	116	131
squid	15	0.10	0.71	0.26	.	42	1.94	30	62
American eel	15	0.10	0.71	0.26	.	220	12.94	151	304
blue crab, adult female	9	0.06	0.26	0.16	.	143	1.86	135	155
blue catfish	8	0.05	0.38	0.14	0	211	9.58	177	242
butterfish	7	0.04	0.33	0.12	5	142	9.80	113	189
striped searobin	6	0.04	0.29	0.10	.	83	10.46	56	126
naked goby	6	0.04	0.29	0.10	.	45	1.63	39	49
striped bass	5	0.03	0.24	0.09	0	288	44.95	220	465
bighead searobin	4	0.03	0.19	0.07	.	78	10.50	65	109
white shrimp	4	0.03	0.19	0.07	.	118	9.45	99	139
alewife	3	0.02	0.14	0.05	3	126	7.84	118	142
northern searobin	3	0.02	0.14	0.05	3	80	7.75	65	90
northern pipefish	2	0.01	0.10	0.03	.	112	20.00	92	132
bluefish	1	0.01	0.05	0.02	.	119	.	119	119
harvestfish	1	0.01	0.05	0.02	1	94	.	94	94
blueback herring	1	0.01	0.05	0.02	1	76	.	76	76
Atlantic thread herring	1	0.01	0.05	0.02	.	110	.	110	110
gizzard shad	1	0.01	0.05	0.02	1	128	.	128	128
spotted seatrout	1	0.01	0.05	0.02	.	164	.	164	164
clearnose skate	1	0.01	0.05	0.02	.	488	.	488	488
All Species Combined	15,600								

Table 99.

Month - December									
RIVER - James									
No. of Fish Trawls Made - 8									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 27									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	34,918	95.73	4364.75	.	34,472	51	0.63	35	91
hogchoker	873	2.39	109.13	.	116	70	1.10	37	103
Atlantic croaker	370	1.01	46.25	54.17	354	64	1.86	10	144
white perch	109	0.30	13.63	15.96	6	134	2.88	77	220
blue crab, male	52	0.14	6.50	7.61	.	67	5.94	14	166
spot	40	0.11	5.00	5.86	40	124	1.67	99	145
blue crab, juvenile female	30	0.08	3.75	4.39	.	41	4.62	15	129
blue catfish	12	0.03	1.50	1.76	0	219	6.92	192	269
gizzard shad	9	0.02	1.13	1.32	9	121	4.72	103	144
striped bass	8	0.02	1.00	1.17	2	238	36.16	90	423
white catfish	8	0.02	1.00	1.17	1	199	18.59	95	268
Atlantic thread herring	5	0.01	0.63	0.73	.	90	1.54	85	93
channel catfish	5	0.01	0.63	0.73	0	367	45.28	289	490
American eel	5	0.01	0.63	0.73	.	236	25.17	146	302
blue crab, adult female	5	0.01	0.63	0.73	.	139	6.93	123	162
alewife	4	0.01	0.50	0.59	4	116	2.14	111	121
blueback herring	3	0.01	0.38	0.44	3	75	2.03	72	79
blackcheek tonguefish	3	0.01	0.38	0.44	3	89	7.88	77	104
smallmouth flounder	3	0.01	0.38	0.44	3	61	8.67	46	76
black seabass	2	0.01	0.25	0.29	2	102	6.50	95	108
summer flounder	2	0.01	0.25	0.29	2	201	19.50	181	220
fringed flounder	2	0.01	0.25	0.29	.	109	18.00	91	127
threadfin shad	2	0.01	0.25	0.29	.	81	16.50	64	97
kingfish	1	0.00	0.13	0.15	1	105	.	105	105
common carp	1	0.00	0.13	0.15	.	543	.	543	543
northern pipefish	1	0.00	0.13	0.15	.	137	.	137	137
silver perch	1	0.00	0.13	0.15	1	96	.	96	96
All Species Combined	36,474								

Table 100.

Month - December									
RIVER - Rappahannock									
No. of Fish Trawls Made - 8									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 16									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Atlantic croaker	2,793	55.11	349.13	89.89	2,793	43	0.68	10	92
bay anchovy	1,892	37.33	236.50	.	1,765	46	0.94	31	87
white perch	127	2.51	15.88	4.09	8	133	3.21	74	262
hogchoker	69	1.36	8.63	.	0	81	1.83	63	125
white catfish	66	1.30	8.25	2.12	0	252	6.29	139	436
blue catfish	24	0.47	3.00	0.77	9	202	13.15	144	395
blue crab, male	21	0.41	2.63	0.68	.	44	9.43	9	153
striped bass	18	0.36	2.25	0.58	1	250	9.54	177	367
blue crab, juvenile female	13	0.26	1.63	0.42	.	28	4.52	4	71
Atlantic menhaden	12	0.24	1.50	0.39	12	119	5.30	73	144
alewife	11	0.22	1.38	0.35	11	111	2.34	98	122
channel catfish	10	0.20	1.25	0.32	1	283	26.59	88	344
summer flounder	6	0.12	0.75	0.19	6	201	8.57	183	236
gizzard shad	4	0.08	0.50	0.13	4	125	3.03	117	131
blueback herring	1	0.02	0.13	0.03	1	77	.	77	77
northern pipefish	1	0.02	0.13	0.03	.	210	.	210	210
All Species Combined	5,068								

Table 101.

Month - December									
RIVER - York									
No. of Fish Trawls Made - 9									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 26									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	2,126	35.19	236.22		1,850	57	0.97	32	84
Atlantic croaker	1,862	30.82	206.89	70.11	1,792	48	1.34	17	199
hogchoker	1,260	20.85	140.00		361	89	2.09	27	180
blue crab, male	264	4.37	29.33	9.94		32	2.02	16	135
spot	220	3.64	24.44	8.28	220	115	0.64	96	177
blue crab, juvenile female	185	3.06	20.56	6.97		29	1.25	15	71
white perch	34	0.56	3.78	1.28	14	133	9.66	55	220
white catfish	20	0.33	2.22	0.75	5	206	24.83	61	444
summer flounder	16	0.26	1.78	0.60	16	205	6.03	141	243
blackcheek tonguefish	12	0.20	1.33	0.45	9	87	10.39	43	152
oyster toadfish	10	0.17	1.11	0.38		245	21.30	137	317
striped bass	6	0.10	0.67	0.23	1	349	76.87	177	610
American eel	4	0.07	0.44	0.15		189	28.57	112	247
naked goby	4	0.07	0.44	0.15		43	2.17	37	47
kingfish	3	0.05	0.33	0.11	3	90	10.48	69	103
feather blenny	3	0.05	0.33	0.11		73	8.33	57	85
white shrimp	3	0.05	0.33	0.11		104	12.12	83	125
channel catfish	2	0.03	0.22	0.08	0	385	0.00	385	385
spotted hake	1	0.02	0.11	0.04	1	73		73	73
northern searobin	1	0.02	0.11	0.04	1	49		49	49
striped searobin	1	0.02	0.11	0.04		73		73	73
tessellated darter	1	0.02	0.11	0.04		63		63	63
northern pipefish	1	0.02	0.11	0.04		177		177	177
silver perch	1	0.02	0.11	0.04	1	113		113	113
threadfin shad	1	0.02	0.11	0.04		92		92	92
brown shrimp	1	0.02	0.11	0.04		81		81	81
All Species Combined	6,042								

Table 102.

Month - December									
RIVER - All - Pooled									
No. of Fish Trawls Made - 25									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 37									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	38,936	81.83	1557.44		38,087	51	0.52	31	91
Atlantic croaker	5,025	10.56	201.00	77.96	4,939	49	0.71	10	199
hogchoker	2,202	4.63	88.08		477	81	1.21	27	180
blue crab, male	337	0.71	13.48	5.23		46	3.03	9	166
white perch	270	0.57	10.80	4.19	28	133	2.25	55	262
spot	260	0.55	10.40	4.03	260	117	0.63	96	177
blue crab, juvenile female	228	0.48	9.12	3.54		32	1.65	4	129
white catfish	94	0.20	3.76	1.46	6	237	7.32	61	444
blue catfish	36	0.08	1.44	0.56	9	207	9.09	144	395
striped bass	32	0.07	1.28	0.50	4	266	18.24	90	610
summer flounder	24	0.05	0.96	0.37	24	203	4.62	141	243
channel catfish	17	0.04	0.68	0.26	1	319	22.52	88	490
alewife	15	0.03	0.60	0.23	15	112	1.87	98	122
blackcheek tonguefish	15	0.03	0.60	0.23	12	88	8.35	43	152
gizzard shad	13	0.03	0.52	0.20	13	122	3.35	103	144
Atlantic menhaden	12	0.03	0.48	0.19	12	119	5.30	73	144
oyster toadfish	10	0.02	0.40	0.16		245	21.30	137	317
American eel	9	0.02	0.36	0.14		215	19.50	112	302
Atlantic thread herring	5	0.01	0.20	0.08		90	1.54	85	93
blue crab, adult female	5	0.01	0.20	0.08		139	6.93	123	162
kingfish	4	0.01	0.16	0.06	4	94	8.34	69	105
blueback herring	4	0.01	0.16	0.06	4	76	1.49	72	79
naked goby	4	0.01	0.16	0.06		43	2.17	37	47
northern pipefish	3	0.01	0.12	0.05		175	21.11	137	210
feather blenny	3	0.01	0.12	0.05		73	8.33	57	85
smallmouth flounder	3	0.01	0.12	0.05	3	61	8.67	46	76
threadfin shad	3	0.01	0.12	0.05		84	10.27	64	97
white shrimp	3	0.01	0.12	0.05		104	12.12	83	125
black seabass	2	0.00	0.08	0.03	2	102	6.50	95	108
silver perch	2	0.00	0.08	0.03	2	105	8.50	96	113
fringed flounder	2	0.00	0.08	0.03		109	18.00	91	127
common carp	1	0.00	0.04	0.02		543		543	543
spotted hake	1	0.00	0.04	0.02	1	73		73	73
northern searobin	1	0.00	0.04	0.02	1	49		49	49
striped searobin	1	0.00	0.04	0.02		73		73	73
tessellated darter	1	0.00	0.04	0.02		63		63	63
brown shrimp	1	0.00	0.04	0.02		81		81	81
All Species Combined	47,584								

Tables 103-142. Species composition, number caught, catch per trawl, and length statistics by month and segment for the Chesapeake Bay trawl survey.

Notes: A. The 'Number of Species' notation at the top of each table includes each of the three categories of blue crabs (male, juvenile female, adult female) as a different "species".

B. Tables pooled for all segments, for each month appear as follows:

February	Table 106	Page 180
April	Table 110	Page 182
May	Table 114	Page 184
June	Table 118	Page 186
July	Table 122	Page 188
August	Table 126	Page 190
September	Table 130	Page 193
October	Table 134	Page 196
November	Table 138	Page 199
December	Table 142	Page 201

C. Catch per trawl for fish species is based on the figure 'Number of Fish Trawls Made' while catch per trawl for blue crabs is based on the sum of 'Number of Fish Trawls Made' and 'Number of Additional Crab Trawls Made'.

D. 'Adjusted Percent of Catch' excludes bay anchovy and hogchoker due to low biomass estimates in relation to number of fish caught.

E. Two new variables, 'Adjusted Percent of Catch' and 'Number of Index Age Fish' have replaced the variables 'Cumulative Percent' and 'Average Weight' in this year's report. The 'Average Weight' variable was misleading since it was based only on those specimens where weight was taken, not the overall catch. 'Cumulative Percent' seemed somewhat redundant with 'Percent of Catch' already existing and was removed in favor of 'Adjusted Percent of Catch', a more informative variable.

Table 103.

Month - February									
Segment - Ches. Bay - Bottom									
No. of Fish Trawls Made - 11									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 18									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
blueback herring	535	60.52	48.64	67.89	335	81	0.60	60	98
Atlantic silverside	111	12.56	10.09	14.09	111	88	1.29	60	120
bay anchovy	94	10.63	8.55		92	52	1.01	34	90
alewife	47	5.32	4.27	5.96	46	116	3.27	84	226
Atlantic herring	16	1.81	1.45	2.03		284	5.06	259	326
spotted hake	16	1.81	1.45	2.03	16	64	2.32	49	87
northern pipefish	13	1.47	1.18	1.65		116	2.83	99	135
blue crab, adult female	12	1.36	1.09	1.52		133	4.16	105	152
blackcheek tonguefish	11	1.24	1.00	1.40	4	128	15.17	52	186
windowpane	9	1.02	0.82	1.14	4	173	39.86	42	311
American shad	6	0.68	0.55	0.76	6	118	5.27	103	134
smallmouth flounder	6	0.68	0.55	0.76	6	58	3.78	43	68
hogchoker	2	0.23	0.18		0	105	8.00	97	113
blue crab, male	2	0.23	0.18	0.25		138	14.50	123	152
Atlantic menhaden	1	0.11	0.09	0.13	0	109		109	109
sea lamprey	1	0.11	0.09	0.13		171		171	171
feather blenny	1	0.11	0.09	0.13		37		37	37
oyster toadfish	1	0.11	0.09	0.13		50		50	50
All Species Combined	884								

Table 104.

Month - February									
Segment - Ches. Bay - Lower									
No. of Fish Trawls Made - 11									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 12									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
blueback herring	19	27.94	1.73	35.85	19	77	1.45	68	87
Atlantic silverside	13	19.12	1.18	24.53	13	89	3.27	73	109
hogchoker	9	13.24	0.82		0	115	4.60	98	142
bay anchovy	6	8.82	0.55		6	47	2.85	37	56
blackcheek tonguefish	5	7.35	0.45	9.43	5	65	6.33	49	87
alewife	4	5.88	0.36	7.55	4	100	3.07	92	107
blue crab, adult female	4	5.88	0.36	7.55		146	5.91	131	159
northern pipefish	3	4.41	0.27	5.66		121	7.31	110	135
striped bass	2	2.94	0.18	3.77	2	129	13.50	115	142
American eel	1	1.47	0.09	1.89		321		321	321
skilletfish	1	1.47	0.09	1.89		38		38	38
blue crab, male	1	1.47	0.09	1.89		129		129	129
All Species Combined	68								



Table 105.

Month - February									
Segment - Ches. Bay - Upper									
No. of Fish Trawls Made - 11									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 7									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Atlantic silverside	16	47.06	1.45	48.48	16	83	3.34	64	106
blueback herring	9	26.47	0.82	27.27	9	76	2.85	64	85
northern pipefish	4	11.76	0.36	12.12	.	146	6.20	130	156
blue crab, adult female	2	5.88	0.18	6.06	.	139	12.50	126	151
hogchoker	1	2.94	0.09	.	0	107	.	107	107
blackcheek tonguefish	1	2.94	0.09	3.03	1	65	.	65	65
blue crab, juvenile female	1	2.94	0.09	3.03	.	31	.	31	31
All Species Combined	34								

Table 106.

Month - February									
Segment - All - Pooled									
No. of Fish Trawls Made - 33									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 22									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
blueback herring	563	57.10	17.06	64.42	563	80	0.56	60	98
Atlantic silverside	140	14.20	4.24	16.02	140	87	1.13	60	120
bay anchovy	100	10.14	3.03	.	98	51	0.97	34	90
alewife	51	5.17	1.55	5.84	50	115	3.08	84	226
northern pipefish	20	2.03	0.61	2.29	.	123	3.51	99	156
blue crab, adult female	18	1.83	0.55	2.06	.	136	3.40	105	159
blackcheek tonguefish	17	1.72	0.52	1.95	10	106	12.39	49	186
Atlantic herring	16	1.62	0.48	1.83	.	284	5.06	259	326
spotted hake	16	1.62	0.48	1.83	16	64	2.32	49	87
hogchoker	12	1.22	0.36	.	0	113	3.77	97	142
windowpane	9	0.91	0.27	1.03	4	173	39.86	42	311
American shad	6	0.61	0.18	0.69	6	118	5.27	103	134
smallmouth flounder	6	0.61	0.18	0.69	6	58	3.78	43	68
blue crab, male	3	0.30	0.09	0.34	.	135	8.84	123	152
striped bass	2	0.20	0.06	0.23	2	129	13.50	115	142
Atlantic menhaden	1	0.10	0.03	0.11	0	109	.	109	109
American eel	1	0.10	0.03	0.11	.	321	.	321	321
sea lamprey	1	0.10	0.03	0.11	.	171	.	171	171
feather blenny	1	0.10	0.03	0.11	.	37	.	37	37
skilletfish	1	0.10	0.03	0.11	.	38	.	38	38
oyster toadfish	1	0.10	0.03	0.11	.	50	.	50	50
blue crab, juvenile female	1	0.10	0.03	0.11	.	31	.	31	31
All Species Combined	986								

Table 107.

