

JOB 2: VOLUNTEER ANGLER SURVEY

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GOAL

To enhance the fisheries management process by providing supplemental catch, effort and size composition data for several important recreational finfish species through a voluntary logbook program.

OBJECTIVES

Provide estimates of:

- 1) Size structure of harvested and discarded bluefish, striped bass and other common sportfish.*
- 2) Catch rates (catch-per-effort) of bluefish, striped bass, and other common sportfish.*

INTRODUCTION

The Connecticut Volunteer Angler Survey (VAS) began in 1979 with the primary purpose of supplementing the National Marine Fisheries Service, Marine Recreational Fishery Statistics Survey/Marine Recreational Information Program by providing additional length measurement data. The survey emphasizes measurements of fish that are released, which are under-reported in the federal surveys. The survey's initial objective was to collect marine recreational fishing information concerning finfish species with special emphasis on striped bass. In 1994, the collection of bluefish length measurements was added to the survey and in 1997, length data for other marine finfish were added.

METHODS

The VAS is designed to collect trip and catch information from marine recreational (hook and line) anglers who volunteer to record their fishing activities in a logbook (Appendix 2.1). The logbook contains fields in which to record fishing effort, target species, fishing mode (boat and shore), area fished (subdivisions of Long Island Sound and adjacent waters), catch information concerning finfish kept (harvested) and released, and length measurements. Instructions for volunteers are provided on the inside cover of the postage paid logbook. Each participating angler is assigned a unique numeric code for confidentiality purposes. After the logbook data are entered into the survey database, logbooks are returned to each volunteer for their personal records. Furthermore, to improve communications with recreational anglers and to encourage more public participation, volunteers are notified of upcoming public hearings, including proposed and final changes in recreational fishing regulations.

In 2013, the VAS program was incorporated into the Atlantic Coastal Cooperative Statistics Program (ACCSP) Standard Atlantic Fisheries Information System (SAFIS) eLogbook application. Under the ACCSP eLogbook application, the VAS database was upgraded from the previous outdated software. The VAS logbook format was slightly modified so that the information collected would be compatible with ACCSP minimum data element standards (Appendix 2.1). Initially, one of the primary purposes of incorporating the VAS database into ACCSP SAFIS was to enable anglers to enter their own fishing information and compile their own statistics using eLogbook. However, because of the unique geographic location of Connecticut's shoreline, marine anglers often fish over multiple areas crossing interstate and federal boundaries during a single trip. The eLogbook software did not allow entry of data from fishing areas outside of Connecticut's marine waters. Therefore, as in previous years, paper logbooks were distributed to survey volunteers and Marine Fisheries staff completed VAS data entry.

The problem was resolved in 2014, but only a portion of the volunteers entered their own data in 2014 and 2015, with the remainder submitting paper logbooks.

Since the Survey began in 1997, the number of participants has ranged from 18 anglers participating in 1979 to 115 anglers in 1997. Advertising the VAS program through the annually published *Connecticut Angler's Guide* and on the agency web site (www.ct.gov/deep/fishing) has helped increase volunteer participation. The guide is distributed to all anglers who purchase a Connecticut fishing license and is also circulated by bait and tackle shops and other entities.

RESULTS AND DISCUSSION

Due to the COVID-19 pandemic, fewer anglers participated in the VAS program than previous years which affected the total number of trips taken, and the total number of harvested and released fish measured. In 2020, a total of 24 anglers participated in the program, recording 438 trips for an average of 18 trips each. Less VAS anglers, (4) entered their own data through the eLogbook application on the ACCSP website (www.accsp.org) in 2020 than 2019 (5 anglers), which was the sixth year of the eLogbook program. Most of the anglers that entered their own data expressed favorable comments toward the SAFIS eLogbook.

The private boat mode comprised the most trips (80.1%) recorded, followed by shore based trips (19.1%), see Job 3 for description of regular and enhanced shore sites. Of the total, 86% of the recorded trips were successful in catching fish. VAS anglers recorded catching 29 species including near shore species to open ocean pelagic species (Table 2.2). This included eight principal recreational species (currently under fisheries management plans) which comprised 87% of the total catch (Table 2.3). With the exception of two pelagic species (scup and bluefish) the release rates for nearly all species was 82% or greater. Species that were infrequently captured (less than 17) were not included in the catch & release analysis due to their rare nature.

VAS participants measured 7,471 fish including 6,475 fish within the eight principal species. These data show a wide range in the release rate of the principal species (Table 2.3). For example, 53.4% of scup caught were released while 98.5% of striped bass caught were released. For bluefish, which has no minimum legal size, the release rate was 73.3% (Table 2.3). See Figure 3.1 through Figure 3.8 for length frequency information on the 2020 VAS harvest and catch & release data.

CONCLUSIONS

VAS anglers provide valuable recreational fisheries catch data at a relatively low cost. In addition, the length data on released fish provided by this program is difficult or unattainable through conventional access point angler intercept surveys and is essential for effective assessment of the recreational fishery coastwide and in Connecticut. Any anglers interested in participating in the program can contact David Molnar at 860-434-6043, or e-mail address: david.molnar@ct.gov or writing to State of Connecticut, DEEP, Marine Fisheries Program, P.O. Box 719, Old Lyme CT 06371.

MODIFICATIONS

None.

ACKNOWLEDGEMENTS

We very grateful to all of the anglers who have participated in this survey. Without their cooperation and assistance, the VAS program would be not possible.

Table 2.1. Distribution of fishing trips by VAS anglers.

MODE	TRIPS	PERCENT
Private Boat	351	80.1%
Shore (beach, dock, pier, jetty)	65	14.8%
Shore (enhanced fishing site)	19	4.3%
Party Boat	2	0.5%
Charter Boat	1	0.2%
All Modes	438	

Table 2.2. Total measured angler catch by species and disposition. Eight principal recreational species are shown in bold type.

