

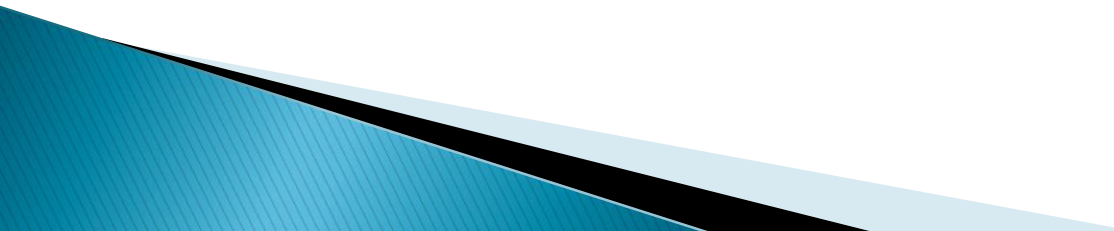
Striped Bass Stakeholder Meeting

June 4, 2024



www.maine.gov/dmr

Agenda

- ▶ Intro new DMR staff
 - ▶ Opportunities for stakeholder involvement
 - ▶ 2023 Volunteer Angler Logbook results
 - ▶ Management updates
 - ▶ 2023 preliminary MRIP data
 - ▶ Temperature and striped bass
 - ▶ Canadian management of striped bass
 - ▶ Open discussion
- 

MA DMF catch & release mortality study

Help us conserve striped bass!



Become a citizen scientist and help biologists understand why striped bass die after they are released.

We are seeking volunteer anglers to record data while fishing for striped bass.

- We'll provide a kit and instructions to help you record the data we need.
- Submit your first report and get a pair of fishing pliers as a thank-you gift.
- Continued participation will keep you entered into weekly raffle prize drawings.

Participate for a chance to win a Shimano rod and reel combo and other prizes!



Sign up now at:
mass.gov/striper



Got guts?

Help document what striped bass are eating in Maine coastal waters



Contact:

Michelle Staudinger, Michelle.Staudinger@maine.edu

Abby Remick, Abrielle.Remick@maine.edu



Donate your fileted racks with the stomach and other organs

Instructions:

- 1) Put fish in plastic bags, keep on ice and/or freeze
- 2) Label w/ capture date and location
- 3) Drop off at a partner location and/or we will come pick it up

If you don't want to save the whole rack, put the stomach in a plastic ziplock bag and label the outside with date, location, length, sex (if known).

For sampling supplies, more information or questions:

<https://umaine.edu/staudingerlab/projects/striper-diet-study/>

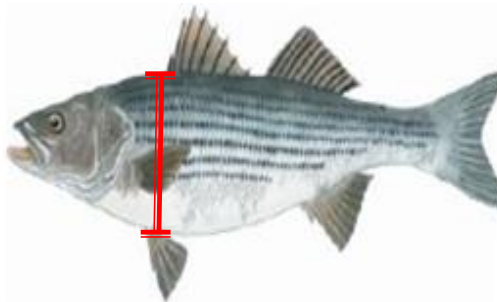
Michelle Staudinger, Michelle.Staudinger@maine.edu; Abby Remick, Abrielle.Remick@maine.edu



GMRI: what are we up to?

- ▶ Striped bass work mostly around stock structure, **Snap-a-Striper** program
- ▶ Pairing morphometric photos with otolith chemistry

‘Basketballs’



Residents
(deep bodies, short
heads)

‘Torpedoes’



Migrants
(shallow bodies, long
heads)

In reality, differences are very subtle and mostly not evident to the naked eye

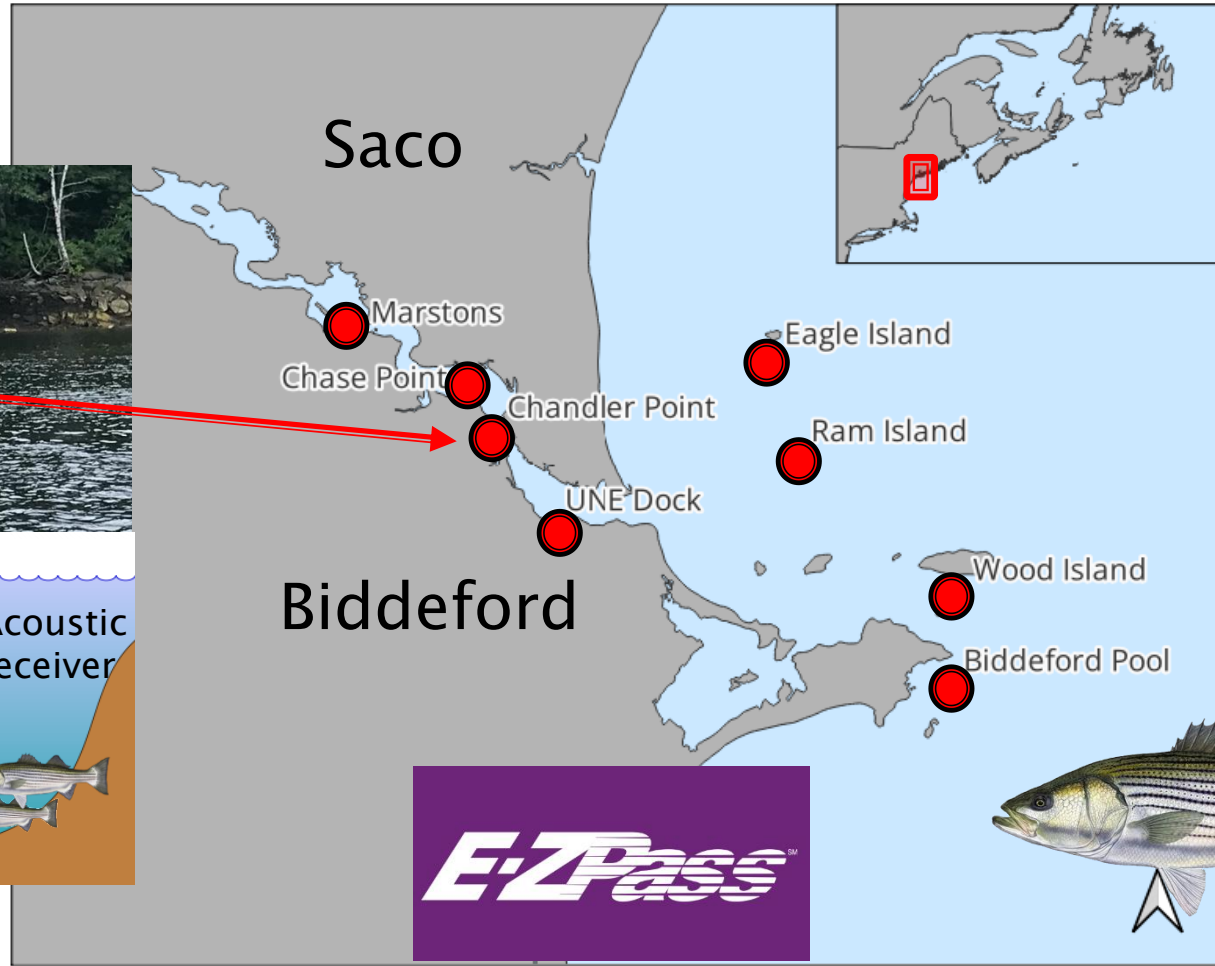
GMRI: what are we up to?