Month - April  
 Segment - Ches. Bay - Bottom  
 No. of Fish Trawls Made - 11  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 21

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	3,445	88.20	313.18		3,427	52	0.55	35	88
spotted hake	359	9.19	32.64	77.87	359	95	1.61	42	161
northern searobin	30	0.77	2.73	6.51	30	57	1.51	38	68
smallmouth flounder	21	0.54	1.91	4.56	21	72	4.27	49	121
spot	10	0.26	0.91	2.17	0	124	3.89	99	138
summer flounder	7	0.18	0.64	1.52	0	337	29.43	206	430
black seabass	6	0.15	0.55	1.30	6	64	0.88	62	68
windowpane	5	0.13	0.45	1.08	2	191	50.64	59	296
Atlantic croaker	4	0.10	0.36	0.87	0	178	34.76	117	252
blue crab, adult female	4	0.10	0.36	0.87		127	8.76	109	148
silver hake	2	0.05	0.18	0.43		135	35.50	99	170
blueback herring	2	0.05	0.18	0.43	1	173	82.00	91	255
clearnose skate	2	0.05	0.18	0.43		389	11.50	377	400
little skate	2	0.05	0.18	0.43		333	33.00	300	366
alewife	1	0.03	0.09	0.22	1	110		110	110
American shad	1	0.03	0.09	0.22	1	118		118	118
lined seahorse	1	0.03	0.09	0.22		79		79	79
northern pipefish	1	0.03	0.09	0.22		166		166	166
green goby	1	0.03	0.09	0.22		38		38	38
blackcheek tonguefish	1	0.03	0.09	0.22	0	142		142	142
silver perch	1	0.03	0.09	0.22	0	214		214	214
All Species Combined	3,906								

Table 108.

Month - April  
 Segment - Ches. Bay - Lower  
 No. of Fish Trawls Made - 11  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 23

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	2,521	77.98	229.18		2,424	58	0.86	37	90
spotted hake	395	12.22	35.91	57.33	395	92	1.56	48	149
spot	147	4.55	13.36	21.34	0	147	1.44	113	187
Atlantic croaker	64	1.98	5.82	9.29	3	209	5.34	23	278
hogchoker	23	0.71	2.09		0	123	4.31	85	189
northern searobin	12	0.37	1.09	1.74	12	59	1.92	43	71
blue crab, juvenile female	10	0.31	0.91	1.45		50	7.94	25	105
blue crab, adult female	10	0.31	0.91	1.45		148	6.12	119	180
summer flounder	9	0.28	0.82	1.31	0	340	27.55	246	460
blackcheek tonguefish	7	0.22	0.64	1.02	2	126	18.23	48	176
red hake	5	0.15	0.45	0.73		121	14.04	97	167
northern pipefish	5	0.15	0.45	0.73		145	10.09	116	175
blue crab, male	5	0.15	0.45	0.73		39	5.18	30	59
weakfish	4	0.12	0.36	0.58	4	158	7.19	144	175
windowpane	4	0.12	0.36	0.58	4	63	8.49	47	85
silver perch	3	0.09	0.27	0.44	2	157	9.07	146	175
black seabass	2	0.06	0.18	0.29	2	57	7.00	50	64
lined seahorse	2	0.06	0.18	0.29		61	4.00	57	65
Atlantic herring	1	0.03	0.09	0.15		48		48	48
American shad	1	0.03	0.09	0.15	1	124		124	124
winter flounder	1	0.03	0.09	0.15		235		235	235
northern puffer	1	0.03	0.09	0.15	1	137		137	137
smallmouth flounder	1	0.03	0.09	0.15	1	68		68	68
All Species Combined	3,233								

Table 109.

Month - April									
Segment - Ches. Bay - Upper									
No. of Fish Trawls Made - 11									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 20									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	8,593	98.28	781.18		8,395	60	0.95	34	91
spotted hake	69	0.79	6.27	47.26	69	100	2.22	61	146
spot	24	0.27	2.18	16.44	0	156	2.96	130	186
Atlantic menhaden	13	0.15	1.18	8.90	0	179	5.22	121	201
blue crab, adult female	9	0.10	0.82	6.16		138	4.13	122	161
weakfish	6	0.07	0.55	4.11	6	149	3.58	134	159
Atlantic croaker	4	0.05	0.36	2.74	2	169	41.03	89	241
hogchoker	4	0.05	0.36		0	107	6.49	93	121
blue crab, male	3	0.03	0.27	2.05		63	40.50	22	144
blue crab, juvenile female	3	0.03	0.27	2.05		60	27.76	28	115
summer flounder	2	0.02	0.18	1.37	0	266	3.50	262	269
alewife	2	0.02	0.18	1.37	2	118	1.50	116	119
American shad	2	0.02	0.18	1.37	2	108	13.00	95	121
northern pipefish	2	0.02	0.18	1.37		110	0.50	109	110
blackcheek tonguefish	2	0.02	0.18	1.37	2	83	1.50	81	84
black seabass	1	0.01	0.09	0.68	1	62		62	62
Atlantic herring	1	0.01	0.09	0.68		308		308	308
windowpane	1	0.01	0.09	0.68	1	62		62	62
lined seahorse	1	0.01	0.09	0.68		60		60	60
silver perch	1	0.01	0.09	0.68	0	188		188	188
All Species Combined	8,743								

Table 110.

Month - April									
Segment - All - Pooled									
No. of Fish Trawls Made - 33									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 30									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	14,559	91.67	441.18		14,246	56	0.45	34	91
spotted hake	823	5.18	24.94	63.50	823	94	1.02	42	161
spot	181	1.14	5.48	13.97	0	147	1.35	99	187
Atlantic croaker	72	0.45	2.18	5.56	5	205	5.57	23	278
northern searobin	42	0.26	1.27	3.24	42	58	1.21	38	71
hogchoker	27	0.17	0.82		0	121	3.92	85	189
blue crab, adult female	23	0.14	0.70	1.77		140	3.72	109	180
smallmouth flounder	22	0.14	0.67	1.70	22	72	4.08	49	121
summer flounder	18	0.11	0.55	1.39	0	331	18.14	206	460
Atlantic menhaden	13	0.08	0.39	1.00	0	179	5.22	121	201
blue crab, juvenile female	13	0.08	0.39	1.00		52	8.21	25	115
weakfish	10	0.06	0.30	0.77	10	153	3.61	134	175
windowpane	10	0.06	0.30	0.77	7	127	32.21	47	296
blackcheek tonguefish	10	0.06	0.30	0.77	4	119	13.96	48	176
black seabass	9	0.06	0.27	0.69	9	62	1.62	50	68
northern pipefish	8	0.05	0.24	0.62		139	9.16	109	175
blue crab, male	8	0.05	0.24	0.62		48	14.32	22	144
red hake	5	0.03	0.15	0.39		121	14.04	97	167
silver perch	5	0.03	0.15	0.39	2	175	12.56	146	214
American shad	4	0.03	0.12	0.31	4	115	6.61	95	124
lined seahorse	4	0.03	0.12	0.31		65	4.87	57	79
alewife	3	0.02	0.09	0.23	3	115	2.65	110	119
silver hake	2	0.01	0.06	0.15		135	35.50	99	170
blueback herring	2	0.01	0.06	0.15	1	173	82.00	91	255
Atlantic herring	2	0.01	0.06	0.15		178	130.00	48	308
clearnose skate	2	0.01	0.06	0.15		389	11.50	377	400
little skate	2	0.01	0.06	0.15		333	33.00	300	366
winter flounder	1	0.01	0.03	0.08		235		235	235
northern puffer	1	0.01	0.03	0.08	1	137		137	137
green goby	1	0.01	0.03	0.08		38		38	38
All Species Combined	15,882								

Table 111.

Month - May  
 Segment - Ches. Bay - Bottom  
 No. of Fish Trawls Made - 13  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 28  
 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	232	28.05	17.85		232	57	1.04	39	80
spotted hake	199	24.06	15.31	34.49	198	133	2.13	52	290
northern searobin	134	16.20	10.31	23.22	134	66	0.88	36	94
smallmouth flounder	83	10.04	6.38	14.38	83	72	1.63	47	109
spot	45	5.44	3.46	7.80	1	157	3.26	26	178
weakfish	23	2.78	1.77	3.99	18	212	9.88	147	329
black seabass	20	2.42	1.54	3.47	20	62	2.32	36	79
hogchoker	18	2.18	1.38		0	120	6.51	78	195
Atlantic croaker	11	1.33	0.85	1.91	0	174	5.66	141	207
summer flounder	10	1.21	0.77	1.73	0	313	25.53	194	452
clearnose skate	10	1.21	0.77	1.73		374	18.91	303	470
windowpane	6	0.73	0.46	1.04	6	82	6.91	54	104
butterfish	5	0.60	0.38	0.87	5	98	21.24	45	142
striped anchovy	5	0.60	0.38	0.87	5	60	7.82	37	79
lined seahorse	4	0.48	0.31	0.69		94	27.24	55	174
northern pipefish	4	0.48	0.31	0.69		144	11.40	130	178
blue crab, adult female	4	0.48	0.31	0.69		128	8.51	110	148
oyster toadfish	3	0.36	0.23	0.52		125	11.20	112	147
kingfish	2	0.24	0.15	0.35	0	240	4.50	235	244
bluefish	1	0.12	0.08	0.17		220		220	220
northern puffer	1	0.12	0.08	0.17	1	177		177	177
pigfish	1	0.12	0.08	0.17		171		171	171
blackcheek tonguefish	1	0.12	0.08	0.17	0	160		160	160
skilletfish	1	0.12	0.08	0.17		44		44	44
smooth dogfish	1	0.12	0.08	0.17		349		349	349
striped burrfish	1	0.12	0.08	0.17		220		220	220
blue crab, male	1	0.12	0.08	0.17		30		30	30
blue crab, juvenile female	1	0.12	0.08	0.17		93		93	93
All Species Combined	827								

Table 112.

Month - May  
 Segment - Ches. Bay - Lower  
 No. of Fish Trawls Made - 13  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 25  
 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
northern searobin	160	29.74	12.31	40.30	160	64	0.86	32	87
bay anchovy	131	24.35	10.08		118	62	1.22	39	87
spotted hake	76	14.13	5.85	19.14	76	121	3.55	59	178
striped anchovy	45	8.36	3.46	11.34	45	65	1.06	50	79
black seabass	25	4.65	1.92	6.30	25	58	2.55	42	104
spot	15	2.79	1.15	3.78	0	160	2.46	147	174
windowpane	14	2.60	1.08	3.53	12	112	16.72	66	267
smallmouth flounder	11	2.04	0.85	2.77	11	80	5.65	52	116
blue crab, adult female	11	2.04	0.85	2.77		137	4.31	123	175
hogchoker	10	1.86	0.77		0	120	3.43	105	138
summer flounder	9	1.67	0.69	2.27	0	277	11.82	201	321
clearnose skate	5	0.93	0.38	1.26		417	11.33	396	460
weakfish	4	0.74	0.31	1.01	3	215	21.80	151	247
blackcheek tonguefish	4	0.74	0.31	1.01	0	164	3.38	158	173
scup	3	0.56	0.23	0.76	0	110	8.21	94	120
blue crab, juvenile female	3	0.56	0.23	0.76		26	7.88	17	42
lined seahorse	2	0.37	0.15	0.50		60	2.50	57	62
naked goby	2	0.37	0.15	0.50		38	9.00	29	47
blue crab, male	2	0.37	0.15	0.50		46	1.50	44	47
Atlantic croaker	1	0.19	0.08	0.25	0	243		243	243
squid	1	0.19	0.08	0.25		47		47	47
northern puffer	1	0.19	0.08	0.25	1	147		147	147
striped searobin	1	0.19	0.08	0.25		191		191	191
northern pipefish	1	0.19	0.08	0.25		158		158	158
silver perch	1	0.19	0.08	0.25	0	193		193	193
All Species Combined	538								

Table 113.

Month - May Segment - Ches. Bay - Upper No. of Fish Trawls Made - 13 No. of Add'l Crab Trawls Made - 0 No. of Species - 22 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Atlantic croaker	286	35.31	22.00	53.86	5	209	2.71	116	263
bay anchovy	265	32.72	20.38		257	61	0.80	44	89
spot	51	6.30	3.92	9.60	0	162	1.77	134	184
weakfish	46	5.68	3.54	8.66	40	183	5.36	139	298
northern searobin	45	5.56	3.46	8.47	45	60	1.92	39	88
spotted hake	24	2.96	1.85	4.52	24	138	3.25	95	171
black seabass	21	2.59	1.62	3.95	21	64	2.68	43	93
hogchoker	14	1.73	1.08		0	111	4.18	95	142
blue crab, adult female	12	1.48	0.92	2.26		137	4.35	115	164
windowpane	6	0.74	0.46	1.13	5	119	32.25	70	278
lined seahorse	6	0.74	0.46	1.13		64	3.74	53	78
blue crab, male	6	0.74	0.46	1.13		50	18.65	22	142
Atlantic thread herring	5	0.62	0.38	0.94		63	3.41	51	70
summer flounder	4	0.49	0.31	0.75	0	396	21.17	343	430
blue crab, juvenile female	4	0.49	0.31	0.75		31	10.05	15	60
alewife	3	0.37	0.23	0.56	3	122	2.33	120	127
northern puffer	3	0.37	0.23	0.56	3	102	6.23	90	110
oyster toadfish	3	0.37	0.23	0.56		297	21.86	270	340
Atlantic menhaden	2	0.25	0.15	0.38	0	187	2.50	184	189
northern pipefish	2	0.25	0.15	0.38		143	16.50	126	159
striped searobin	1	0.12	0.08	0.19		139		139	139
blackcheek tonguefish	1	0.12	0.08	0.19	0	183		183	183
All Species Combined	810								

Table 114.