SPECIES	HARVESTED		RELEASED		TOTAL NUMBER
	Number	%	Number	%	
Scup	945	47.6%	1041	52.4%	1986
Black Sea Bass	322	17.2%	1545	82.8%	1867
Striped Bass	14	1.5%	905	98.5%	919
Tautog	131	15.6%	710	84.4%	841
Searobin species	41	5.0%	775	95.0%	816
Summer Flounder	46	8.1%	521	91.9%	567
Bluefish	58	26.7%	159	73.3%	217
Dogfish	0	0.0%	76	100.0%	76
Hickory Shad	9	14.8%	52	85.2%	61
Winter Flounder	1	5.9%	16	94.1%	17
Skate species	0	0.0%	17	100.0%	17
Atlantic Cod	9	64.3%	5	35.7%	14
Atlantic Mackerel	0	0.0%	14	100.0%	14
Chub Mackerel	6	46.2%	7	53.8%	13
Atlantic Menhaden	8	88.9%	1	11.1%	9
Weakfish	2	22.2%	7	77.8%	9
Atlantic Bonito	4	100.0%	0	0.0%	4
Northern Kingfish	0	0.0%	4	100.0%	4
Searun Brown Trout	1	33.3%	2	66.7%	3
Bigeye Tuna	3	100.0%	0	0.0%	3
Bluefin Tuna	1	33.3%	2	66.7%	3
Yellowfin Tuna	3	100.0%	0	0.0%	3
Spanish Mackerel	0	0.0%	2	100.0%	2
Cunner	0	0.0%	1	100.0%	1
Puffer species	0	0.0%	1	100.0%	1
American Shad	0	0.0%	1	100.0%	1
Hammerhead Shark	0	0.0%	1	100.0%	1
Oyster Toadfish	0	0.0%	1	100.0%	1
Gray Triggerfish	1	100.0%	0	0.0%	1
TOTAL	1605	21.5%	5866	78.5%	7471

Table 2.3. Total measured catch and disposition for eight principal recreational species.

SPECIES	HARVESTED		RELEASED		TOTAL NUMBER
	Number	%	Number	%	
Scup	945	47.6%	1041	52.4%	1986
Black Sea Bass	322	17.2%	1545	82.8%	1867
Striped Bass	14	1.5%	905	98.5%	919
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Summer Flounder	46	8.1%	521	91.9%	567
Bluefish	58	26.7%	159	73.3%	217
Hickory Shad	9	14.8%	52	85.2%	61
Winter Flounder	1	5.9%	16	94.1%	17
TOTAL	1526	23.6%	4949	76.4%	6475

Figure 3.1. Length frequency of Summer Flounder caught by disposition.

