

JOB 2: VOLUNTEER ANGLER SURVEY

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JOB 2: VOLUNTEER ANGLER SURVEY

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 composition for both kept and released bluefish, striped bass and other common species.*
- 2) Length frequency by trip for both kept and discarded fish.*

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

In 2022, a total of 24 anglers participated in the program, recording 536 trips for an average of 22 trips each. Fewer VAS anglers, (3) entered their own data through the eLogbook application on the ACCSP website (www.accsp.org) in 2021 than 2020 (4 anglers), which was the eighth 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 (83.8%) recorded, followed by shore based trips (12.5%), see Job 3 for description of regular and enhanced shore sites. Of the total, 89.9% of the recorded trips were successful in catching fish. VAS anglers recorded catching 24 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 89.4% of the total catch (Table 2.3). With the exception of three pelagic species (scup, Atlantic menhaden, and hickory shad) the release rates for nearly all species was 82% or greater. Species that were infrequently captured (less than 19) were not included in the catch & release analysis due to their rare nature.

VAS participants measured 11,021 fish including 9,848 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, 73.2% of hickory shad caught were released while 97.3% of striped bass caught were released. For bluefish, which has no minimum legal size, the release rate was 90.2% (Table 2.3). See Figure 3.1 through Figure 3.8 for length frequency information on the 2022 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 WITH CATCH	PERCENT	TRIPS WITH NO CATCH	PERCENT	TOTAL TRIPS	PERCENT
PRIVATE BOAT	416	77.6%	33	6.2%	449	83.8%
SHORE (BEACH,DOCK,PIER,JETTY)	48	9.0%	19	3.5%	67	12.5%
SHORE (ENHANCED FISHING SITE)	8	1.5%	2	0.4%	10	1.9%
PARTY BOAT	10	1.9%	0	0.0%	10	1.9%
CHARTER BOAT	0	0.0%	0	0.0%	0	0.0%
ALL MODES	482	89.9%	54	10.1%	536	100.0%

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	1228	36.8%	2108	63.2%	3336
Black Sea Bass	264	9.9%	2416	90.1%	2680
Tautog	227	12.9%	1528	87.1%	1755
Striped Bass	24	2.7%	876	97.3%	900
Summer Flounder	90	11.5%	692	88.5%	782
Searobins	14	1.9%	707	98.1%	721
Bluefish	29	9.8%	267	90.2%	296
Sharks, Dogfish	0	0.0%	262	100.0%	262
Hickory Shad	19	26.8%	52	73.2%	71
Cunner	0	0.0%	65	100.0%	65
Chub Mackerel	28	66.7%	14	33.3%	42
Skates	0	0.0%	32	100.0%	32
Winter Flounder	5	17.9%	23	82.1%	28
Weakfish Seatrout	3	30.0%	7	70.0%	10
Gray Triggerfish	0	0.0%	9	100.0%	9
Atlantic Cod	2	28.6%	5	71.4%	7
Puffers	0	0.0%	7	100.0%	7
Blue Shark	0	0.0%	5	100.0%	5
Atlantic Menhaden	3	100.0%	0	0.0%	3
Oyster Toadfish	0	0.0%	3	100.0%	3
Little Tunny	0	0.0%	3	100.0%	3
Atlantic Mackerel	0	0.0%	2	100.0%	2
Atlantic Bonito	0	0.0%	1	100.0%	1
Haddock	0	0.0%	1	100.0%	1
Total	1936	17.6%	9085	82.4%	11021

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

SPECIES	HARVESTED		RELEASED		TOTAL NUMBER
	NUMBER	%	NUMBER	%	
Scup	1228	36.8%	2108	63.2%	3336
Black Sea Bass	264	9.9%	2416	90.1%	2680
Tautog	227	12.9%	1528	87.1%	1755
Bass, Striped	24	2.7%	876	97.3%	900
Flounder, Summer	90	11.5%	692	88.5%	782
Bluefish	29	9.8%	267	90.2%	296
Hickory Shad	19	26.8%	52	73.2%	71
Winter Flounder	5	17.9%	23	82.1%	28
TOTAL	1886	19.2%	7962	80.8%	9848

Figure 3.1. Length frequency of summer flounder caught by disposition.