Month - May Segment - All - Pooled No. of Fish Trawls Made - 39 No. of Add'l Crab Trawls Made - 0 No. of Species - 36 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	628	28.87	16.10		607	60	0.58	39	89
northern searobin	339	15.59	8.69	22.52	339	64	0.60	32	94
spotted hake	299	13.75	7.67	19.87	298	131	1.73	52	290
Atlantic croaker	298	13.70	7.64	19.80	5	206	2.70	116	263
spot	111	5.10	2.85	7.38	1	160	1.59	26	184
smallmouth flounder	94	4.32	2.41	6.25	94	73	1.59	47	116
weakfish	73	3.36	1.87	4.85	61	194	4.96	139	329
black seabass	66	3.03	1.69	4.39	66	61	1.48	36	104
striped anchovy	50	2.30	1.28	3.32	50	64	1.21	37	79
hogchoker	42	1.93	1.08		0	117	3.23	78	195
blue crab, adult female	27	1.24	0.69	1.79		136	2.84	110	175
windowpane	26	1.20	0.67	1.73	23	107	11.67	54	278
summer flounder	23	1.06	0.59	1.53	0	313	14.96	194	452
clearnose skate	15	0.69	0.38	1.00		388	13.96	303	470
lined seahorse	12	0.55	0.31	0.80		73	9.47	53	174
blue crab, male	9	0.41	0.23	0.60		47	12.24	22	142
blue crab, juvenile female	8	0.37	0.21	0.53		37	9.65	15	93
northern pipefish	7	0.32	0.18	0.47		146	7.38	126	178
blackcheek tonguefish	6	0.28	0.15	0.40	0	167	3.96	158	183
oyster toadfish	6	0.28	0.15	0.40		211	40.00	112	340
butterfish	5	0.23	0.13	0.33	5	98	21.24	45	142
Atlantic thread herring	5	0.23	0.13	0.33		63	3.41	51	70
northern puffer	5	0.23	0.13	0.33	5	126	15.74	90	177
scup	3	0.14	0.08	0.20	0	110	8.21	94	120
alewife	3	0.14	0.08	0.20	3	122	2.33	120	127
kingfish	2	0.09	0.05	0.13	0	240	4.50	235	244
Atlantic menhaden	2	0.09	0.05	0.13	0	187	2.50	184	189
striped searobin	2	0.09	0.05	0.13		165	26.00	139	191
naked goby	2	0.09	0.05	0.13		38	9.00	29	47
bluefish	1	0.05	0.03	0.07		220		220	220
squid	1	0.05	0.03	0.07		47		47	47
pigfish	1	0.05	0.03	0.07		171		171	171
skilletfish	1	0.05	0.03	0.07		44		44	44
smooth dogfish	1	0.05	0.03	0.07		349		349	349
silver perch	1	0.05	0.03	0.07	0	193		193	193
striped burrfish	1	0.05	0.03	0.07		220		220	220
All Species Combined	2,175								

Table 115.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Month - June									
Segment - Ches. Bay - Bottom									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 31									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
bay anchovy	19,613	94.69	1508.69	20.34	19,613	57	0.63	37	77
spotted hake	218	1.05	16.77	16.79	218	180	1.83	101	236
northern searobin	180	0.87	13.85	13.06	180	83	1.00	52	140
smallmouth flounder	140	0.68	10.77	10.82	140	83	0.96	59	113
Atlantic herring	116	0.56	8.92	9.14	.	47	0.41	41	54
squid	98	0.47	7.54	6.72	.	26	1.82	16	73
weakfish	72	0.35	5.54	5.97	0	174	4.40	148	254
Atlantic croaker	64	0.31	4.92	4.66	35	158	2.41	101	183
spot	50	0.24	3.85	2.23	42	86	4.54	37	160
scup	29	0.14	2.23	2.71	14	52	5.38	21	131
hogchoker	28	0.14	2.15	2.43	0	112	4.81	80	191
black seabass	26	0.13	2.00	1.68	26	80	3.03	56	130
clearnose skate	18	0.09	1.38	1.21	.	389	14.61	241	488
windowpane	13	0.06	1.00	0.75	13	117	7.22	62	155
blackcheek tonguefish	8	0.04	0.62	0.65	1	147	10.18	95	185
butterfish	7	0.03	0.54	0.19	4	74	19.07	23	149
summer flounder	6	0.03	0.46	0.19	0	344	25.56	276	429
lined seahorse	5	0.02	0.38	0.47	.	89	6.88	74	106
kingfish	4	0.02	0.31	0.37	2	201	14.01	173	233
striped anchovy	3	0.01	0.23	0.28	3	92	1.20	90	94
red hake	2	0.01	0.15	0.19	.	178	17.00	161	195
northern pipefish	2	0.01	0.15	0.19	.	197	32.50	164	229
blue crab, juvenile female	2	0.01	0.15	0.19	.	71	24.00	47	95
blue crab, adult female	2	0.01	0.15	0.19	.	124	1.00	123	125
silver hake	1	0.00	0.08	0.09	.	173	.	173	173
cobia	1	0.00	0.08	0.09	.	960	.	960	960
northern puffer	1	0.00	0.08	0.09	0	109	.	109	109
naked goby	1	0.00	0.08	0.09	.	45	.	45	45
oyster toadfish	1	0.00	0.08	0.09	.	99	.	99	99
bluntnose stingray	1	0.00	0.08	0.09	.	297	.	297	297
striped burrfish	1	0.00	0.08	0.09	.	163	.	163	163
All Species Combined	20,713								

Table 116.

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
Month - June									
Segment - Ches. Bay - Lower									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 30									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
bay anchovy	2,125	60.18	163.46	55.75	2,124	58	0.58	41	83
Atlantic croaker	717	20.31	55.15	12.52	1	221	1.63	154	291
spot	161	4.56	12.38	9.18	18	158	2.44	57	192
hogchoker	120	3.40	9.23	6.45	0	105	1.78	72	169
weakfish	118	3.34	9.08	2.72	0	208	3.38	157	302
northern searobin	83	2.35	6.38	2.49	83	87	1.09	63	115
spotted hake	35	0.99	2.69	1.56	35	175	3.95	127	221
black seabass	32	0.91	2.46	1.32	32	86	1.94	70	109
scup	20	0.57	1.54	1.17	2	126	4.38	63	139
blue crab, adult female	17	0.48	1.31	1.09	.	136	4.07	109	165
blue crab, male	15	0.42	1.15	0.70	.	66	6.89	36	125
summer flounder	14	0.40	1.08	0.62	1	345	30.56	132	564
butterfish	9	0.25	0.69	0.54	0	152	4.90	137	173
blue crab, juvenile female	8	0.23	0.62	0.54	.	68	4.26	51	81
kingfish	7	0.20	0.54	0.47	0	256	8.67	219	275
silver perch	7	0.20	0.54	0.39	3	175	7.80	152	200
windowpane	6	0.17	0.46	0.39	5	157	26.19	109	286
northern puffer	5	0.14	0.38	0.39	0	120	13.67	96	173
lined seahorse	5	0.14	0.38	0.39	.	86	11.61	57	118
northern pipefish	5	0.14	0.38	0.39	.	171	12.46	131	202
blackcheek tonguefish	5	0.14	0.38	0.31	0	146	3.96	138	160
clearnose skate	4	0.11	0.31	0.16	.	409	11.53	386	440
smallmouth flounder	4	0.11	0.31	0.16	4	84	5.65	71	98
bluefish	2	0.06	0.15	0.16	.	228	5.50	222	233
striped anchovy	2	0.06	0.15	0.16	2	92	0.50	91	92
blueback herring	1	0.03	0.08	0.08	0	123	.	123	123
oyster toadfish	1	0.03	0.08	0.08	.	118	.	118	118
southern stingray	1	0.03	0.08	0.08	.	519	.	519	519
bluntnose stingray	1	0.03	0.08	0.08	.	273	.	273	273
conger eel	1	0.03	0.08	0.08	.	302	.	302	302
All Species Combined	3,531								

Table 117.

Month - June									
Segment - Ches. Bay - Upper									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 23									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	7,710	91.47	593.08		7,583	61	0.42	42	87
Atlantic croaker	216	2.56	16.62	37.70	4	196	1.87	99	265
spot	156	1.85	12.00	27.23	78	122	3.75	53	187
hogchoker	146	1.73	11.23		2	104	1.52	61	158
weakfish	63	0.75	4.85	10.99	0	178	2.59	135	302
spotted hake	33	0.39	2.54	5.76	33	165	3.18	129	196
northern searobin	29	0.34	2.23	5.06	29	82	2.33	61	111
black seabass	26	0.31	2.00	4.54	26	88	2.17	67	113
windowpane	15	0.18	1.15	2.62	15	121	3.42	103	148
northern pipefish	8	0.09	0.62	1.40		171	6.52	154	203
butterfish	5	0.06	0.38	0.87	2	100	28.90	23	153
blue crab, juvenile female	4	0.05	0.31	0.70		61	6.20	49	74
blue crab, adult female	3	0.04	0.23	0.52		134	6.89	124	147
scup	2	0.02	0.15	0.35	1	38	8.50	29	46
summer flounder	2	0.02	0.15	0.35	0	319	28.50	290	347
lined seahorse	2	0.02	0.15	0.35		103	0.50	102	103
smallmouth flounder	2	0.02	0.15	0.35	2	94	8.50	85	102
blue crab, male	2	0.02	0.15	0.35		89	49.00	40	138
kingfish	1	0.01	0.08	0.17	1	182		182	182
Atlantic herring	1	0.01	0.08	0.17		88		88	88
northern puffer	1	0.01	0.08	0.17	0	111		111	111
blackcheek tonguefish	1	0.01	0.08	0.17	0	155		155	155
silver perch	1	0.01	0.08	0.17	0	196		196	196
All Species Combined	8,429								

Table 118.

Month - June									
Segment - All - Pooled									
No. of Fish Trawls Made - 39									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 37									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	29,448	90.13	755.08		29,320	60	0.31	37	87
Atlantic croaker	997	3.05	25.56	34.02	40	207	1.41	99	291
spot	367	1.12	9.41	12.52	138	133	2.40	37	192
hogchoker	294	0.90	7.54		2	105	1.15	61	191
northern searobin	292	0.89	7.49	9.96	292	84	0.73	52	140
spotted hake	286	0.88	7.33	9.76	286	177	1.53	101	236
weakfish	253	0.77	6.49	8.63	0	194	2.38	135	302
smallmouth flounder	146	0.45	3.74	4.98	146	83	0.94	59	113
Atlantic herring	117	0.36	3.00	3.99		48	0.76	41	88
squid	98	0.30	2.51	3.34		26	1.82	16	73
black seabass	84	0.26	2.15	2.87	84	85	1.40	56	130
scup	51	0.16	1.31	1.74	17	80	6.24	21	139
windowpane	34	0.10	0.87	1.16	33	126	5.86	62	286
summer flounder	22	0.07	0.56	0.75	1	343	20.41	132	564
clearnose skate	22	0.07	0.56	0.75		392	12.16	241	488
blue crab, adult female	22	0.07	0.56	0.75		135	3.31	109	165
butterfish	21	0.06	0.54	0.72	6	114	11.81	23	173
blue crab, male	17	0.05	0.44	0.58		69	7.59	36	138
northern pipefish	15	0.05	0.38	0.51		174	6.46	131	229
blackcheek tonguefish	14	0.04	0.36	0.48	1	147	5.83	95	185
blue crab, juvenile female	14	0.04	0.36	0.48		66	3.94	47	95
kingfish	12	0.04	0.31	0.41	3	232	11.00	173	275
lined seahorse	12	0.04	0.31	0.41		90	5.52	57	118
silver perch	8	0.02	0.21	0.27	3	178	7.25	152	200
northern puffer	7	0.02	0.18	0.24	0	117	9.62	96	173
striped anchovy	5	0.02	0.13	0.17	5	92	0.68	90	94
bluefish	2	0.01	0.05	0.07		228	5.50	222	233
red hake	2	0.01	0.05	0.07		178	17.00	161	195
oyster toadfish	2	0.01	0.05	0.07		109	9.50	99	118
bluntnose stingray	2	0.01	0.05	0.07		285	12.00	273	297
silver hake	1	0.00	0.03	0.03		173		173	173
blueback herring	1	0.00	0.03	0.03	0	123		123	123
cobia	1	0.00	0.03	0.03		960		960	960
naked goby	1	0.00	0.03	0.03		45		45	45
southern stingray	1	0.00	0.03	0.03		519		519	519
conger eel	1	0.00	0.03	0.03		302		302	302
striped burrfish	1	0.00	0.03	0.03		163		163	163
All Species Combined	32,673								

Table 119.

Month - July									
Segment - Ches. Bay - Bottom									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 26									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	447	34.54	34.38		24	56	1.12	36	75
Atlantic croaker	211	16.31	16.23	27.37	176	160	3.22	107	223
northern searobin	182	14.06	14.00	23.61	180	99	1.43	60	157
hogchoker	76	5.87	5.85		9	129	5.15	77	191
spotted hake	64	4.95	4.92	8.30	64	199	3.14	162	234
spot	44	3.40	3.38	5.71	21	147	4.42	78	177
black seabass	41	3.17	3.15	5.32	41	100	3.95	42	159
smallmouth flounder	38	2.94	2.92	4.93	1	91	1.68	54	111
scup	35	2.70	2.69	4.54	27	78	4.02	29	116
squid	29	2.24	2.23	3.76		27	2.19	9	63
blackcheek tonguefish	29	2.24	2.23	3.76	0	154	2.13	131	175
clearnose skate	18	1.39	1.38	2.33		386	11.83	313	503
dusky pipefish	17	1.31	1.31	2.20		129	9.04	87	203
weakfish	11	0.85	0.85	1.43	0	193	3.54	178	215
windowpane	11	0.85	0.85	1.43	9	159	16.38	98	264
summer flounder	8	0.62	0.62	1.04	2	268	32.61	112	412
blue crab, adult female	6	0.46	0.46	0.78		137	5.32	123	152
butterfish	5	0.39	0.38	0.65	1	113	25.60	28	168
blue crab, male	5	0.39	0.38	0.65		69	14.20	30	117
blue crab, juvenile female	4	0.31	0.31	0.52		68	13.95	30	97
kingfish	3	0.23	0.23	0.39	2	103	69.35	31	242
Atlantic thread herring	3	0.23	0.23	0.39		154	5.55	145	164
northern pipefish	3	0.23	0.23	0.39		111	8.45	98	127
lined seahorse	2	0.15	0.15	0.26		79	13.00	66	92
striped bass	1	0.08	0.08	0.13	0	203		203	203
naked goby	1	0.08	0.08	0.13		50		50	50
All Species Combined	1,294								

Table 120.

Month - July									
Segment - Ches. Bay - Lower									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 32									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	2,397	58.00	184.38		132	56	0.73	26	80
Atlantic croaker	754	18.24	58.00	51.82	41	193	1.33	162	241
hogchoker	281	6.80	21.62		5	105	1.75	60	153
spot	227	5.49	17.46	15.60	141	129	2.72	73	204
northern searobin	137	3.31	10.54	9.42	137	95	1.51	55	149
weakfish	117	2.83	9.00	8.04	0	200	1.95	161	263
scup	55	1.33	4.23	3.78	48	96	2.55	70	149
black seabass	41	0.99	3.15	2.82	41	100	2.46	49	136
blue crab, male	19	0.46	1.46	1.31		91	5.20	55	149
blue crab, juvenile female	18	0.44	1.38	1.24		80	4.87	42	100
summer flounder	15	0.36	1.15	1.03	12	188	28.06	118	424
blue crab, adult female	11	0.27	0.85	0.76		134	4.75	113	162
clearnose skate	10	0.24	0.77	0.69		416	12.57	347	485
smallmouth flounder	8	0.19	0.62	0.55	0	92	3.15	77	104
blackcheek tonguefish	7	0.17	0.54	0.48	2	139	5.74	116	157
butterfish	6	0.15	0.46	0.41	1	129	21.95	28	170
windowpane	6	0.15	0.46	0.41	5	175	21.40	144	280
northern puffer	3	0.07	0.23	0.21	1	95	25.37	45	126
lined seahorse	3	0.07	0.23	0.21		84	3.18	78	89
northern pipefish	3	0.07	0.23	0.21		145	35.87	93	214
spiny butterfly ray	3	0.07	0.23	0.21		763	84.46	650	928
kingfish	2	0.05	0.15	0.14	1	152	116.50	35	268
harvestfish	1	0.02	0.08	0.07	1	43		43	43
squid	1	0.02	0.08	0.07		13		13	13
blueback herring	1	0.02	0.08	0.07	1	42		42	42
Atlantic spadefish	1	0.02	0.08	0.07		164		164	164
spotted hake	1	0.02	0.08	0.07	1	218		218	218
dusky pipefish	1	0.02	0.08	0.07		101		101	101
naked goby	1	0.02	0.08	0.07		43		43	43
oyster toadfish	1	0.02	0.08	0.07		55		55	55
southern stingray	1	0.02	0.08	0.07		655		655	655
striped cusk-eel	1	0.02	0.08	0.07		185		185	185
All Species Combined	4,133								



Table 121.

