

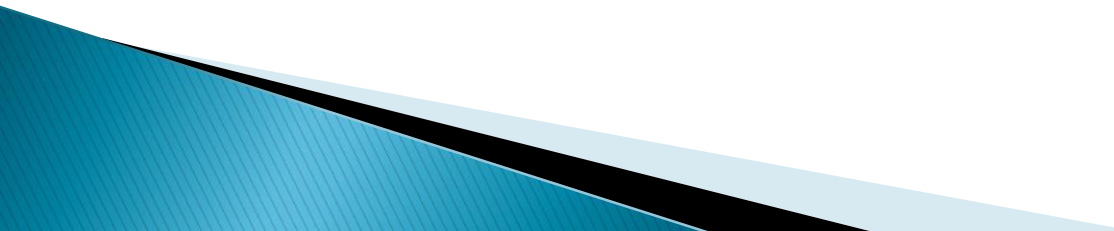
Maine Striped Bass Stakeholder Meeting

April 21, 2021



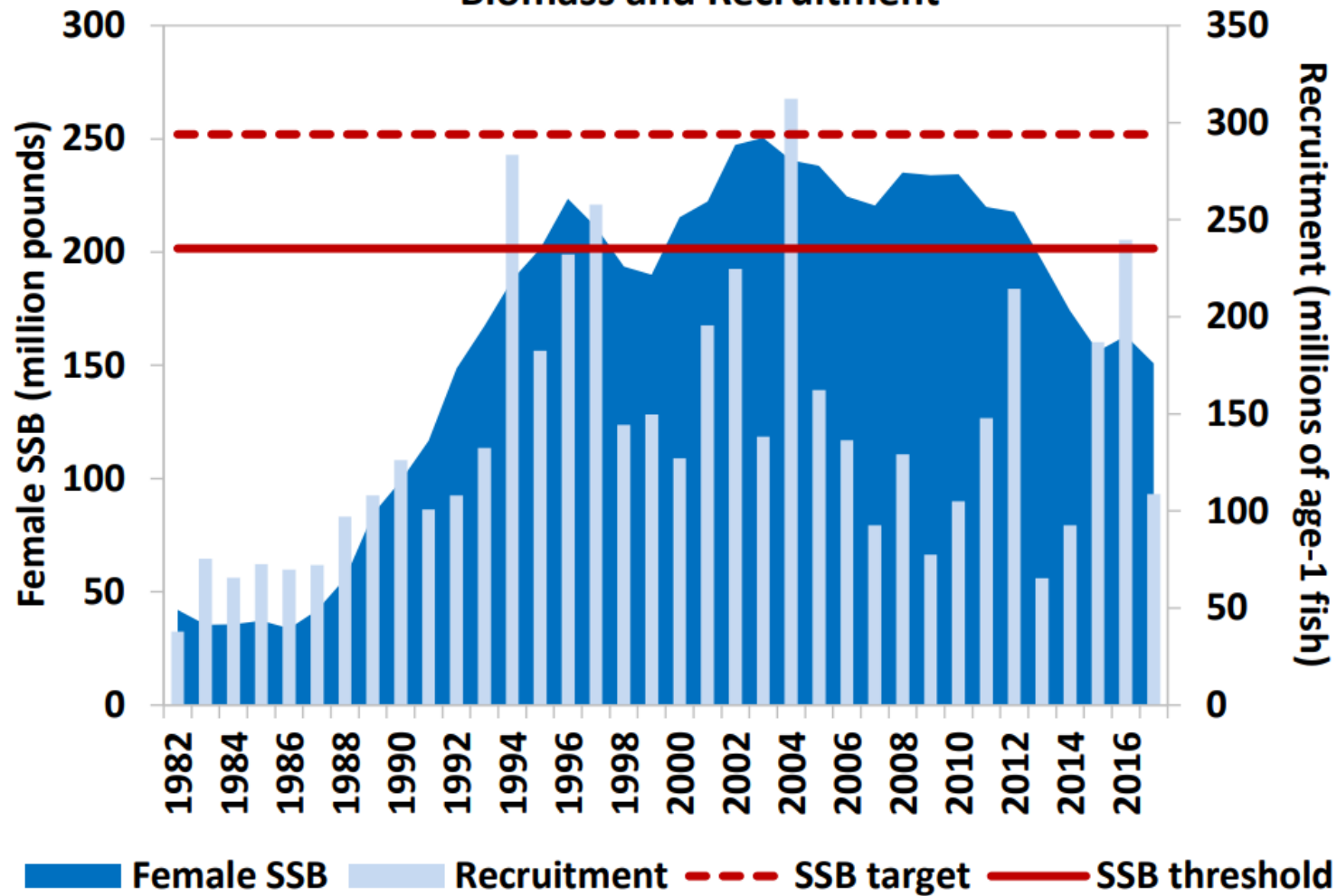
www.maine.gov/dmr

Agenda

- ▶ Overview (Megan)
 - Staff intros, stock status, MRIP numbers
 - ▶ Logbook Update (Victoria/Clarisse)
 - 2020 logbook data, electronic logbook
 - ▶ Science Update (Gail)
 - Juvenile abundance index, acoustic data
 - ▶ Management Update (Megan)
 - ASMFC draft Amendment 7, circle hooks
 - ▶ Discussion
- 