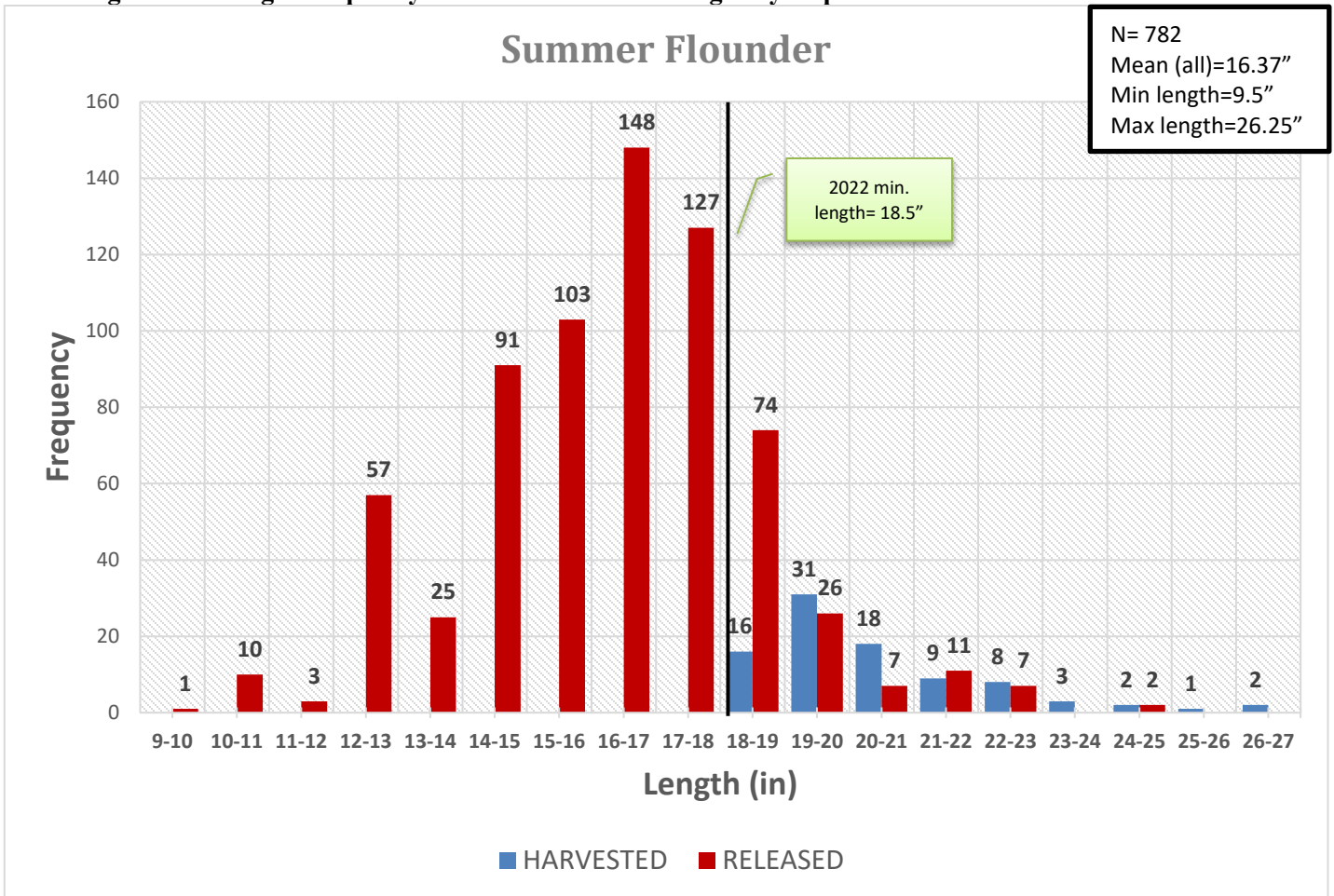


Figure 3.2. Length frequency of striped bass caught by disposition.