Month - July									
Segment - Ches. Bay - Upper									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 20									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	2,937	68.46	225.92	.	49	56	0.44	35	75
spot	536	12.49	41.23	41.65	423	114	1.58	71	218
Atlantic croaker	357	8.32	27.46	27.74	40	207	2.27	31	272
weakfish	276	6.43	21.23	21.45	16	194	4.38	19	291
hogchoker	66	1.54	5.08	.	4	107	2.61	68	158
black seabass	26	0.61	2.00	2.02	26	112	2.98	90	145
butterfish	25	0.58	1.92	1.94	3	133	8.94	24	183
northern searobin	21	0.49	1.62	1.63	21	100	2.18	80	116
blue crab, juvenile female	18	0.42	1.38	1.40	.	64	4.28	36	97
summer flounder	9	0.21	0.69	0.70	4	291	49.84	120	542
blue crab, male	9	0.21	0.69	0.70	.	63	6.09	41	99
smallmouth flounder	2	0.05	0.15	0.16	0	85	13.00	72	98
scup	1	0.02	0.08	0.08	1	92	.	92	92
pigfish	1	0.02	0.08	0.08	.	59	.	59	59
windowpane	1	0.02	0.08	0.08	1	144	.	144	144
Atlantic spadefish	1	0.02	0.08	0.08	.	125	.	125	125
lined seahorse	1	0.02	0.08	0.08	.	98	.	98	98
conger eel	1	0.02	0.08	0.08	.	322	.	322	322
Atlantic cutlassfish	1	0.02	0.08	0.08	.	256	.	256	256
blue crab, adult female	1	0.02	0.08	0.08	.	138	.	138	138
All Species Combined	4,290								

Table 122.

Month - July									
Segment - All - Pooled									
No. of Fish Trawls Made - 39									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 37									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	5,781	59.49	148.23	.	205	56	0.39	26	80
Atlantic croaker	1,322	13.61	33.90	37.63	257	195	1.52	31	272
spot	807	8.31	20.69	22.97	585	120	1.36	71	218
hogchoker	423	4.35	10.85	.	18	110	1.64	60	191
weakfish	404	4.16	10.36	11.50	16	196	2.68	19	291
northern searobin	340	3.50	8.72	9.68	338	98	0.99	55	157
black seabass	108	1.11	2.77	3.07	108	103	1.95	42	159
scup	91	0.94	2.33	2.59	76	89	2.34	29	149
spotted hake	65	0.67	1.67	1.85	65	199	3.10	162	234
smallmouth flounder	48	0.49	1.23	1.37	1	91	1.48	54	111
blue crab, juvenile female	40	0.41	1.03	1.14	.	71	3.35	30	100
butterfish	36	0.37	0.92	1.02	5	130	7.83	24	183
blackcheek tonguefish	36	0.37	0.92	1.02	2	151	2.25	116	175
blue crab, male	33	0.34	0.85	0.94	.	80	4.48	30	149
summer flounder	32	0.33	0.82	0.91	18	237	21.86	112	542
squid	30	0.31	0.77	0.85	.	27	2.17	9	63
clearnose skate	28	0.29	0.72	0.80	.	397	9.12	313	503
windowpane	18	0.19	0.46	0.51	15	164	12.07	98	280
dusky pipefish	18	0.19	0.46	0.51	.	128	8.67	87	203
blue crab, adult female	18	0.19	0.46	0.51	.	135	3.32	113	162
lined seahorse	6	0.06	0.15	0.17	.	85	4.63	66	98
northern pipefish	6	0.06	0.15	0.17	.	128	18.15	93	214
kingfish	5	0.05	0.13	0.14	3	123	54.22	31	268
Atlantic thread herring	3	0.03	0.08	0.09	.	154	5.55	145	164
northern puffer	3	0.03	0.08	0.09	1	95	25.37	45	126
spiny butterfly ray	3	0.03	0.08	0.09	.	763	84.46	650	928
Atlantic spadefish	2	0.02	0.05	0.06	.	145	19.50	125	164
naked goby	2	0.02	0.05	0.06	.	47	3.50	43	50
harvestfish	1	0.01	0.03	0.03	1	43	.	43	43
blueback herring	1	0.01	0.03	0.03	1	42	.	42	42
striped bass	1	0.01	0.03	0.03	0	203	.	203	203
pigfish	1	0.01	0.03	0.03	.	59	.	59	59
oyster toadfish	1	0.01	0.03	0.03	.	55	.	55	55
southern stingray	1	0.01	0.03	0.03	.	655	.	655	655
conger eel	1	0.01	0.03	0.03	.	322	.	322	322
Atlantic cutlassfish	1	0.01	0.03	0.03	.	256	.	256	256
striped cusk-eel	1	0.01	0.03	0.03	.	185	.	185	185
All Species Combined	9,717								

Table 123.

Month - August  
Segment - Ches. Bay - Bottom  
No. of Fish Trawls Made - 13  
No. of Add'l Crab Trawls Made - 0  
No. of Species - 37  
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
striped anchovy	8,712	61.22	670.15	69.01	8,112	65	1.29	48	117
bay anchovy	1,508	10.60	116.00		913	48	1.23	33	67
Atlantic herring	1,174	8.25	90.31	9.30		63	0.74	50	73
Atlantic croaker	1,126	7.91	86.62	8.92	1,116	179	2.56	114	237
spot	561	3.94	43.15	4.44	513	138	2.15	97	196
northern searobin	237	1.67	18.23	1.88	237	111	1.10	40	145
scup	198	1.39	15.23	1.57	149	81	4.44	49	173
squid	194	1.36	14.92	1.54		21	1.37	6	157
hogchoker	99	0.70	7.62		0	113	2.45	80	181
weakfish	71	0.50	5.46	0.56	55	130	6.11	63	249
striped searobin	54	0.38	4.15	0.43		124	1.02	104	139
smallmouth flounder	50	0.35	3.85	0.40	35	64	3.94	23	125
black seabass	40	0.28	3.08	0.32	8	103	5.66	26	154
spotted hake	36	0.25	2.77	0.29	36	159	4.86	125	249
blue crab, adult female	28	0.20	2.15	0.22		126	2.95	91	157
brown shrimp	24	0.17	1.85	0.19		131	2.33	108	159
butterfish	23	0.16	1.77	0.18	7	128	8.91	19	167
blue crab, juvenile female	23	0.16	1.77	0.18		91	2.19	74	110
summer flounder	15	0.11	1.15	0.12	8	273	34.86	162	565
clearnose skate	12	0.08	0.92	0.10		370	21.31	265	474
blue crab, male	8	0.06	0.62	0.06		98	6.48	78	122
northern pipefish	6	0.04	0.46	0.05		139	5.67	123	158
oyster toadfish	6	0.04	0.46	0.05		199	15.92	125	237
windowpane	5	0.04	0.38	0.04	5	160	10.61	118	173
blackcheek tonguefish	5	0.04	0.38	0.04	0	140	10.26	114	174
lined seahorse	4	0.03	0.31	0.03		66	15.04	43	110
inshore lizardfish	2	0.01	0.15	0.02	0	190	2.00	188	192
silver hake	1	0.01	0.08	0.01		196		196	196
kingfish	1	0.01	0.08	0.01	1	88		88	88
tautog	1	0.01	0.08	0.01		328		328	328
pigfish	1	0.01	0.08	0.01		154		154	154
round herring	1	0.01	0.08	0.01		93		93	93
bighead searobin	1	0.01	0.08	0.01		49		49	49
southern stingray	1	0.01	0.08	0.01		452		452	452
conger eel	1	0.01	0.08	0.01		455		455	455
northern sennet	1	0.01	0.08	0.01		80		80	80
fourspot flounder	1	0.01	0.08	0.01		146		146	146
All Species Combined	14,231								

Table 124.

Month - August  
Segment - Ches. Bay - Lower  
No. of Fish Trawls Made - 13  
No. of Add'l Crab Trawls Made - 0  
No. of Species - 33  
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	6,157	52.28	473.62		4,212	48	0.67	22	77
spot	3,555	30.19	273.46	64.62	3,441	124	0.71	91	204
striped anchovy	1,252	10.63	96.31	22.76	1,252	58	0.50	43	69
Atlantic croaker	182	1.55	14.00	3.31	171	197	1.35	139	328
northern searobin	134	1.14	10.31	2.44	134	112	1.16	61	146
hogchoker	118	1.00	9.08		0	108	1.80	52	164
weakfish	63	0.53	4.85	1.15	25	149	10.62	19	241
scup	53	0.45	4.08	0.96	44	121	6.05	77	242
summer flounder	41	0.35	3.15	0.75	29	228	12.93	112	505
black seabass	34	0.29	2.62	0.62	0	122	1.76	105	153
pigfish	28	0.24	2.15	0.51		112	1.47	89	125
blackcheek tonguefish	25	0.21	1.92	0.45	0	140	3.66	89	169
butterfish	20	0.17	1.54	0.36	10	118	11.21	11	176
striped searobin	20	0.17	1.54	0.36		135	2.56	109	153
blue crab, adult female	13	0.11	1.00	0.24		131	1.73	123	141
smallmouth flounder	12	0.10	0.92	0.22	9	65	6.42	42	101
blue crab, juvenile female	12	0.10	0.92	0.22		88	5.28	58	122
kingfish	10	0.08	0.77	0.18	7	144	31.34	35	327
inshore lizardfish	10	0.08	0.77	0.18	6	169	11.07	89	212
windowpane	6	0.05	0.46	0.11	6	164	2.54	155	174
lined seahorse	5	0.04	0.38	0.09		87	9.45	54	109
Atlantic thread herring	4	0.03	0.31	0.07		64	1.60	62	69
clearnose skate	4	0.03	0.31	0.07		433	19.69	397	488
spiny butterfly ray	4	0.03	0.31	0.07		791	163.90	515	1170
blue crab, male	4	0.03	0.31	0.07		90	3.40	81	95
squid	2	0.02	0.15	0.04		46		46	46
northern pipefish	2	0.02	0.15	0.04		141	5.00	136	146
Atlantic herring	1	0.01	0.08	0.02		48		48	48
northern puffer	1	0.01	0.08	0.02	1	110		110	110
naked goby	1	0.01	0.08	0.02		31		31	31
oyster toadfish	1	0.01	0.08	0.02		144		144	144
striped burrfish	1	0.01	0.08	0.02		230		230	230
brown shrimp	1	0.01	0.08	0.02		125		125	125
All Species Combined	11,776								

Table 125.

Month - August  
 Segment - Ches. Bay - Upper  
 No. of Fish Trawls Made - 13  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 26  
 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	9,742	86.12	749.38		6,848	45	0.68	21	84
spot	586	5.18	45.08	40.53	429	141	1.62	84	232
weakfish	345	3.05	26.54	23.86	170	107	5.70	15	299
Atlantic croaker	267	2.36	20.54	18.46	164	219	1.87	119	307
hogchoker	124	1.10	9.54		0	107	1.52	50	154
northern searobin	39	0.34	3.00	2.70	39	114	2.00	91	136
summer flounder	34	0.30	2.62	2.35	31	176	9.71	132	370
inshore lizardfish	34	0.30	2.62	2.35	32	129	5.83	37	204
blue crab, juvenile female	30	0.27	2.31	2.07		81	3.94	32	114
black seabass	17	0.15	1.31	1.18	0	117	2.84	100	145
striped anchovy	16	0.14	1.23	1.11	16	60	1.02	53	67
blue crab, male	13	0.11	1.00	0.90		79	7.89	39	112
butterfish	12	0.11	0.92	0.83	5	132	12.56	71	178
striped searobin	8	0.07	0.62	0.55		105	5.85	74	123
kingfish	7	0.06	0.54	0.48	7	60	10.11	36	115
northern pipefish	7	0.06	0.54	0.48		136	14.89	87	212
smallmouth flounder	6	0.05	0.46	0.41	4	66	11.98	27	101
pigfish	5	0.04	0.38	0.35		125	16.48	101	190
scup	4	0.04	0.31	0.28	3	127	11.94	108	162
silver perch	4	0.04	0.31	0.28	0	127	3.45	181	196
blue crab, adult female	4	0.04	0.31	0.28		188	4.21	118	136
northern puffer	2	0.02	0.15	0.14	2	65	4.00	61	69
naked goby	2	0.02	0.15	0.14		31	6.00	25	37
blackcheek tonguefish	2	0.02	0.15	0.14	0	131	0.50	130	131
Atlantic thread herring	1	0.01	0.08	0.07		73		73	73
brown shrimp	1	0.01	0.08	0.07		139		139	139
All Species Combined	11,312								

Table 126.

Month - August  
 Segment - All - Pooled  
 No. of Fish Trawls Made - 39  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 43  
 Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	17,407	46.64	446.33		11,973	47	0.45	21	84
striped anchovy	9,980	26.74	255.90	50.99	9,380	61	0.67	43	117
spot	4,702	12.60	120.56	24.03	4,383	132	0.78	84	232
Atlantic croaker	1,575	4.22	40.38	8.05	1,451	201	1.32	114	328
Atlantic herring	1,175	3.15	30.13	6.00		63	0.80	48	73
weakfish	479	1.28	12.28	2.45	250	119	4.29	15	299
northern searobin	410	1.10	10.51	2.09	410	112	0.74	40	146
hogchoker	341	0.91	8.74		0	108	1.08	50	181
scup	255	0.68	6.54	1.30	196	103	4.15	49	242
squid	196	0.53	5.03	1.00		21	1.37	6	157
black seabass	91	0.24	2.33	0.46	8	113	2.77	26	154
summer flounder	90	0.24	2.31	0.46	68	216	9.63	112	565
striped searobin	82	0.22	2.10	0.42		125	1.39	74	153
smallmouth flounder	68	0.18	1.74	0.35	48	65	3.24	23	125
blue crab, juvenile female	65	0.17	1.67	0.33		86	2.24	32	122
butterfish	55	0.15	1.41	0.28	22	125	6.10	11	178
inshore lizardfish	46	0.12	1.18	0.24	38	140	5.69	37	212
blue crab, adult female	45	0.12	1.15	0.23		127	1.95	91	157
spotted hake	36	0.10	0.92	0.18	36	159	4.86	125	249
pigfish	34	0.09	0.87	0.17		115	2.89	89	190
blackcheek tonguefish	32	0.09	0.82	0.16	0	139	3.23	89	174
brown shrimp	26	0.07	0.67	0.13		131	2.19	108	159
blue crab, male	25	0.07	0.64	0.13		87	4.83	39	122
kingfish	18	0.05	0.46	0.09	15	108	19.98	35	327
clearnose skate	16	0.04	0.41	0.08		386	17.81	265	488
northern pipefish	15	0.04	0.38	0.08		138	7.03	87	212
windowpane	11	0.03	0.28	0.06	11	162	4.75	118	174
lined seahorse	9	0.02	0.23	0.05		78	8.71	43	110
oyster toadfish	7	0.02	0.18	0.04		191	15.57	125	237
Atlantic thread herring	5	0.01	0.13	0.03		66	2.14	62	73
spiny butterfly ray	4	0.01	0.10	0.02		791	163.90	515	1170
silver perch	4	0.01	0.10	0.02	0	187	3.45	181	196
northern puffer	3	0.01	0.08	0.02	3	80	15.18	61	110
naked goby	3	0.01	0.08	0.02		31	3.46	25	37
silver hake	1	0.00	0.03	0.01		196		196	196
tautog	1	0.00	0.03	0.01		328		328	328
round herring	1	0.00	0.03	0.01		93		93	93
bighead searobin	1	0.00	0.03	0.01		49		49	49
southern stingray	1	0.00	0.03	0.01		452		452	452
conger eel	1	0.00	0.03	0.01		455		455	455
northern sennet	1	0.00	0.03	0.01		80		80	80
fourspot flounder	1	0.00	0.03	0.01		146		146	146
striped burrfish	1	0.00	0.03	0.01		230		230	230
All Species Combined	37,319								

Table 127.