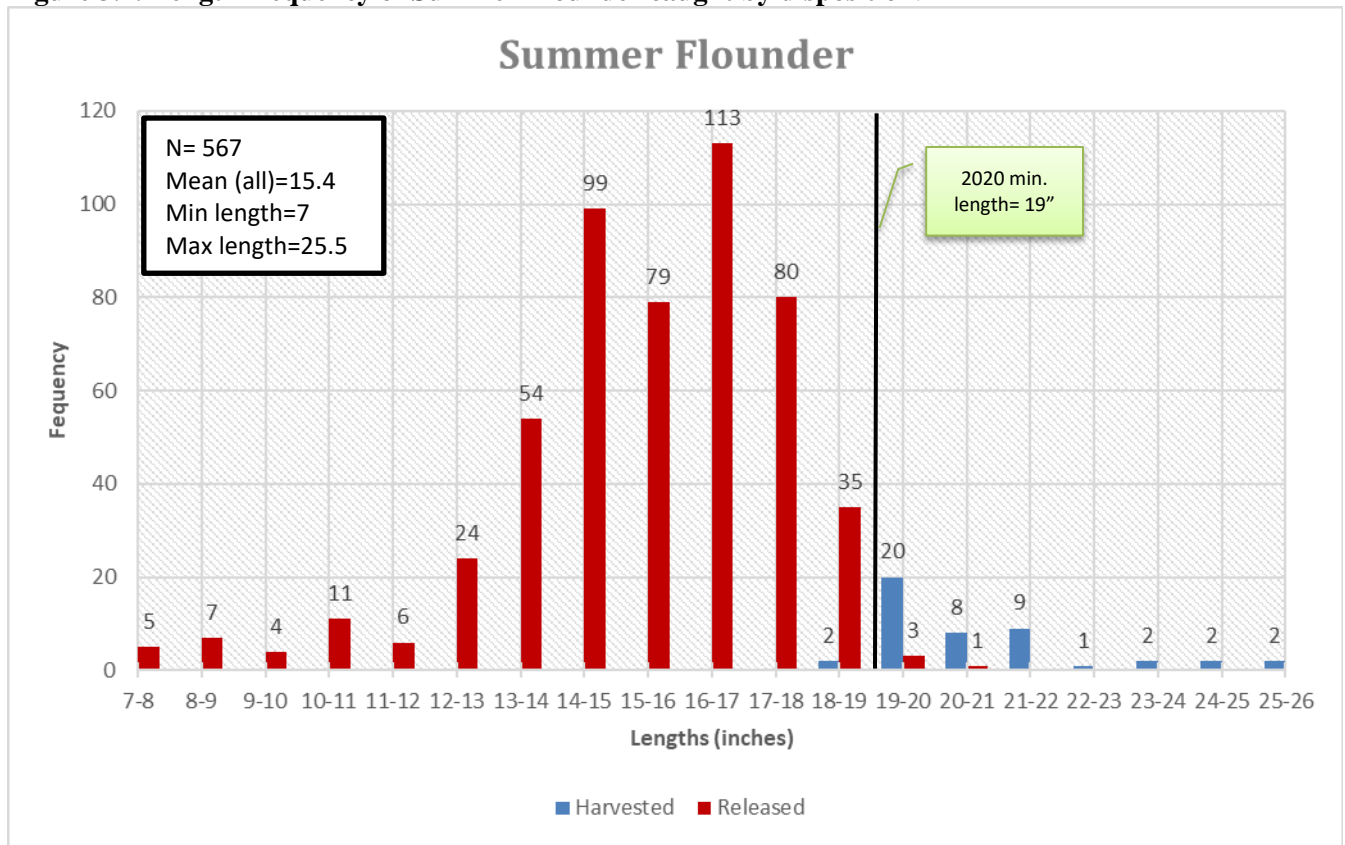


Figure 3.2. Length frequency of Striped Bass caught by disposition.

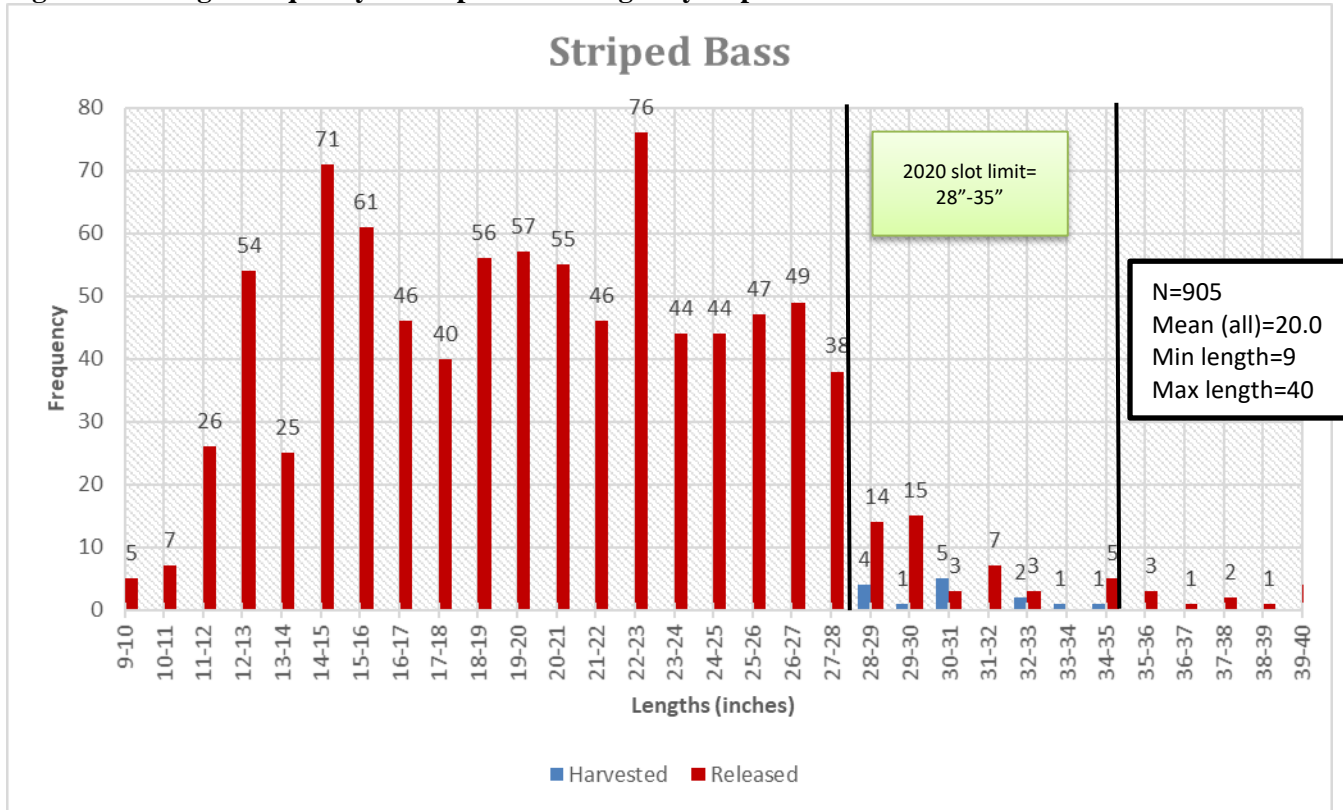


Figure 3.3 Length Frequency of Bluefish caught by disposition.