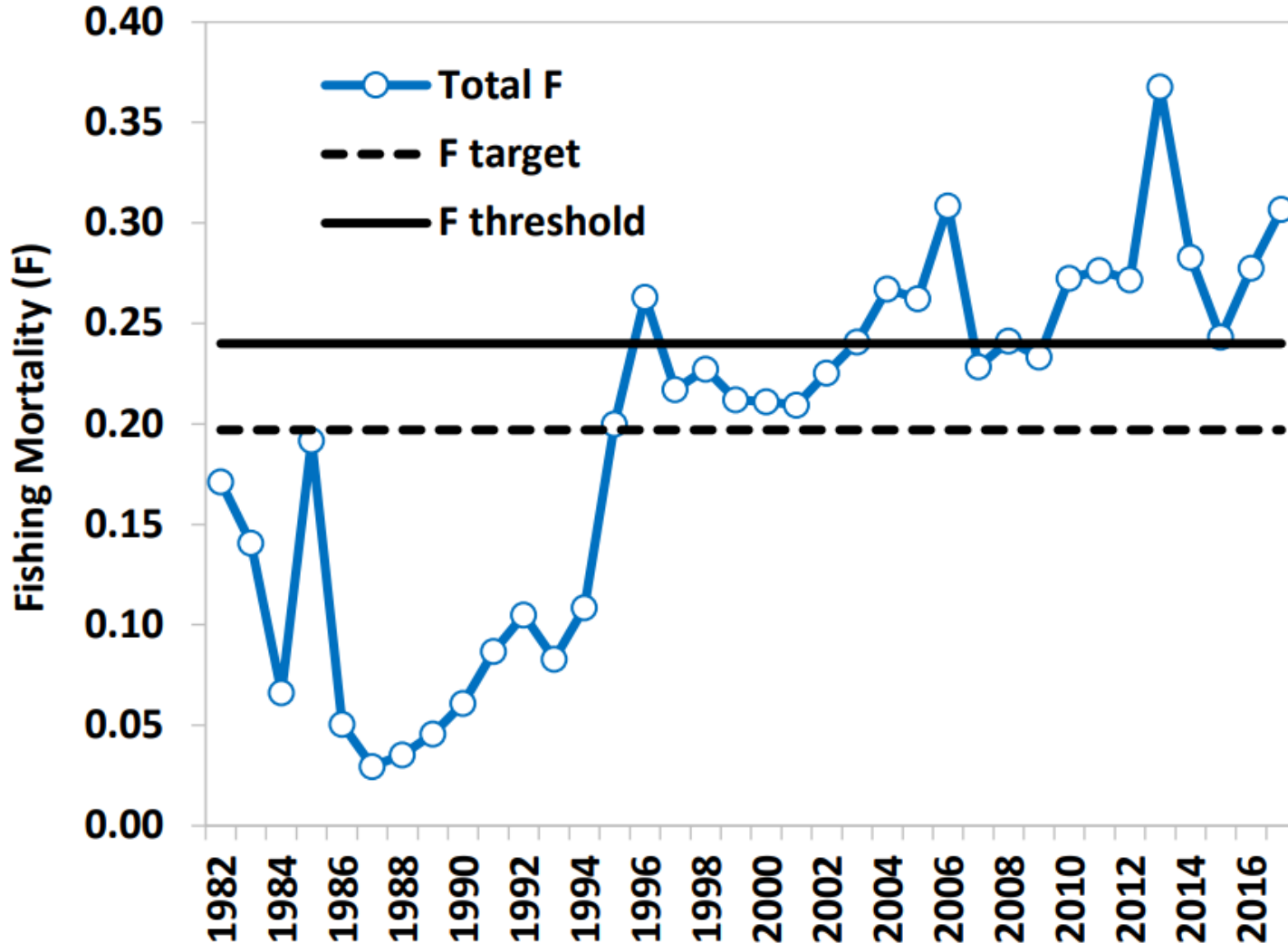
Stock Status – SSB

Figure 3. Atlantic Striped Bass Female Spawning Stock Biomass and Recruitment

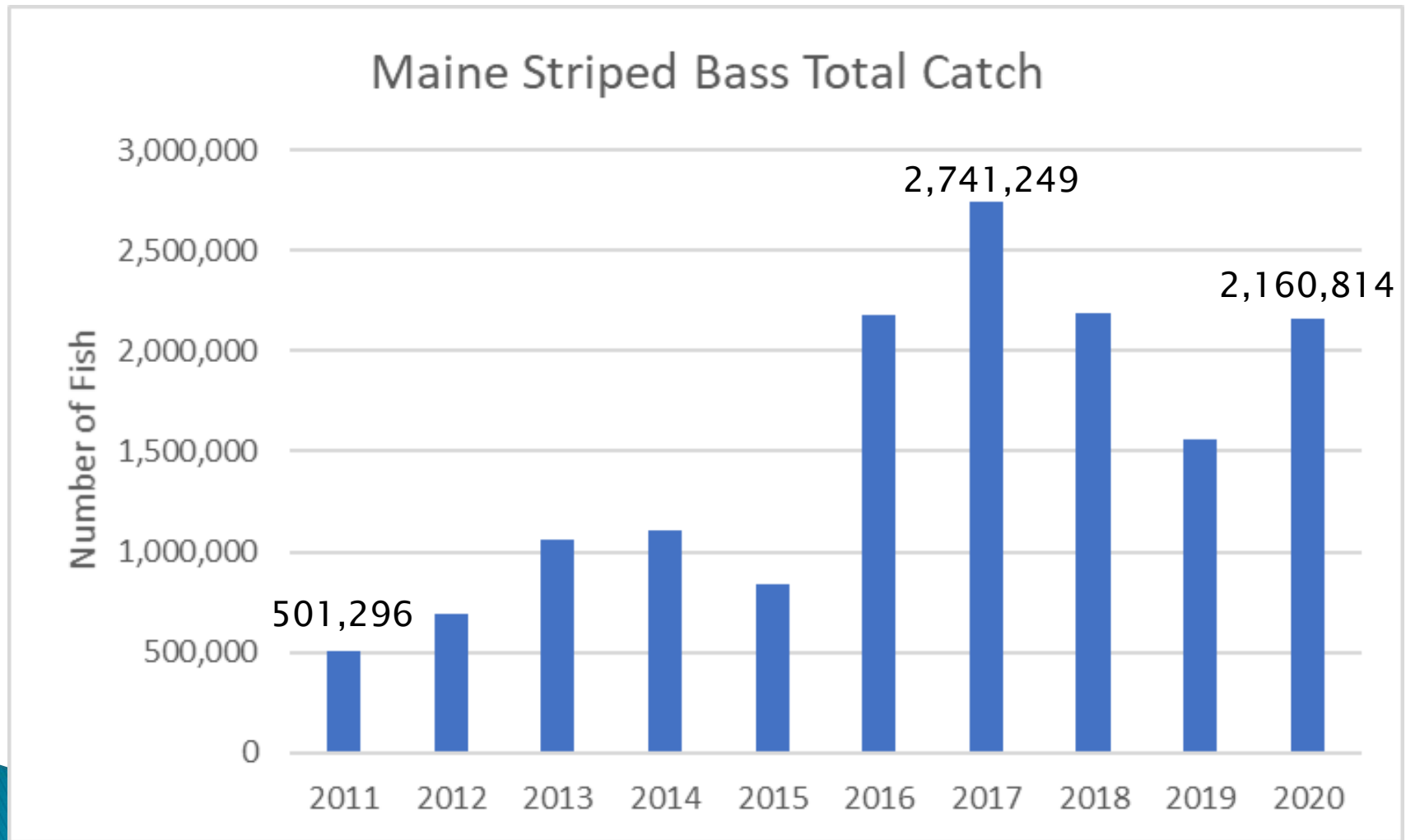


Stock Status - F

Figure 4. Atlantic Striped Bass Fishing Mortality

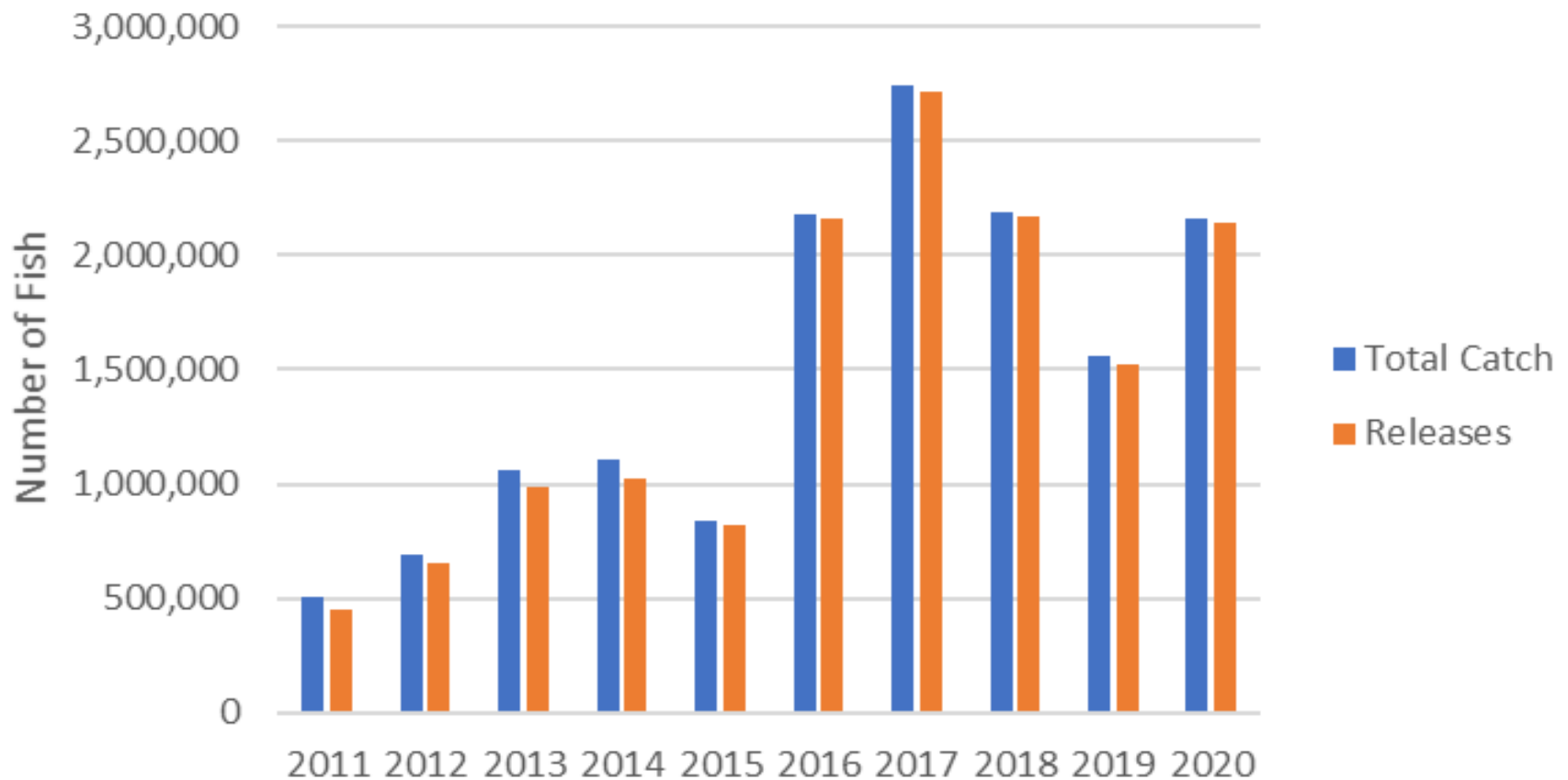


MRIP Data – Maine



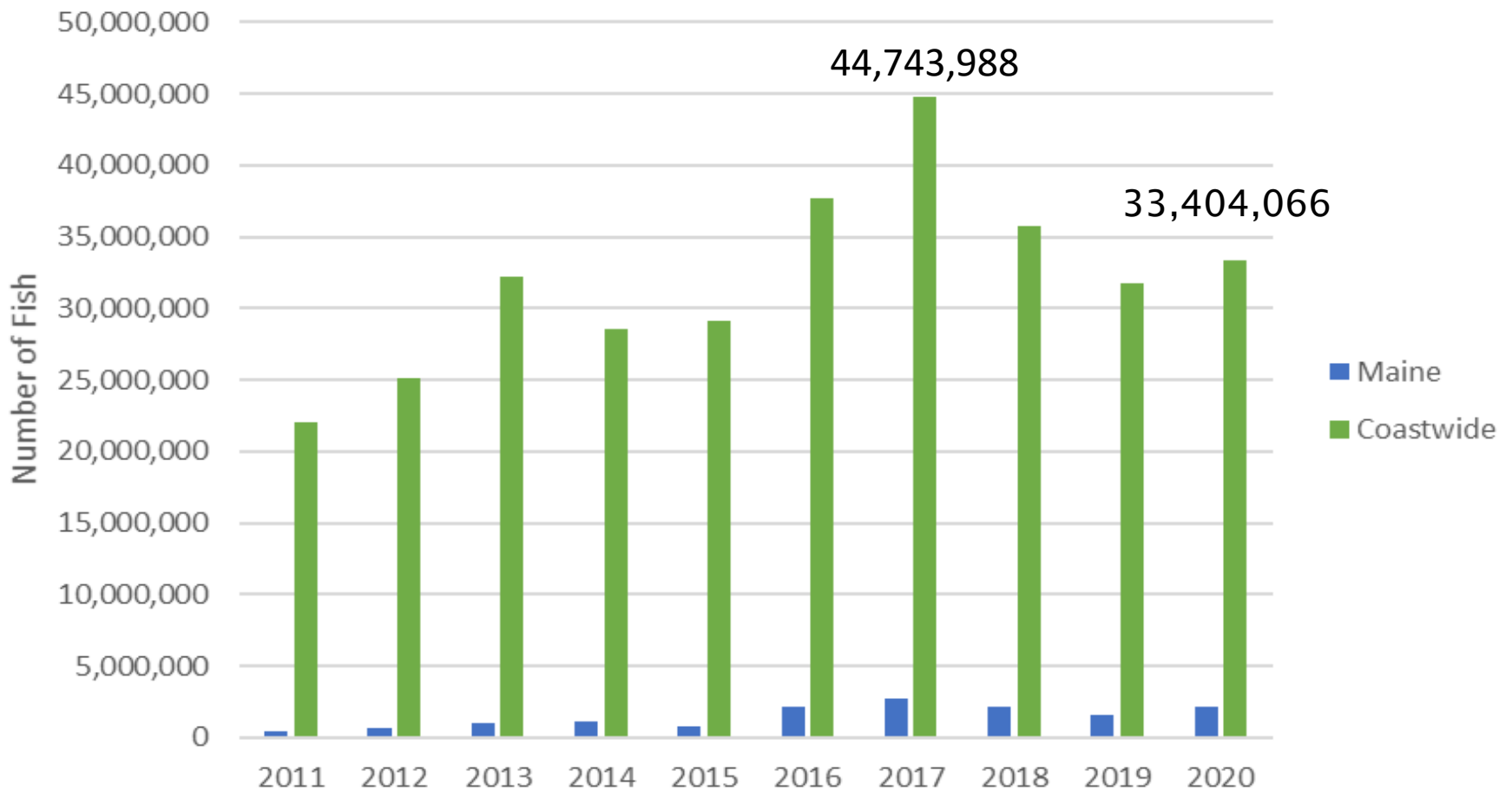
MRIP Data – Maine Releases

Maine Striped Bass Total Catch vs. Releases (B2)



MRIP Data – Coastwide

Coastwide Striped Bass Total Catch



VAL Program

Department of Marine Resources



Background

- Primarily geared toward striped bass anglers collecting: catch, effort, & length data
- Complements striped bass data collected through MRIP by:
 1. Capturing lengths on **sub-legal** and **voluntarily released** catch
 2. Collecting data from **times and areas not sampled by MRIP in Maine** (night fishing, private or low activity sites, low or no salinity river sites)
 3. Collecting supplemental data from striped bass anglers

The principal value of this data is to define the impact of Maine's recreational fisheries on the coastal striped bass population.

VAL data is used to:

- Meet required elements of the coastwide Atlantic Striped Bass Assessment
- Develop strategies that regulate angling for striped bass in state waters

Background

- Start = 1996 with 22 participating anglers
- 2005 = a high of 130 anglers return logbooks
- Since 2005, participation has gradually declined (52 anglers in 2019, 47 anglers in 2020)