Month - September  
 Segment - Ches. Bay - Bottom  
 No. of Fish Trawls Made - 13  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 34

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	2,654	62.15	204.15		2,412	49	0.37	39	63
spot	598	14.00	46.00	39.73	597	132	0.93	104	223
Atlantic croaker	274	6.42	21.08	18.21	0	161	2.02	121	214
smallmouth flounder	135	3.16	10.38	8.97	133	68	1.02	37	118
hogchoker	111	2.60	8.54		0	121	2.83	58	179
pigfish	71	1.66	5.46	4.72		148	1.44	119	188
striped anchovy	59	1.38	4.54	3.92	59	79	1.97	61	112
weakfish	58	1.36	4.46	3.85	37	161	6.86	24	254
summer flounder	44	1.03	3.38	2.92	36	244	15.85	124	574
scup	42	0.98	3.23	2.79	42	125	1.74	101	149
northern searobin	38	0.89	2.92	2.52	2	128	3.88	33	161
Atlantic thread herring	29	0.68	2.23	1.93		58	2.27	44	89
blue crab, adult female	23	0.54	1.77	1.53		124	3.37	93	151
blueback herring	21	0.49	1.62	1.40	21	54	0.73	48	61
blackcheek tonguefish	21	0.49	1.62	1.40	0	147	3.16	120	173
butterfish	15	0.35	1.15	1.00	15	98	3.74	66	121
inshore lizardfish	15	0.35	1.15	1.00	7	208	10.70	147	295
black seabass	13	0.30	1.00	0.86	9	69	9.01	43	149
northern puffer	8	0.19	0.62	0.53	5	111	18.18	40	205
oyster toadfish	8	0.19	0.62	0.53		129	24.06	24	232
striped searobin	7	0.16	0.54	0.47		160	5.40	130	173
lined seahorse	4	0.09	0.31	0.27		93	16.10	45	113
kingfish	3	0.07	0.23	0.20	2	122	23.25	77	154
squid	3	0.07	0.23	0.20		60	28.83	24	117
windowpane	3	0.07	0.23	0.20	3	192	5.17	182	198
spiny butterfly ray	3	0.07	0.23	0.20		553	20.07	516	585
clearnose skate	2	0.05	0.15	0.13		301	55.50	245	356
silver jenny	2	0.05	0.15	0.13		78	10.50	67	88
bluefish	1	0.02	0.08	0.07		267		267	267
bluespotted cornetfish	1	0.02	0.08	0.07		232		232	232
feather blenny	1	0.02	0.08	0.07		33		33	33
striped burrfish	1	0.02	0.08	0.07		177		177	177
brown shrimp	1	0.02	0.08	0.07		111		111	111
blue crab, juvenile female	1	0.02	0.08	0.07		98		98	98
All Species Combined	4,270								

Table 128.

Month - September  
 Segment - Ches. Bay - Lower  
 No. of Fish Trawls Made - 13  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 36

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	2,941	62.65	226.23		2,912	46	0.76	23	70
spot	558	11.89	42.92	38.48	550	132	0.90	106	211
hogchoker	303	6.46	23.31		0	112	1.91	82	174
Atlantic croaker	200	4.26	15.38	13.79	0	176	2.92	128	260
weakfish	189	4.03	14.54	13.03	132	171	4.21	98	259
striped anchovy	98	2.09	7.54	6.76	98	82	1.55	61	118
smallmouth flounder	90	1.92	6.92	6.21	90	64	1.17	40	84
pigfish	70	1.49	5.38	4.83		142	1.25	109	164
summer flounder	44	0.94	3.38	3.03	32	241	12.83	155	509
butterfish	29	0.62	2.23	2.00	19	125	5.27	81	182
brown shrimp	19	0.40	1.46	1.31		118	7.60	71	177
Atlantic thread herring	15	0.32	1.15	1.03		65	4.56	45	99
blackcheek tonguefish	15	0.32	1.15	1.03	0	152	2.96	125	171
scup	14	0.30	1.08	0.97	13	126	4.78	101	162
northern searobin	14	0.30	1.08	0.97	1	138	10.05	16	180
inshore lizardfish	14	0.30	1.08	0.97	10	182	8.59	129	238
blue crab, juvenile female	12	0.26	0.92	0.83		57	5.51	24	82
squid	8	0.17	0.62	0.55		29	15.46	7	137
windowpane	8	0.17	0.62	0.55	7	205	10.21	180	272
striped searobin	8	0.17	0.62	0.55		151	9.65	112	193
black seabass	7	0.15	0.54	0.48	3	97	16.87	49	172
northern puffer	6	0.13	0.46	0.41	4	131	13.90	99	196
silver jenny	6	0.13	0.46	0.41		81	3.33	73	97
kingfish	4	0.09	0.31	0.28	4	82	17.53	50	124
alewife	4	0.09	0.31	0.28	4	53	1.85	50	58
clearnose skate	4	0.09	0.31	0.28		440	14.01	403	464
conger eel	3	0.06	0.23	0.21		366	53.11	266	447
blue crab, male	2	0.04	0.15	0.14		65	40.50	24	105
blue crab, adult female	2	0.04	0.15	0.14		125	7.50	117	132
harvestfish	1	0.02	0.08	0.07	1	46		46	46
northern pipefish	1	0.02	0.08	0.07		154		154	154
oyster toadfish	1	0.02	0.08	0.07		192		192	192
smooth dogfish	1	0.02	0.08	0.07		498		498	498
spiny butterfly ray	1	0.02	0.08	0.07		768		768	768
banded drum	1	0.02	0.08	0.07		122		122	122
pinfish	1	0.02	0.08	0.07		122		122	122
All Species Combined	4,694								

Table 129.

Month - September  
 Segment - Ches. Bay - Upper  
 No. of Fish Trawls Made - 13  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 28

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	28,173	94.63	2167.15		27,868	42	0.45	22	69
weakfish	468	1.57	36.00	33.12	167	171	4.12	41	306
spot	467	1.57	35.92	33.05	440	140	1.13	109	223
hogchoker	186	0.62	14.31		0	110	1.39	80	158
Atlantic croaker	111	0.37	8.54	7.86	0	175	2.52	129	265
Atlantic thread herring	61	0.20	4.69	4.32		45	0.71	30	61
striped anchovy	56	0.19	4.31	3.96	56	86	0.98	70	103
harvestfish	46	0.15	3.54	3.26	46	79	2.33	51	118
inshore lizardfish	45	0.15	3.46	3.18	39	151	7.52	72	279
summer flounder	31	0.10	2.38	2.19	30	198	4.54	156	294
smallmouth flounder	26	0.09	2.00	1.84	22	74	4.43	43	127
butterfish	24	0.08	1.85	1.70	12	128	5.76	92	183
pigfish	13	0.04	1.00	0.92		140	3.35	119	158
blue crab, adult female	13	0.04	1.00	0.92		136	4.54	93	161
blue crab, male	9	0.03	0.69	0.64		117	5.79	89	150
blue crab, juvenile female	9	0.03	0.69	0.64		83	4.91	56	99
kingfish	7	0.02	0.54	0.50	7	60	6.34	39	80
lined seahorse	6	0.02	0.46	0.42		49	3.17	38	58
black seabass	4	0.01	0.31	0.28	1	120	24.14	48	151
squid	4	0.01	0.31	0.28		50	3.76	41	59
striped searobin	4	0.01	0.31	0.28		160	15.52	120	195
northern pipefish	2	0.01	0.15	0.14		97	0.50	96	97
blackcheek tonguefish	2	0.01	0.15	0.14	1	107	22.50	84	129
scup	1	0.00	0.08	0.07	1	122		122	122
northern searobin	1	0.00	0.08	0.07	0	156		156	156
oyster toadfish	1	0.00	0.08	0.07		45		45	45
fringed flounder	1	0.00	0.08	0.07		132		132	132
brown shrimp	1	0.00	0.08	0.07		69		69	69
All Species Combined	29,772								

Table 130.

Month - September

Segment - All - Pooled

No. of Fish Trawls Made - 39

No. of Add'l Crab Trawls Made - 0

No. of Species - 43

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	33,768	87.17	865.85	.	33,192	45	0.33	22	70
spot	1,623	4.19	41.62	37.16	1,587	135	0.60	104	223
weakfish	715	1.85	18.33	16.37	336	169	2.77	24	306
hogchoker	600	1.55	15.38	.	0	114	1.18	58	179
Atlantic croaker	585	1.51	15.00	13.39	0	170	1.48	121	265
smallmouth flounder	251	0.65	6.44	5.75	245	68	0.86	37	127
striped anchovy	213	0.55	5.46	4.88	213	82	0.93	61	118
pigfish	154	0.40	3.95	3.53	.	145	0.95	109	188
summer flounder	119	0.31	3.05	2.72	98	231	7.79	124	574
Atlantic thread herring	105	0.27	2.69	2.40	.	51	1.26	30	99
inshore lizardfish	74	0.19	1.90	1.69	56	169	5.93	72	295
butterfish	68	0.18	1.74	1.56	46	121	3.42	66	183
scup	57	0.15	1.46	1.30	56	126	1.71	101	162
northern searobin	53	0.14	1.36	1.21	3	131	3.87	16	180
harvestfish	47	0.12	1.21	1.08	47	78	2.38	46	118
blackcheek tonguefish	38	0.10	0.97	0.87	1	147	2.76	84	173
blue crab, adult female	38	0.10	0.97	0.87	.	128	2.71	93	161
black seabass	24	0.06	0.62	0.55	13	85	8.62	43	172
blue crab, juvenile female	22	0.06	0.56	0.50	.	70	4.66	24	99
blueback herring	21	0.05	0.54	0.48	21	54	0.73	48	61
brown shrimp	21	0.05	0.54	0.48	.	116	7.26	69	177
striped searobin	19	0.05	0.49	0.43	.	156	5.32	112	195
squid	15	0.04	0.38	0.34	.	41	10.01	7	137
kingfish	14	0.04	0.36	0.32	13	80	9.59	39	154
northern puffer	14	0.04	0.36	0.32	9	120	11.87	40	205
windowpane	11	0.03	0.28	0.25	10	201	7.58	180	272
blue crab, male	11	0.03	0.28	0.25	.	108	9.66	24	150
lined seahorse	10	0.03	0.26	0.23	.	66	9.45	38	113
oyster toadfish	10	0.03	0.26	0.23	.	127	21.95	24	232
silver jenny	8	0.02	0.21	0.18	.	80	3.21	67	97
clearnose skate	6	0.02	0.15	0.14	.	393	33.85	245	464
alewife	4	0.01	0.10	0.09	4	53	1.85	50	58
spiny butterfly ray	4	0.01	0.10	0.09	.	607	55.59	516	768
northern pipefish	3	0.01	0.08	0.07	.	116	19.17	96	154
conger eel	3	0.01	0.08	0.07	.	366	53.11	266	447
bluefish	1	0.00	0.03	0.02	.	267	.	267	267
bluespotted cornetfish	1	0.00	0.03	0.02	.	232	.	232	232
feather blenny	1	0.00	0.03	0.02	.	33	.	33	33
smooth dogfish	1	0.00	0.03	0.02	.	498	.	498	498
banded drum	1	0.00	0.03	0.02	.	122	.	122	122
pinfish	1	0.00	0.03	0.02	.	122	.	122	122
fringed flounder	1	0.00	0.03	0.02	.	132	.	132	132
striped burrfish	1	0.00	0.03	0.02	.	177	.	177	177
All Species Combined	38,736								

Table 131.

Month - October  
 Segment - Ches. Bay - Bottom  
 No. of Fish Trawls Made - 13  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 43

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	1,064	26.25	81.85		992	57	0.73	36	78
spot	720	17.76	55.38	27.83	716	136	0.72	100	222
Atlantic croaker	598	14.75	46.00	23.12	20	185	1.81	15	280
hogchoker	402	9.92	30.92		0	124	2.27	83	181
weakfish	293	7.23	22.54	11.33	242	178	2.30	78	373
blackcheek tonguefish	235	5.80	18.08	9.08	5	154	2.46	82	190
smallmouth flounder	199	4.91	15.31	7.69	191	81	1.26	35	126
kingfish	74	1.83	5.69	2.86	49	135	15.05	28	288
blue crab, adult female	66	1.63	5.08	2.55		128	1.93	89	160
silver perch	65	1.60	5.00	2.51	50	139	3.39	92	208
summer flounder	58	1.43	4.46	2.24	54	231	6.62	153	497
pigfish	50	1.23	3.85	1.93		144	3.92	90	205
butterfish	42	1.04	3.23	1.62	42	111	1.52	93	137
squid	35	0.86	2.69	1.35		41	5.30	13	177
spotted hake	28	0.69	2.15	1.08	28	221	11.17	21	279
black seabass	13	0.32	1.00	0.50	2	123	5.37	86	152
clearnose skate	13	0.32	1.00	0.50		398	32.10	160	541
striped searobin	11	0.27	0.85	0.43		101	16.53	45	215
inshore lizardfish	11	0.27	0.85	0.43	9	181	9.75	139	230
northern searobin	7	0.17	0.54	0.27	7	61	6.59	27	82
northern pipefish	7	0.17	0.54	0.27		134	20.25	81	247
oyster toadfish	7	0.17	0.54	0.27		192	39.15	58	314
blue crab, male	7	0.17	0.54	0.27		92	17.34	36	141
blue crab, juvenile female	6	0.15	0.46	0.23		77	14.28	28	111
brown shrimp	5	0.12	0.38	0.19		122	3.57	112	133
striped anchovy	4	0.10	0.31	0.15	4	104	4.17	97	116
banded drum	4	0.10	0.31	0.15		117	11.21	86	140
scup	3	0.07	0.23	0.12	3	142	4.81	135	151
bluefish	3	0.07	0.23	0.12		233	33.45	170	284
Atlantic thread herring	3	0.07	0.23	0.12		51	1.45	48	53
windowpane	3	0.07	0.23	0.12	1	237	24.26	196	280
lined seahorse	3	0.07	0.23	0.12		73	11.89	51	92
northern puffer	2	0.05	0.15	0.08	0	202	16.00	186	218
fringed flounder	2	0.05	0.15	0.08		116	8.50	107	124
white shrimp	2	0.05	0.15	0.08		147	4.50	142	151
red hake	1	0.02	0.08	0.04		74		74	74
feather blenny	1	0.02	0.08	0.04		90		90	90
skilletfish	1	0.02	0.08	0.04					
conger eel	1	0.02	0.08	0.04		441		441	441
star drum	1	0.02	0.08	0.04		94		94	94
pinfish	1	0.02	0.08	0.04		134		134	134
spottail pinfish	1	0.02	0.08	0.04		130		130	130
pink shrimp	1	0.02	0.08	0.04		144		144	144
All Species Combined	4,053								

Table 132.

Month - October									
Segment - Ches. Bay - Lower									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 34									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	1,935	66.75	148.85		1,886	53	0.53	26	68
spot	311	10.73	23.92	33.77	310	137	0.98	98	248
smallmouth flounder	137	4.73	10.54	14.88	136	82	1.25	44	116
Atlantic croaker	112	3.86	8.62	12.16	55	115	8.70	16	268
weakfish	69	2.38	5.31	7.49	50	182	4.35	106	255
summer flounder	56	1.93	4.31	6.08	51	238	7.11	174	447
squid	46	1.59	3.54	4.99	.	32	2.07	17	90
hogchoker	43	1.48	3.31	.	0	123	3.14	96	180
inshore lizardfish	36	1.24	2.77	3.91	29	181	7.49	95	334
blue crab, adult female	34	1.17	2.62	3.69	.	133	2.17	110	167
pigfish	19	0.66	1.46	2.06	.	151	5.25	104	183
northern searobin	15	0.52	1.15	1.63	14	85	10.07	34	186
kingfish	10	0.34	0.77	1.09	10	100	9.66	60	150
striped searobin	9	0.31	0.69	0.98	.	104	21.17	59	218
black seabass	8	0.28	0.62	0.87	3	133	11.64	92	176
blackcheek tonguefish	8	0.28	0.62	0.87	0	152	5.02	138	177
lined seahorse	7	0.24	0.54	0.76	.	71	12.82	43	124
spotted hake	5	0.17	0.38	0.54	5	261	8.53	242	293
blackwing searobin	4	0.14	0.31	0.43	.	128	5.65	115	142
blue crab, male	4	0.14	0.31	0.43	.	129	5.85	118	144
blue crab, juvenile female	4	0.14	0.31	0.43	.	41	9.94	24	65
butterfish	3	0.10	0.23	0.33	3	112	19.80	73	136
northern puffer	3	0.10	0.23	0.33	2	84	39.34	36	162
fringed flounder	3	0.10	0.23	0.33	.	112	7.22	98	121
rock seabass	3	0.10	0.23	0.33	.	140	5.03	134	150
brown shrimp	3	0.10	0.23	0.33	.	113	9.61	101	132
bluefish	2	0.07	0.15	0.22	.	135	1.50	133	136
oyster toadfish	2	0.07	0.15	0.22	.	147	100.00	47	247
clearnose skate	2	0.07	0.15	0.22	.	359	82.50	276	441
pinfish	2	0.07	0.15	0.22	.	129	3.50	125	132
windowpane	1	0.03	0.08	0.11	1	212	.	212	212
northern pipefish	1	0.03	0.08	0.11	.	225	.	225	225
skilletfish	1	0.03	0.08	0.11	.	17	.	17	17
northern stargazer	1	0.03	0.08	0.11	.	25	.	25	25
All Species Combined	2,899								

Table 133.