- ▶ Partnering with UNE for next iteration, Mail-a-Scale
- ▶ Otolith and scale chemistry from Maine adult fish and young-of-year samples from major spawning populations
- ▶ Also some diet work using stomach contents and stable isotopes
- ▶ Please consider donating heads, stomachs, and racks from legally harvested striped bass!
- ▶ Contact: zwhitener@gmri.org

Saco River Acoustic Telemetry Study



UNIVERSITY OF
NEW ENGLAND



Research questions:

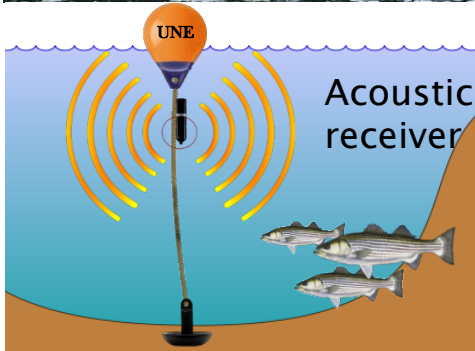
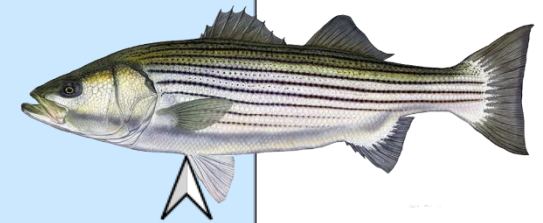
Where do fish come from?

Where to fish go?

When do fish arrive, leave?

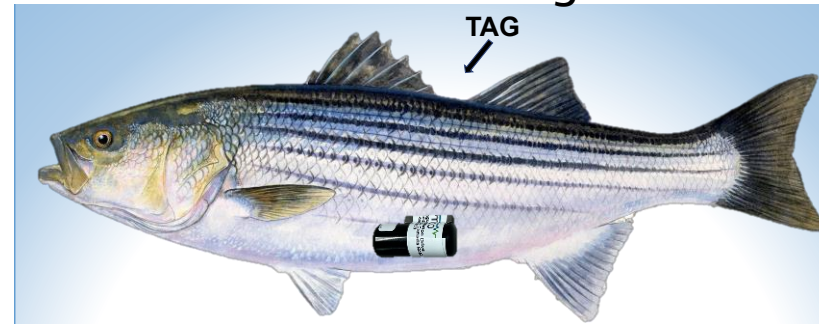
Influence of temperature?

Survival rates?



Striped Bass Tagging

30 fish tagged in 2022 and 2023
32 additional fish to tag 2024



If you catch a tagged fish:
Record **tag #**, location, date
Call 207-602-2730 to report

Volunteer Angler Logbook

- ▶ ME DMR Volunteer Angler Logbook
 - Collect length, effort, catch data
 - Print and electronic options
- ▶ Contact: Chris Uранеck
 - chris.b.uraneck@maine.gov



ME Department of Marine Resources

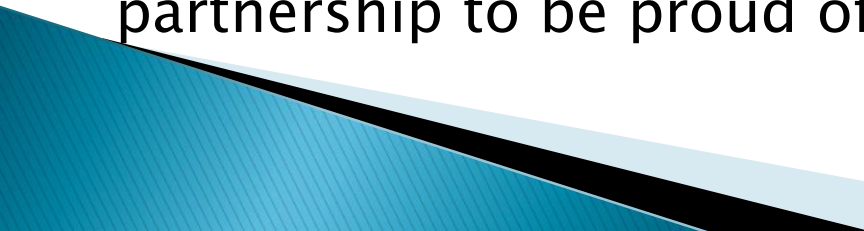
2024 VOLUNTEER ANGLER LOGBOOK




2023 Volunteer Logbook

The primary goal of the survey is to collect additional length, catch & effort data for striped bass. Indeed, our field staff sees a limited number of these fish each season due to size and bag limits for this species as well anglers opting for catch and release.

Striped bass length, catch and effort data coming in from volunteer anglers like you are very valuable to Maine managers. In addition, the striped bass length frequency data coming from this program is also submitted annually to the Atlantic States Marine Fisheries Commission (ASMFC) to aid in their assessment of the striped bass population. This is an angler, science, and management partnership to be proud of.



2023 Volunteer Logbook

- ▶ 39 participants who submitted data (both paper copies and electronic)
 - ▶ 1,301 trips targeting striped bass as either the primary or secondary target.
 - ▶ 2,010 striped bass were reported caught.
 - ▶ 5% (107) were kept and 95% (1,903) were released.
- 