DMR would like to broaden participation by enlisting additional, avid striped bass anglers interested in sharing their catch and effort information as part of this program.



Photo provided courtesy of Douglas Krebs.



Photo provided courtesy of Mike Wing.



Photo provided courtesy of Guy Cantara.

2020 Participants



118 logbooks sent out



60 participants
responded at the
end of season (51%)

Ex: No fishing
occurred, lost
logbook, or
returned logbook



47 participants returned logbooks
that were summarized (40%)

Reported Species Caught



Acadian redfish



Atlantic cod



Atlantic mackerel



Atlantic menhaden



catfish



cunner



cusk



eel



haddock



hake



herring



horseshoe crab

Source:
Archive.org

Source:
Flickr.com



lobster



pollock



sculpin



sea run brown trout



smelt



striped bass

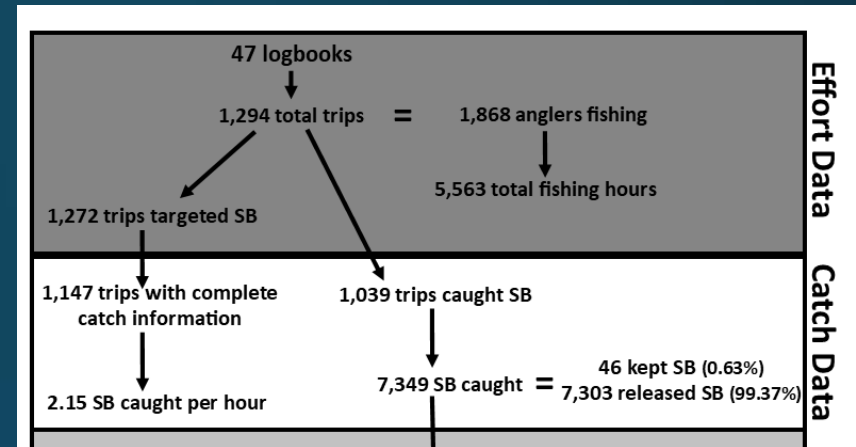


squid

Source:
NOAA.gov

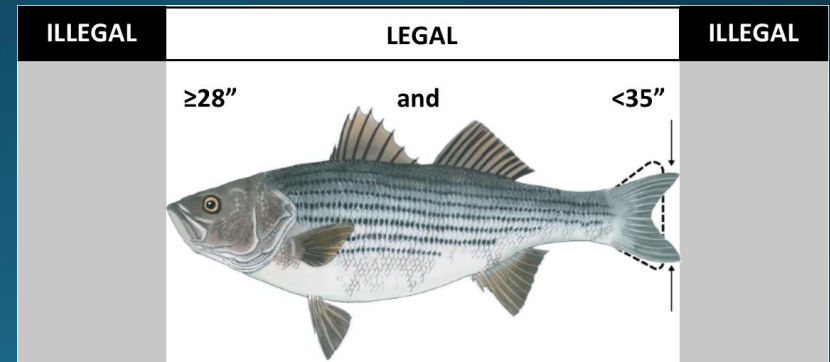
Effort Data:

- 47 logbooks -> 1,294 recorded fishing trips = 1,868 individual angler trips
- Over 5,500 angler hours
- 98% (1,272) of the recorded fishing trips target SB as primary or secondary



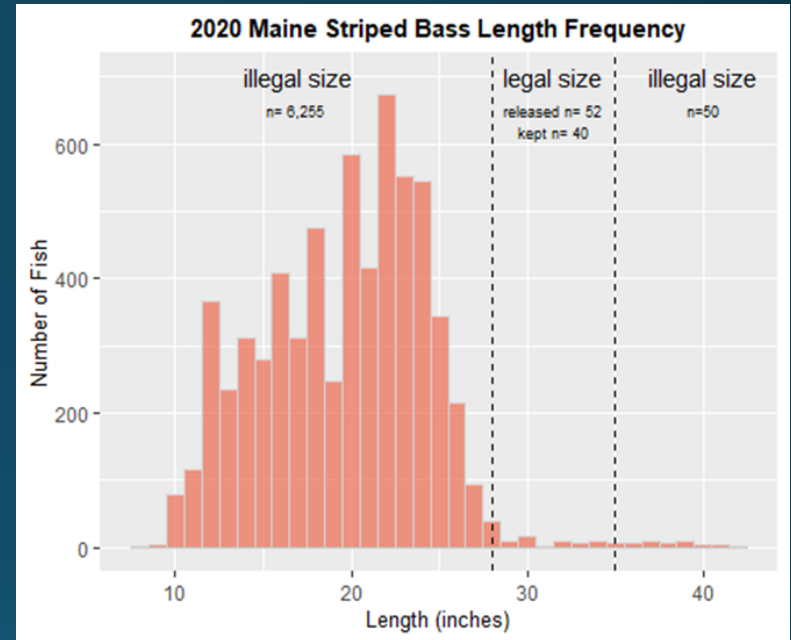
Striped Bass Catch Data:

- 2.15 striped bass caught per hour on 1,129 fishing trips which targeted striped bass with complete catch information.
- 7,349 striped bass caught on 1,039 trips
 - 46 kept (1%)
 - 7,303 released (99%)