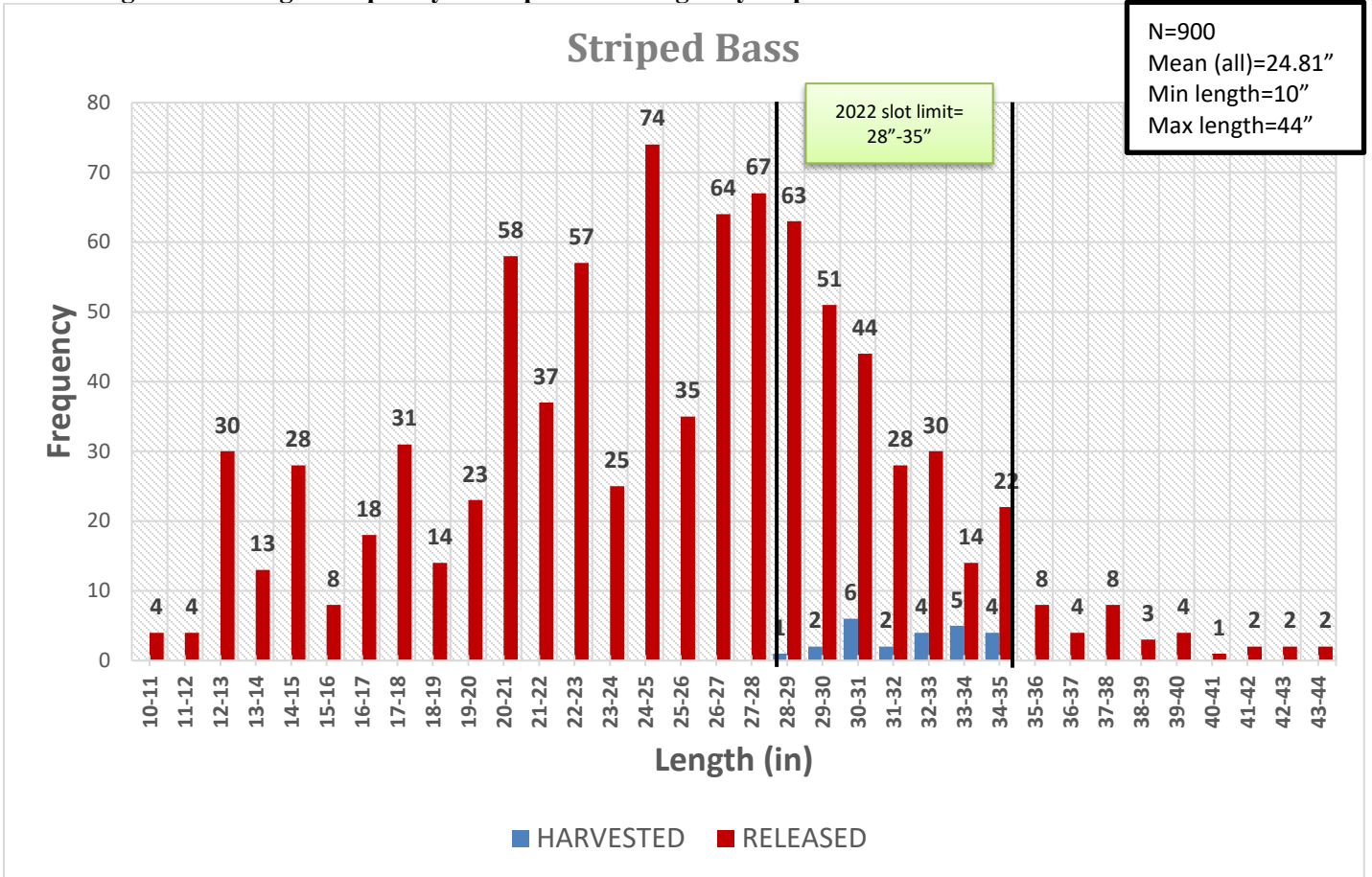


Figure 3.3 Length Frequency of bluefish caught by disposition.