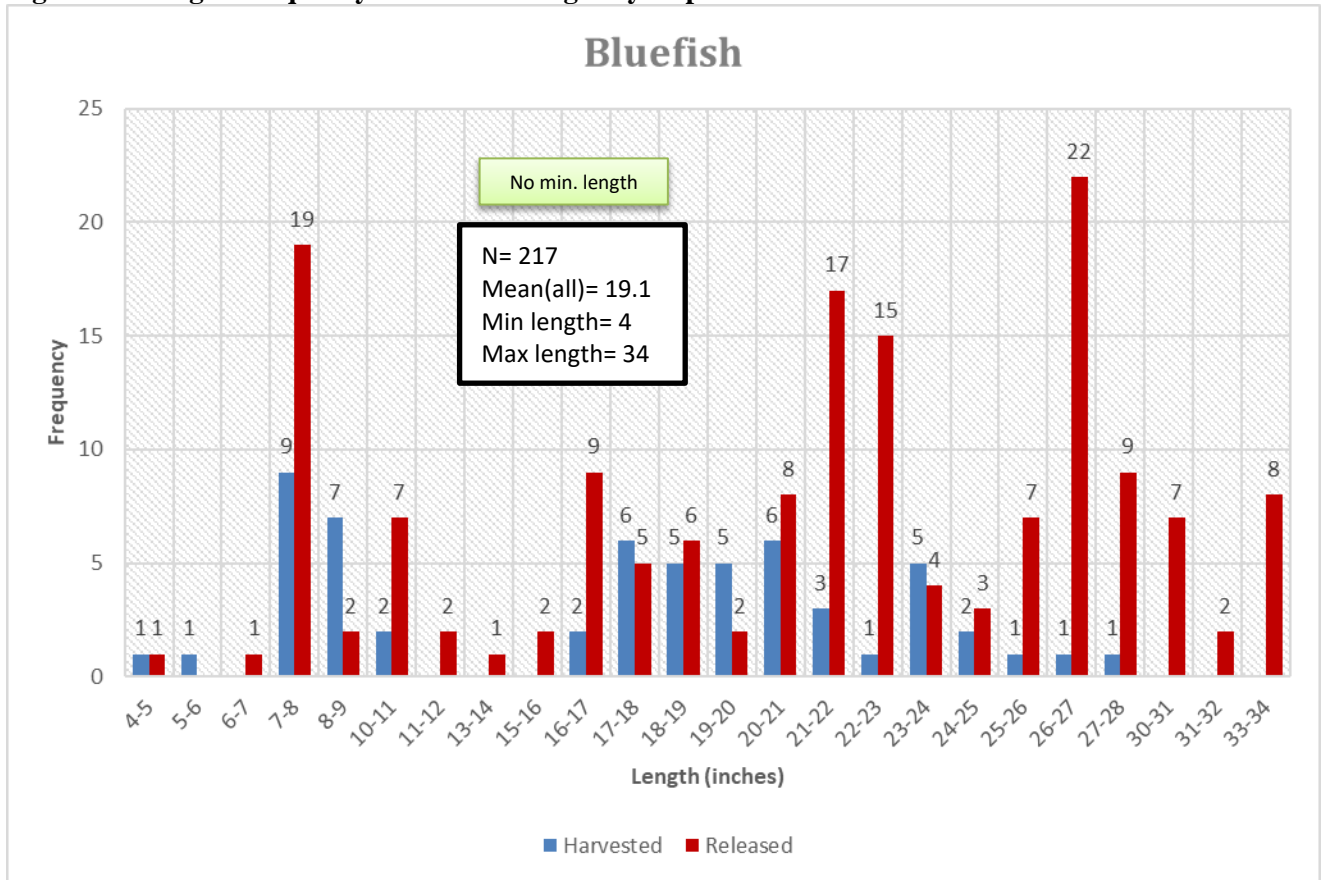


Figure 3.4 Length Frequency of Black Sea Bass caught by disposition.

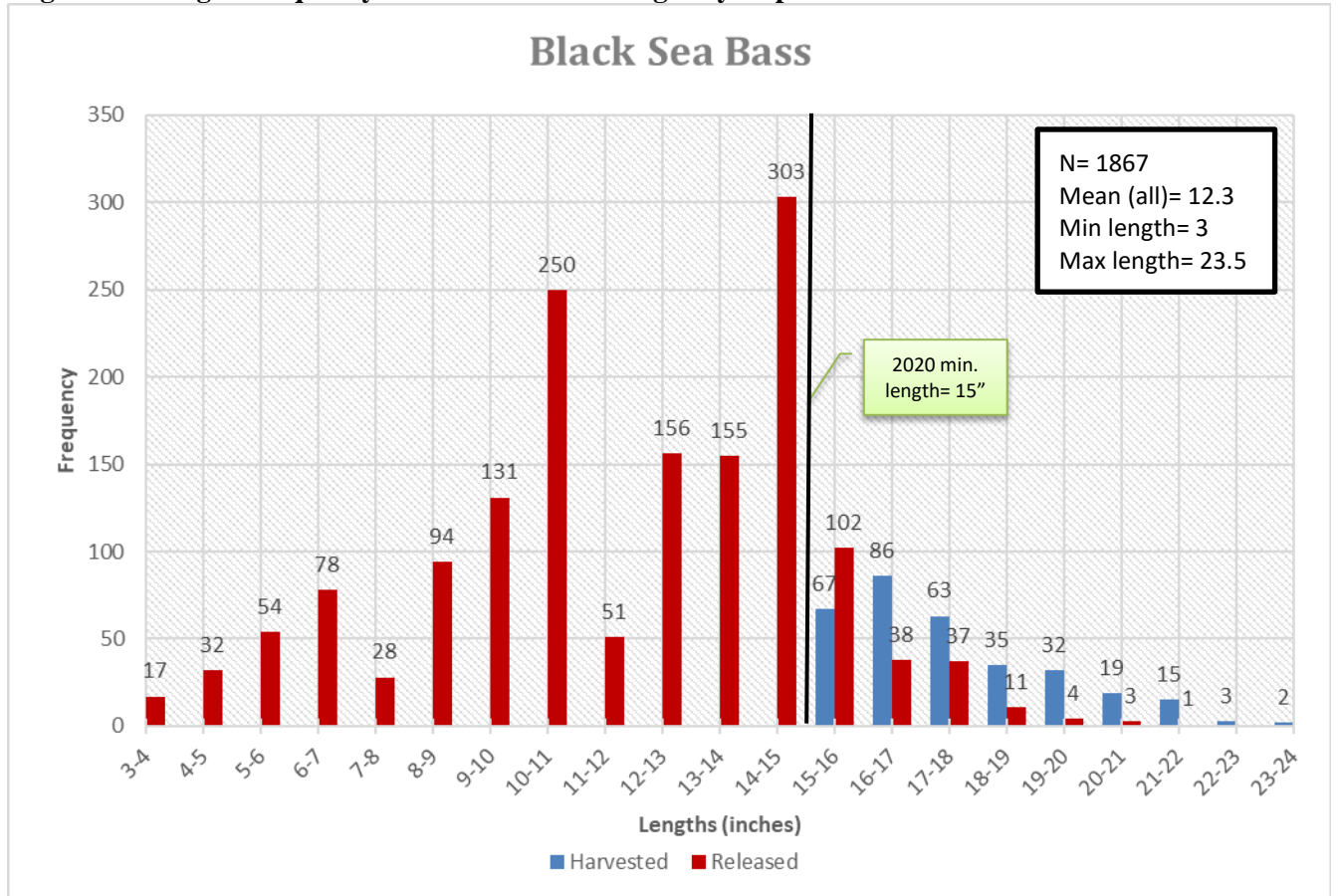


Figure 3.5 Length Frequency of Scup caught by disposition.