2023 Volunteer Logbook

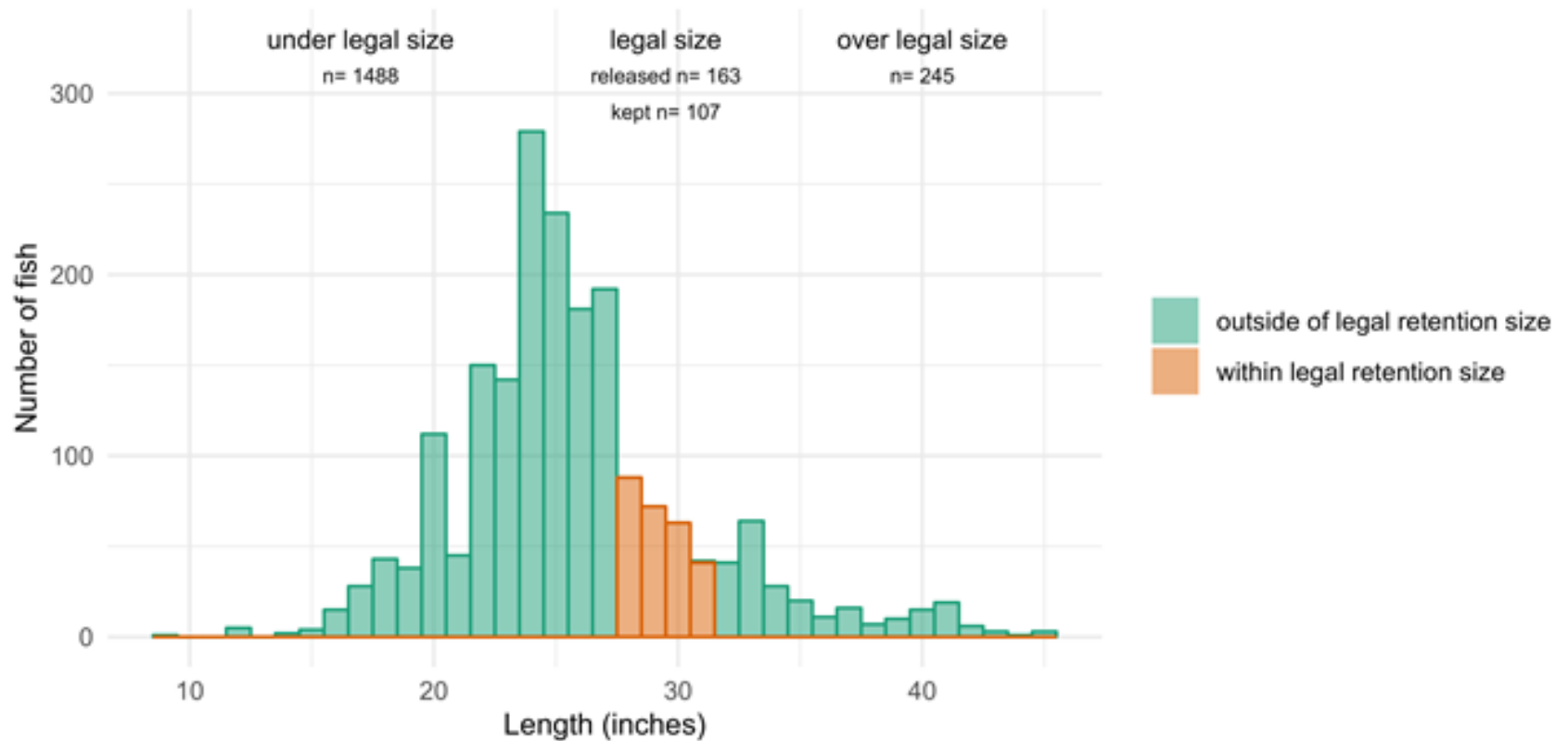
Size	Estimated lengths	Measured lengths	Total striped bass	Percentage
Less than 28"	304	1163	1488*	74.29%
Between 28 and 31"	30	238	270*	13.48%
Greater than 31"	12	233	245	12.23%

Maine striped bass length frequency bins 2023

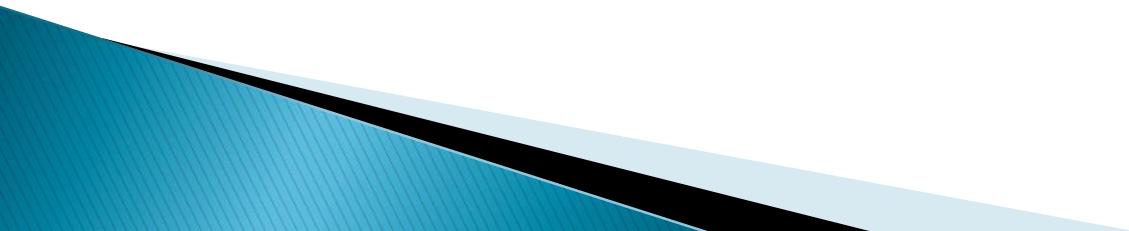
Size	9 – 19"	20 – 29"	30 – 39"	40 – 49"
# of fish	135	1,518	302	48
% of fish	6.7%	75.8%	15.1%	2.4%

2023 Volunteer Logbook

**2023 Maine Striped Bass Length Frequency
(measured and estimated lengths)**



Management Updates



Atlantic States Marine Fisheries Commission (ASMFC)

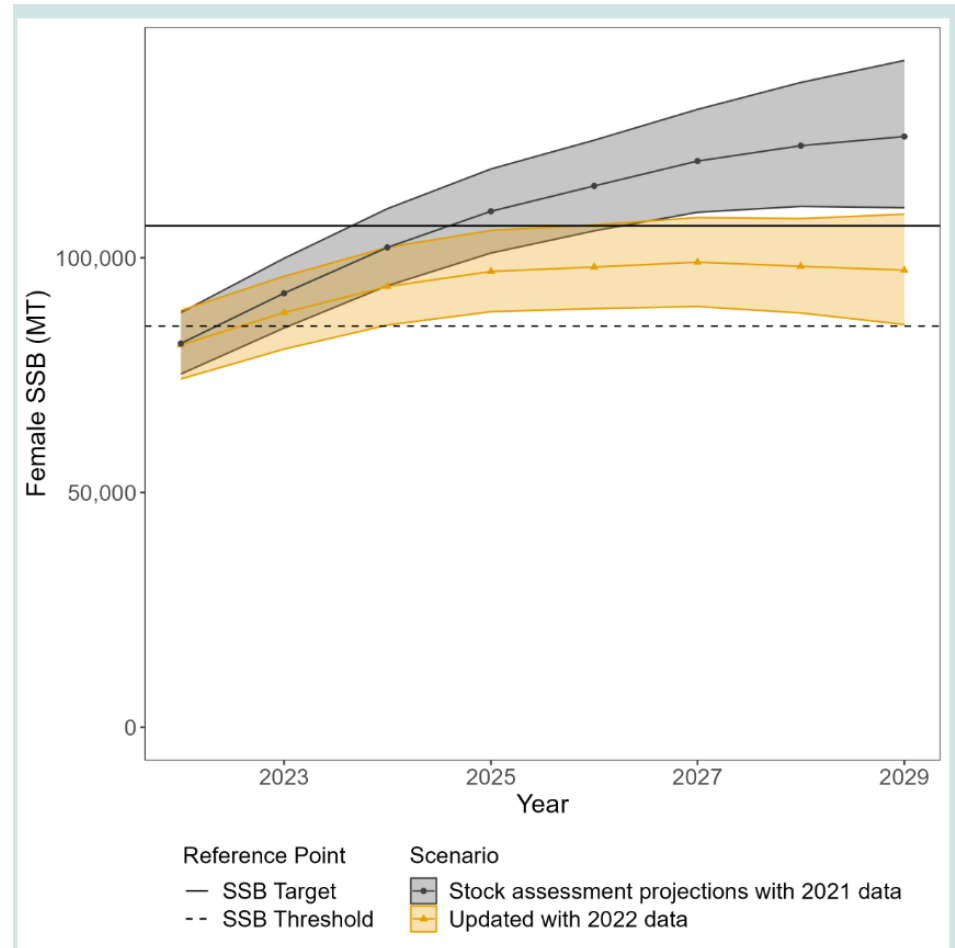


- Quarterly meetings
- Striped Bass Board is ME through NC (16 votes)
- Maine Commissioners for striped bass
 - Megan Ware (proxy for Commissioner Keliher)
 - Rep. Hepler
 - Steve Train