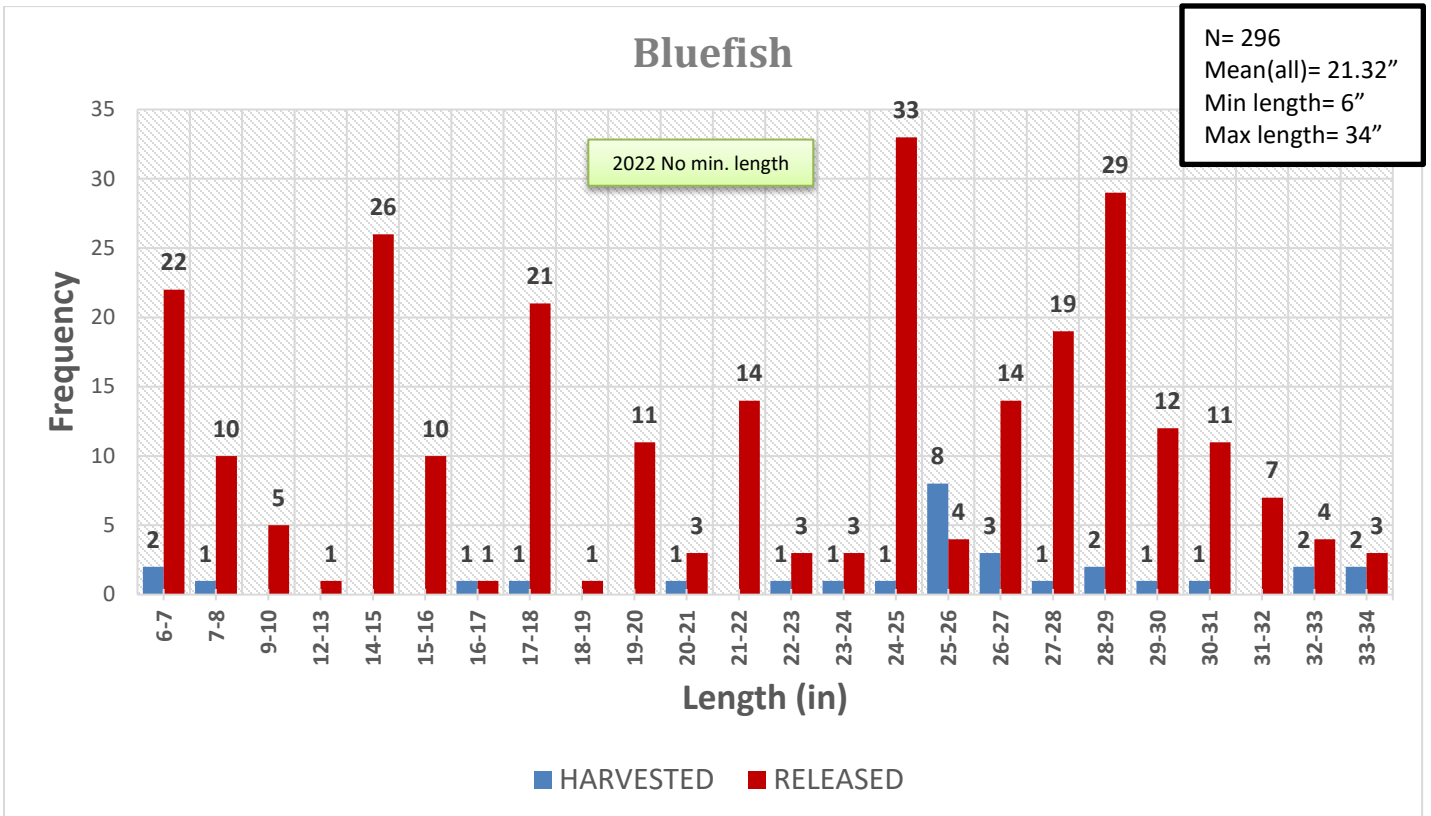


Figure 3.4 Length Frequency of black sea bass caught by disposition.

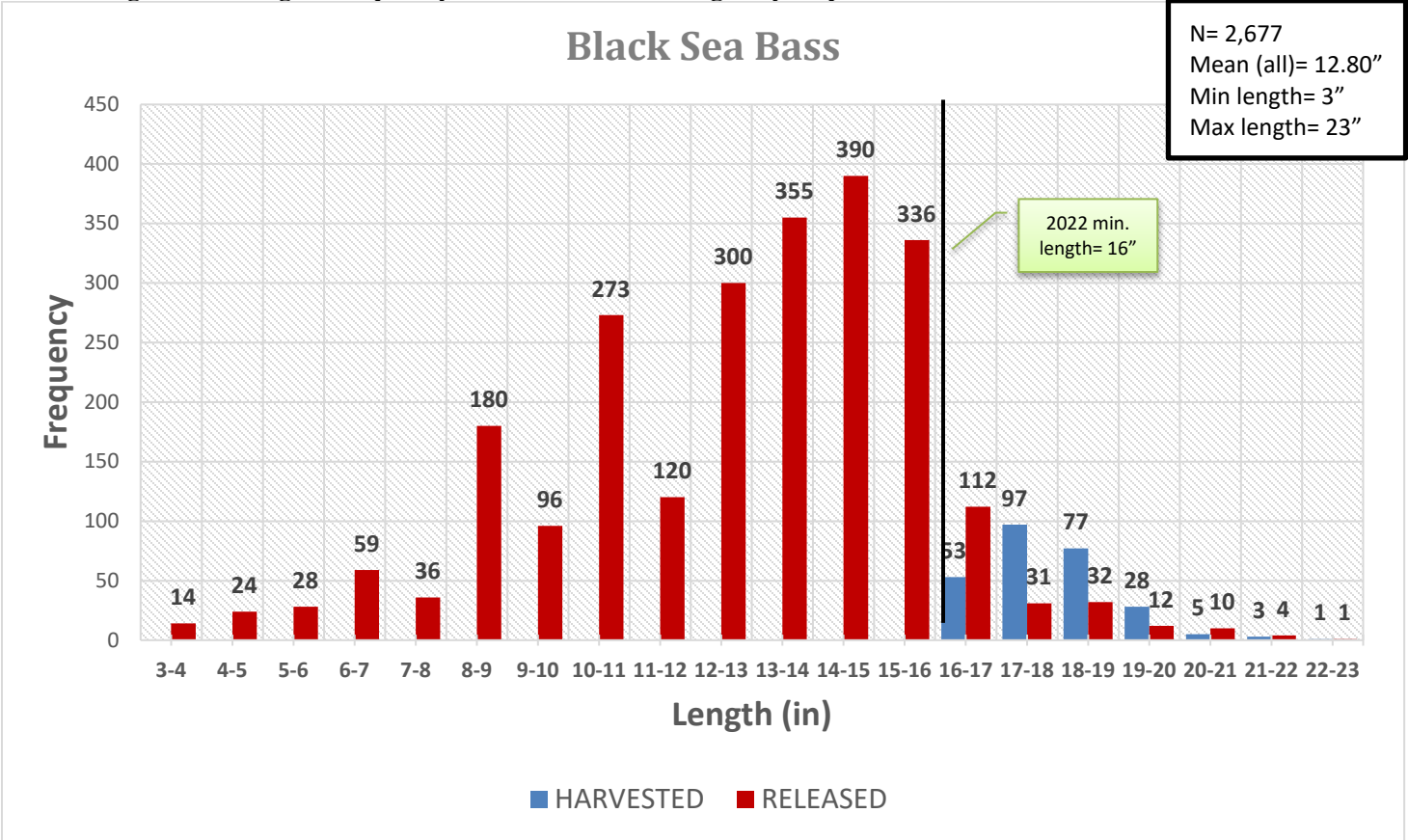


Figure 3.5 Length Frequency of scup caught by disposition.

