



NOAA
FISHERIES

GARFO / NEFSC

Port Biological Sampling Program

A joint program of: GARFO / NEFSC

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Program History

Organizational location

- < 1994: NEFSC
- 1994 – present: GARFO

Staffing

- < 1994: federal Port Agents (Co-op students, interns)
- 1994 – 2011: federal & contract Port Agents
- 2011 to present: contract port samplers

Program Organization

Program management

- GARFO & NEFSC

Contract samplers

- Task order against contract for data services
- AIS Inc., New Bedford MA – 2014 to present

Sample Stratification

Sampling regions (7) plus “all”

Species (30)

Market categories (all landed)

Gear (all fished commercially)

Stock area (single- and multiple-stock species)

Calendar quarter

Examples of Stratification

Sampling Strata used at the NEFSC:

- Region-species–market category–gear–stock area-quarter
 - sex info is collected for some species with external characteristic like lobsters, redfish, spiny dogfish; yellowtail flounder (ovary seen through skin)
- “Standard Sample” = 100 lens/25 ages (50 length/10 ages). Since 2020 sample sizes reduced to 5 to 100 lengths and 5 to 50 ages per sample.

BIOLOGICAL SAMPLING REQUIREMENTS SUMMARY - FY2013

<i>Region</i>	<i>Species</i>	<i>Mkt Cat</i>	<i>Gear</i>	<i>Stock Area</i>	<i>Oct-Dec</i>	<i>Jan-Mar</i>	<i>Apr-Jun</i>	<i>Jul-Sep</i>	<i>TOTAL</i>
MA-N	WITCH FLOUNDER	LRG	OT	51,52,56	3	3	3	3	12
MA-S/CC	WITCH FLOUNDER	LRG	OT	51,52,56	2	2	2	2	8
ME/NH	WITCH FLOUNDER	LRG	OT	51,52,56	2	2	2	2	8
MA-N	WITCH FLOUNDER	MED	OT	51,52,56	2	2	2	2	8
MA-S/CC	WITCH FLOUNDER	MED	OT	51,52,56	1	1	1	1	4
ME/NH	WITCH FLOUNDER	MED	OT	51,52,56	1	1	1	1	4
MA-N	WITCH FLOUNDER	SM/PW	OT	51,52,56	5	5	5	5	20
MA-S/CC	WITCH FLOUNDER	SM/PW	OT	51,52,56	2	2	2	2	8
ME/NH	WITCH FLOUNDER	SM/PW	OT	51,52,56	1	1	1	1	4
WITCH FLOUNDER					19	19	19	19	76
TOTAL					19	19	19	19	76

NEFSC Request List

Developed annually by NEFSC

Provided to GARFO prior to start of FY

BIOLOGICAL SAMPLING REQUIREMENTS SUMMARY - FY2023										
Region	Species	Mkt Cat	Gear	Stock Area		Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	TOTAL
ANY	AMERICAN LOBSTER	UNC	LP	515		3	4	3	3	13
ANY	AMERICAN LOBSTER	UNC	LP	464, 465		3	4	3	3	13
ANY	AMERICAN LOBSTER	UNC	LP	613, 615, 616, 622, 626		2	2	2	2	8
ANY	JONAH CRAB	UNC	LP	515, 465, 466		2	2	1	1	6
ANY	JONAH CRAB	UNC	LP	616, 622		2	2	2	2	8
ANY	TILEFISH, BLUELINE	LRG	ALL	52-63		1	1	1	1	4
ANY	TILEFISH, BLUELINE	LRG MED	ALL	52-63		1	1	1	1	4
ANY	TILEFISH, BLUELINE	MED	ALL	52-63		1	1	1	1	4
ANY	TILEFISH, BLUELINE	SM/KIT	ALL	52-63		1	1	1	1	4
ANY	TILEFISH, BLUELINE	UNC	ALL	52-63		1	2	1	2	6
ANY	TILEFISH, BLUELINE	XL	ALL	52-63		1	1	1	1	4
						18	21	17	18	74
MA-N	AMERICAN PLAICE	LRG	OT	46,51		1	0	0	1	2
MA-N	AMERICAN PLAICE	LRG	OT	52,53,56		1	0	0	1	2
MA-N	AMERICAN PLAICE	MED	OT	46,51		1	0	1	0	2
MA-N	AMERICAN PLAICE	MED	OT	52,53,56		1	0	1	0	2
MA-N	AMERICAN PLAICE	PW	OT	46,51		1	1	1	0	3
MA-N	AMERICAN PLAICE	PW	OT	52,53,56		1	1	1	0	3

Sample Collection

Sample targeting

Dealer set up

Data collection

Standard sample requirements

- # lengths & ages, age structures







Data Processing

Length data uploaded* into Biological Sample Monitoring Database System (BSMDBS) web form

Within 48 hours* of collection

Available immediately on BSMDBS web site

Age structures shipped to NEFSC age lab

Bar codes remain with sample from collection through processing.

