



2023 Data Update and Steps Moving Forward for Striped Bass in the Albemarle Sound & Roanoke River

DEPARTMENT OF ENVIRONMENTAL QUALITY

Marine Fisheries

N.C. Marine Fisheries Commission | Nathaniel Hancock & Charlton Godwin | November 2023

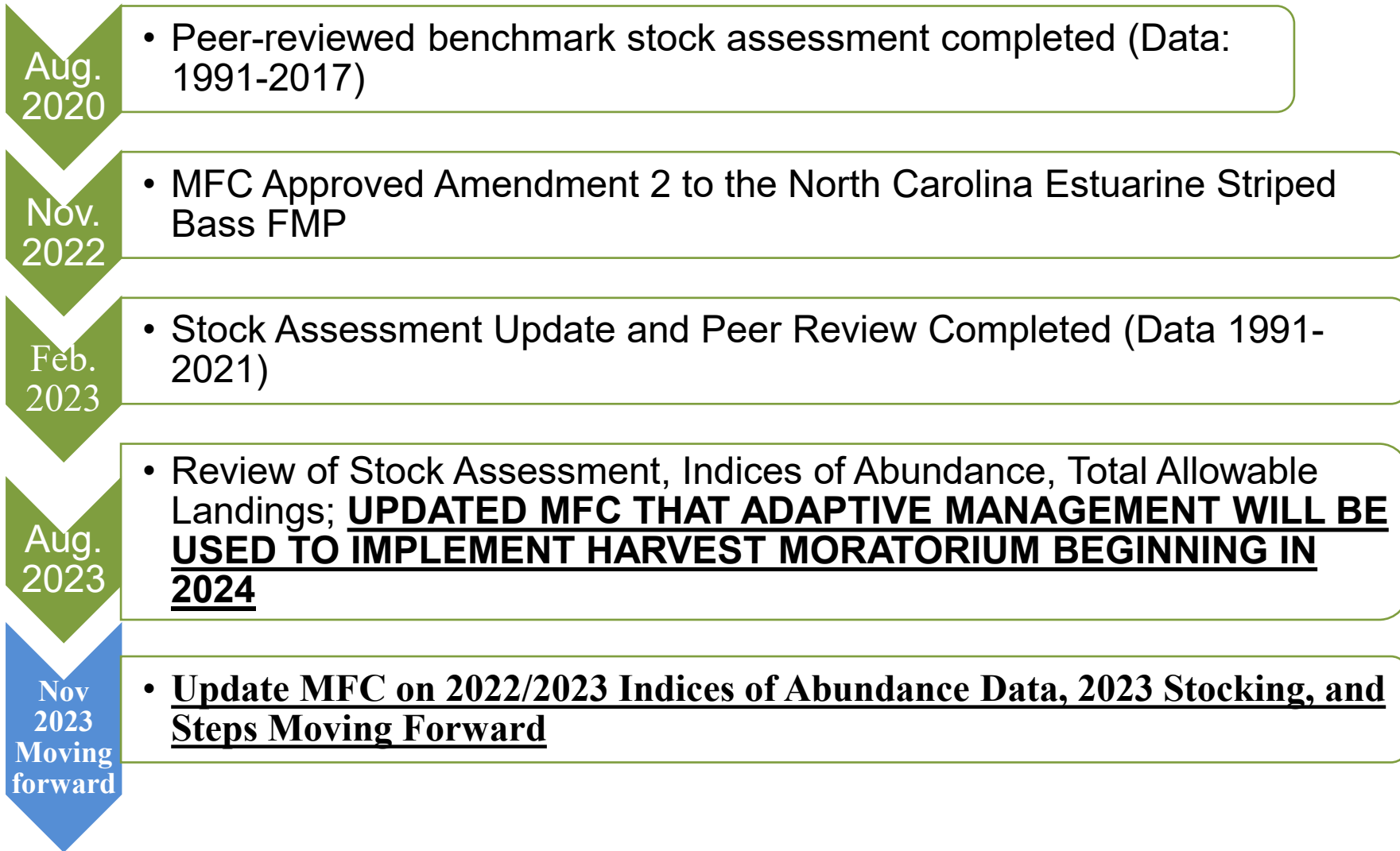


PRESENTATION OUTLINE

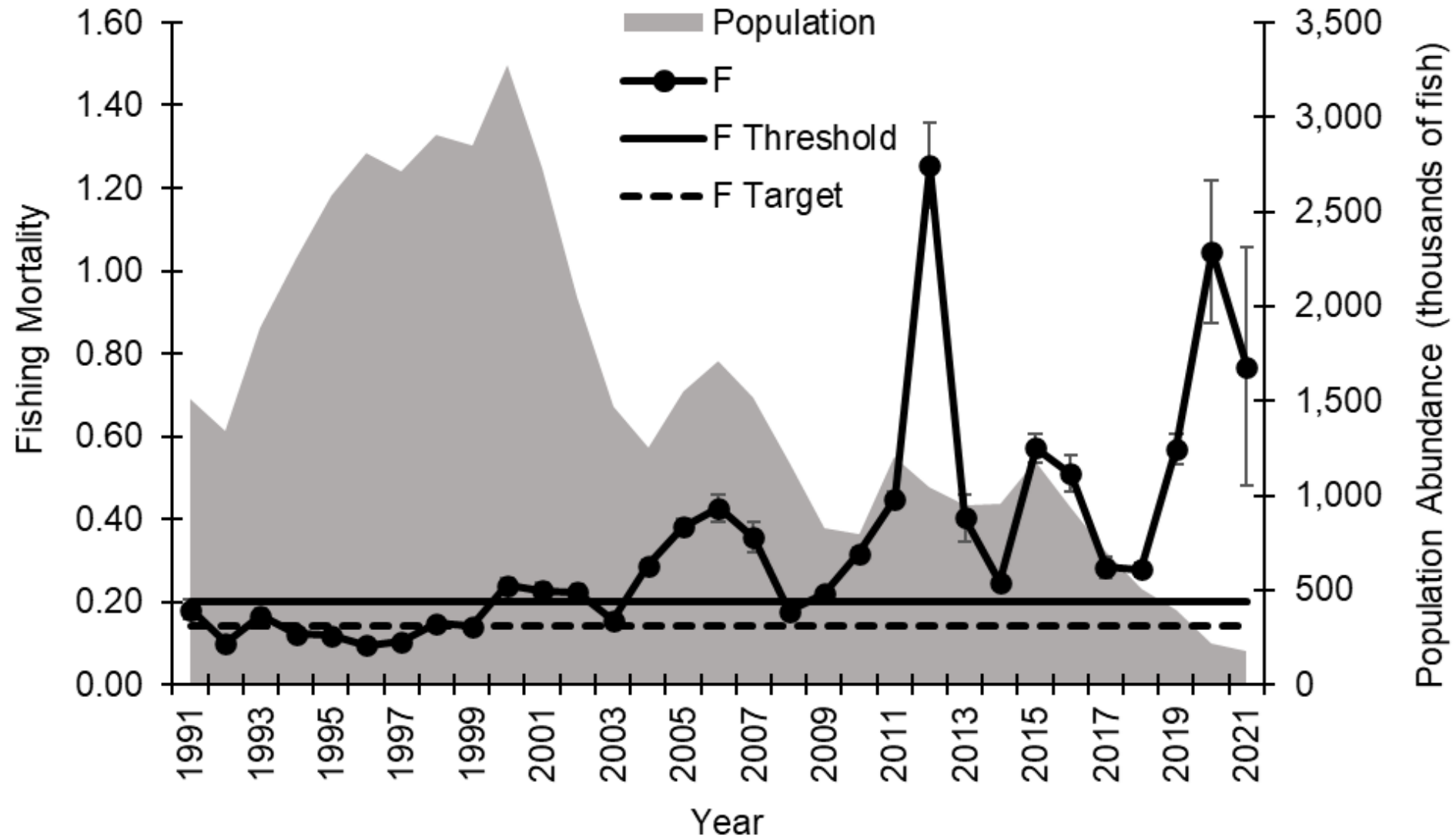
- REVIEW WHERE WE ARE AND HOW WE GOT HERE
- **CURRENT HARVEST MORATORIUM**
- 2023 LANDINGS AND SURVEY DATA UPDATE
- 2023 STOCKING UPDATE
- ADDITIONAL RESEARCH UPDATE
- STEPS MOVING FORWARD