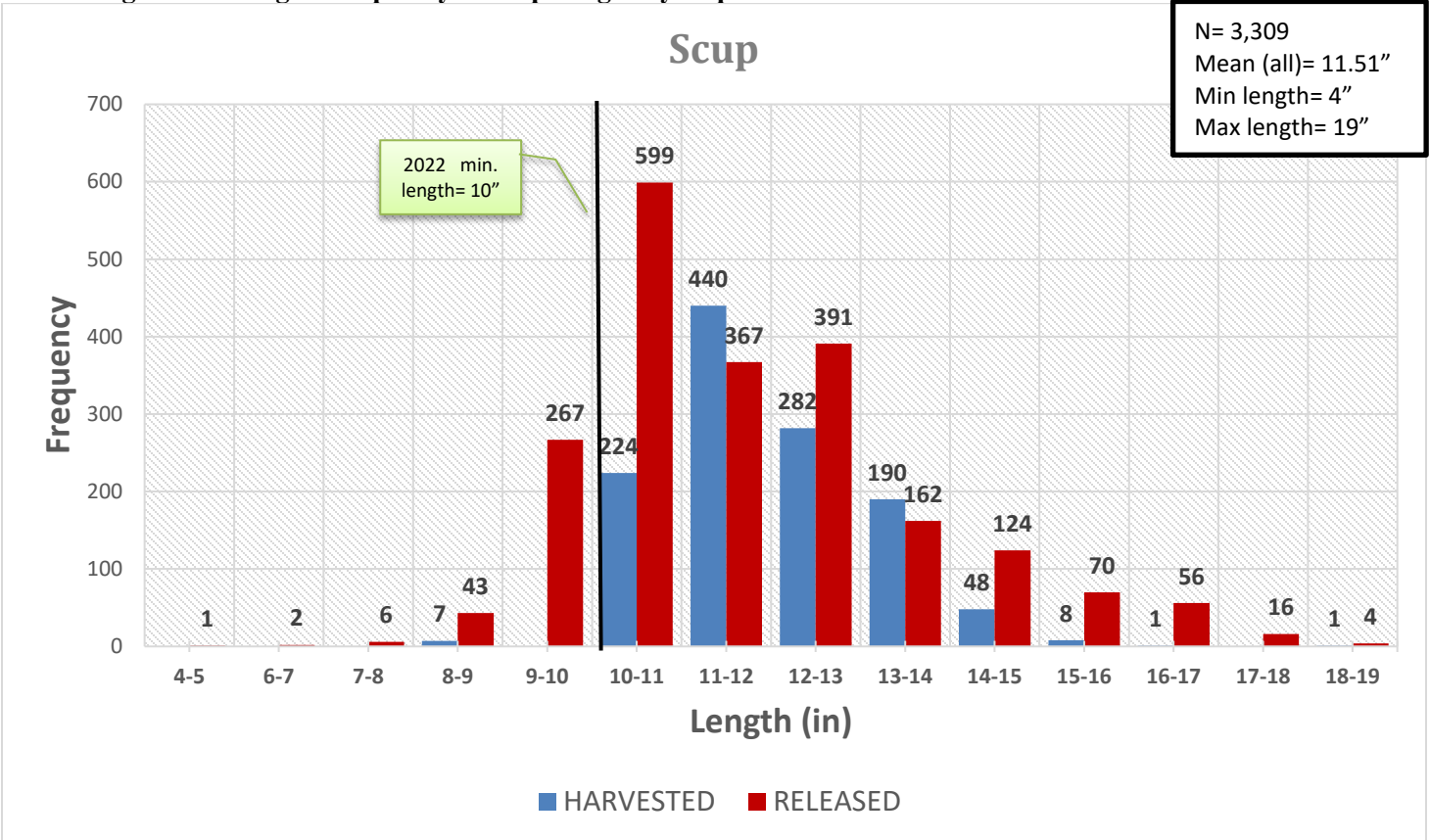


Figure 3.6 Length Frequency of tautog caught by disposition.