Month - October									
Segment - Ches. Bay - Upper									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 31									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	1,330	57.11	102.31		1,262	52	0.50	34	80
spot	339	14.56	26.08	35.84	337	144	0.88	103	206
weakfish	183	7.86	14.08	19.34	118	193	3.14	70	306
Atlantic croaker	154	6.61	11.85	16.28	75	112	6.65	16	227
hogchoker	53	2.28	4.08	.	0	115	2.02	86	167
inshore lizardfish	50	2.15	3.85	5.29	42	151	7.57	81	294
smallmouth flounder	47	2.02	3.62	4.97	46	69	2.54	40	128
summer flounder	44	1.89	3.38	4.65	41	224	7.24	187	445
northern searobin	22	0.94	1.69	2.33	22	53	3.40	33	101
butterfish	17	0.73	1.31	1.80	5	156	5.47	126	198
northern puffer	12	0.52	0.92	1.27	11	57	9.84	22	154
blue crab, adult female	11	0.47	0.85	1.16	.	139	3.82	124	158
lined seahorse	10	0.43	0.77	1.06	.	81	7.72	58	127
squid	9	0.39	0.69	0.95	.	42	4.82	29	76
pigfish	8	0.34	0.62	0.85	.	154	7.48	109	178
northern pipefish	7	0.30	0.54	0.74	.	141	8.68	106	178
black seabass	6	0.26	0.46	0.63	3	120	17.58	71	167
kingfish	5	0.21	0.38	0.53	5	77	10.45	50	113
striped searobin	4	0.17	0.31	0.42	.	164	38.24	58	230
blue crab, juvenile female	4	0.17	0.31	0.42	.	69	20.42	21	113
scup	3	0.13	0.23	0.32	2	164	10.93	151	186
blackcheek tonguefish	2	0.09	0.15	0.21	0	131	21.00	110	152
harvestfish	1	0.04	0.08	0.11	1	101	.	101	101
windowpane	1	0.04	0.08	0.11	0	300	.	300	300
bighead searobin	1	0.04	0.08	0.11	.	63	.	63	63
oyster toadfish	1	0.04	0.08	0.11	.	234	.	234	234
banded drum	1	0.04	0.08	0.11	.	66	.	66	66
northern stargazer	1	0.04	0.08	0.11	.	29	.	29	29
fringed flounder	1	0.04	0.08	0.11	.	112	.	112	112
silver jenny	1	0.04	0.08	0.11	.	81	.	81	81
blue crab, male	1	0.04	0.08	0.11	.	128	.	128	128
All Species Combined	2,329								



Table 134.

Month - October  
 Segment - All - Pooled  
 No. of Fish Trawls Made - 39  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 49

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	4,329	46.64	111.00		4,140	54	0.35	26	80
spot	1,370	14.76	35.13	30.76	1,363	139	0.50	98	248
Atlantic croaker	864	9.31	22.15	19.40	150	159	2.56	15	280
weakfish	545	5.87	13.97	12.24	410	184	1.76	70	373
hogchoker	498	5.37	12.77		0	121	1.46	83	181
smallmouth flounder	383	4.13	9.82	8.60	373	80	0.87	35	128
blackcheek tonguefish	245	2.64	6.28	5.50	5	153	2.29	82	190
summer flounder	158	1.70	4.05	3.55	146	232	4.04	153	497
blue crab, adult female	111	1.20	2.85	2.49		131	1.40	89	167
inshore lizardfish	97	1.05	2.49	2.18	80	166	5.11	81	334
squid	90	0.97	2.31	2.02		37	2.39	13	177
kingfish	89	0.96	2.28	2.00	64	120	10.63	28	288
pigfish	77	0.83	1.97	1.73		147	2.96	90	205
silver perch	65	0.70	1.67	1.46	50	139	3.39	92	208
butterfish	62	0.67	1.59	1.39	50	123	3.23	73	198
northern searobin	44	0.47	1.13	0.99	43	65	4.48	27	186
spotted hake	33	0.36	0.85	0.74	33	227	9.85	21	293
black seabass	27	0.29	0.69	0.61	8	125	5.60	71	176
striped searobin	24	0.26	0.62	0.54		113	12.94	45	230
lined seahorse	20	0.22	0.51	0.45		76	5.98	43	127
northern puffer	17	0.18	0.44	0.38	13	79	14.71	22	218
northern pipefish	15	0.16	0.38	0.34		143	11.50	81	247
clearnose skate	15	0.16	0.38	0.34		393	29.04	160	541
blue crab, juvenile female	14	0.15	0.36	0.31		64	9.26	21	113
blue crab, male	12	0.13	0.31	0.27		109	10.93	36	144
oyster toadfish	10	0.11	0.26	0.22		187	31.61	47	314
brown shrimp	8	0.09	0.21	0.18		119	4.17	101	133
scup	6	0.06	0.15	0.13	5	153	7.36	135	186
fringed flounder	6	0.06	0.15	0.13		113	3.96	98	124
bluefish	5	0.05	0.13	0.11		194	30.30	133	284
windowpane	5	0.05	0.13	0.11	2	245	19.77	196	300
banded drum	5	0.05	0.13	0.11		106	13.32	66	140
striped anchovy	4	0.04	0.10	0.09	4	104	4.17	97	116
blackwing searobin	4	0.04	0.10	0.09		128	5.65	115	142
Atlantic thread herring	3	0.03	0.08	0.07		51	1.45	48	53
pinfish	3	0.03	0.08	0.07		130	2.73	125	134
rock seabass	3	0.03	0.08	0.07		140	5.03	134	150
skilletfish	2	0.02	0.05	0.04		17		17	17
northern stargazer	2	0.02	0.05	0.04		27	2.00	25	29
white shrimp	2	0.02	0.05	0.04		147	4.50	142	151
harvestfish	1	0.01	0.03	0.02	1	101		101	101
red hake	1	0.01	0.03	0.02		74		74	74
bighead searobin	1	0.01	0.03	0.02		63		63	63
feather blenny	1	0.01	0.03	0.02		90		90	90
conger eel	1	0.01	0.03	0.02		441		441	441
star drum	1	0.01	0.03	0.02		94		94	94
silver jenny	1	0.01	0.03	0.02		81		81	81
spottail pinfish	1	0.01	0.03	0.02		130		130	130
pink shrimp	1	0.01	0.03	0.02		144		144	144
All Species Combined	9,281								

Table 135.

Month - November  
 Segment - Ches. Bay - Bottom  
 No. of Fish Trawls Made - 13  
 No. of Add'l Crab Trawls Made - 0  
 No. of Species - 34

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
spot	352	26.55	27.08	32.62	352	136	0.82	103	181
Atlantic croaker	180	13.57	13.85	16.68	44	169	6.89	14	270
bay anchovy	170	12.82	13.08	.	154	58	0.66	44	75
smallmouth flounder	107	8.07	8.23	9.92	106	82	1.61	28	135
weakfish	85	6.41	6.54	7.88	63	183	4.47	108	249
summer flounder	78	5.88	6.00	7.23	76	216	4.24	144	415
hogchoker	77	5.81	5.92	.	0	123	2.48	86	188
kingfish	38	2.87	2.92	3.52	38	138	6.87	63	199
spotted hake	32	2.41	2.46	2.97	0	240	4.67	185	284
blackcheek tonguefish	30	2.26	2.31	2.78	4	150	5.67	67	203
silver perch	27	2.04	2.08	2.50	17	151	5.57	112	208
butterfish	24	1.81	1.85	2.22	23	109	5.45	49	169
squid	15	1.13	1.15	1.39	.	50	5.01	32	91
inshore lizardfish	15	1.13	1.15	1.39	14	175	9.16	95	234
black seabass	13	0.98	1.00	1.20	9	101	12.98	35	175
blue crab, adult female	12	0.90	0.92	1.11	.	138	4.22	111	165
striped searobin	9	0.68	0.69	0.83	.	88	9.62	61	144
clearnose skate	9	0.68	0.69	0.83	.	407	19.58	289	477
lined seahorse	6	0.45	0.46	0.56	.	82	14.40	42	127
northern pipefish	6	0.45	0.46	0.56	.	162	25.42	63	248
windowpane	5	0.38	0.38	0.46	0	215	4.43	205	226
pigfish	4	0.30	0.31	0.37	.	126	8.78	111	147
seaboard goby	4	0.30	0.31	0.37	.	32	1.70	27	35
pinfish	4	0.30	0.31	0.37	.	116	5.51	103	127
fringed flounder	4	0.30	0.31	0.37	.	124	6.46	112	142
brown shrimp	4	0.30	0.31	0.37	.	114	10.36	93	133
white shrimp	3	0.23	0.23	0.28	.	118	4.81	109	125
northern puffer	2	0.15	0.15	0.19	0	207	20.00	187	227
northern searobin	2	0.15	0.15	0.19	2	65	8.00	57	73
bighead searobin	2	0.15	0.15	0.19	.	189	1.50	187	190
striped anchovy	2	0.15	0.15	0.19	2	105	4.50	100	109
oyster toadfish	2	0.15	0.15	0.19	.	317	38.00	279	355
rock seabass	2	0.15	0.15	0.19	.	147	4.50	142	151
scup	1	0.08	0.08	0.09	0	190	.	190	190
All Species Combined	1,326								

Table 136.

Month - November									
Segment - Ches. Bay - Lower									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 40									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
spot	965	49.21	74.23	55.21	965	135	0.60	100	189
smallmouth flounder	175	8.92	13.46	10.01	174	84	1.28	42	122
bay anchovy	146	7.45	11.23		136	58	0.73	45	74
Atlantic croaker	118	6.02	9.08	6.75	14	178	5.39	21	244
weakfish	115	5.86	8.85	6.58	78	196	3.83	124	348
summer flounder	76	3.88	5.85	4.35	72	220	5.35	156	467
blue crab, adult female	74	3.77	5.69	4.23		139	1.48	113	168
hogchoker	67	3.42	5.15		0	117	1.44	90	146
blackcheek tonguefish	28	1.43	2.15	1.60	5	139	4.11	90	175
pigfish	25	1.27	1.92	1.43		138	4.14	110	177
kingfish	23	1.17	1.77	1.32	20	147	15.26	40	316
inshore lizardfish	21	1.07	1.62	1.20	18	179	8.20	101	244
northern searobin	20	1.02	1.54	1.14	20	57	1.86	35	70
brown shrimp	17	0.87	1.31	0.97		122	1.49	113	134
squid	11	0.56	0.85	0.63		40	1.46	31	47
black seabass	7	0.36	0.54	0.40	2	120	14.31	61	155
naked goby	6	0.31	0.46	0.34		37	1.29	33	41
blue crab, juvenile female	6	0.31	0.46	0.34		47	8.89	28	88
spotted hake	5	0.25	0.38	0.29	1	223	42.24	59	302
blue crab, male	5	0.25	0.38	0.29		52	7.92	28	70
butterfish	4	0.20	0.31	0.23	3	130	7.88	116	151
northern puffer	4	0.20	0.31	0.23	3	80	40.42	32	201
striped searobin	4	0.20	0.31	0.23		93	22.20	54	146
bighead searobin	4	0.20	0.31	0.23		85	26.67	48	164
lined seahorse	4	0.20	0.31	0.23		67	10.88	53	99
silver perch	4	0.20	0.31	0.23	4	121	4.61	108	130
tautog	3	0.15	0.23	0.17		271	14.05	255	299
windowpane	3	0.15	0.23	0.17	0	252	14.19	224	270
skilletfish	3	0.15	0.23	0.17		33	6.93	21	45
fringed flounder	3	0.15	0.23	0.17		114	10.09	99	133
northern pipefish	2	0.10	0.15	0.11		159	15.00	144	174
oyster toadfish	2	0.10	0.15	0.11		327	6.50	320	333
clearnose skate	2	0.10	0.15	0.11		431	40.00	391	471
pinfish	2	0.10	0.15	0.11		122	3.50	118	125
rock seabass	2	0.10	0.15	0.11		161	1.00	160	162
scup	1	0.05	0.08	0.06	0	195		195	195
bluefish	1	0.05	0.08	0.06		132		132	132
spiny butterfly ray	1	0.05	0.08	0.06		556		556	556
northern stargazer	1	0.05	0.08	0.06		44		44	44
white shrimp	1	0.05	0.08	0.06		128		128	128
All Species Combined	1,961								

Table 137.

Month - November									
Segment - Ches. Bay - Upper									
No. of Fish Trawls Made - 13									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 28									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	919	41.08	70.69		864	51	0.57	35	72
Atlantic croaker	559	24.99	43.00	45.48	543	41	1.95	12	211
spot	334	14.93	25.69	27.18	334	134	0.77	102	195
hogchoker	89	3.98	6.85		0	112	2.30	71	166
weakfish	88	3.93	6.77	7.16	74	169	3.55	106	258
summer flounder	67	3.00	5.15	5.45	65	206	4.53	166	423
smallmouth flounder	58	2.59	4.46	4.72	58	74	1.89	52	111
blue crab, adult female	15	0.67	1.15	1.22		136	2.31	127	162
blue crab, juvenile female	14	0.63	1.08	1.14		38	3.95	25	77
silver perch	13	0.58	1.00	1.06	13	121	4.26	82	141
northern pipefish	10	0.45	0.77	0.81		140	18.01	62	239
blue crab, male	10	0.45	0.77	0.81		71	12.15	19	125
northern searobin	9	0.40	0.69	0.73	9	65	4.95	52	100
black seabass	8	0.36	0.62	0.65	4	125	16.43	48	184
blackcheek tonguefish	7	0.31	0.54	0.57	5	100	13.89	58	168
naked goby	6	0.27	0.46	0.49		34	1.45	29	39
inshore lizardfish	6	0.27	0.46	0.49	6	166	14.04	124	217
brown shrimp	6	0.27	0.46	0.49		114	6.60	97	144
kingfish	4	0.18	0.31	0.33	4	76	11.36	58	106
bighead searobin	4	0.18	0.31	0.33		80	3.97	68	85
northern puffer	3	0.13	0.23	0.24	3	57	5.78	47	67
pigfish	2	0.09	0.15	0.16		110	9.00	101	119
bluefish	1	0.04	0.08	0.08		175		175	175
squid	1	0.04	0.08	0.08		29		29	29
striped bass	1	0.04	0.08	0.08	0	443		443	443
windowpane	1	0.04	0.08	0.08	0	267		267	267
lined seahorse	1	0.04	0.08	0.08		67		67	67
oyster toadfish	1	0.04	0.08	0.08		231		231	231
All Species Combined	2,237								

Table 138.