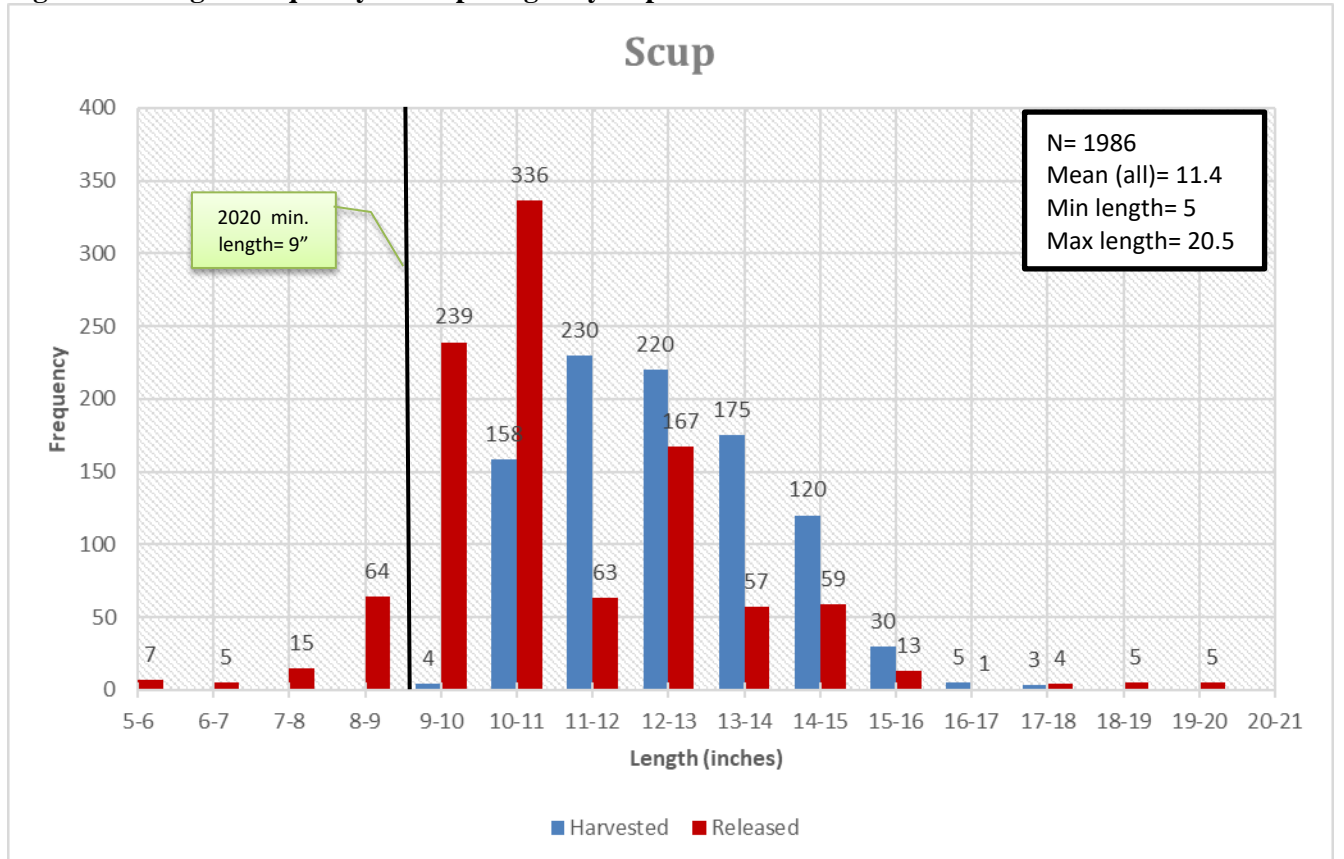


Figure 3.6 Length Frequency of Tautog caught by disposition.