Striped Bass Length Data

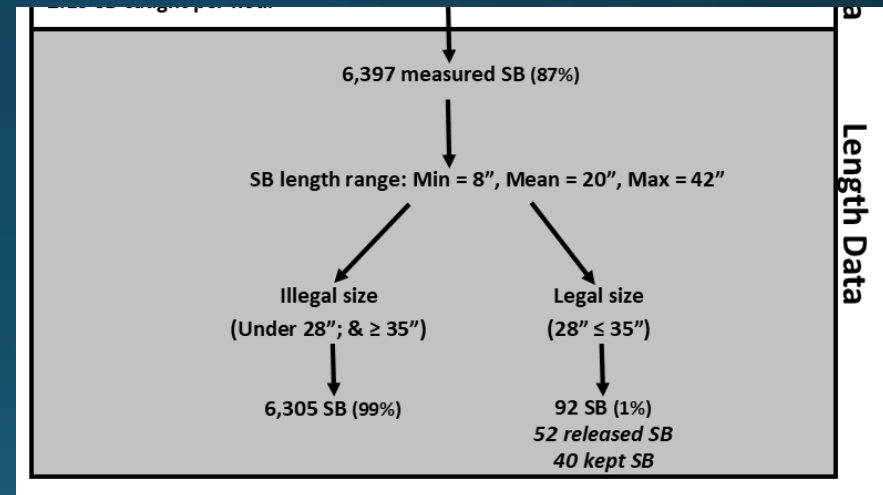
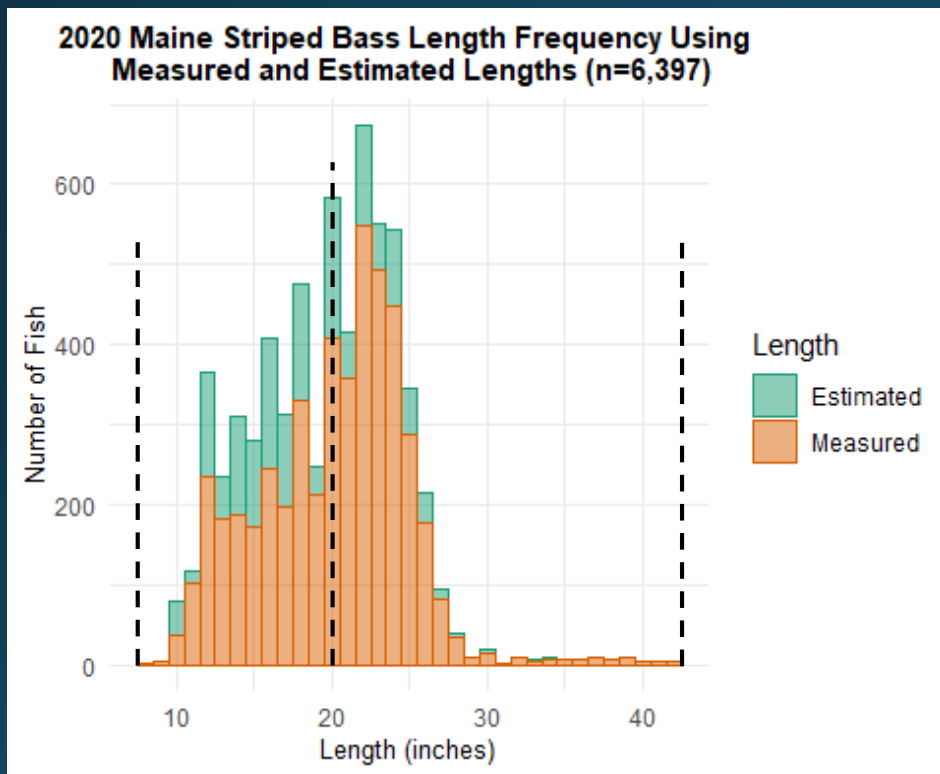
- 6,397 out of 7,349 (87%) striped bass had their lengths either estimated or measured.
- 92 out of the 6,397 striped bass measured were **legal size**
 - 43% striped bass were kept
 - 58% striped bass were released
- 6,305 out of 7,349 (98.56%) striped bass measured were illegal size



Size	Estimated	Measured	Total	Percent
<28"	1,552	4,703	6,255	97.78%
28" < 35"	14	78	92	1.44%
≥35"	3	47	50	0.78%

Striped Bass Length Data

Min. length = 8" Average length = 20"
Max. length = 42"



The logo of the Maine Department of Marine Resources is a circular seal. At the top, the word "MAINE" is written in an arc. In the center, there is a five-pointed star with radiating lines above a banner that reads "DIRIGO". Below this, two figures, a man and a woman, stand on either side of a central shield. The shield features a pine tree and a fish. At the bottom of the seal, the words "MARINE RESOURCES" are written in an arc. Two anchors are positioned on the left and right sides of the seal.

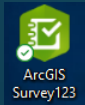
Department of Marine Resources
2021 electronic Volunteer Angler Logbook (eVAL)



Maine's 2021 eLogbook

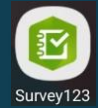
Downloading Survey123 App

Computer:

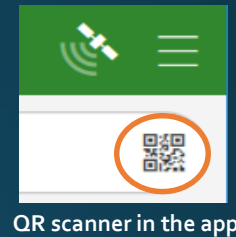
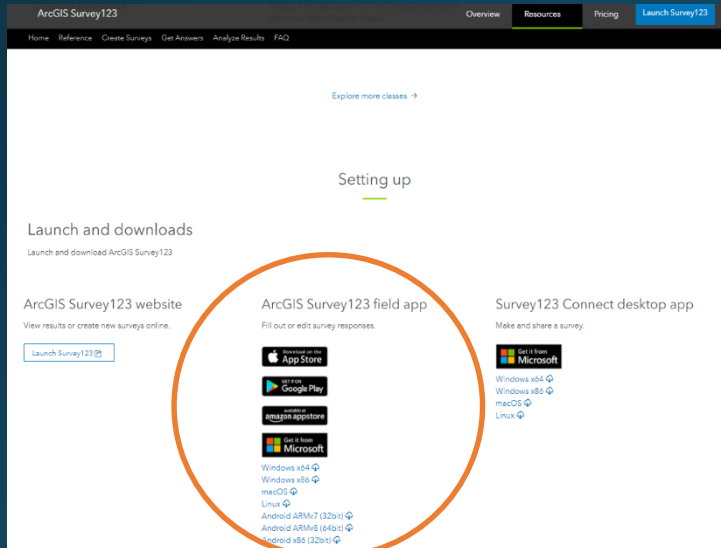


Visit the ArcGIS website to download/ install the appropriate version of Survey123 field app

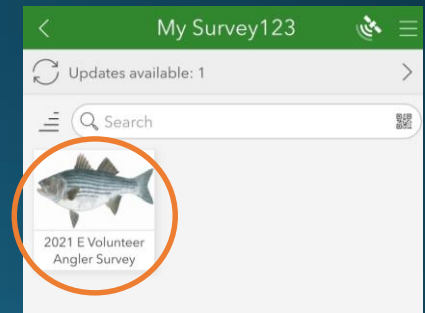
App Store /Google Play:



Enter **ArcGIS Survey123** in the search bar to find and download the app in appropriate app store & scan



QR scanner in the app



Instructions on how to download and use the eVAL will be available online in a PDF file.

First Name * ①

Last Name * ①

Email
If you are interested in joining the Volunteer Angler Program and have not signed up yet. ①

Do you have a Logbook ID? *
 Yes No * ①

Logbook ID * ①

▼ Trip Details

Date * ②
Month and day of fishing trip

Monday, March 8, 2021

March						
2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

Fishing Start Time * ③
The time that your fishing trip began. If you fished from shore, this is the time you arrived at the shore site. If you fished from a boat, this is the time you arrived at the dock or launch site from which your trip departed.

9:29 AM

09 : 29 AM

Trip Number * ④

Trip Type * ⑤
The type of fishing trip you took.

Self/Family/Friends
 Charter/Party
 Tournament

1. Enter your **First Name, Last Name, Email** (optional), and **Logbook number**.

If you do not have a logbook number select "No" under the question **Do You Have a Logbook Number? The survey will assign you a logbook number.*

2. Enter the fishing trip **Date** using the calendar when you select the line.

***If you are using Survey123 app, the date will automatically populate to the present day.*

3. Enter your **Fishing Start Time**, using the arrows in the drop down box.

4. Enter the fishing **Trip Number** for the season (recorded Maine marine fishing trips).

5. Select the correct **Trip Type**.

Region *
Use the number corresponding to the general region fished (map below) or the specific region, whichever is most accurate.

Region Map

The map shows Maine divided into 8 regions. Region 6 is the central region, covering the area from Small Point to Jonesport. Other regions are numbered 1 through 8.

6. Use the drop down menu to select the correct **Region** your fishing trip took place in.

Fishing Platform * ⑦
The type of platform you used during your fishing trip.