<https://www.thefisherman.com/asmfc-approves-emergency-striper-regs-one-fish-from-28-to-31-inches/>

May 2023: ASMFC Emergency Action

- ▶ Updated projections showed reduced probability of rebuilding by 2029
- ▶ ASMFC Board implemented a 31” max size in rec fishery to reduce harvest on 2015 year-class



Jan 2024: ASMFC Addendum II

- ▶ Incorporated emergency action into Striped Bass FMP, and took additional action to promote stock rebuilding
 - Ocean rec fishery: 28”–31” slot limit (maintained emergency action measures)
 - Chesapeake Bay rec fishery: 19”–24” slot limit and one fish bag limit
 - Commercial fishery: 7% quota reduction
 - Established requirements for recreational filleting
- ▶ Big step towards unifying Chesapeake Bay rec measures

March–May ASMFC Board Activities

- ▶ Addendum II implementation date was May 1
 - Approved state implementation plans
- ▶ Work group formed on rec release mortality
 - Not a decision–making group
 - Report at October 2024 Board meeting
 - Tasks:
 - Review impacts and enforceability of existing no targeting closures
 - Review MA DMF gear study
 - Identify assessment sensitivity runs to inform Board discussion on release mortality
 - Consider public scoping

Looking Forward at ASMFC

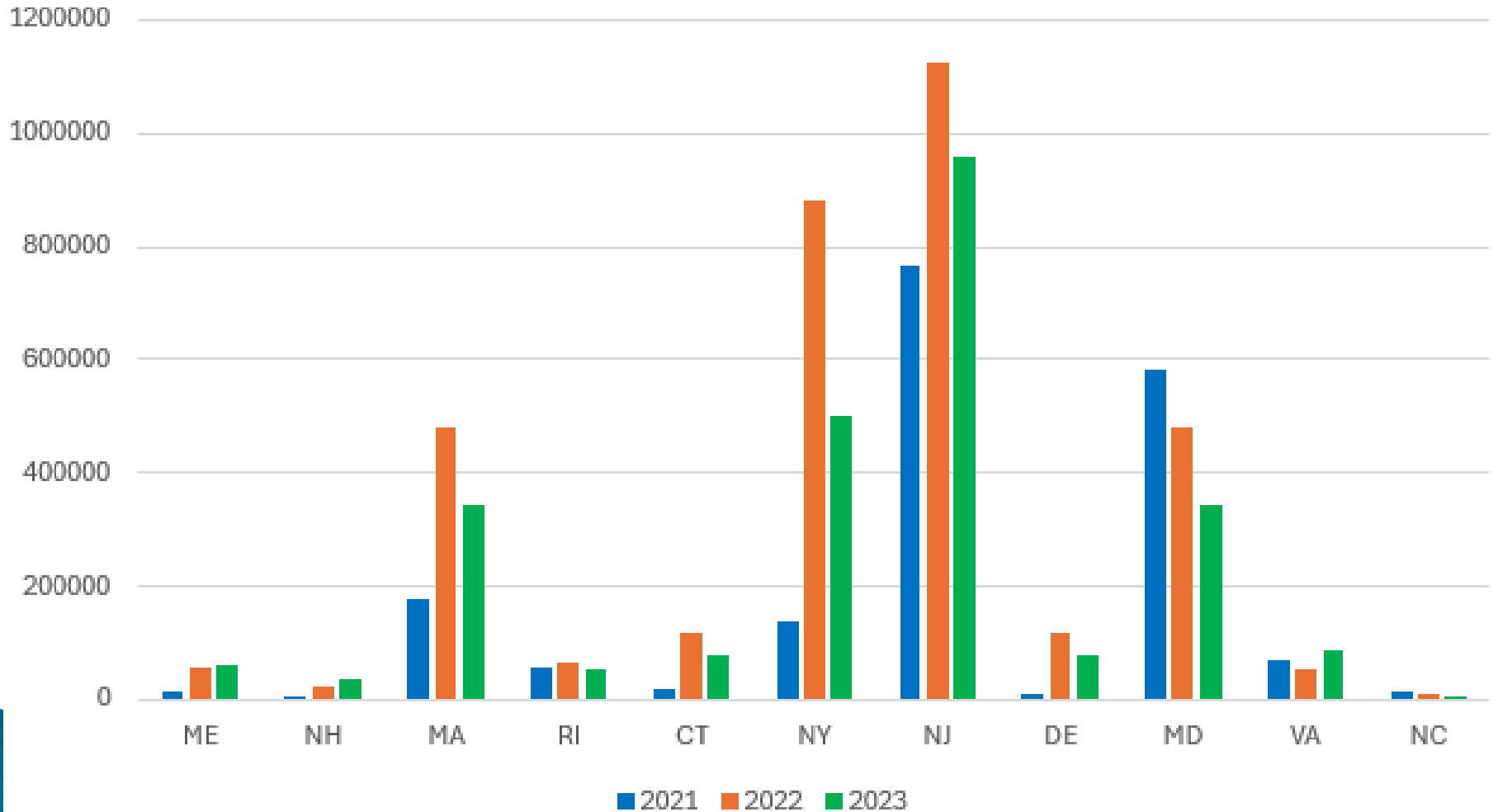
- ▶ Next stock assessment scheduled to be presented October 2024
 - What do the projections indicate is our probability of rebuilding by 2029?
 - Can we start to see a positive impact from the emergency action in 2023?
 - Are additional measures necessary to rebuild by 2029?
- ▶ Board meetings open to public and can stream online!