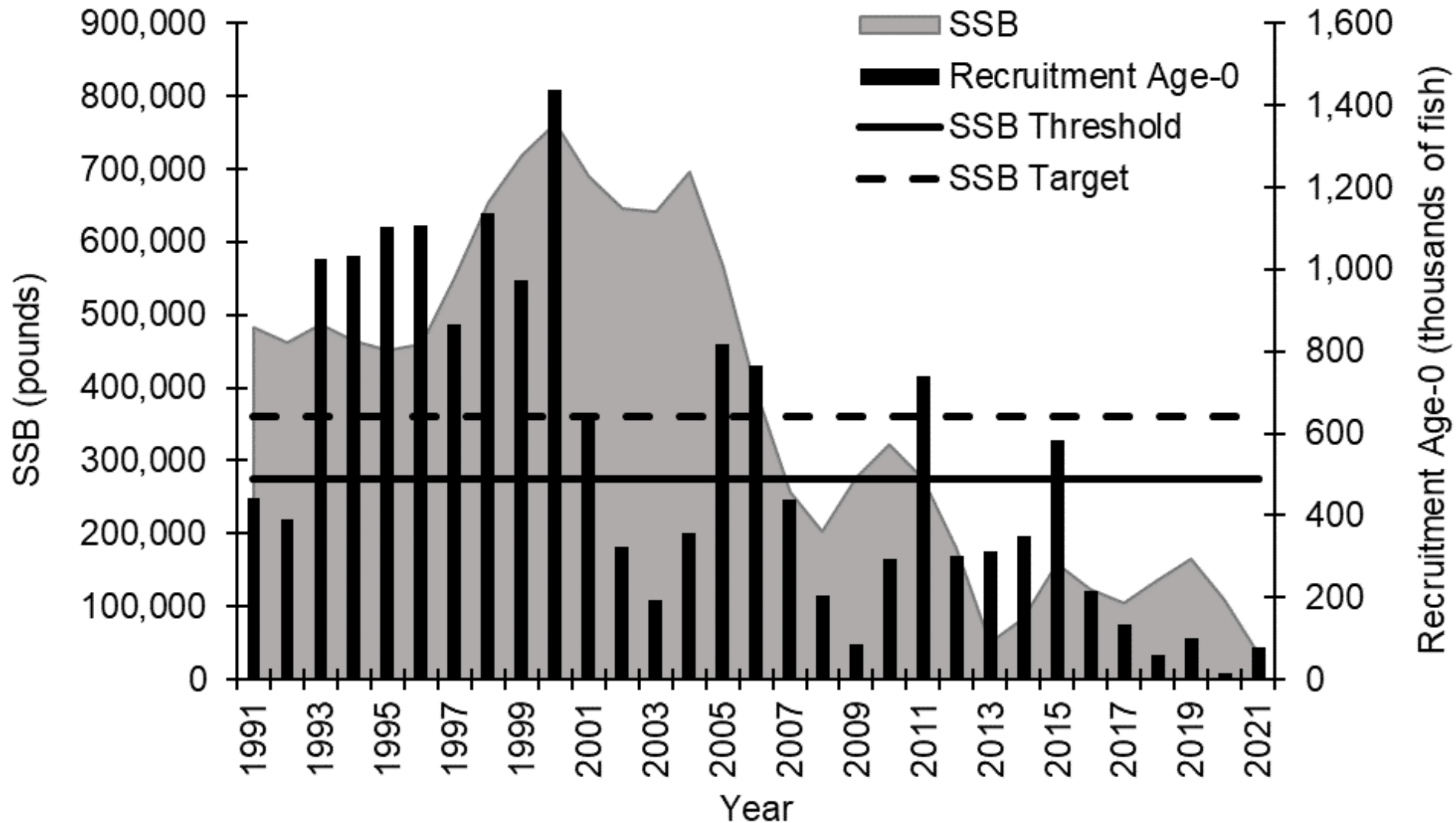
Where We Are & How We Got Here



Population Abundance and Fishing Mortality



Spawning Stock Biomass and Recruitment



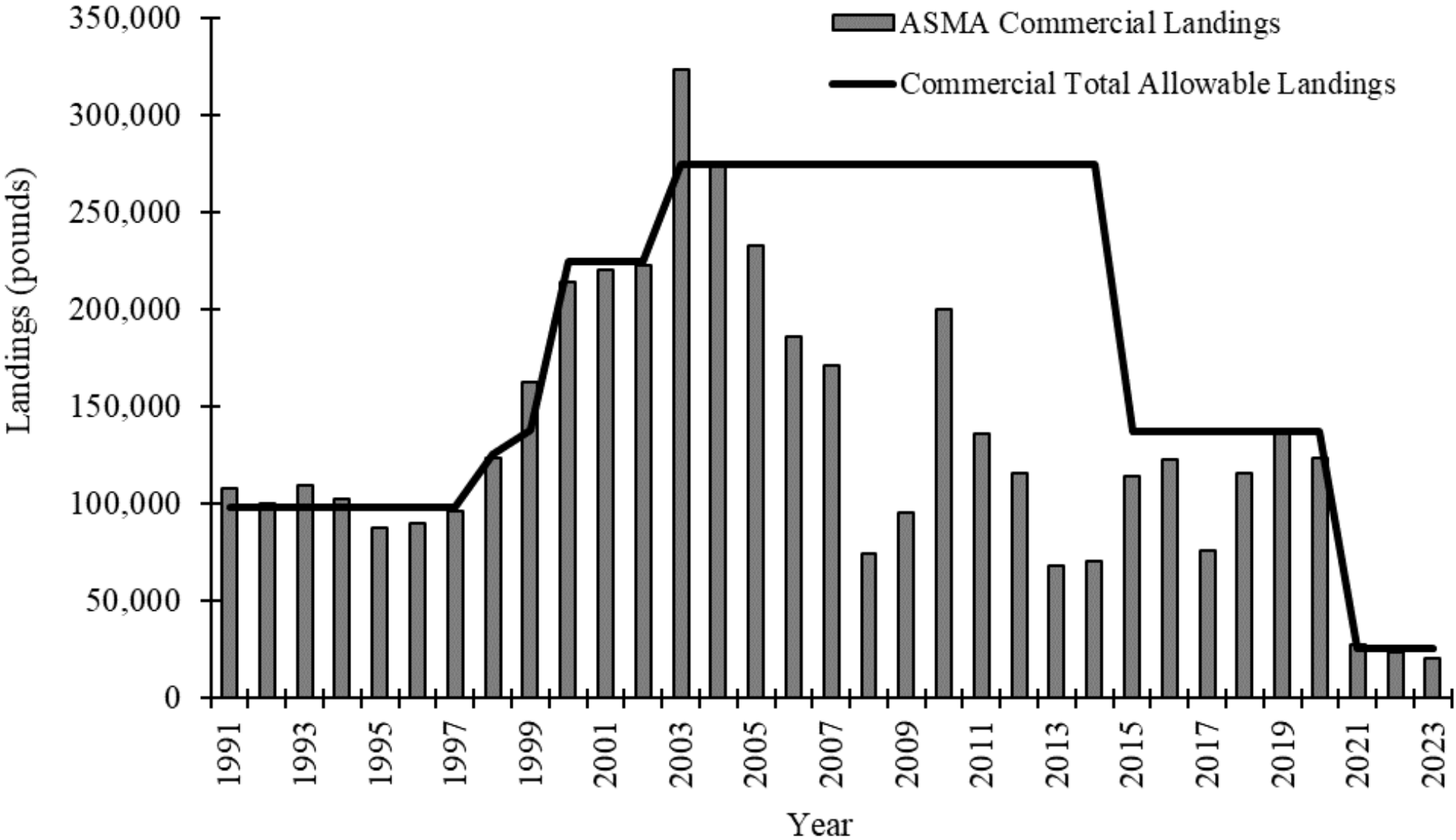
Updated Total Allowable Landings

Years	Total Allowable Landings	ASMA Commercial	ASMA Recreational	RRMA Recreational
1991–1997	156,800	98,000	29,400	29,400
1998	250,800	125,400	62,700	62,700
1999	275,880	137,940	68,970	68,970
2000–2002	450,000	225,000	112,500	112,500
2003–2014	550,000	275,000	137,500	137,500
2015–2020	275,000	137,500	68,750	68,750
2021–2023	51,216	25,608	12,804	12,804
2024–	8,349	4,175	2,087	2,087