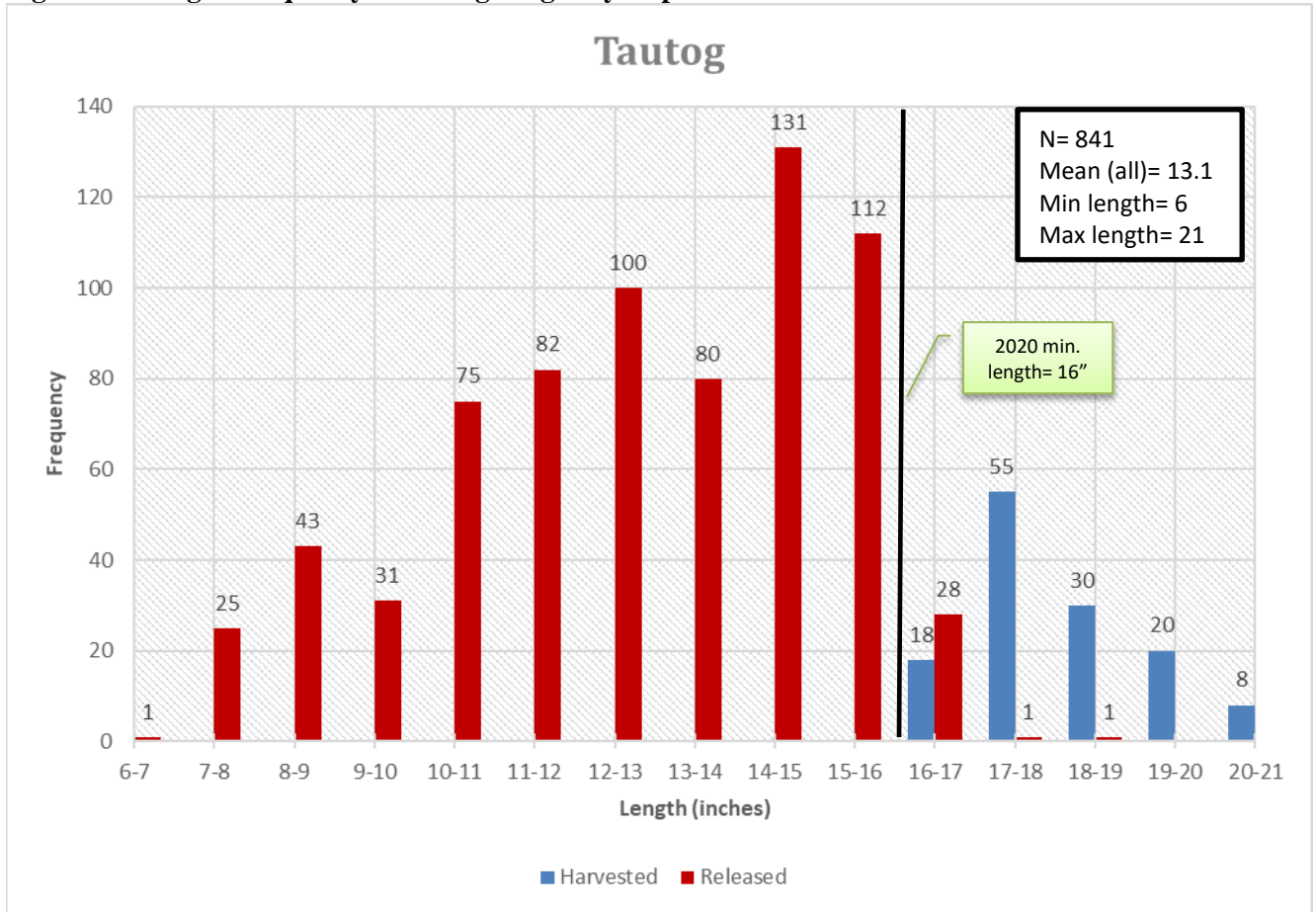


Figure 3.7 Length frequency of Hickory Shad caught by disposition.