Boat Shore Pier/Dock Jetty

Distance Fished from Shore * ⑧
The distance from shore where majority of your fishing occurred.

< 3 miles (Coastal) > 3 miles (Offshore) River

Did You Fish in Another Location? ⑨
Did you fish in a different region, platform, or shore distance?

Yes No

7. Select the correct **Fishing Platform**.
8. Select the correct **Distance Fished from Shore**.
9. **Did You Fish in Another Location?** Select "yes" or "no"

Primary Species Targeted * ⑩
Enter the primary fish species targeted during your trip. These are the species you hope to catch, as opposed to the species you do catch.

Secondary Species Targeted ⑩
Enter the secondary fish species targeted during your trip. These are the species you hope to catch, as opposed to the species you do catch. If none, select none.

10. Select the **Primary & Secondary Species Targeted** via the drop down menu.

11. Select the correct **Terminal Gear Used**.

If "bait" was selected a new tube rig section will appear below Trip Comments to complete.

12. Select the correct **Hook Used**.

13. **Was An Additional Gear Type/Hook Combo Used?** select "yes" or "no".

14. **Trip Comments** an area to record any thoughts, comments, or observations for your personal record.

Terminal Gear Used: * ⑪
Select the appropriate box indicating whether you fished with flies, artificial lures, and/or bait. If "Bait" was used please proceed to the new tube rig section.

Fly Artificial Lure Bait

Hook Used: * ⑫
Select the appropriate box indicating the type of hook used.

Conventional Barbless Circle

Was An Additional Gear Type/Hook Combo Used?
 Yes No ⑬

Trip Comments: ⑭
Enter trip comments in this available space, this space is for your own record.

Tube Rig Section (Only if "bait" was used)

Did You Use A Baited Latex or Rubber Tube Rig When Fishing for Striped Bass? "yes" or "no"
If you select "yes" the following questions will appear:

Indicate what **Bait was Used on the Tube Rig**.
Enter the **Number of Striped Bass Caught with Tube Rig**.

For Each Location the Hook was Set Enter the Number of Striped Bass.

For Each Location the Hook was Set (Lip, Interior Mouth, Gill, or Other) Enter the Number of Striped Bass:

Lip:

Interior Mouth:

Gill:

Other:

If other please specify the "other" location:

▼ Catch Details

Number of Anglers Reporting: *

Enter the number of anglers in your party whose information is being recorded and who actually fished during the course of your trip, whether they caught fish or not.

15

Hours Line(s) in Water: *

To the nearest half hour (0.5), enter the number of hours that you had lines in the water.

16

Fish Caught? * 17

Select whether any of the reporting anglers caught fish.

Yes

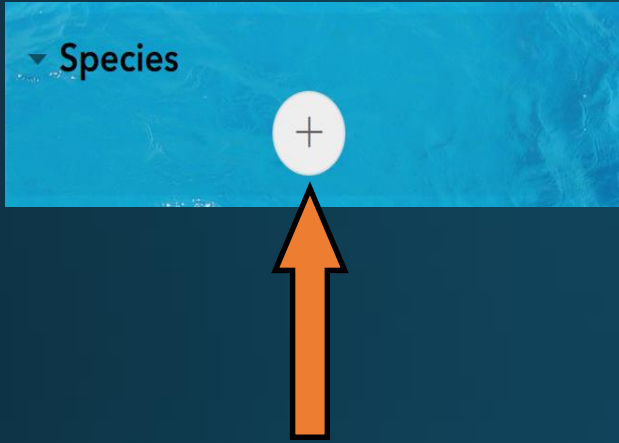
No

15. Enter the **Number of Anglers Reporting** in your party whose information is being recorded and who fished during the course of your trip.

16. Enter the number of **Hours** that you had **Lines in the Water**.

17. **Fish Caught?** select the correct circle for the current fishing trip.

If "yes" was selected, the following questions (next slide) will appear below.



For the following Species section use the "+" symbol to add species entries and "-" to delete species entries.

Repeat 18 –20 for each fish species caught.

Caught Species
Enter the species caught by any reporting angler.

Kept fish
Enter the amount of this fish species kept.

Released fish
Enter the amount of this fish species released.

1 of 1

18. Enter the *Caught Species*.

19. Indicate the number of *Kept Fish*.

20. Indicate the number of *Released Fish*.

Recorded Catch Measurement Data? **21**
 Yes No

Catch Comments:

▼ Catch Measurements

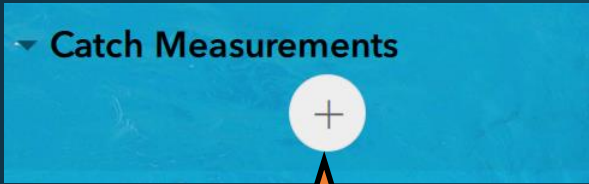
Length Measured or Estimated? **22**
Select whether lengths were estimated or measured.
 Measured Estimated

Weight Measured or Estimated? **23**
Select whether weights were estimated or measured. You do not need to estimate weights if you prefer not to.
 Measured Estimated

21. Indicate if you *Recorded Catch Measurement Data?*

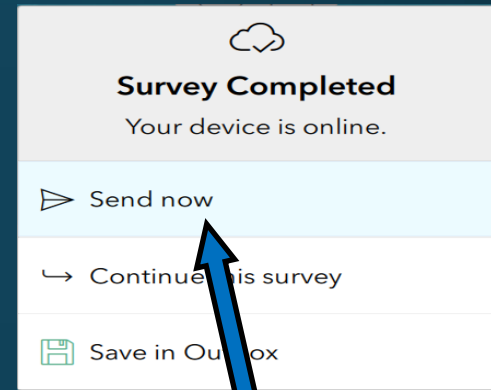
22. Select whether *Lengths* were *Measured or Estimated?*

23. Select whether *Weights* were *Measured or Estimated?*



For the following Measurement section use the "+" symbol to add species entries and "-" to delete species entries.

Repeat 24 –28 for each fish species caught.

A screenshot of the 'Catch Measurements' form in a mobile application. The form is blue and contains several input fields and radio buttons. Numbered callouts (24-28) point to specific elements: 24 points to the 'Measured Fish Species' dropdown menu; 25 points to the 'Released or Kept?' radio buttons; 26 points to the 'Tube Rig Used to Catch this fish?' radio buttons; 27 points to the 'Length (in.)' input field; and 28 points to the 'Weight (lbs.)' input field. At the bottom of the form, there is a list of entries with a trash icon and a plus sign. Below the form, there are three action buttons: 'Delete entry' (with a trash icon), 'Add entry' (with a plus icon), and 'Save/submit trip entry' (with a checkmark icon). An orange arrow points from the plus sign icon in the header down to the form.

When cell service/Wi-Fi is detected you will be able to send survey to DMR.

24. Indicate the **Measured Fish Species** for the following data.
25. Select whether the fish was **Released or Kept?**
26. *If you answered "bait" as terminal gear used, this question will appear asking if the fish was caught by a tube rig setup.*
27. Enter the total **Length (in.)** of the fish.
28. Enter the total **Weight (lbs.)** of the fish.



**Striped bass in the
Kennebec River**

Historical Population

(Foster and Atkins 1867)

- Native spawning population of striped bass historically in the Kennebec River
- Striped bass traveled upriver to Waterville before 1937 construction of Edwards Dam

Striped Bass Restoration

- 1972 Clean Water Act improved water quality
- MDMR studies indicated native striped bass were extirpated
 - creel survey, gill netting, beach seine survey beginning in 1979
- MDMR initiated striped bass restoration in 1982
 - wild Hudson River fingerlings stocked in the Kennebec in 1982 and 1983
 - Hudson River eggs raised to fingerling stage in hatchery and stocked in the Kennebec River from 1984 to 1991
 - A total of 263,735 fingerlings stocked