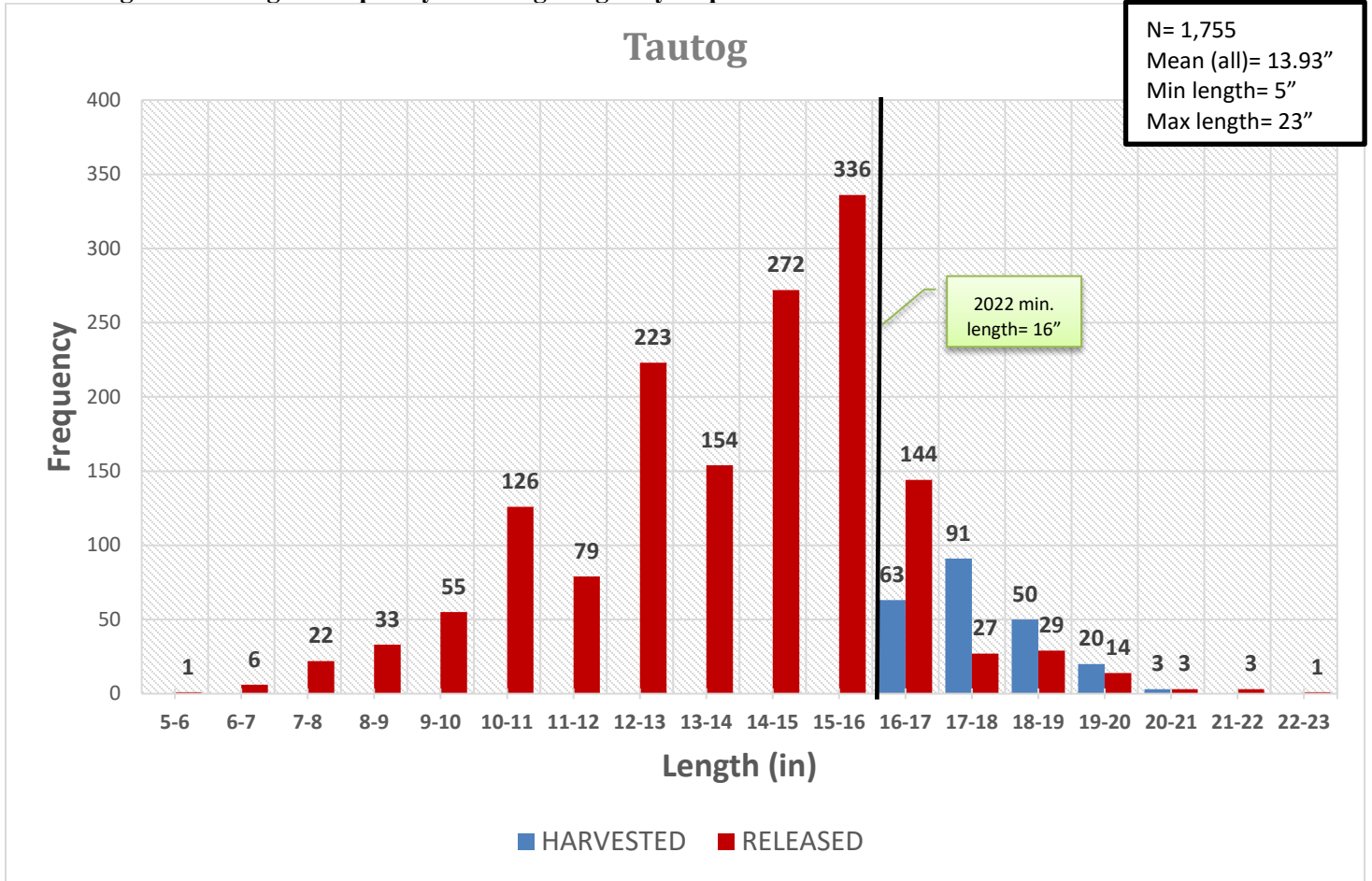


Figure 3.7 Length frequency of hickory shad caught by disposition.