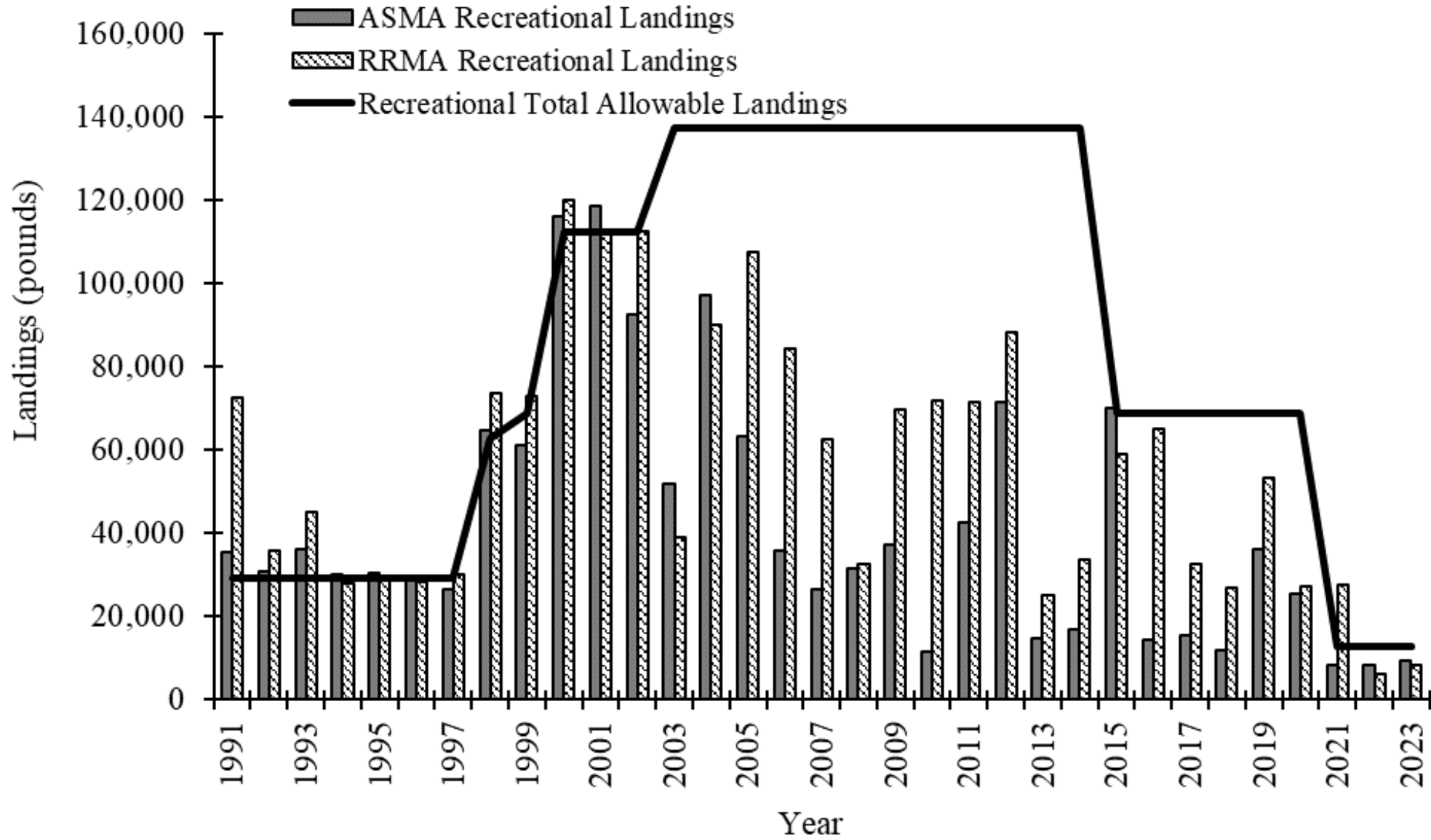
- A TAL of 8,349 lb is too low to effectively manage
- **More Importantly: SSB in 2021 = 35,566 lb**
- **SSB is less than 10% of the Target (360,720 lb)**