Beach seine sampling for juvenile alosines

1979-2020

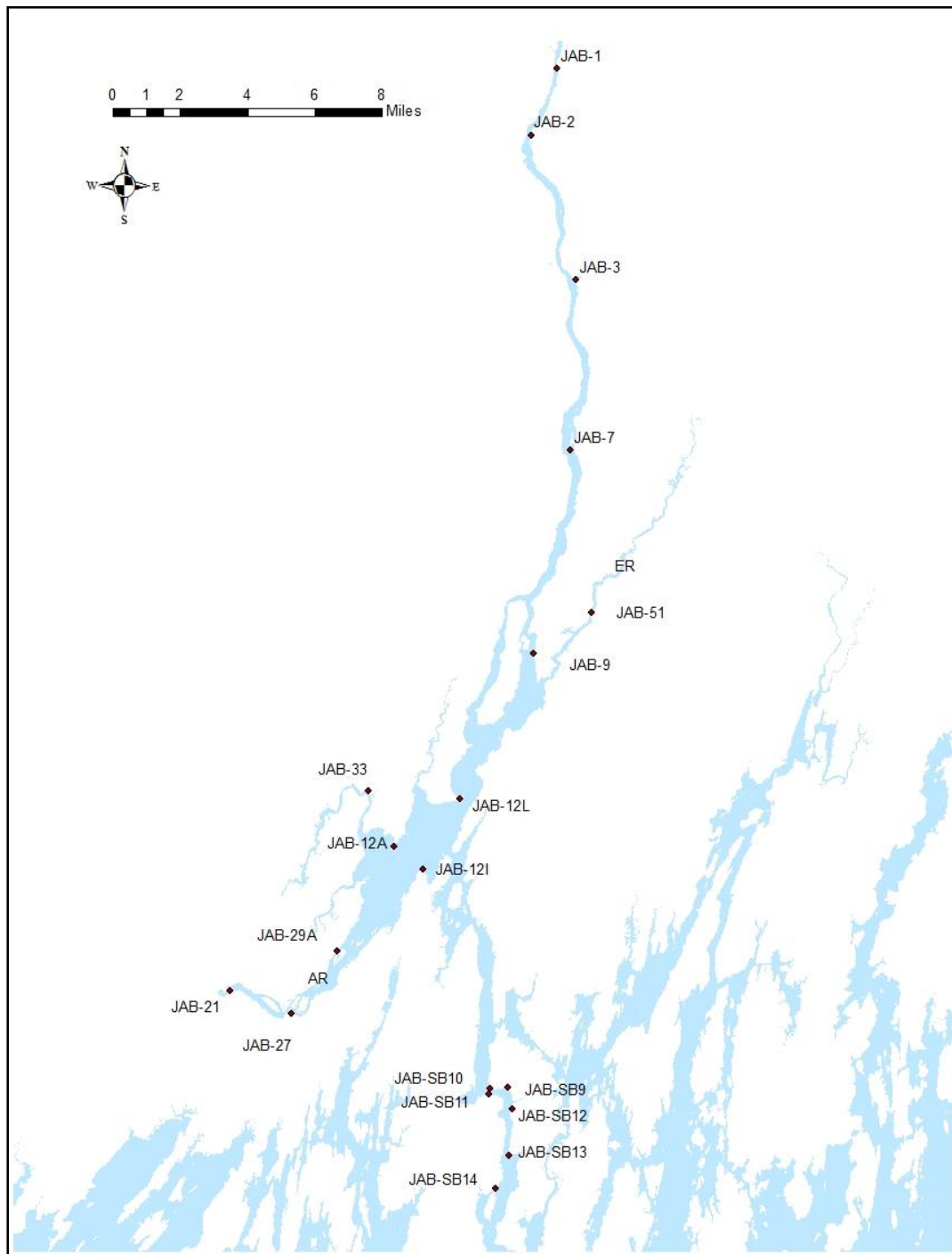
14 standard sampling sites in tidal freshwater. Beginning in 1987, small numbers of juvenile striped bass were captured during the survey.

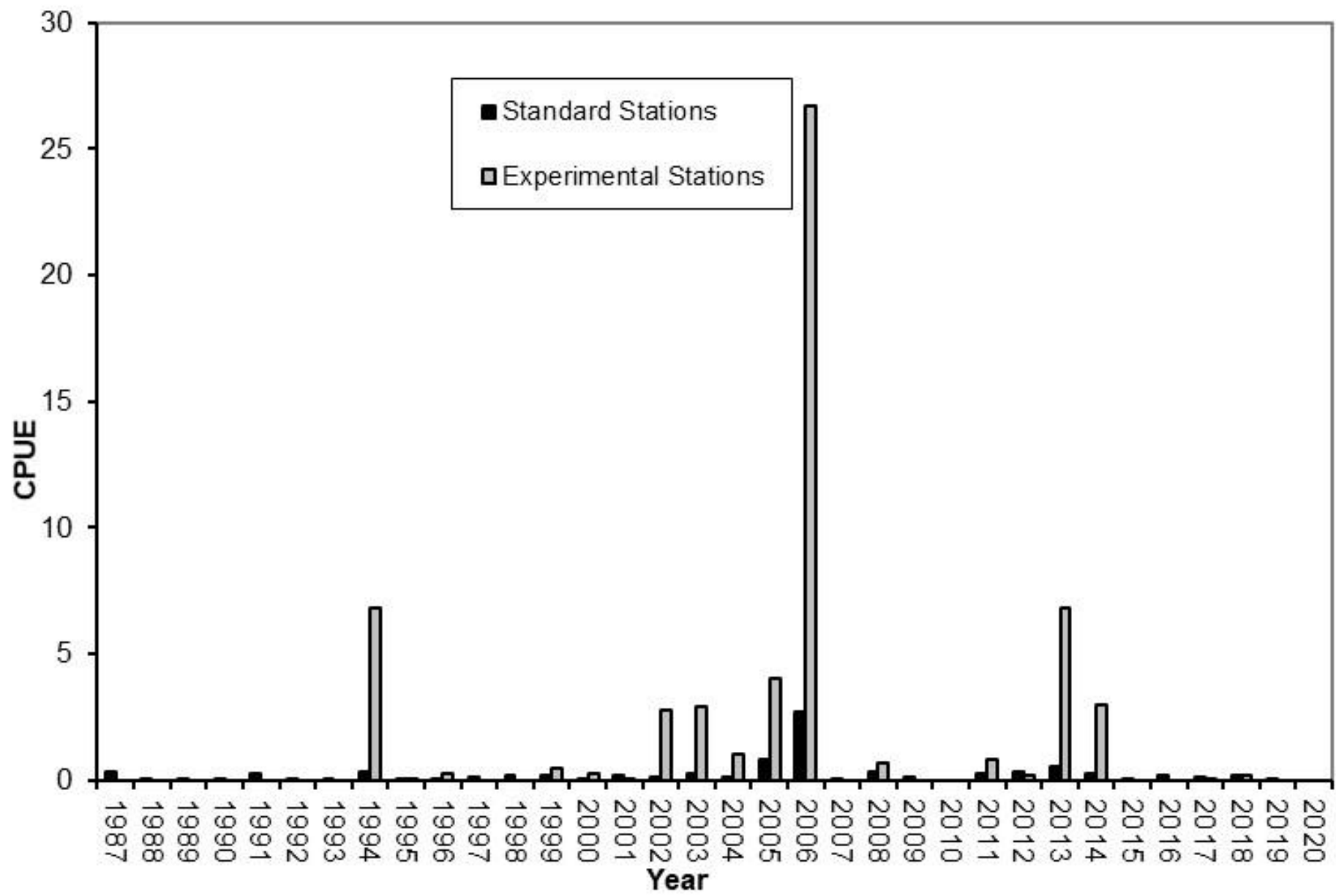
1994-2020

6 experimental sites in tidal salinity-stratified portion of the estuary.

Each site is sampled biweekly mid-July to early-October
goal of sampling each site six times.

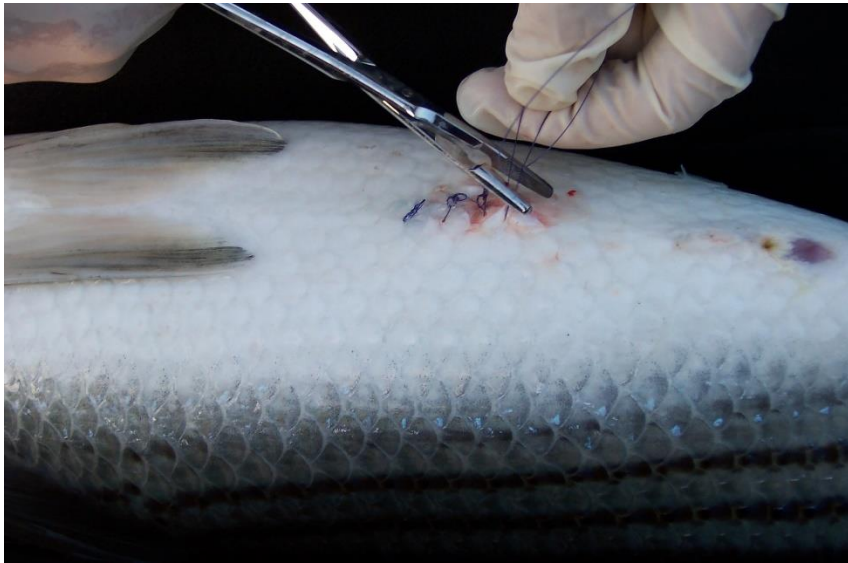
The seine is made of 3.17mm mesh nylon, measures 20m long and 1.8m deep, and has a 1.8m x 1.8m bag at its center.