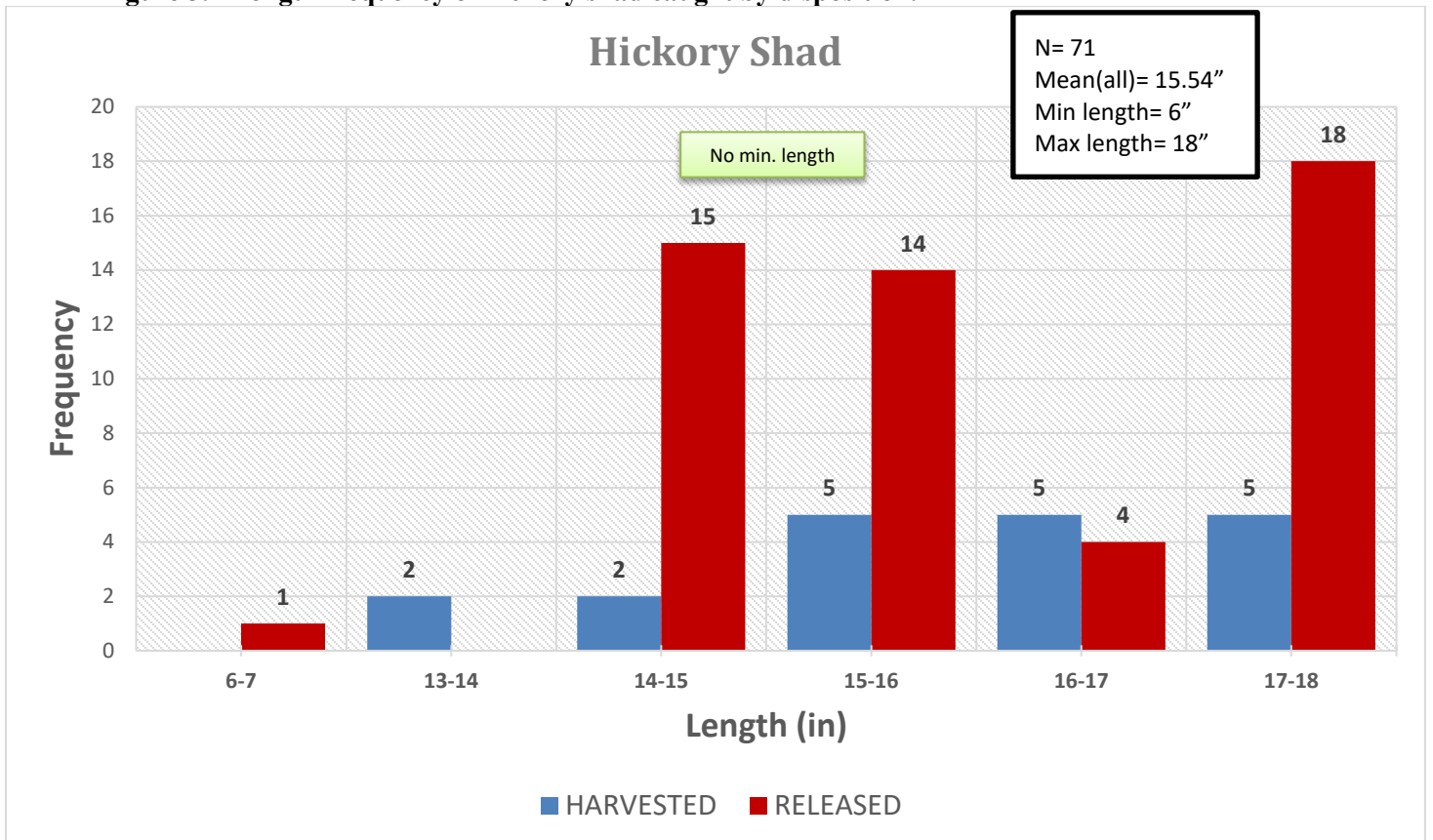
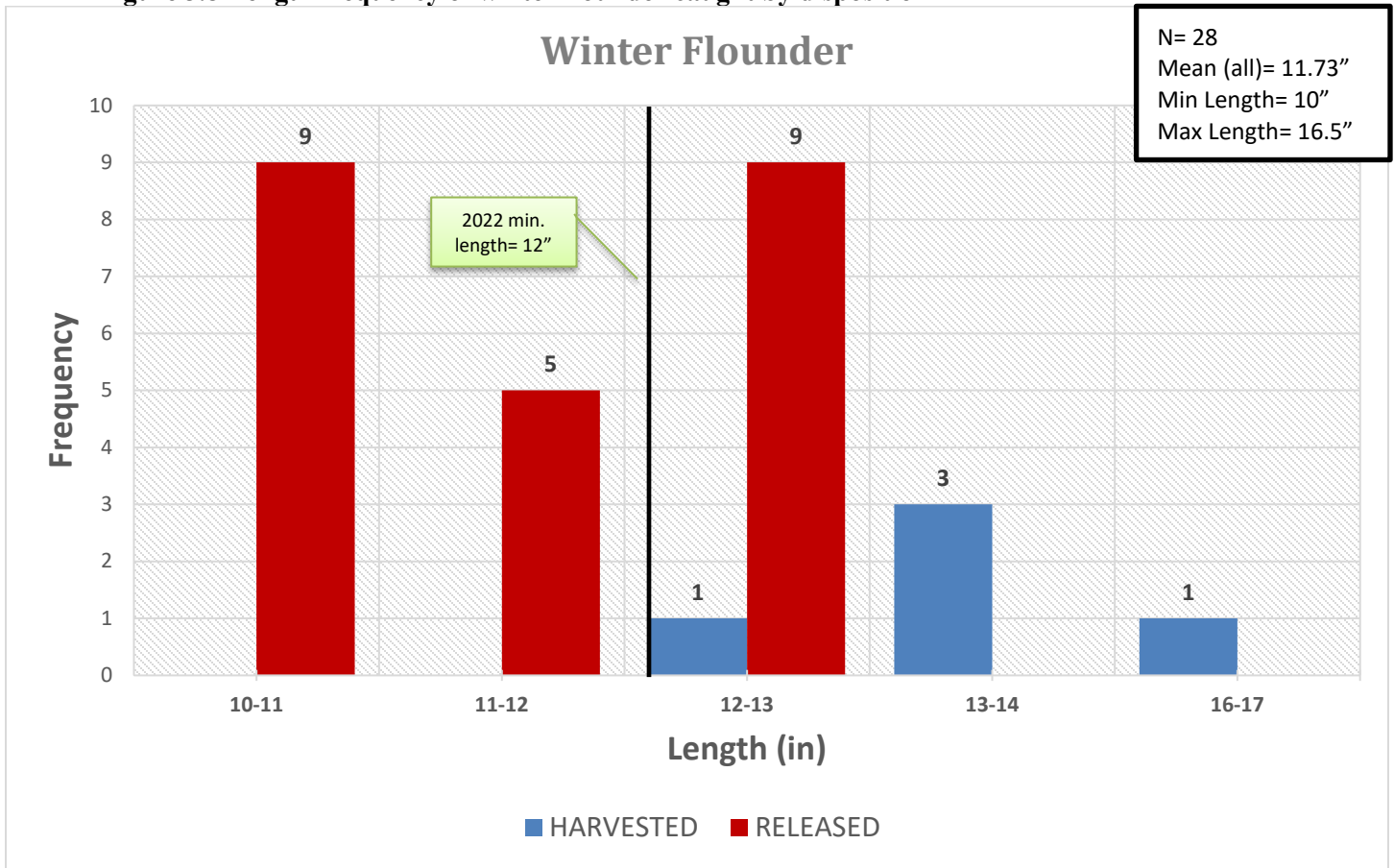