Maine State Regs for 2024

- ▶ No changes in state regs from 2023
- ▶ 28”–31” slot limit already in place
- ▶ Saco River Closure
 - June 10, 2023 – took emergency action to expand an existing area on the Saco River closed to fishing
 - To prevent high levels of catch and release mortality observed
 - Adopted via regular rulemaking August 2023

2023 MRIP – Preliminary Harvest

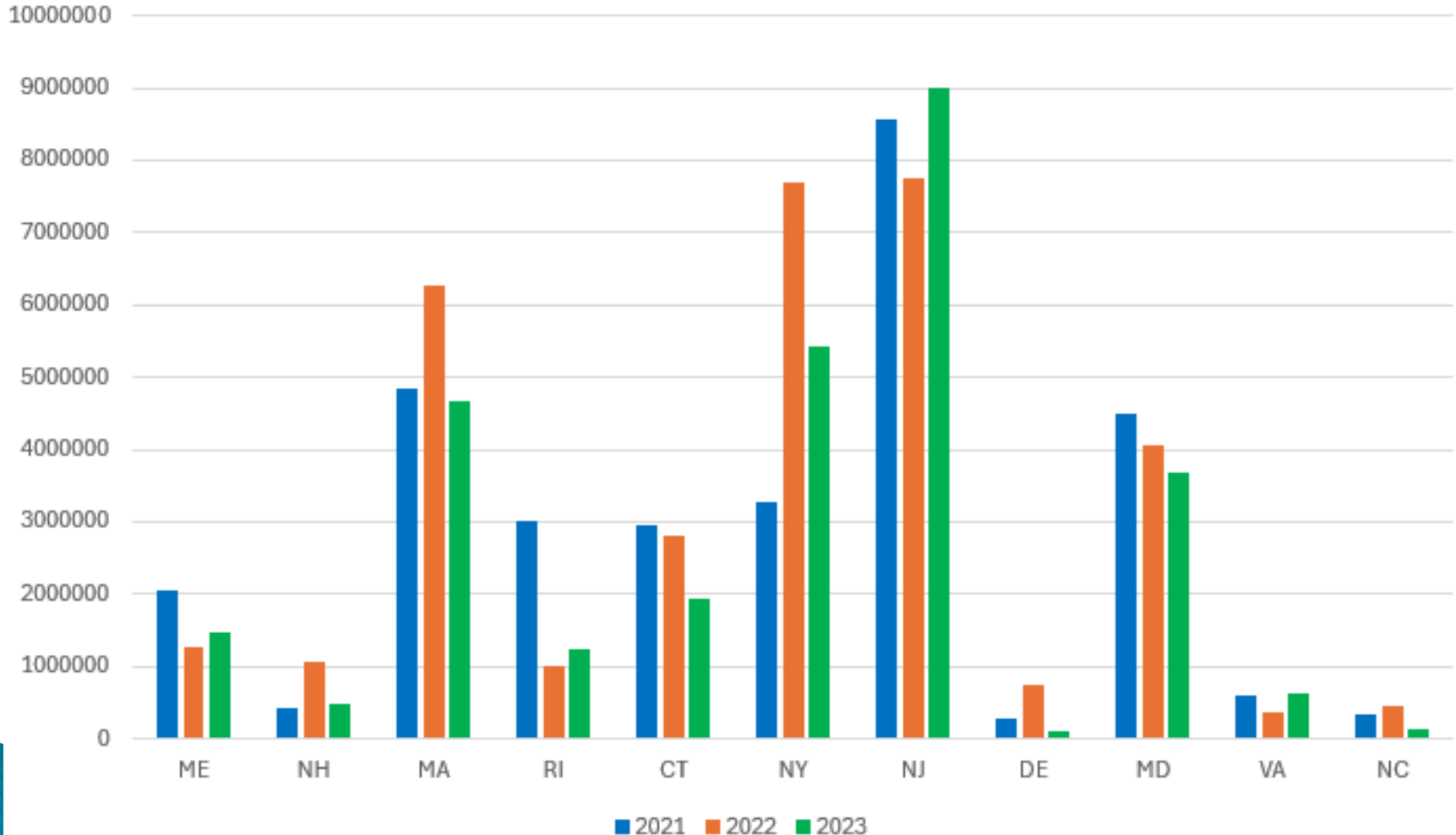
Rec Harvest (#s of fish)



2021 = 1,858,387 fish; 2022 = 3,482,817 fish; 2023 = 2,630,748 fish

2023 MRIP – Preliminary Total Catch

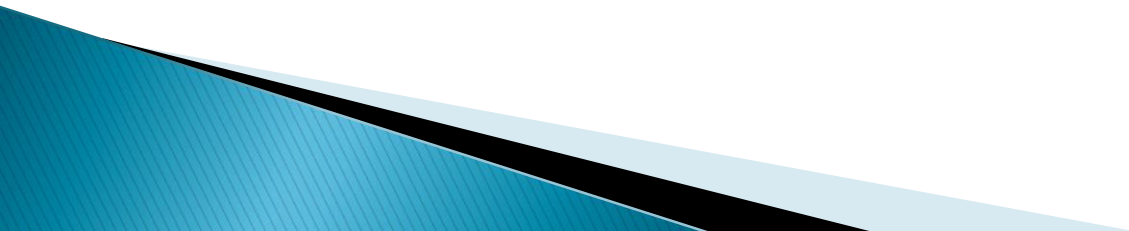
Rec Catch (#s of fish; includes discards)



MRIP – Maine Rec Targeting Striped Bass

Year	Trips	Total catch
2021	1,264,075	2,061,987
2022	1,374,577	1,268,466
2023	1,800,528	1,474,293

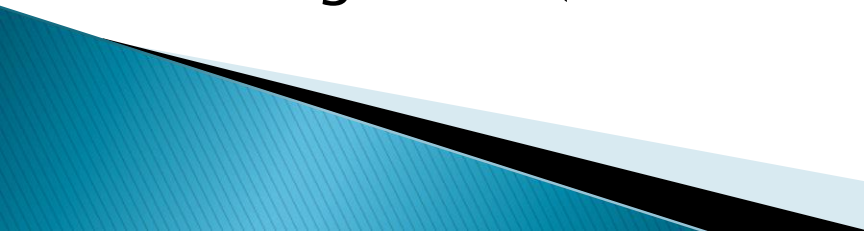
Impact of Temperature on Striped Bass



Climate Change Potential Effects

- ▶ Increased vulnerability due to
 - complex reproductive strategy
 - short duration aggregate spawning
 - sensitivity to temperature
 - prey-specifications
 - larval requirements
- ▶ Extreme weather events effect
 - Growth/Mortality
 - Transport/Abundance
 - Migration