Month - November

Segment - All - Pooled

No. of Fish Trawls Made - 39

No. of Add'l Crab Trawls Made - 0

No. of Species - 43

Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker

Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
spot	1,651	29.89	42.33	40.71	1,651	135	0.41	100	195
bay anchovy	1,235	22.36	31.67		1,154	55	0.42	35	75
Atlantic croaker	857	15.51	21.97	21.13	601	97	3.51	12	270
smallmouth flounder	340	6.15	8.72	8.38	338	82	0.91	28	135
weakfish	288	5.21	7.38	7.10	215	184	2.39	106	348
hogchoker	233	4.22	5.97		0	118	1.28	71	188
summer flounder	221	4.00	5.67	5.45	213	214	2.76	144	467
blue crab, adult female	101	1.83	2.59	2.49		138	1.23	111	168
kingfish	65	1.18	1.67	1.60	62	137	8.09	40	316
blackcheek tonguefish	65	1.18	1.67	1.60	14	140	3.89	58	203
silver perch	44	0.80	1.13	1.08	34	140	4.25	82	208
inshore lizardfish	42	0.76	1.08	1.04	38	176	5.53	95	244
spotted hake	37	0.67	0.95	0.91	1	238	6.63	59	302
pigfish	31	0.56	0.79	0.76		135	3.77	101	177
northern searobin	31	0.56	0.79	0.76	31	60	1.98	35	100
black seabass	28	0.51	0.72	0.69	15	112	8.40	35	184
butterfish	28	0.51	0.72	0.69	26	112	4.96	49	169
squid	27	0.49	0.69	0.67		45	3.01	29	91
brown shrimp	27	0.49	0.69	0.67		119	2.27	93	144
blue crab, juvenile female	20	0.36	0.51	0.49		40	3.84	25	88
northern pipefish	18	0.33	0.46	0.44		149	12.92	62	248
blue crab, male	15	0.27	0.38	0.37		65	8.65	19	125
striped searobin	13	0.24	0.33	0.32		90	9.00	54	146
naked goby	12	0.22	0.31	0.30		35	1.04	29	41
lined seahorse	11	0.20	0.28	0.27		75	8.66	42	127
clearnose skate	11	0.20	0.28	0.27		411	16.98	289	477
bighead searobin	10	0.18	0.26	0.25		104	17.25	48	190
northern puffer	9	0.16	0.23	0.22	6	101	26.49	32	227
windowpane	9	0.16	0.23	0.22	0	233	8.74	205	270
fringed flounder	7	0.13	0.18	0.17		119	5.51	99	142
pinfish	6	0.11	0.15	0.15		118	3.78	103	127
oyster toadfish	5	0.09	0.13	0.12		304	21.97	231	355
seaboard goby	4	0.07	0.10	0.10		32	1.70	27	35
rock seabass	4	0.07	0.10	0.10		154	4.59	142	162
white shrimp	4	0.07	0.10	0.10		121	4.17	109	128
tautog	3	0.05	0.08	0.07		271	14.05	255	299
skilletfish	3	0.05	0.08	0.07		33	6.93	21	45
scup	2	0.04	0.05	0.05	0	193	2.50	190	195
bluefish	2	0.04	0.05	0.05		154	21.50	132	175
striped anchovy	2	0.04	0.05	0.05	2	105	4.50	100	109
striped bass	1	0.02	0.03	0.02	0	443		443	443
spiny butterfly ray	1	0.02	0.03	0.02		556		556	556
northern stargazer	1	0.02	0.03	0.02		44		44	44
All Species Combined	5,524								

Table 139.

Month - December									
Segment - Ches. Bay - Bottom									
No. of Fish Trawls Made - 11									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 35									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	2,982	75.72	271.09		2,947	48	0.47	35	86
spot	485	12.32	44.09	51.11	485	122	1.16	92	175
weakfish	84	2.13	7.64	8.85	66	181	9.64	95	325
Atlantic croaker	67	1.70	6.09	7.06	30	102	6.83	19	181
summer flounder	60	1.52	5.45	6.32	57	213	6.65	163	442
smallmouth flounder	41	1.04	3.73	4.32	40	80	2.99	36	121
blackcheek tonguefish	38	0.96	3.45	4.00	23	110	5.76	63	182
blue crab, adult female	33	0.84	3.00	3.48	.	127	2.46	98	157
squid	21	0.53	1.91	2.21	.	40	3.28	26	96
kingfish	19	0.48	1.73	2.00	19	69	7.12	28	125
spotted hake	15	0.38	1.36	1.58	3	218	19.33	81	319
striped searobin	11	0.28	1.00	1.16	.	77	4.17	49	96
black seabass	10	0.25	0.91	1.05	3	122	14.27	49	185
silver perch	8	0.20	0.73	0.84	8	122	4.56	98	139
brown shrimp	8	0.20	0.73	0.84	.	110	2.34	100	121
silver hake	7	0.18	0.64	0.74	.	83	3.26	68	95
hogchoker	7	0.18	0.64		0	131	10.02	108	186
northern pipefish	6	0.15	0.55	0.63	.	158	20.26	100	218
inshore lizardfish	5	0.13	0.45	0.53	5	143	19.28	111	218
windowpane	4	0.10	0.36	0.42	1	197	50.99	57	297
northern searobin	4	0.10	0.36	0.42	4	68	11.26	41	96
feather blenny	4	0.10	0.36	0.42	.	60	5.07	53	75
clearnose skate	4	0.10	0.36	0.42	.	416	9.64	396	441
spotted seatrout	3	0.08	0.27	0.32	.	231	20.88	197	269
lined seahorse	2	0.05	0.18	0.21	.	78	22.50	55	100
butterfish	1	0.03	0.09	0.11	1	100	.	100	100
Atlantic menhaden	1	0.03	0.09	0.11	1	104	.	104	104
pigfish	1	0.03	0.09	0.11	.	104	.	104	104
bighead searobin	1	0.03	0.09	0.11	.	99	.	99	99
skilletfish	1	0.03	0.09	0.11	.	35	.	35	35
oyster toadfish	1	0.03	0.09	0.11	.	235	.	235	235
spiny dogfish	1	0.03	0.09	0.11	.	930	.	930	930
banded drum	1	0.03	0.09	0.11	.	73	.	73	73
blue crab, male	1	0.03	0.09	0.11	.	26	.	26	26
blue crab, juvenile female	1	0.03	0.09	0.11	.	63	.	63	63
All Species Combined	3,938								

Table 140.

Month - December									
Segment - Ches. Bay - Lower									
No. of Fish Trawls Made - 9									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 34									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	6,723	83.49	747.00		6,695	47	0.49	29	87
spot	703	8.73	78.11	74.55	703	131	0.84	87	164
hogchoker	386	4.79	42.89		0	118	3.52	94	160
smallmouth flounder	52	0.65	5.78	5.51	51	86	2.25	50	121
summer flounder	37	0.46	4.11	3.92	35	196	8.30	138	441
weakfish	26	0.32	2.89	2.76	17	205	14.17	119	341
Atlantic croaker	16	0.20	1.78	1.70	16	41	3.45	19	73
blackcheek tonguefish	16	0.20	1.78	1.70	14	90	7.12	47	167
northern searobin	12	0.15	1.33	1.27	12	65	2.49	52	77
pink shrimp	12	0.15	1.33	1.27	.	101	3.39	83	131
spotted hake	10	0.12	1.11	1.06	3	194	27.91	69	302
kingfish	6	0.07	0.67	0.64	6	87	5.18	65	100
Atlantic menhaden	6	0.07	0.67	0.64	6	127	4.41	110	144
northern pipefish	6	0.07	0.67	0.64	.	144	13.85	111	194
inshore lizardfish	4	0.05	0.44	0.42	3	142	47.38	86	284
silver perch	4	0.05	0.44	0.42	4	119	8.37	99	135
fringed flounder	4	0.05	0.44	0.42	.	106	5.17	100	121
red hake	3	0.04	0.33	0.32	.	82	18.77	50	115
blueback herring	3	0.04	0.33	0.32	3	79	3.48	73	85
feather blenny	3	0.04	0.33	0.32	.	45	5.29	35	53
spiny dogfish	3	0.04	0.33	0.32	.	820	81.85	710	980
black seabass	2	0.02	0.22	0.21	2	71	14.00	57	85
spotted seatrout	2	0.02	0.22	0.21	.	225	5.00	220	230
bighead searobin	2	0.02	0.22	0.21	.	111	26.50	84	137
clearnose skate	2	0.02	0.22	0.21	.	424	47.50	376	471
silver hake	1	0.01	0.11	0.11	.	108	.	108	108
tautog	1	0.01	0.11	0.11	.	157	.	157	157
American eel	1	0.01	0.11	0.11	.	311	.	311	311
striped searobin	1	0.01	0.11	0.11	.	105	.	105	105
lined seahorse	1	0.01	0.11	0.11	.	49	.	49	49
seaboard goby	1	0.01	0.11	0.11	.	29	.	29	29
rock seabass	1	0.01	0.11	0.11	.	169	.	169	169
blue crab, male	1	0.01	0.11	0.11	.	57	.	57	57
blue crab, adult female	1	0.01	0.11	0.11	.	147	.	147	147
All Species Combined	8,052								

Table 141.

Month - December									
Segment - Ches. Bay - Upper									
No. of Fish Trawls Made - 9									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 22									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	11,212	96.37	1245.78		11,146	45	0.51	28	77
Atlantic croaker	305	2.62	33.89	72.62	305	42	1.24	16	90
spot	66	0.57	7.33	15.71	66	119	1.33	92	147
northern pipefish	10	0.09	1.11	2.38	9	107	10.77	66	180
summer flounder	9	0.08	1.00	2.14	9	181	7.83	139	227
smallmouth flounder	6	0.05	0.67	1.43	6	81	6.82	55	104
gizzard shad	3	0.03	0.33	0.71	3	142	14.26	119	168
northern searobin	3	0.03	0.33	0.71	3	55	4.91	46	63
pink shrimp	3	0.03	0.33	0.71	3	97	2.08	94	101
American shad	2	0.02	0.22	0.48	2	105	8.50	96	113
Atlantic silverside	2	0.02	0.22	0.48	2	104	1.00	103	105
hogchoker	2	0.02	0.22		0	100	8.00	92	108
blue crab, adult female	2	0.02	0.22	0.48		145	5.50	139	150
black seabass	1	0.01	0.11	0.24	1	57	.	57	57
kingfish	1	0.01	0.11	0.24	1	95	.	95	95
red hake	1	0.01	0.11	0.24		49	.	49	49
spotted hake	1	0.01	0.11	0.24	1	91	.	91	91
lined seahorse	1	0.01	0.11	0.24		79	.	79	79
blackcheek tonguefish	1	0.01	0.11	0.24	0	120	.	120	120
skilletfish	1	0.01	0.11	0.24		24	.	24	24
blue crab, male	1	0.01	0.11	0.24		34	.	34	34
blue crab, juvenile female	1	0.01	0.11	0.24		32	.	32	32
All Species Combined	11,634								

Table 142.

Month - December									
Segment - All - Pooled									
No. of Fish Trawls Made - 29									
No. of Add'l Crab Trawls Made - 0									
No. of Species - 46									
Adjusted Percent of Catch Excludes Bay Anchovy and Hogchoker									
Species	Number of Fish (All)	Percent of Catch	Catch Per Trawl	Adjusted Percent of Catch	Number of Fish (Index Age)	Average Length (mm)	Standard Error (length)	Minimum Length (mm)	Maximum Length (mm)
bay anchovy	20,917	88.54	721.28		20,788	47	0.29	28	87
spot	1,254	5.31	43.24	54.24	1,254	126	0.69	87	175
hogchoker	395	1.67	13.62		0	120	3.64	92	186
Atlantic croaker	388	1.64	13.38	16.78	351	63	3.30	16	181
weakfish	110	0.47	3.79	4.76	83	190	8.06	95	341
summer flounder	106	0.45	3.66	4.58	101	204	4.88	138	442
smallmouth flounder	99	0.42	3.41	4.28	97	83	1.76	36	121
blackcheek tonguefish	55	0.23	1.90	2.38	37	104	4.63	47	182
blue crab, adult female	36	0.15	1.24	1.56	29	129	2.42	98	157
kingfish	26	0.11	0.90	1.12	26	74	5.54	28	125
spotted hake	26	0.11	0.90	1.12	7	204	15.95	69	319
northern pipefish	22	0.09	0.76	0.95		131	9.26	66	218
squid	21	0.09	0.72	0.91		40	3.28	26	96
northern searobin	19	0.08	0.66	0.82	19	64	2.87	41	96
pink shrimp	15	0.06	0.52	0.65		100	2.75	83	131
black seabass	13	0.06	0.45	0.56	6	109	12.94	49	185
striped searobin	12	0.05	0.41	0.52		79	4.49	49	105
silver perch	12	0.05	0.41	0.52	12	121	3.92	98	139
inshore lizardfish	9	0.04	0.31	0.39	8	143	21.85	86	284
silver hake	8	0.03	0.28	0.35		86	4.25	68	108
brown shrimp	8	0.03	0.28	0.35		110	2.34	100	121
Atlantic menhaden	7	0.03	0.24	0.30	7	124	5.00	104	144
feather blenny	7	0.03	0.24	0.30		54	4.53	35	75
clearnose skate	6	0.03	0.21	0.26		418	13.79	376	471
spotted seatrout	5	0.02	0.17	0.22		229	11.64	197	269
red hake	4	0.02	0.14	0.17		74	15.63	49	115
windowpane	4	0.02	0.14	0.17	1	197	50.99	57	297
lined seahorse	4	0.02	0.14	0.17		71	11.71	49	100
spiny dogfish	4	0.02	0.14	0.17		848	64.08	710	980
fringed flounder	4	0.02	0.14	0.17		106	5.17	100	121
blueback herring	3	0.01	0.10	0.13	3	79	3.48	73	85
gizzard shad	3	0.01	0.10	0.13	3	142	14.26	119	168
bighead searobin	3	0.01	0.10	0.13		107	15.77	84	137
blue crab, male	3	0.01	0.10	0.13		39	9.29	26	57
American shad	2	0.01	0.07	0.09	2	105	8.50	96	113
Atlantic silverside	2	0.01	0.07	0.09	2	104	1.00	103	105
skilletfish	2	0.01	0.07	0.09		30	5.50	24	35
blue crab, juvenile female	2	0.01	0.07	0.09		48	15.50	32	63
butterfish	1	0.00	0.03	0.04	1	100	.	100	100
tautog	1	0.00	0.03	0.04		157	.	157	157
pigfish	1	0.00	0.03	0.04		104	.	104	104
American eel	1	0.00	0.03	0.04		311	.	311	311
seaboard goby	1	0.00	0.03	0.04		29	.	29	29
oyster toadfish	1	0.00	0.03	0.04		235	.	235	235
banded drum	1	0.00	0.03	0.04		73	.	73	73
rock seabass	1	0.00	0.03	0.04		169	.	169	169
All Species Combined	23,624								

**APPENDIX A**

**Sample Data Sheet**

Cruise: \_\_\_\_\_

STATION DATA

StaDate: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
(LOCAL TIME)  
year month day

(Tow #) Station#	River	RiverMile	Lat_beg	Long_beg	SetDepth feet meters	Tide	Towdir1	Towdir2	Time_beg	Time_end
Stratum	Compass	Gear	Lat_end	Long_end	Eng_rpm	Secchi	Tow Duration	Tow Distance	Remarks	

HYDRO DATA

WaterDepth	PCodeTemp	TempDegC	ParCodeDO	D.O.	ParCodeSal	Salinity
Surface:						
Bottom :						
Other :						

CREW

Chief Sci.	
Captain	
Transcrib.	