Figure 3.8 Length frequency of winter flounder caught by disposition



APPENDIX 2.1. Connecticut Volunteer Angler Logbook

TAPE

CONNECTICUT MARINE VOLUNTEER ANGLER SURVEY

Rev. 4/2017 - 12 Trip

Angler Code



This space for offices use only.

Logged _____

Entered _____

Checked _____

Send Me More Logbooks



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

TAPE

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
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Comments/Observations: _____

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.

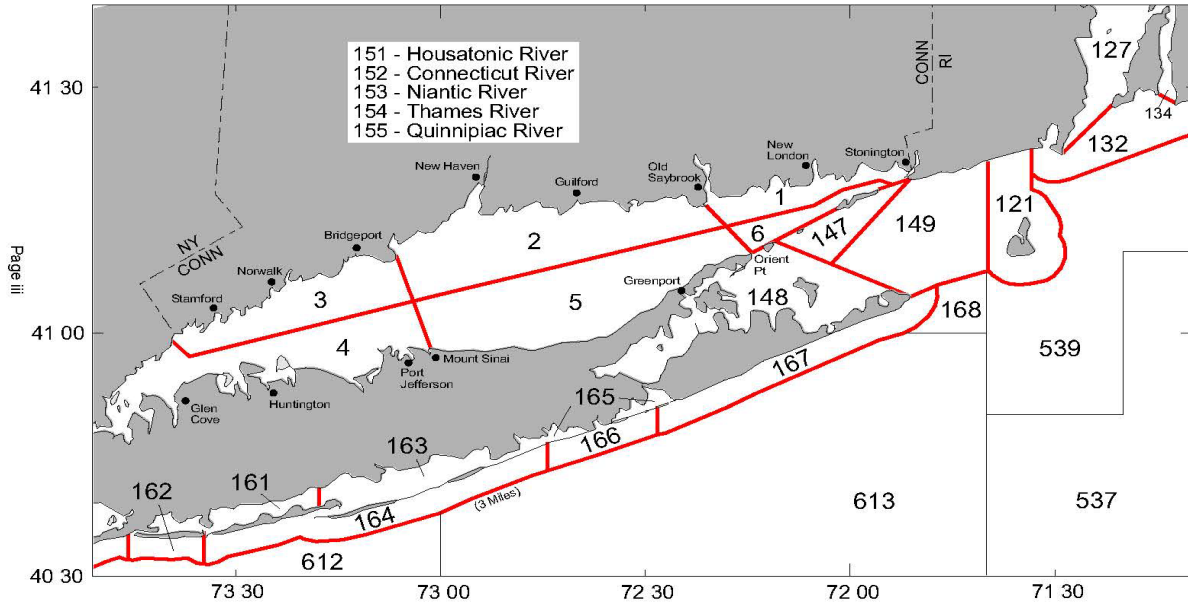
If you do not catch or harvest any fish, complete the trip header and effort information

(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>

Long Island Sound and Vicinity Fishing Area Chart



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