Water Temperature Effects

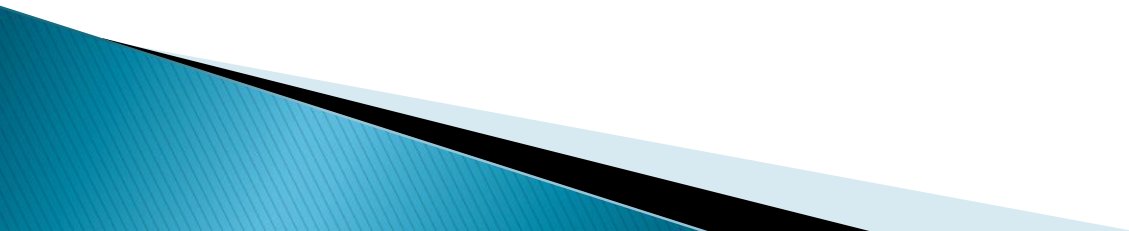
- ▶ Temperature links to
 - Time to hatch
 - Mortality (egg, larval, adult)
 - Release mortality
 - Growth (especially larval)
 - Yolk utilization
 - Activity level
 - Metabolic rate
 - Feeding
 - Habitat suitability
 - Migration (vertical and seasonal)
- 

Water Temperature Effects

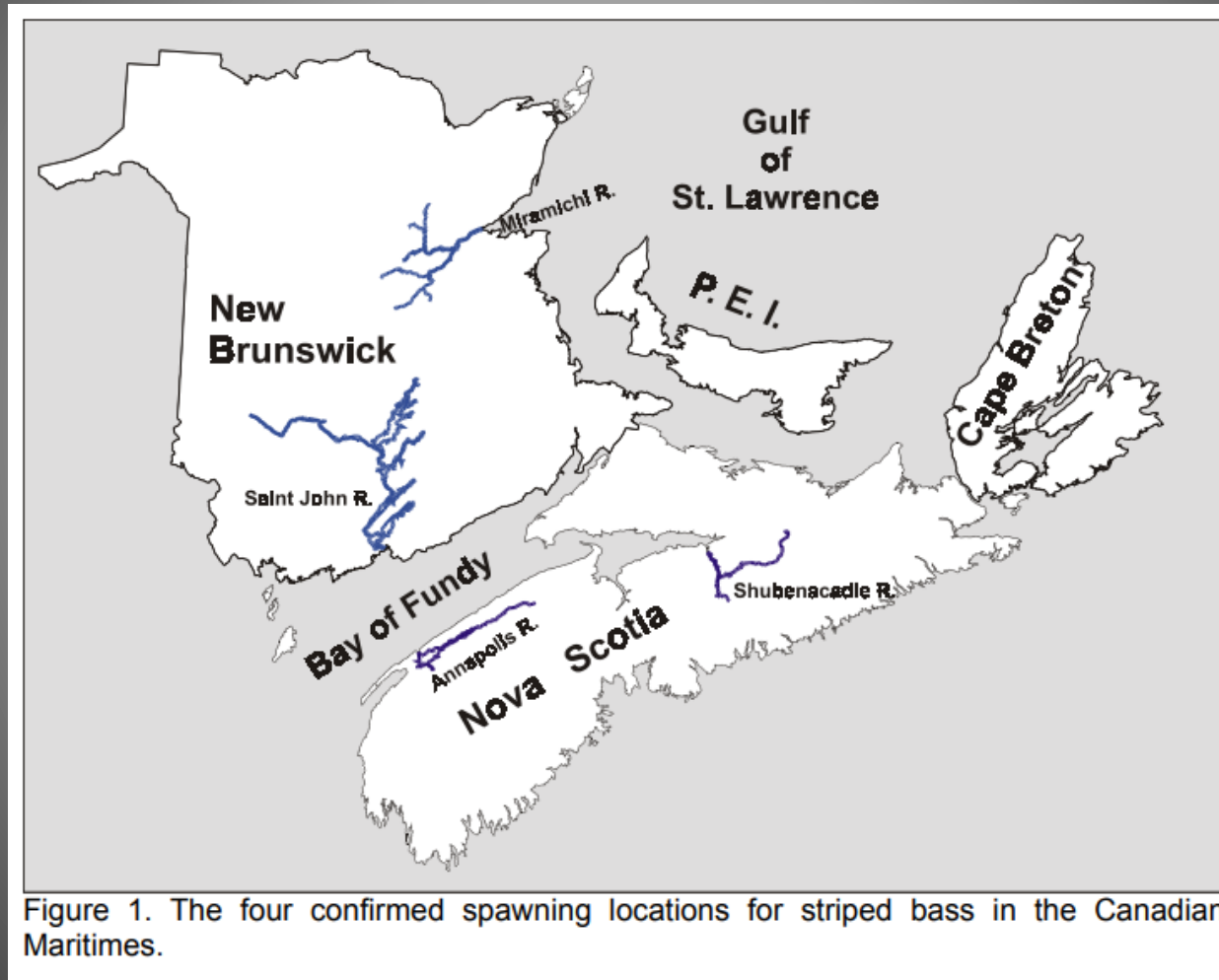
- ▶ Spawning temperature
 - 50–73°F
- ▶ Egg hatch
 - 57–59°F : 70–74 hours
 - 64–66°F : 48 hours
 - 69–72°F : 30 hours
- ▶ Recruit success depends on:
 - Over–winter temperatures
 - Hydrologic conditions
 - Zooplankton availability
- ▶ Mortality increases with sea surface temperature
 - Average summer $\geq 29^{\circ}\text{C}$ causes a $> 90\%$ cohort mortality in 1 year



How Does Canada Manage Striped Bass?