Data Quality

BSM / BLISS audits

- Duplicate data
- Missing data elements
- Out-of-range issues

Subsequent audits

- Update trip identification fields
- Missing VTR
- Duplicate data
- Missing data elements
- Parameter mis-matches

Program Results

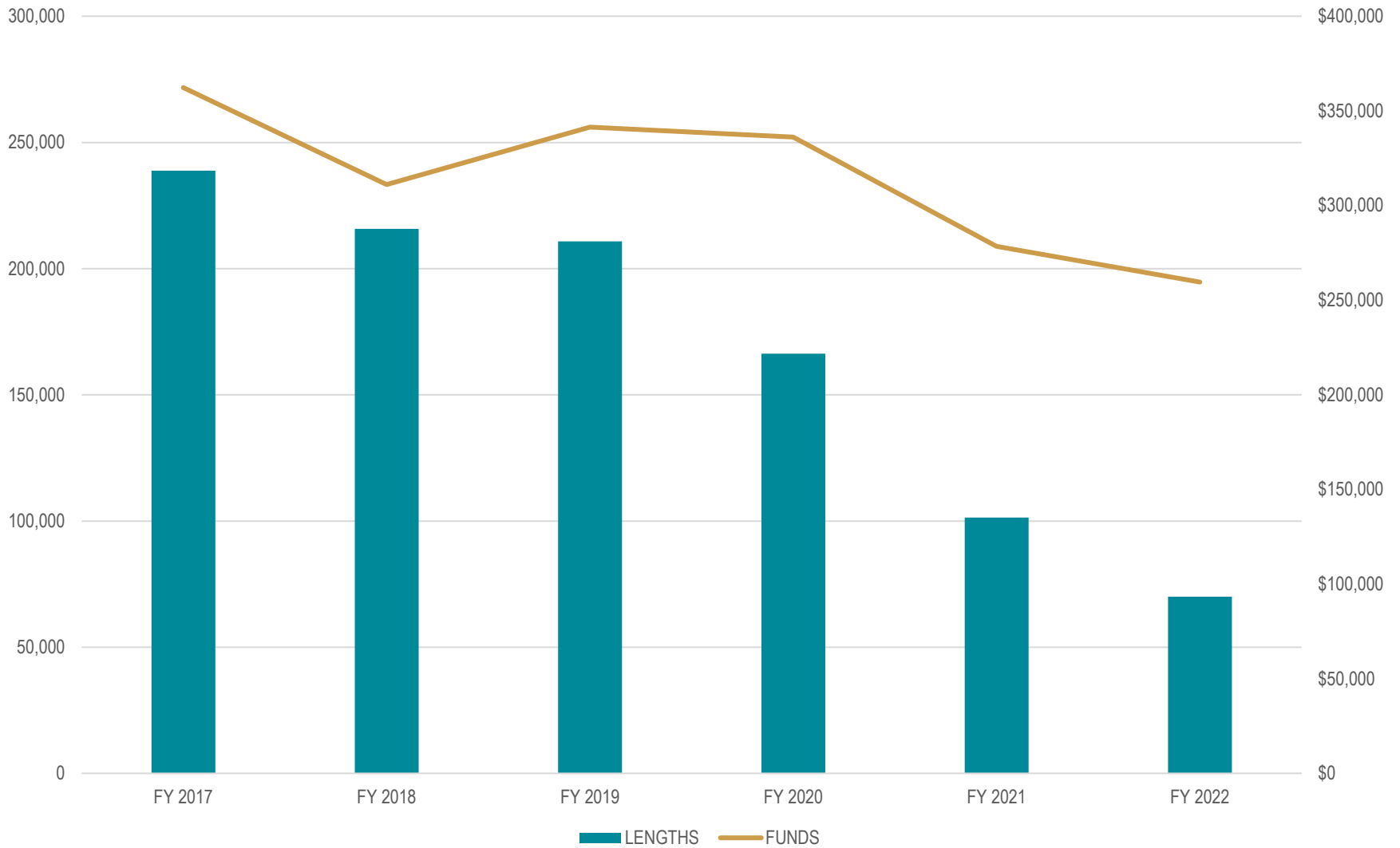
2022 Summary

- 32 Species
- 1,622 samples
- 70,076 lengths
- 13,562 ages

Annually, commercial port sampling is reviewed and sampling requests are updated

Species	# Samples	# Lengths	# Ages
BASS, BLACK SEA	70	3,253	1,594
BLUEFISH	49	1,125	678
BUTTERFISH	42	3,450	824
CLAM, QUAHOG, OCEAN	165	4,950	
CLAM, SURF, ATLANTIC	88	2,640	
COD, ATLANTIC	24	769	326
CRAB, DEEPSEA, RED	16	1,600	
CRAB, JONAH	38	1,520	
FLOUNDER, AMERICAN PLAICE	27	925	411
FLOUNDER, SUMMER	78	5,050	1,859
FLOUNDER, WINTER	14	617	256
FLOUNDER, WITCH	31	741	351
FLOUNDER, YELLOWTAIL	15	530	283
GOOSEFISH	58	2,848	
HADDOCK	81	4,000	1,941
HAKE, RED	41	1,770	
HAKE, SILVER	74	3,460	1,393
HAKE, WHITE	28	1,156	
HALIBUT, ATLANTIC	38	38	3
LOBSTER, AMERICAN	127	2,560	
MACKEREL, ATLANTIC	74	5,340	
POLLOCK	37	2,526	708
REDFISH, ACADIAN	33	1,445	315
SCUP	63	4,707	1,505
SHARK, DOGFISH, SPINY	76	2,700	
SKATE, CLEARNOSE	5	166	
SKATE, LITTLE	7	234	
SKATE, WINTER	40	1,908	
SQUID, LONGFIN LOLIGO	83	4,450	
SQUID, SHORTFIN ILLEX	16	1,000	
TILEFISH, BLUELINE	30	278	175
TILEFISH, GOLDEN	54	2,320	940
Grand Total	1,622	70,076	13,562

Port Biological Sampling Lengths Collected and Funds Obligated by Fiscal Year



Port Sampling Results April 1, 2023 - August 29, 2023

Species	MAFMC		NEPBSP		
	Lengths	Ages	Lengths	Ages	
BASS, BLACK SEA		1,300	652	553	150
BLUEFISH				120	57
BUTTERFISH		700	175	1,900	450
CLAM, QUAHOG, OCEAN		420		1,920	
CLAM, SURF, ATLANTIC		60		780	
COD, ATLANTIC		176	70	273	92
CRAB, DEEPSEA, RED		600		900	
CRAB, JONAH		280		480	