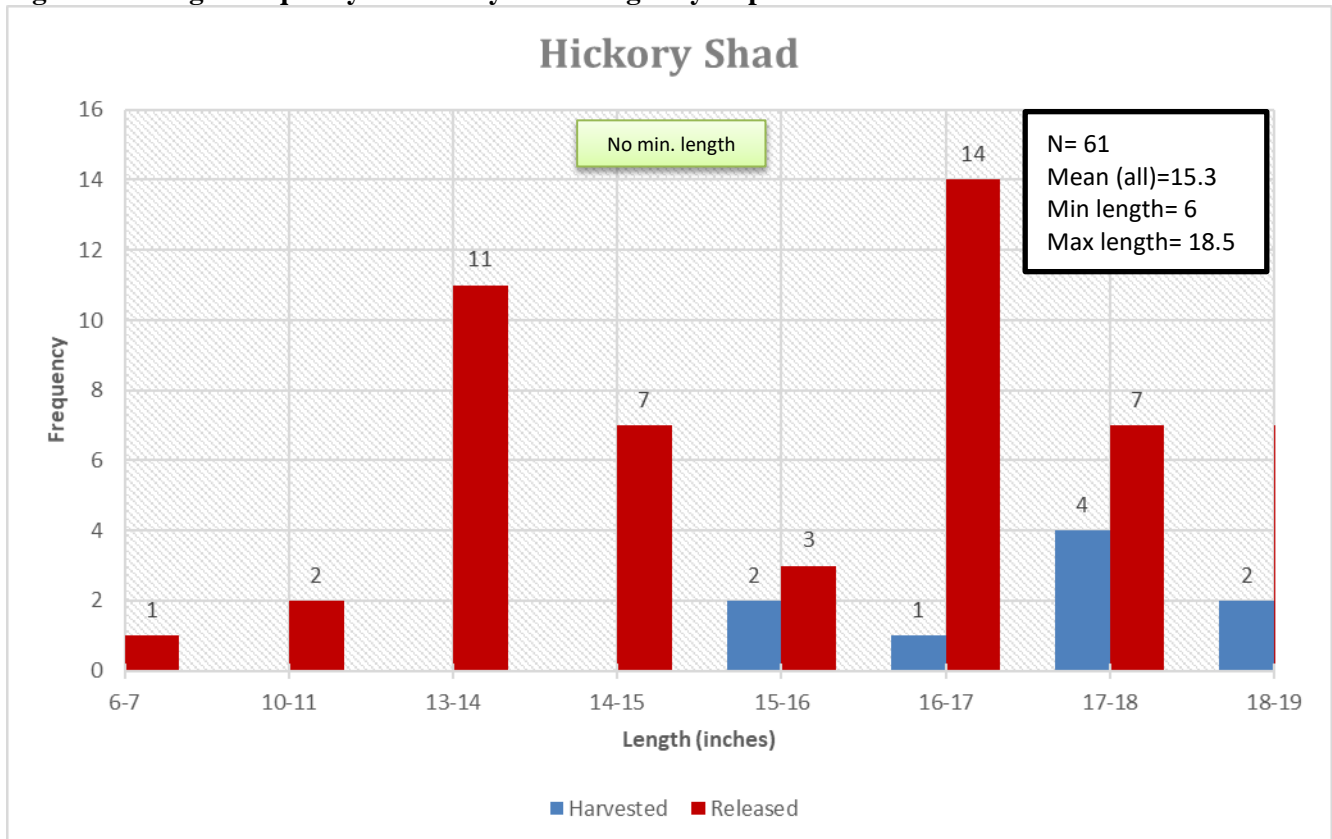
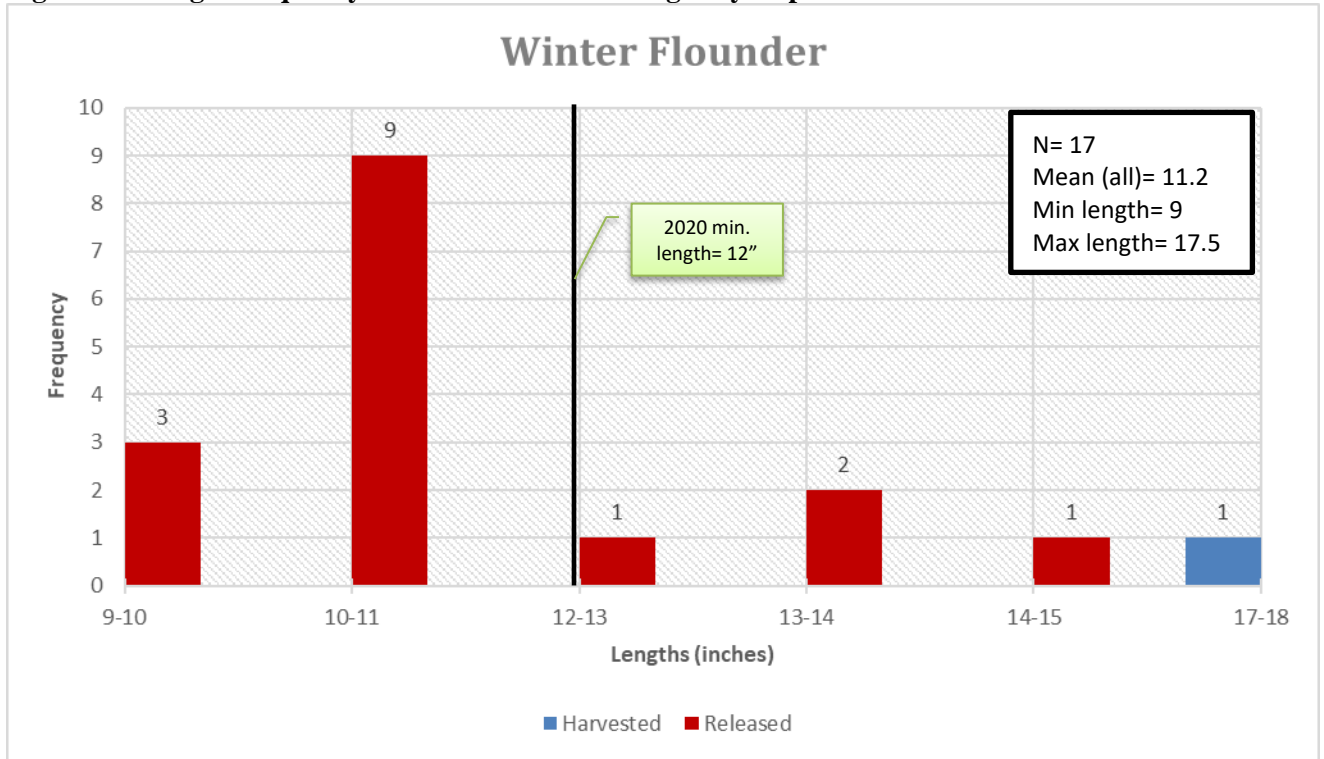


Figure 3.8 Length frequency of Winter Flounder caught by disposition



APPENDIX 2.1. Connecticut Volunteer Angler Logbook

CONNECTICUT MARINE VOLUNTEER ANGLER SURVEY

Rev.4/2017 – 12 Trip

Angler Code

--	--	--	--	--	--



This space for office use only.

Logged	_____
Entered	_____
Checked	_____

Send Me More Logbooks



**Connecticut Department of
Energy & Environmental Protection**
Bureau of Natural Resources
Marine Fisheries Division

VOLUNTEER ANGLER SURVEY INSTRUCTIONS

Listed below are instructions for filling out the logbook. Upon logbook completion, tape the prepaid postage logbook shut and drop it off in the mail. All information is kept confidential. Once the information is entered into the database, and error checked, the logbooks will be returned for your own records.

If you are interested in online reporting please contact us.

The information provided by this report will help us make critical important management decisions.

Please help us by completing this report as accurately as possible.

If you have any questions or comments regarding the survey, please contact

David R Molnar david.molnar@ct.gov or at 860 447-4334

Trip Header Record

The top of each page is for recording **each trip's header information**. In this section, make a new entry for each trip made. If you fill a logbook page before the trip is over, continue onto the next page. Use as many pages and books as necessary to record your fishing activity. If you have a multi-day trip, make only one entry for that trip.

Date	Enter the date that your fishing trip occurred on.
Start Time	Enter the time on a 24 hour clock (military time) that you started your fishing trip.
Mode	Indicate the fishing mode by putting a check mark in the appropriate box. The Shore (Enhanced Site) option refers to the designated shore fishing sites along the Connecticut coast that allow for the harvest of smaller select species. See the anglers guide for more information.