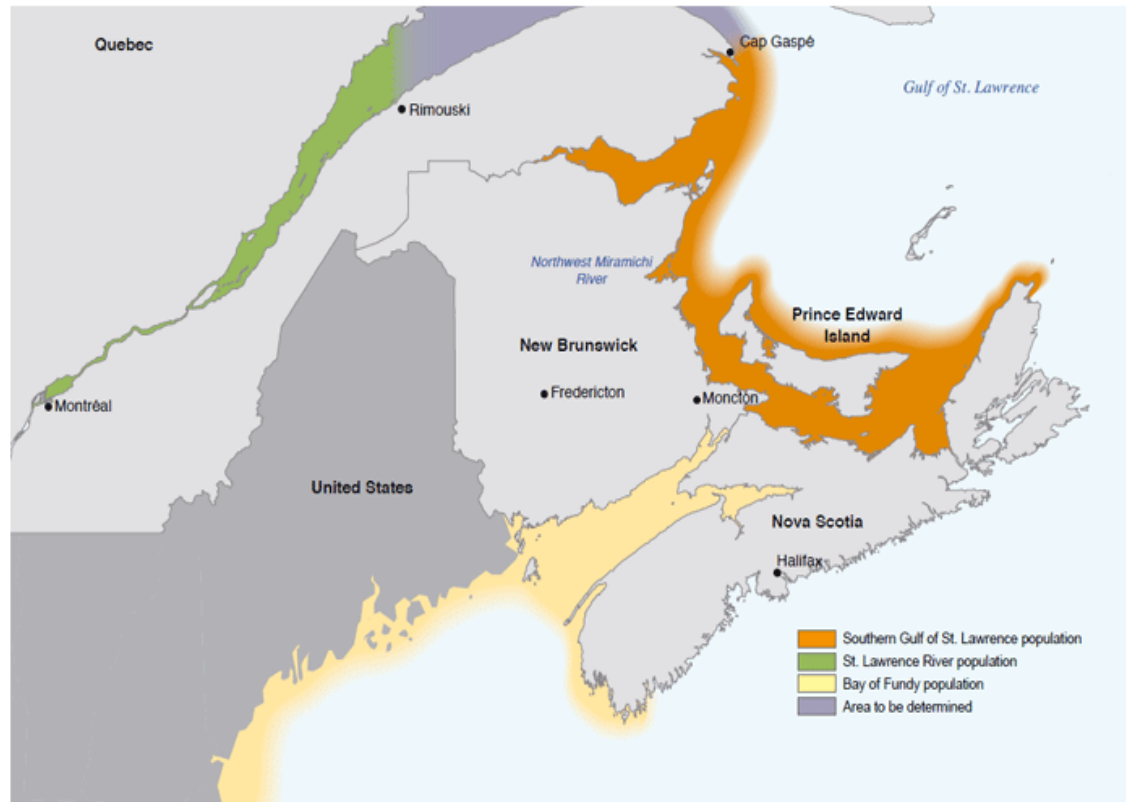
Canada Maps and Figures



Canada Management

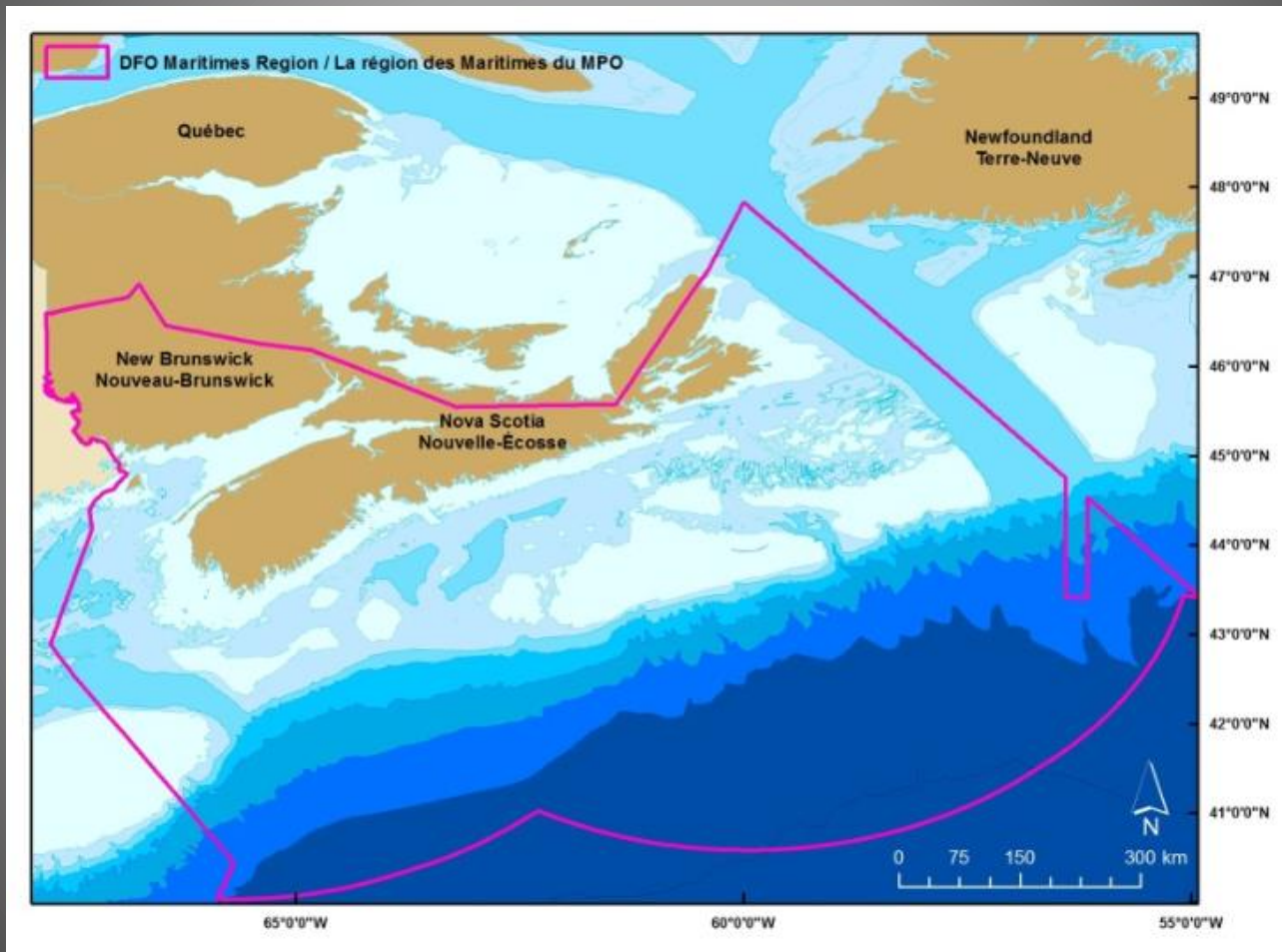
- ▶ 5 populations
 - ▶ 3 population units
 - ▶ 2 management regions
- 

Canada Maps and Figures



Striped Bass management units or 'populations' in Canada - *Government of Canada, 2014*

Canada Maps and Figures



Canada Management

▶ Maritimes Region

- Open year-round
- Angling only
 - May 10–June 10 only artificial fly or unbaited lures with a single hook in Shubenacadie River and Stewiacke River
- 1 fish per day $\geq 68\text{cm}$ (27.7 in)
 - May 10–June 10 catch and release only in Grand Lake and Shubenacadie River (spawning closure)
- No license required for tidal waters