FLOUNDER, AMERICAN PLAICE		125	50	268	120
FLOUNDER, SUMMER		1,176	326	1,000	277
FLOUNDER, WINTER				133	66
FLOUNDER, WITCH		25	10	372	192
FLOUNDER, YELLOWTAIL		29	28	174	95
GOSEFISH		1,550		930	
HADDOCK		1,600	778	2,083	1,024
HAKE, RED		604		750	
HAKE, SILVER		698	304	1,050	420
HAKE, WHITE		523		425	
HALIBUT, ATLANTIC				25	3
LOBSTER, AMERICAN		520		1,120	
MACKEREL, ATLANTIC		450		2,629	
POLLOCK		501	147	1,125	260
REDFISH, ACADIAN		75	10	900	185
SCUP		2,499	624	1,900	500
SHARK, DOGFISH, SPINY		300		1,300	
SKATE, LITTLE		35			
SKATE, WINTER		215		1,000	
SQUID, LONGFIN LOLIGO		1,850		1,100	
SQUID, SHORTFIN ILLEX		50		650	
TILEFISH, BLUELINE		1		30	21
TILEFISH, GOLDEN		600	241	941	366
Grand Total		16,962	3,415	26,831	4,278

Program Strengths

Flexibility in sampling opportunities

- Able to modify targets within quarter
- Positioned in all major ports

Cost effective

- Pay only for lengths collected
- Samples requested can be modified w/o contract change

Coordination between groups & sharing of information

- Bi-weekly & monthly program calls
- Program and issue management web systems (Jira)
- Information sharing on current industry activities
- Shared infrastructure

Program Challenges

Low landings in some strata

- Fewer sampling opportunities
- Harder to find
- Smaller sample sizes

Collection technology (improving)

Under reporting of multiple areas on VTR

Multiple stock area trips

- Cod, haddock, yellowtail flounder, winter flounder, monkfish, red hake, and silver hake

Program Improvement Suggestions

Improve collection technology

Develop near-real time monitoring

Better access and utilization of current data

- Derived data sets, dealer, VTR, VMS

Better coordination

- Other NMFS-NE fishery dependent programs
- Match sample requests to current landings
- State partners / ACCSP

Questions