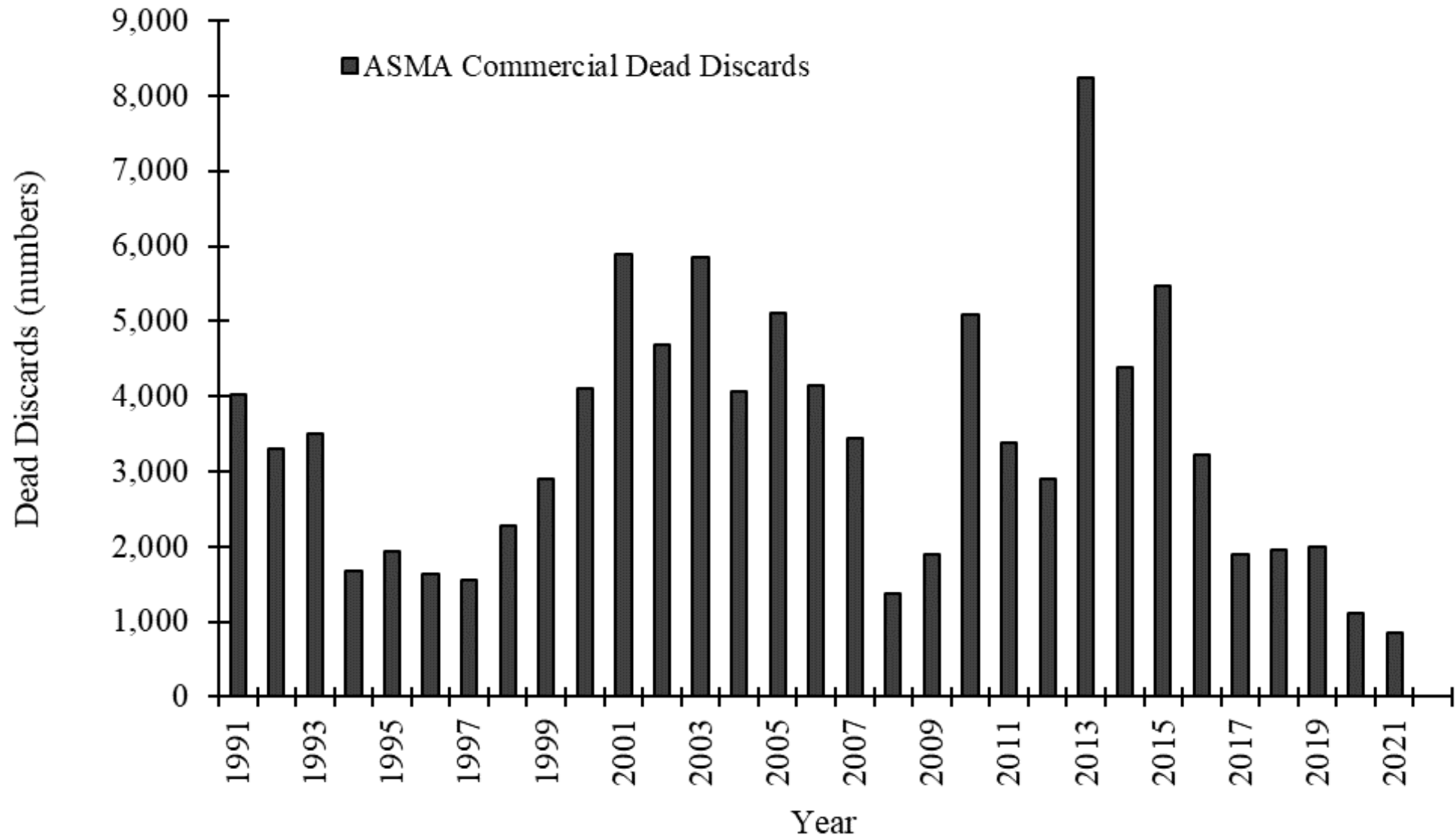
Commercial Landings



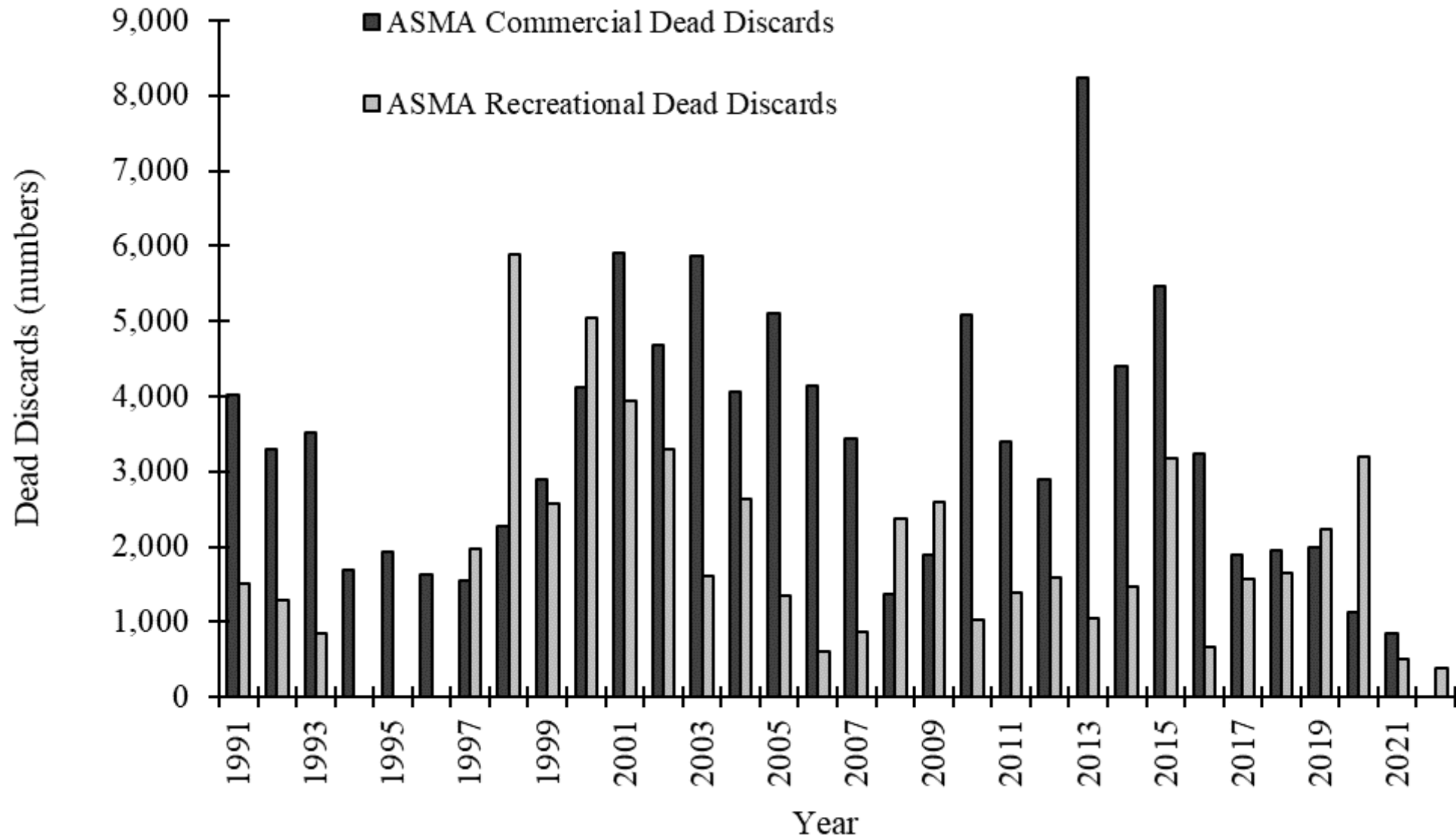
Recreational Landings