ATMOS DATA

ParCodeTemp	AirTempC	ParCodeWind	WindSpeed	WindDir	ParWeather	Weather	ParCodeSea	SeaState
203								

CRUISE DATA

Cruise Number	Cruise Date Begin	Time Begin
	1 9	
Vessel	Cruise Date End	Time End
	1 9	

CODES

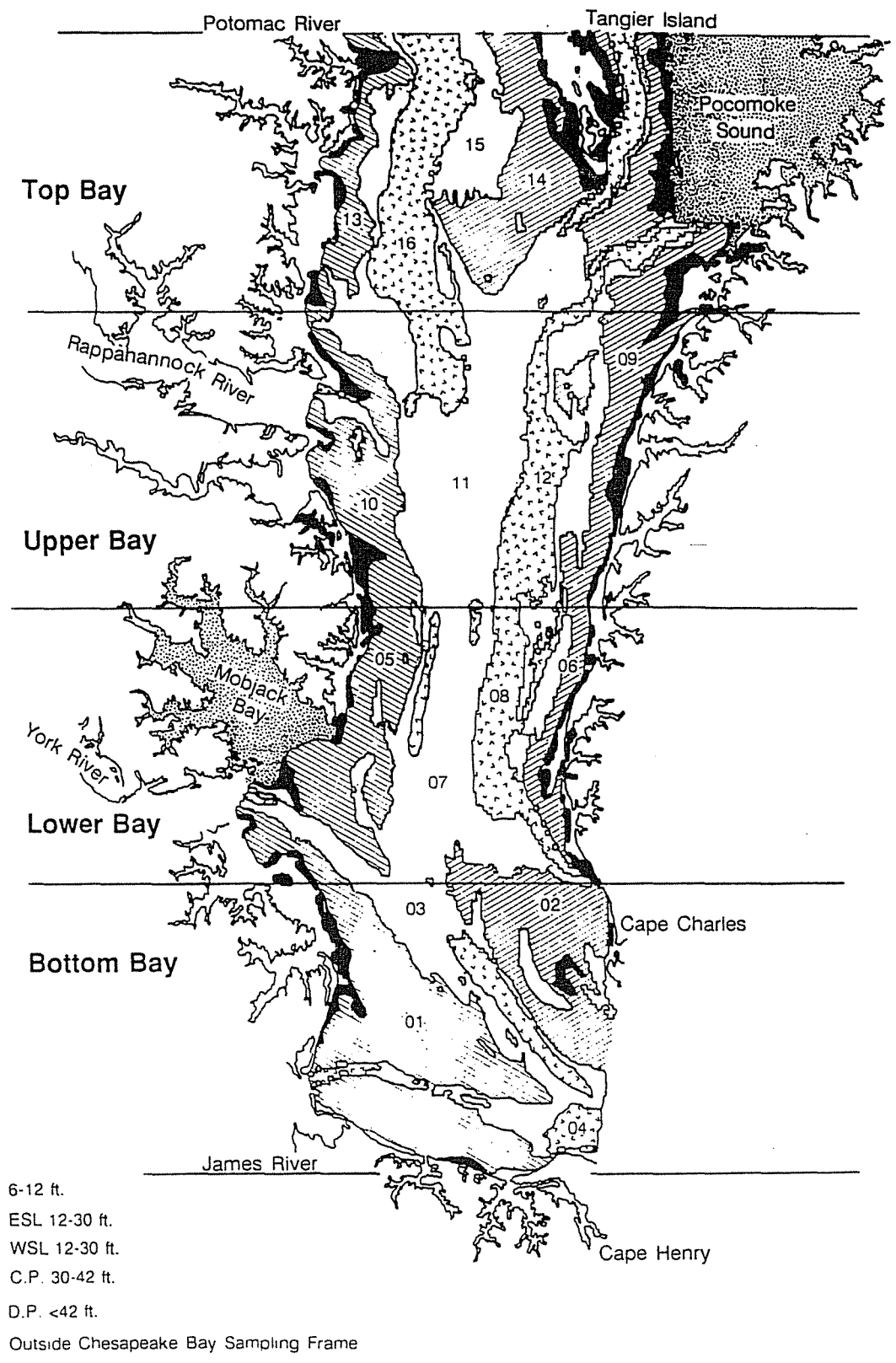
- TOWDIR1: UP OR DOWNSTREAM**  
 1: UP                    6: Slack  
 2: DOWN
- TOWDIR2: RELATIVE TO CURRENT**  
 1: With                    4: Oblique With  
 2: Against                5: Oblique Against  
 3: Perpendicular        6: Slack
- TIDE: TIDAL STAGE**  
 1: Early flood            5: Early ebb  
 2: Max flood              6: Max ebb  
 3: Late flood             7: Late ebb  
 4: Slack before ebb    8: Slack before flood
- SEASTATE**  
 0: Calm-glassy 0m        5: Rough 2.5-4m  
 1: Calm-rippled 0-.1m    6: Very rough 4-6m  
 2: Smooth-wavelets 0.1-0.5m 7: High 6-9m  
 3: Slight 0.5-1.25m      8: Very High 9-14m  
 4: Moderate 1.25-2.5m    9: Phenomenal >14m
- WEATHER: OBSERVED WEATHER**  
 0: Clear                    5: Drizzle  
 1: Partly cloudy          6: Rain  
 2: Overcast                7: Snow, snow/rain  
 3: Blowing snow          8: Showers  
 4: Fog, dust, haze        9: Thunderstorms

COMMENTS



**APPENDIX B**

Chesapeake Bay Trawl Strata, 1989 to present



**APPENDIX C**

**Common and Scientific Names of Species Caught During 1994**

Species Names - Common Name Order		Species Names - Latin Name Order	
Common Name	Latin Name	Latin Name	Common Name
American eel	<i>Anguilla rostrata</i>	<i>Alosa aestivalis</i>	blueback herring
American shad	<i>Alosa sapidissima</i>	<i>Alosa pseudoharengus</i>	alewife
Atlantic croaker	<i>Micropogonias undulatus</i>	<i>Alosa sapidissima</i>	American shad
Atlantic cutlassfish	<i>Trichiurus lepturus</i>	<i>Anchoa hepsetus</i>	striped anchovy
Atlantic herring	<i>Clupea harengus</i>	<i>Anchoa mitchilli</i>	bay anchovy
Atlantic menhaden	<i>Brevoortia tyrannus</i>	<i>Anguilla rostrata</i>	American eel
Atlantic moonfish	<i>Selene setapinnis</i>	<i>Archosargus probatocephalus</i>	sheepshead
Atlantic silverside	<i>Menidia menidia</i>	<i>Astroscopeus guttatus</i>	northern stargazer
Atlantic spadefish	<i>Chaetodipterus faber</i>	<i>Bairdiella chrysoura</i>	silver perch
Atlantic thread herring	<i>Opisthonema oglinum</i>	<i>Brevoortia tyrannus</i>	Atlantic menhaden
alewife	<i>Alosa pseudoharengus</i>	<i>Callinectes sapidus, ad fem</i>	blue crab, adult female
banded drum	<i>Larimus fasciatus</i>	<i>Callinectes sapidus, juv fem</i>	blue crab, juvenile female
bay anchovy	<i>Anchoa mitchilli</i>	<i>Callinectes sapidus, male</i>	blue crab, male
bighead searobin	<i>Prionotus tribulus</i>	<i>Centropristis philadelphica</i>	rock seabass
black seabass	<i>Centropristis striata</i>	<i>Centropristis striata</i>	black seabass
blackcheek tonguefish	<i>Symphurus plagiura</i>	<i>Chaetodipterus faber</i>	Atlantic spadefish
blackwing searobin	<i>Prionotus salmonicolor</i>	<i>Chilomycterus schoepfi</i>	striped burrfish
blue catfish	<i>Ictalurus furcatus</i>	<i>Clupea harengus</i>	Atlantic herring
blue crab, adult female	<i>Callinectes sapidus, ad fem</i>	<i>Conger oceanicus</i>	conger eel
blue crab, juvenile female	<i>Callinectes sapidus, juv fem</i>	<i>Cynoscion nebulosus</i>	spotted seatrout
blue crab, male	<i>Callinectes sapidus, male</i>	<i>Cynoscion regalis</i>	weakfish
blueback herring	<i>Alosa aestivalis</i>	<i>Cyprinodon variegatus</i>	sheepshead minnow
bluefish	<i>Pomatomus saltatrix</i>	<i>Cyprinus carpio</i>	common carp
bluespotted cornetfish	<i>Fistularia tabacaria</i>	<i>Dasyatis americana</i>	southern stingray
bluntnose stingray	<i>Dasyatis sayi</i>	<i>Dasyatis sayi</i>	bluntnose stingray
brown bullhead	<i>Ictalurus nebulosus</i>	<i>Diplodus holbrooki</i>	spottail pinfish
brown shrimp	<i>Penaeus aztecus</i>	<i>Dorosoma cepedianum</i>	gizzard shad
butterfish	<i>Peprilus triacanthus</i>	<i>Dorosoma petenense</i>	threadfin shad
channel catfish	<i>Ictalurus punctatus</i>	<i>Etheostoma olmstedii</i>	tessellated darter
clearnose skate	<i>Raja eglanteria</i>	<i>Etropus crossotus</i>	fringed flounder
cobia	<i>Rachycentron canadum</i>	<i>Etropus microstomus</i>	smallmouth flounder
common carp	<i>Cyprinus carpio</i>	<i>Etrumeus teres</i>	round herring
conger eel	<i>Conger oceanicus</i>	<i>Eucinostomus gula</i>	silver jenny
dusky pipefish	<i>Syngnathus floridae</i>	<i>Fistularia tabacaria</i>	bluespotted cornetfish
eastern silvery minnow	<i>Hybognathus regius</i>	<i>Fundulus majalis</i>	striped killifish
feather blenny	<i>Hypsoblennius hentzi</i>	<i>Gobiesox strumosus</i>	skilletfish
fourspot flounder	<i>Paralichthys oblongus</i>	<i>Gobiosoma bosci</i>	naked goby
fringed flounder	<i>Etropus crossotus</i>	<i>Gobiosoma ginsburgi</i>	seaboard goby
gizzard shad	<i>Dorosoma cepedianum</i>	<i>Gymnura altavela</i>	spiny butterfly ray
green goby	<i>Microgobius thalassinus</i>	<i>Hippocampus erectus</i>	lined seahorse
harvestfish	<i>Peprilus alepidotus</i>	<i>Hybognathus regius</i>	eastern silvery minnow
hogchoker	<i>Trinectes maculatus</i>	<i>Hypsoblennius hentzi</i>	feather blenny
inshore lizardfish	<i>Synodus foetens</i>	<i>Ictalurus catus</i>	white catfish
kingfish	<i>Menticirrhus spp.</i>	<i>Ictalurus furcatus</i>	blue catfish
lined seahorse	<i>Hippocampus erectus</i>	<i>Ictalurus nebulosus</i>	brown bullhead

Species Names - Common Name Order		Species Names - Latin Name Order	
Common Name	Latin Name	Latin Name	Common Name
little skate	<i>Raja erinacea</i>	<i>Ictalurus punctatus</i>	channel catfish
longnose gar	<i>Lepisosteus osseus</i>	<i>Lagodon rhomboides</i>	pinfish
lookdown	<i>Selene vomer</i>	<i>Larimus fasciatus</i>	banded drum
naked goby	<i>Gobiosoma boscii</i>	<i>Leiostomus xanthurus</i>	spot
northern pipefish	<i>Syngnathus fuscus</i>	<i>Lepisosteus osseus</i>	longnose gar
northern puffer	<i>Sphoeroides maculatus</i>	<i>Menidia menidia</i>	Atlantic silverside
northern searobin	<i>Prionotus carolinus</i>	<i>Menticirrhus spp.</i>	kingfish
northern sennet	<i>Sphyraena borealis</i>	<i>Merluccius bilinearis</i>	silver hake
northern stargazer	<i>Astroscopus guttatus</i>	<i>Microgobius thalassinus</i>	green goby
oyster toadfish	<i>Opsanus tau</i>	<i>Micropogonias undulatus</i>	Atlantic croaker
pigfish	<i>Orthopristis chrysoptera</i>	<i>Morone americana</i>	white perch
pinfish	<i>Lagodon rhomboides</i>	<i>Morone saxatilis</i>	striped bass
pink shrimp	<i>Penaeus duorarum</i>	<i>Mustelus canis</i>	smooth dogfish
red hake	<i>Urophycis chuss</i>	<i>Notropis hudsonius</i>	spottail shiner
rock seabass	<i>Centropristis philadelphica</i>	<i>Ophidion marginatum</i>	striped cusk-eel
round herring	<i>Etrumeus teres</i>	<i>Opisthonema oglinum</i>	Atlantic thread herring
scup	<i>Stenotomus chrysops</i>	<i>Opsanus tau</i>	oyster toadfish
sea lamprey	<i>Petromyzon marinus</i>	<i>Orthopristis chrysoptera</i>	pigfish
seaboard goby	<i>Gobiosoma ginsburgii</i>	<i>Paralichthys dentatus</i>	summer flounder
sheepshead	<i>Archosargus probatocephalus</i>	<i>Paralichthys oblongus</i>	fourspot flounder
sheepshead minnow	<i>Cyprinodon variegatus</i>	<i>Penaeus aztecus</i>	brown shrimp
silver hake	<i>Merluccius bilinearis</i>	<i>Penaeus duorarum</i>	pink shrimp
silver jenny	<i>Eucinostomus gula</i>	<i>Penaeus setiferus</i>	white shrimp
silver perch	<i>Bairdiella chrysoura</i>	<i>Peprilus alepidous</i>	harvestfish
skilletfish	<i>Gobiesox strumosus</i>	<i>Peprilus triacanthus</i>	butterfish
smallmouth flounder	<i>Etropus microstomus</i>	<i>Petromyzon marinus</i>	sea lamprey
smooth dogfish	<i>Mustelus canis</i>	<i>Pomatomus saltatrix</i>	bluefish
southern stingray	<i>Dasyatis americana</i>	<i>Prionotus carolinus</i>	northern searobin
spiny butterfly ray	<i>Gymnura altavela</i>	<i>Prionotus evolans</i>	striped searobin
spiny dogfish	<i>Squalus acanthias</i>	<i>Prionotus salmonicolor</i>	blackwing searobin
spot	<i>Leiostomus xanthurus</i>	<i>Prionotus tribulus</i>	bighead searobin
spottail pinfish	<i>Diplodus holbrooki</i>	<i>Pseudopleuronectes americanus</i>	winter flounder
spottail shiner	<i>Notropis hudsonius</i>	<i>Rachycentron canadum</i>	cobia
spotted hake	<i>Urophycis regia</i>	<i>Raja eglanteria</i>	clearnose skate
spotted seatrout	<i>Cynoscion nebulosus</i>	<i>Raja erinacea</i>	little skate
squid		<i>Scophthalmus aquosus</i>	windowpane
star drum	<i>Stellifer lanceolatus</i>	<i>Selene setapinnis</i>	Atlantic moonfish
striped anchovy	<i>Anchoa hepsetus</i>	<i>Selene vomer</i>	lookdown
striped bass	<i>Morone saxatilis</i>	<i>Sphoeroides maculatus</i>	northern puffer
striped burrfish	<i>Chilomycterus schoepfi</i>	<i>Sphyraena borealis</i>	northern sennet
striped cusk-eel	<i>Ophidion marginatum</i>	<i>Squalus acanthias</i>	spiny dogfish
striped killifish	<i>Fundulus majalis</i>	<i>Stellifer lanceolatus</i>	star drum
striped searobin	<i>Prionotus evolans</i>	<i>Stenotomus chrysops</i>	scup
summer flounder	<i>Paralichthys dentatus</i>	<i>Symphurus plagiosa</i>	blackcheek tonguefish
tautog	<i>Tautoga onitis</i>	<i>Syngnathus floridae</i>	dusky pipefish

Species Names - Common Name Order		Species Names - Latin Name Order	
Common Name	Latin Name	Latin Name	Common Name
tessellated darter	<i>Etheostoma olmstedti</i>	<i>Syngnathus fuscus</i>	northern pipefish
threadfin shad	<i>Dorosoma petenense</i>	<i>Synodus foetens</i>	inshore lizardfish
weakfish	<i>Cynoscion regalis</i>	<i>Tautoga onitis</i>	tautog
white catfish	<i>Ictalurus catus</i>	<i>Trichiurus lepturus</i>	Atlantic cutlassfish
white perch	<i>Morone americana</i>	<i>Trinectes maculatus</i>	hogchoker
white shrimp	<i>Penaeus setiferus</i>	<i>Urophycis chuss</i>	red hake
windowpane	<i>Scophthalmus aquosus</i>	<i>Urophycis regia</i>	spotted hake
winter flounder	<i>Pseudopleuronectes americanus</i>		

MEMORANDUM

MEMORANDUM FOR THE RECORD  
SUBJECT: Grant Marine Resources  
DATE: 1/15/55

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