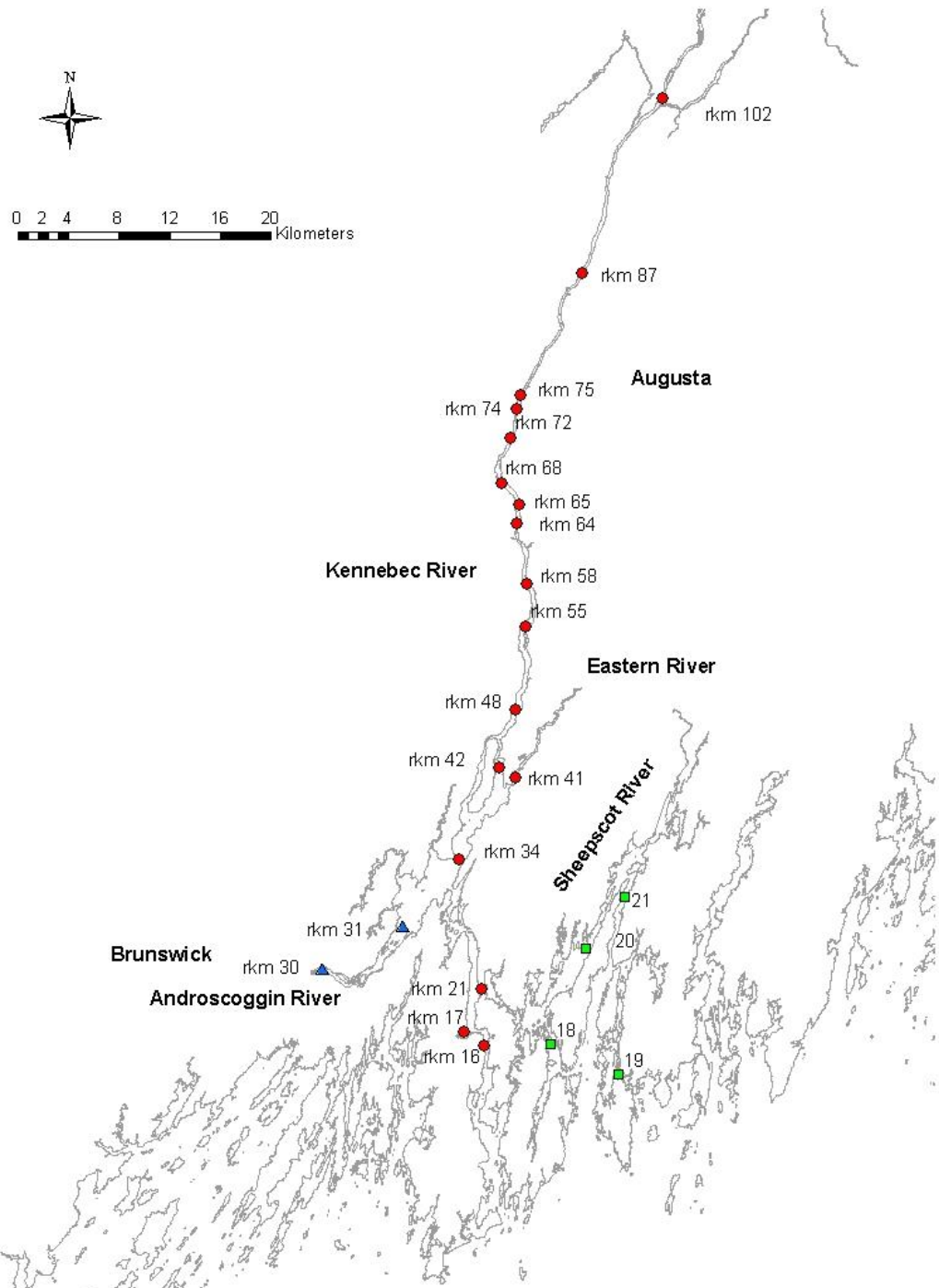


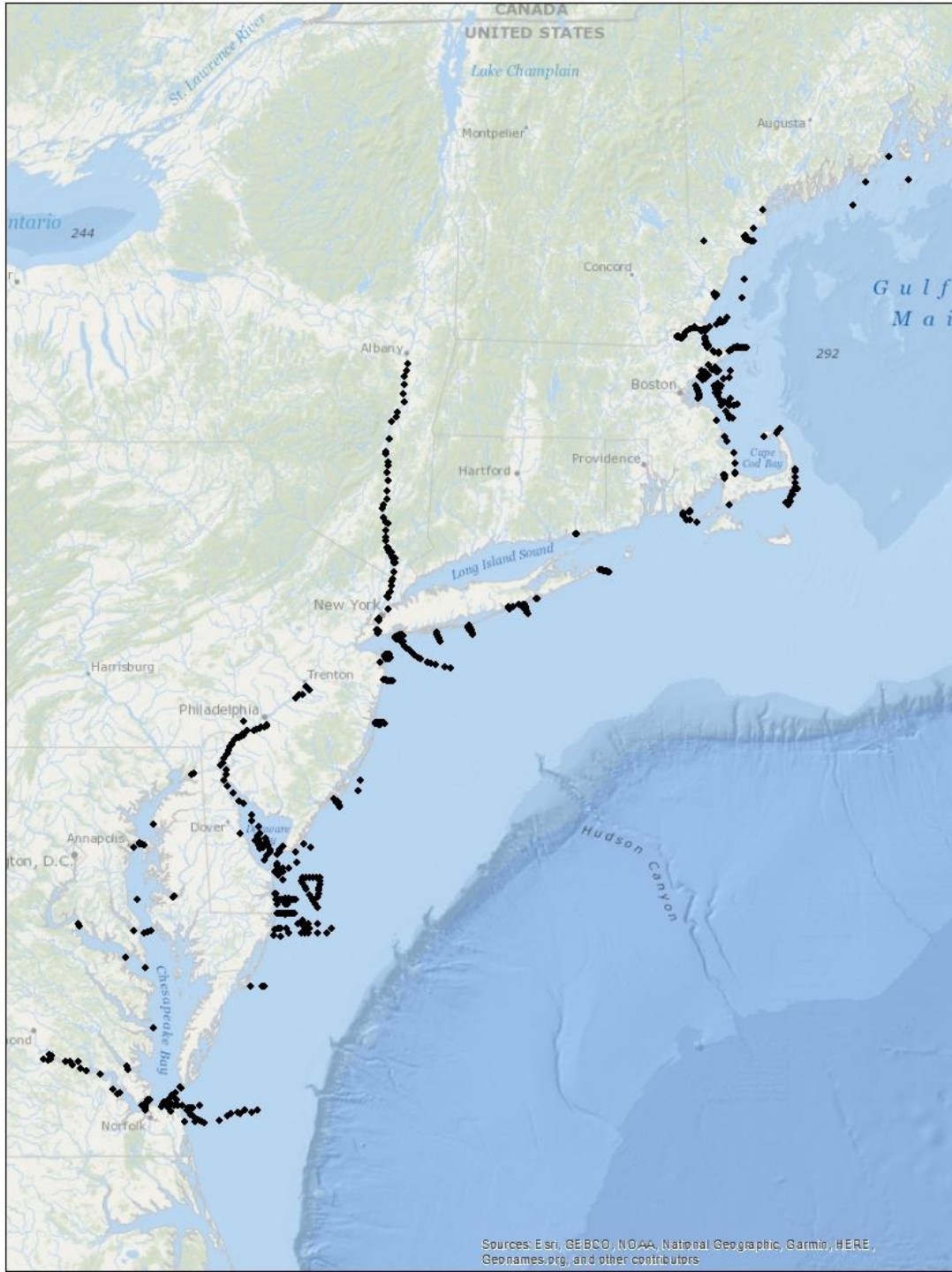
Acoustic telemetry study

- Objective: to locate, map, and characterize striped bass spawning habitat and overwintering habitat in the Kennebec and Androscoggin