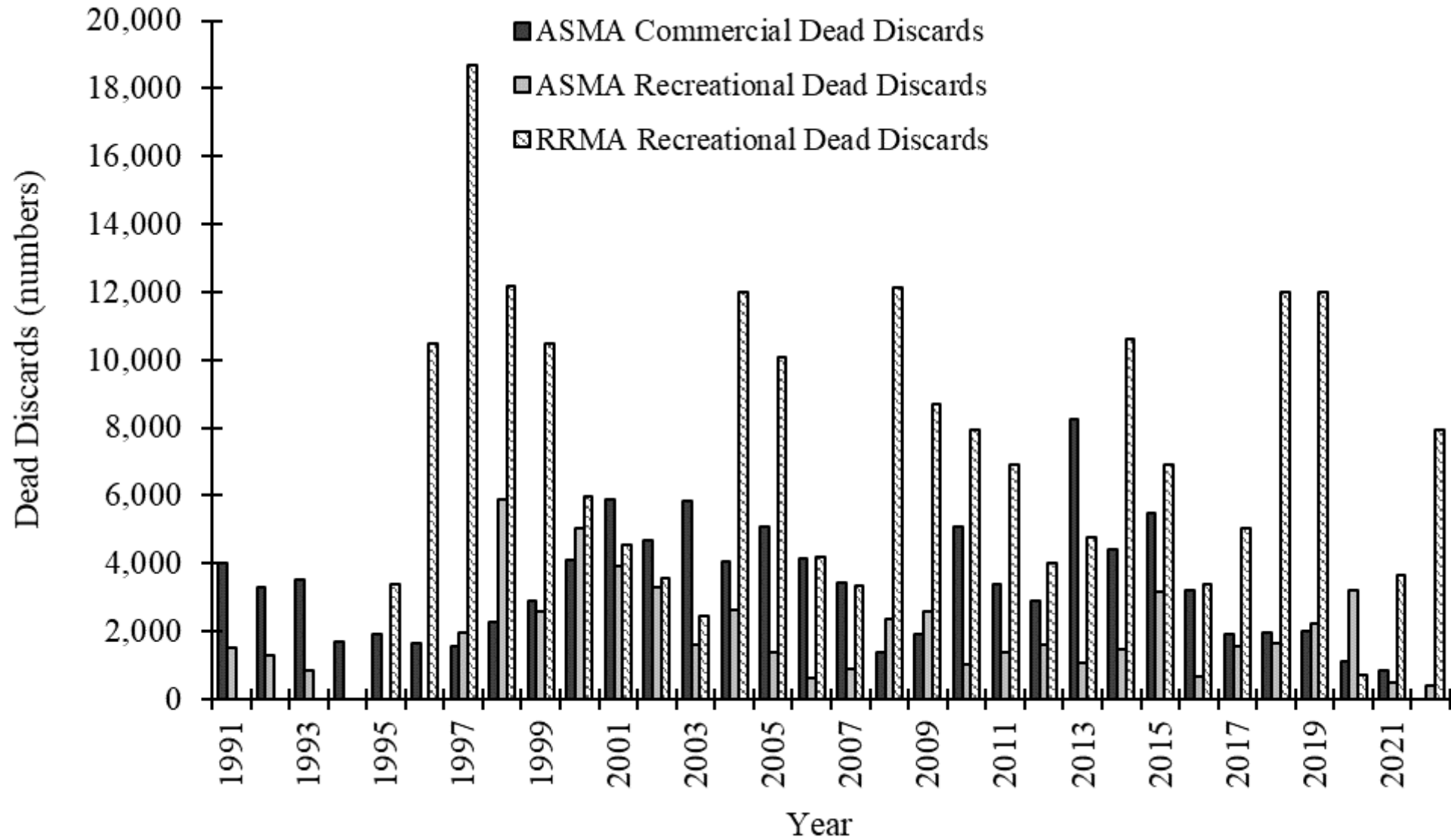
Fishery Dead Discards



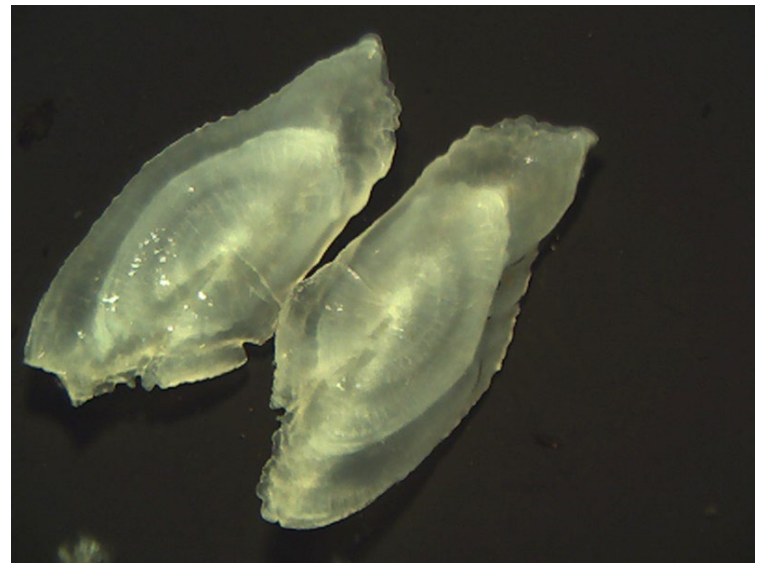
Fishery Dead Discards



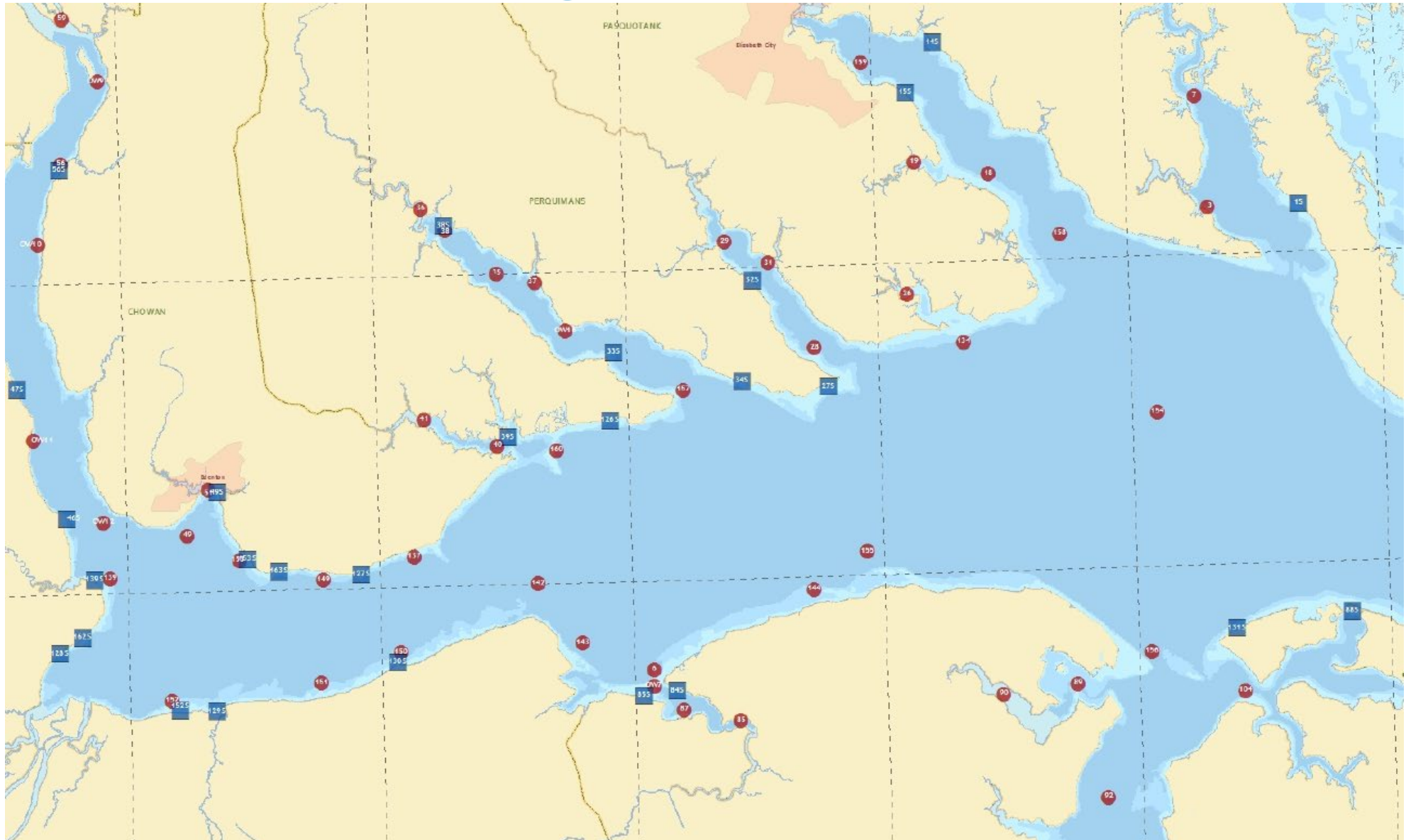