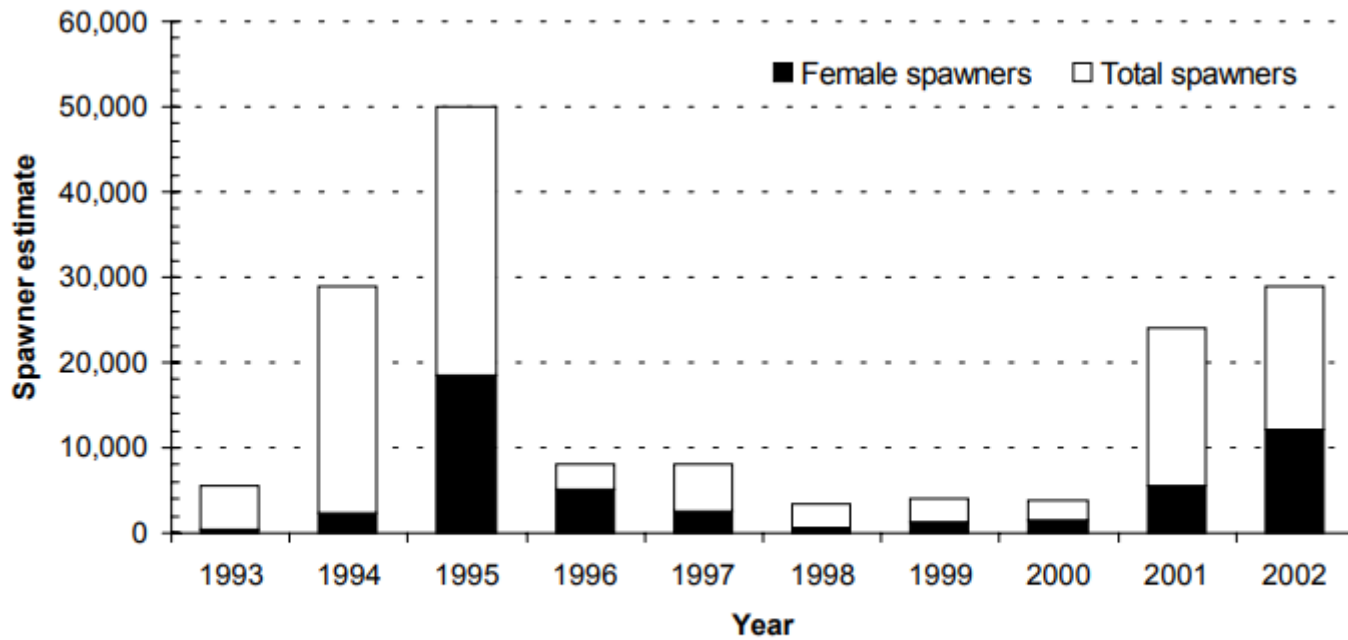


Figure 4. Spawner estimates for NW Miramichi striped bass since 1993.

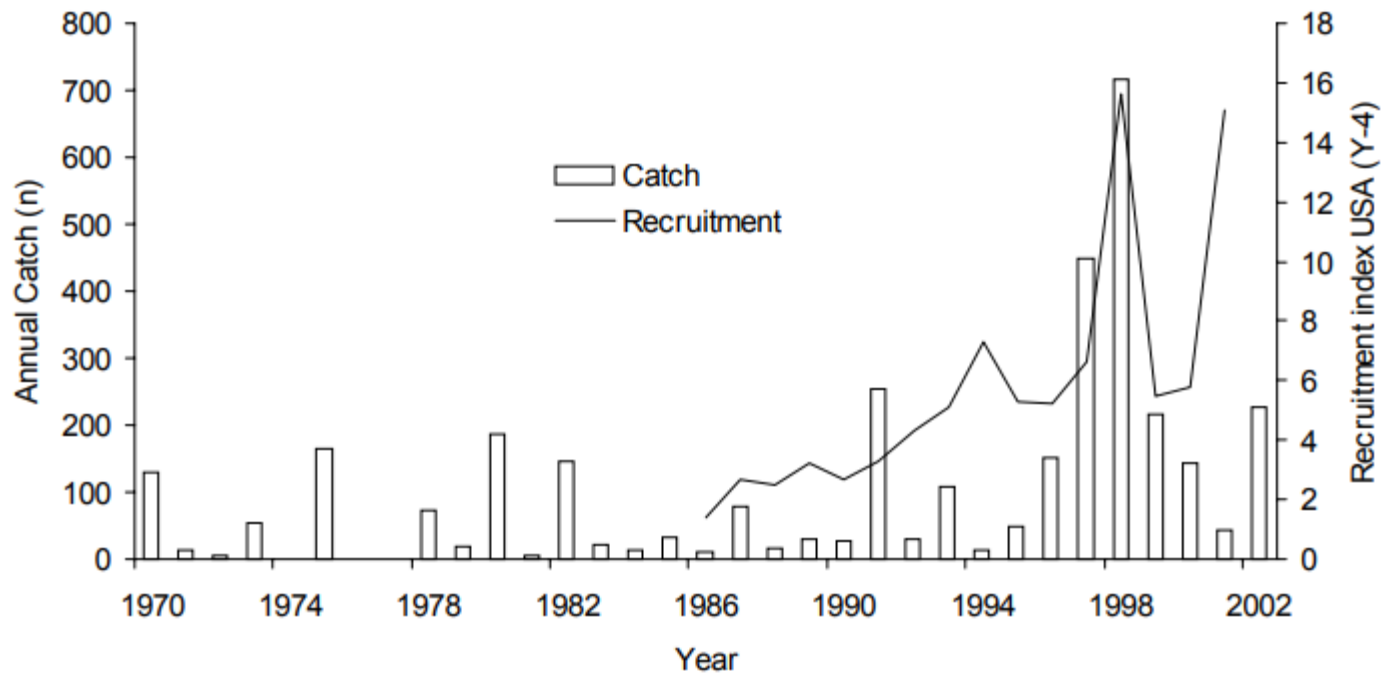


Figure 11. Striped bass catch at Mactaquac Dam and the aggregate recruitment index of U.S.A. striped bass 4 years previous.

Open Discussion

- ▶ How has fishing been in Maine?
 - ▶ Are there any concerns we should be addressing in Maine to promote sustainability of the stock?
 - ▶ As we look forward to the next ASMFC stock assessment, what are your concerns, thoughts, feedback? What would you want to tell your Maine ASMFC Commissioners?
- 