Acoustic receiver locations in the Kennebec River





Atlantic Cooperative Telemetry (ACT) network receiver locations

>2 millions records
Save first and last detections at a receiver

~1000 receiver locations

ME

MA

LI

HR <60

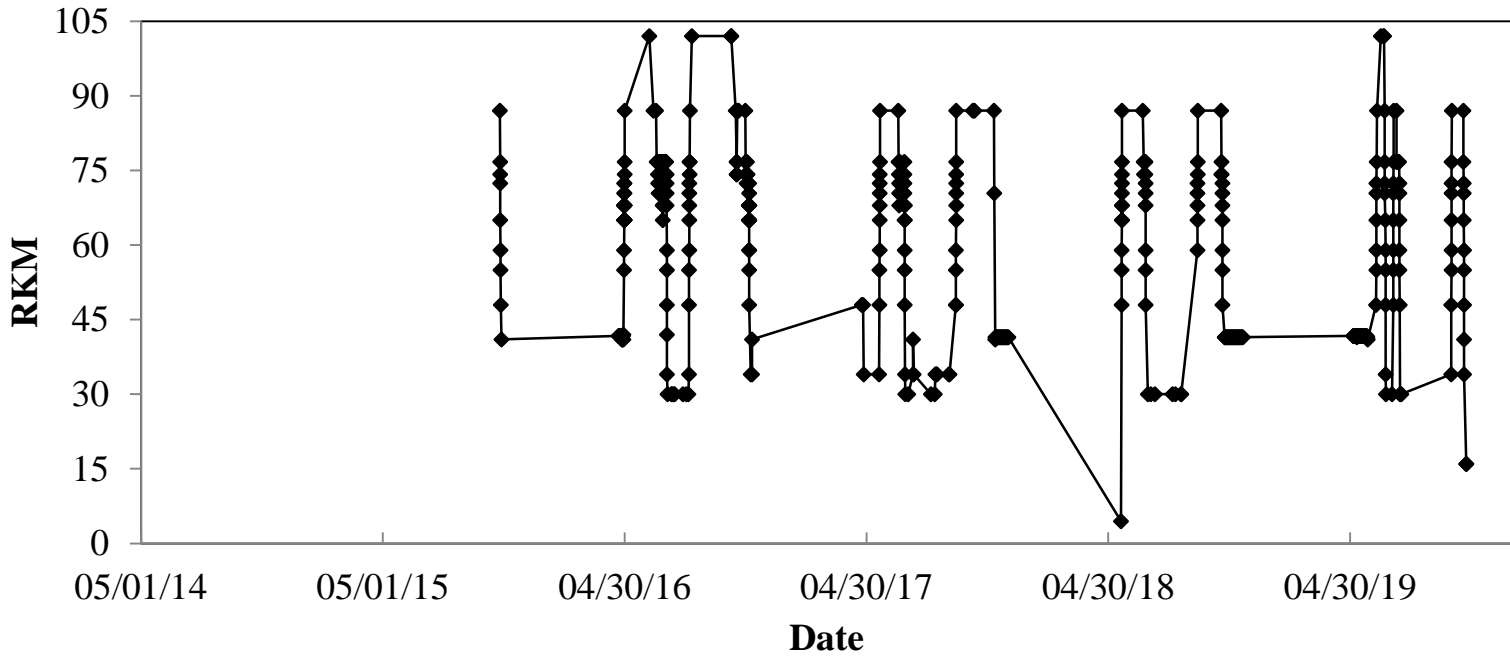
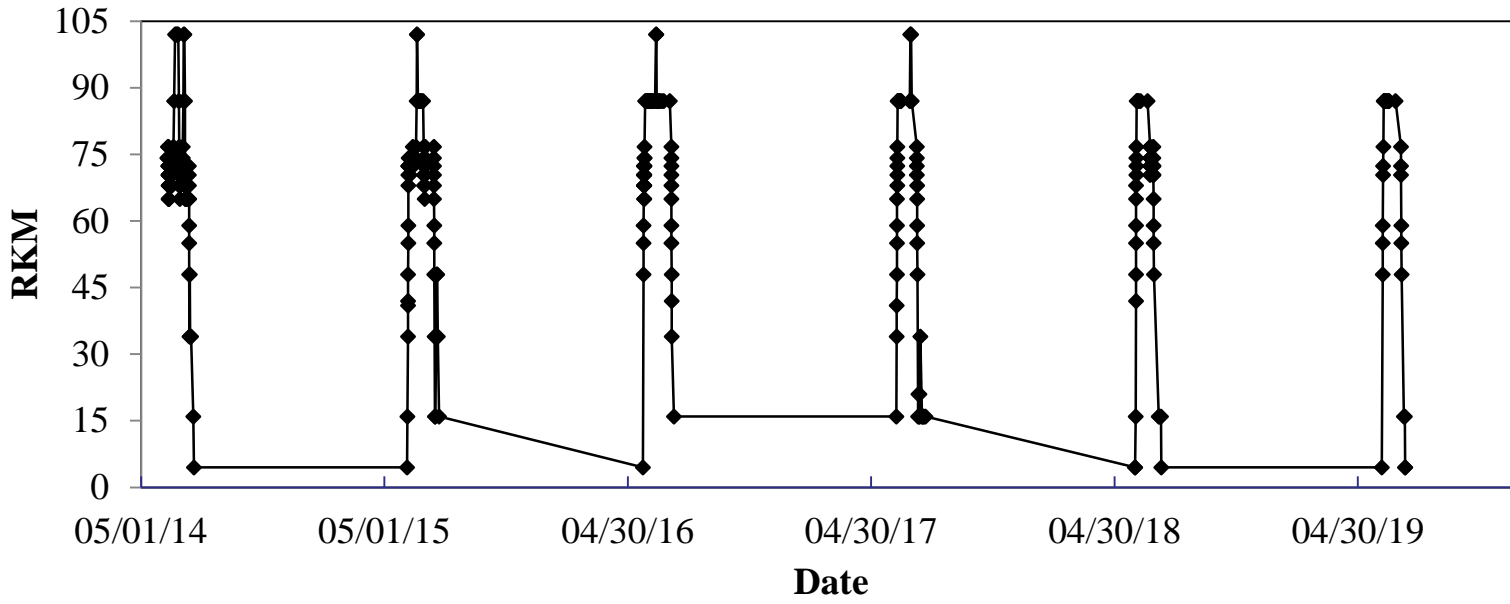
NJ

DE MD

VA-CB

Not so preliminary telemetry results

- 103 adult striped bass were caught and tagged in the Kennebec River between 2007 and 2018.
 - 3 fish not detected after 24 hours.
 - 100 tagged fish at large for 8-1,929 days (5.3 years) (689.0 ± 47.5 , mean \pm SE)
 - 49% in KR 1 year, 28% in KR 2 years, 11% in KR 3 years, 9% in KR 4 years
- Three geographical areas accounted for nearly 70% of the final detections (assumed death)
 - 34.2% in Maine (23% in the Kennebec River and 11% near the Saco River)
 - 16.2% in Massachusetts
 - 19.0% off the coast of Long Island.
 - ~20% in the Delaware and the Virginia-Chesapeake Bay region collectively
- Nearly all striped bass moved south in the late fall and moving north in the spring.
 - Two striped bass wintered in the Kennebec River in 2016 as did one in 2017.
- Fish left the Kennebec River and Gulf of Maine by November and moved north during May.
- Striped bass typically shifted farther south as winter progressed.
- Detections were greatest in the
 - LI, NJ, and DE regions in November;
 - NJ, DE, and MD regions in December;
 - DE, MD, and VA-CB regions in January; and
 - VA-CB region in February.



Spawning in other locations

- Hudson River above rkm 60 between April 15 and June 15
- Delaware River above rkm 50 between March 15 and May 15, or
- Chesapeake Bay tributary between March 15 and May 15
 - (Kneebone et al. 2014; Secor et al. 2020).
 - only fish that were detected at a spawning site for more than 7 days were included in the analysis (Wippelhauser's criteria).
- 19% detected in potential spawning areas in other river systems during known spawning periods.
 - 9% detected in the Hudson River, three in two consecutive years, and one in three consecutive years.
 - One of the fish detected in the Hudson River in 2013 was detected in Chesapeake Bay in 2015.
 - 5% were detected above rkm 50 in the Delaware River in a single year
 - 5% were detected tributaries of Chesapeake Bay in a single year.

Management Update

ASMFC–Striped Bass Board

- ▶ Striped Bass Board
 - ME–NC, PRFC, DC, NOAA, USFWS
- ▶ Voting
 - There are three commissioners per state
 - Commissioner Keliher (Megan Ware proxy)
 - Steve Train
 - Sen. Miramant
 - Each state gets one vote

ASMFC – Ways You Can Participate

- ▶ Next meeting is **May 5, 2021 from 1–4:30pm**
- ▶ You can listen to the meetings
 - Go to <http://www.asmfc.org/home/2021-spring-meeting-webinar> to register for the webinar
- ▶ Ways to comment
 1. Submit written comment or attend a public hearing as part of a Amendment or Addendum process
 2. Submit written comment ahead of a Board meeting no later than **5pm on April 27th**
 3. Provide public comment at meeting for items not on the agenda

ASMFC Draft Amendment 7

- ▶ At beginning of Amendment process
- ▶ A number of issues being considered
 - Goals/objectives
 - Reference points
 - Rebuilding
 - Management triggers
 - Regional management
 - Release mortality
 - Conservation equivalency
 - Recreational accountability
 - Commercial allocation
- ▶ Next steps are prioritizing issues in the draft Amendment and developing specific alternatives

ASMFC Draft Amendment 7

February 2021	Board reviews Public Information Document (PID)
February – April 2021	Public comment on PID
May 2021	Board reviews comment on PID; directs development of draft Amendment
May – September 2021	Development of draft Amendment
October 2021	Board review draft Amendment, considers approving it for public comment
November 2021 – January 2022	Public comment on draft Amendment
February 2022	Board review public comment, final action

Circle Hooks & Bait

- ▶ March Board meeting to provide greater guidance to states on Addendum 6 circle hook requirement
- ▶ Definition of Bait: Any marine or freshwater organism live or dead, whole or parts thereof
 - DMR plans to add earthworms, including night crawlers
- ▶ Circle hook requirement does not apply to artificial lures with bait attached
 - DMR plans maintain circle hook exemption for rubber and latex tube rigs
- ▶ Striped bass incidentally caught by any unapproved hook type must be immediately released
 - DMR plans to include
- ▶ DMR plans to incorporate changes via concurrent emergency and regular rulemaking

Time for Open Discussion

MRIP Data – Maine by Mode