Fishery Dead Discards



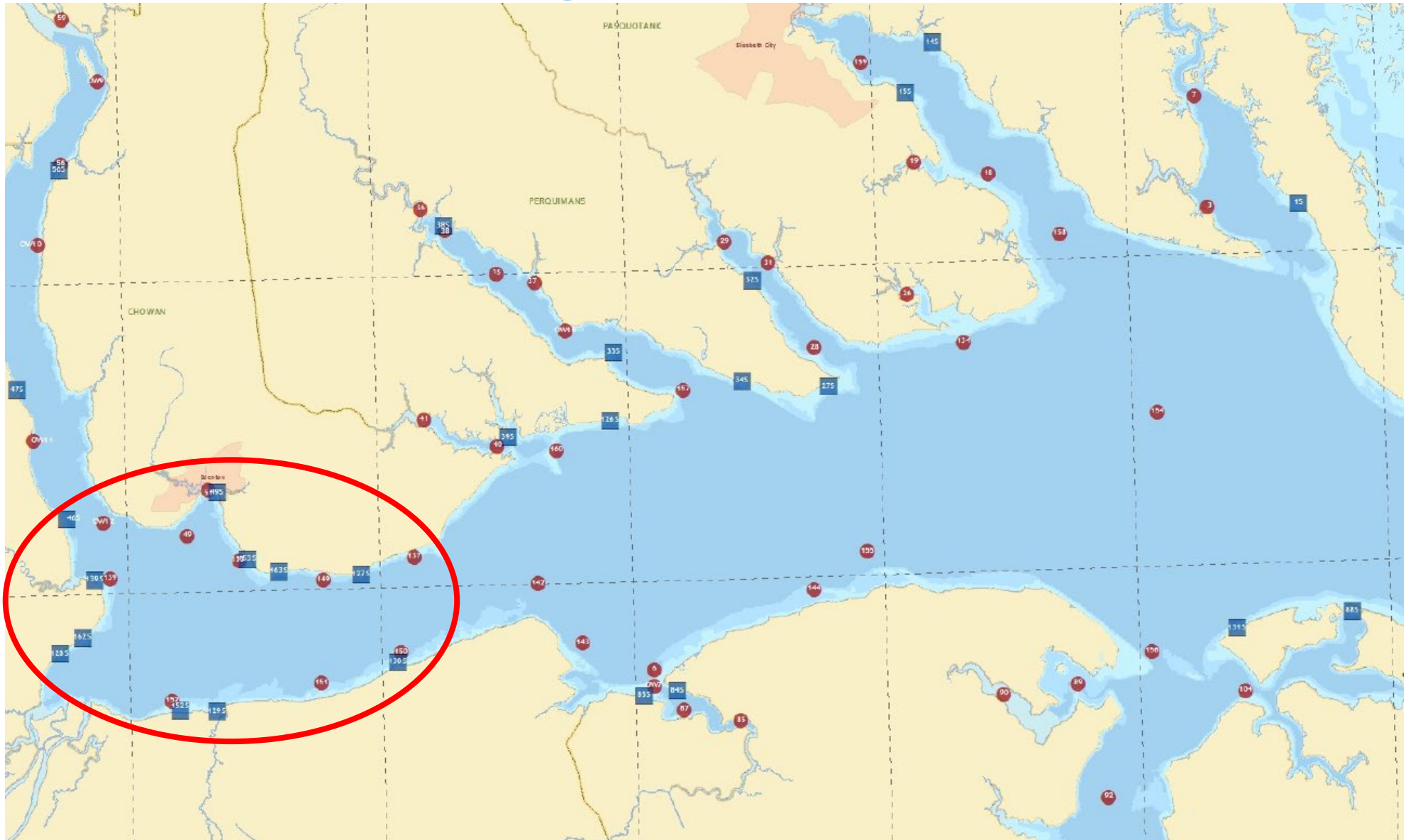
Striped Bass Sampling Update



Juvenile Sampling Stations Albemarle Sound