Trip Effort Record

Enter the appropriate fishing effort information for the fishing area.

Fishing Area	Enter the code for the area in which you made your catch. Refer to the Fishing Area Chart on page iii for the appropriate area code. If you fish in the race along the border between area 6 and 147, please use area code 6.
Total Anglers	Enter the total number of anglers that are in the fishing party.
Lucky Anglers	Enter the number of anglers that caught fish in the fishing party.
Hours Fished	Enter the actual fishing time or 'lines wet' to the nearest half hour. Do not include travel time.
Targeted Species	Enter the 1 st (Primary) targeted species and 2 nd (secondary) targeted species.

Trip Catch Record

Under each trip effort record are the associated catch records.

Enter a catch row for each species, disposition (Kept/Released) and length.

If you caught more fish than rows provide, continue onto the next effort or page as necessary.

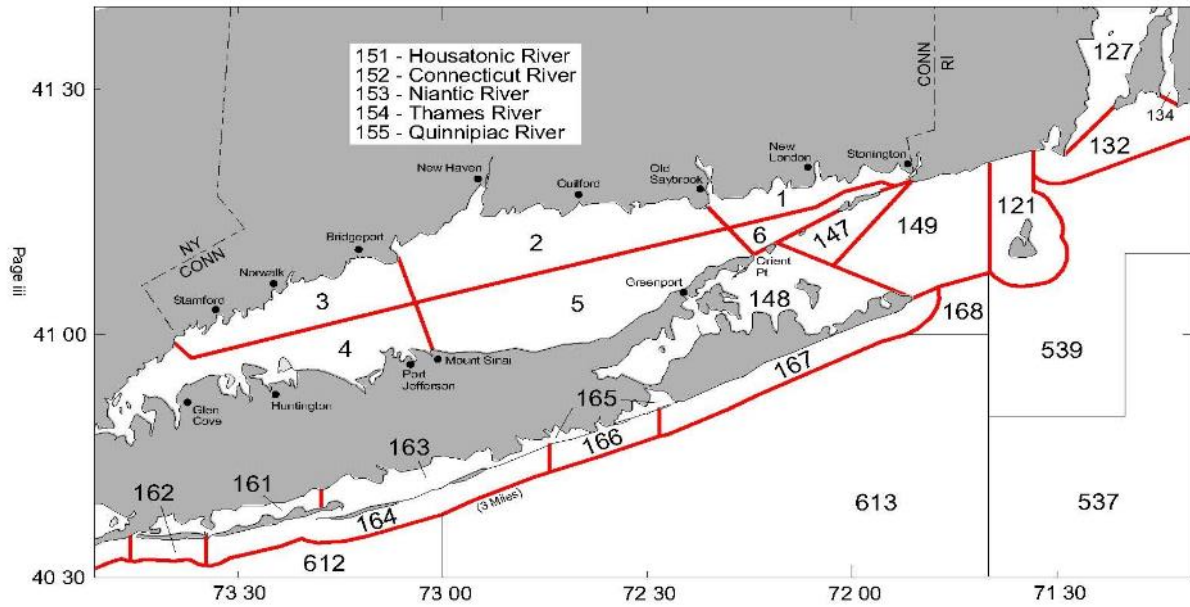
If you do not catch or harvest any fish, complete the trip header and effort information

(Date through Targeted Species 2).

- Species** Enter the species code from the Species Code List below. If the species is not listed, write in the species name.
- K / R** Indicate if the fish were kept or released by writing K (Kept) or R (Released). If you kept and released the same species indicate this by adding an additional row. If you kept and released the same species, complete two rows.
- Length (in)** Enter the length in inches of the fish. **ROUND DOWN TO THE NEAREST HALF INCH.** In previous years, the Volunteer Angler Survey requested rounding to the nearest half inch but rounding down helps produce more accurate data.
- Quantity** Enter the number of fish of that specific species, disposition (K/R), and length. If any of these fields change, create a new row. If additional rows are needed, continue onto the next page.

Species Code List	
<p>Groundfish</p> <p>COD - Cod HADD - Haddock POLL - Pollock</p> <p>Flounders</p> <p>FLUK - Summer flounder / fluke FLBB - Winter flounder / blackback</p> <p>Other Finfish</p> <p>BLU - Bluefish BSB - Black sea bass CUN - Cunner EEL - Eel, American MEN - Menhaden / bunker WPRC - Perch, white SCUP - Scup / porgy SROB - Sea robins HSHD - Hickory shad STB - Striped bass</p>	<p>Other Finfish continued</p> <p>TAUG - Tautog / blackfish TRIG - Triggerfish WEAK - Weakfish / squeteague / gray sea trout</p> <p>Tuna / Large Pelagics</p> <p>ALB - Albacore tuna BET - Big eye tuna BFT - Bluefin tuna BON - Bonito LTNY - Little tunny SKJ - Skipjack YFT - Yellowfin tuna DOL - Dolphin fish / mahi-mahi WAH - Wahoo</p> <p>Sharks and Skates</p> <p>DGSP - Dogfish, spiny DGSM - Dogfish, smooth SKAT - Skate SHBL - Shark, blue</p>
<p>If you caught a species that does not appear in this list, write in the species name or contact the Marine Fisheries Division for the proper species code.</p>	

Long Island Sound and Vicinity Fishing Area Chart



Date: / / Start Time: :

Mode: Private Boat Charter Boat Party Boat Shore Shore (Enhanced Site)

Area	Total Anglers	Lucky Anglers	Hours Fished	Targeted Species 1	Targeted Species 2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Species	K/R	Length (in)	Quantity
<input type="text"/>	<input type="checkbox"/>	<input type="text"/> . <input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="checkbox"/>	<input type="text"/> . <input type="text"/>	<input type="text"/>
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Comments/Observations: _____