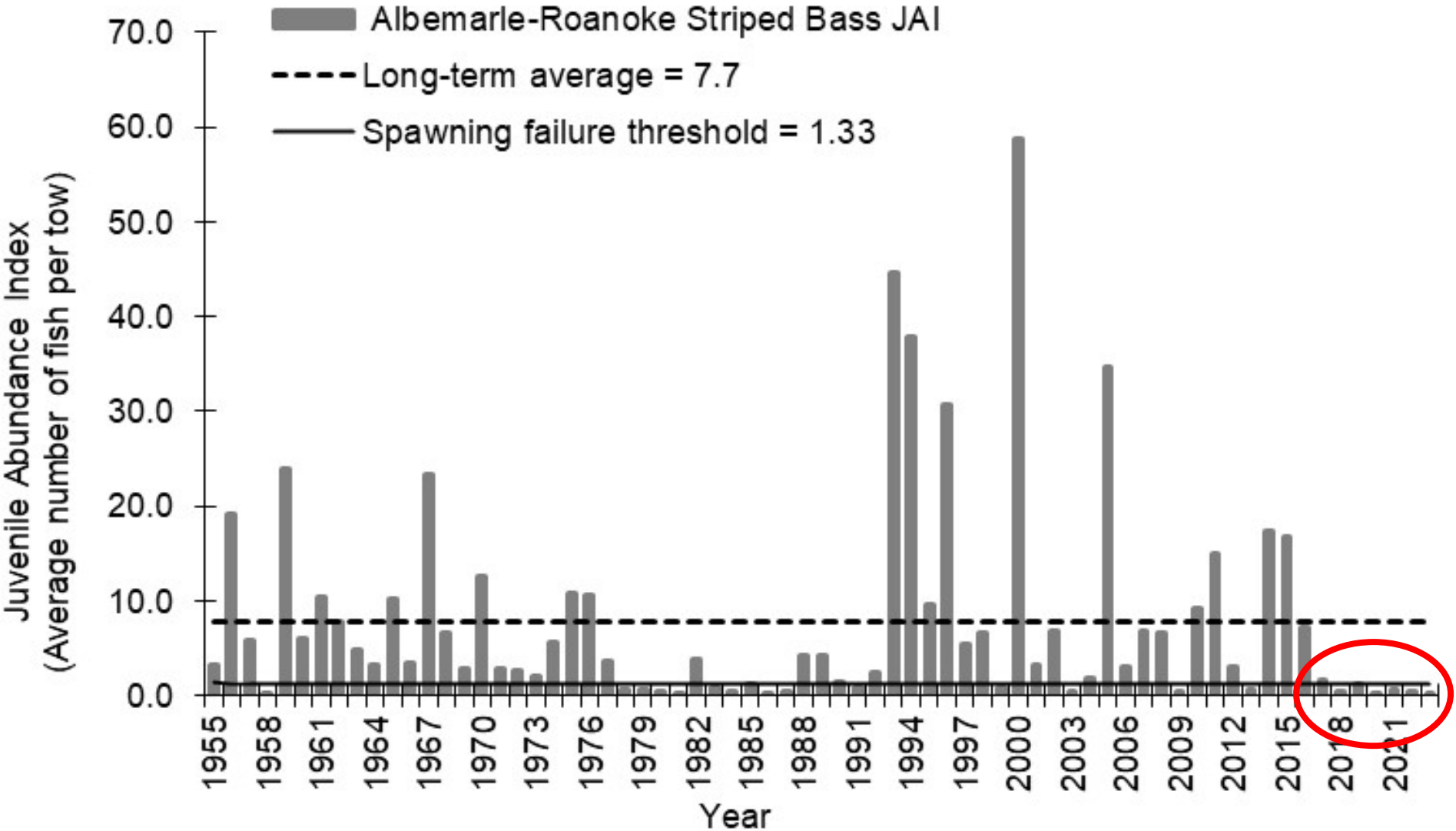
Juvenile Sampling Stations Albemarle Sound



Juvenile Sampling Stations Albemarle Sound



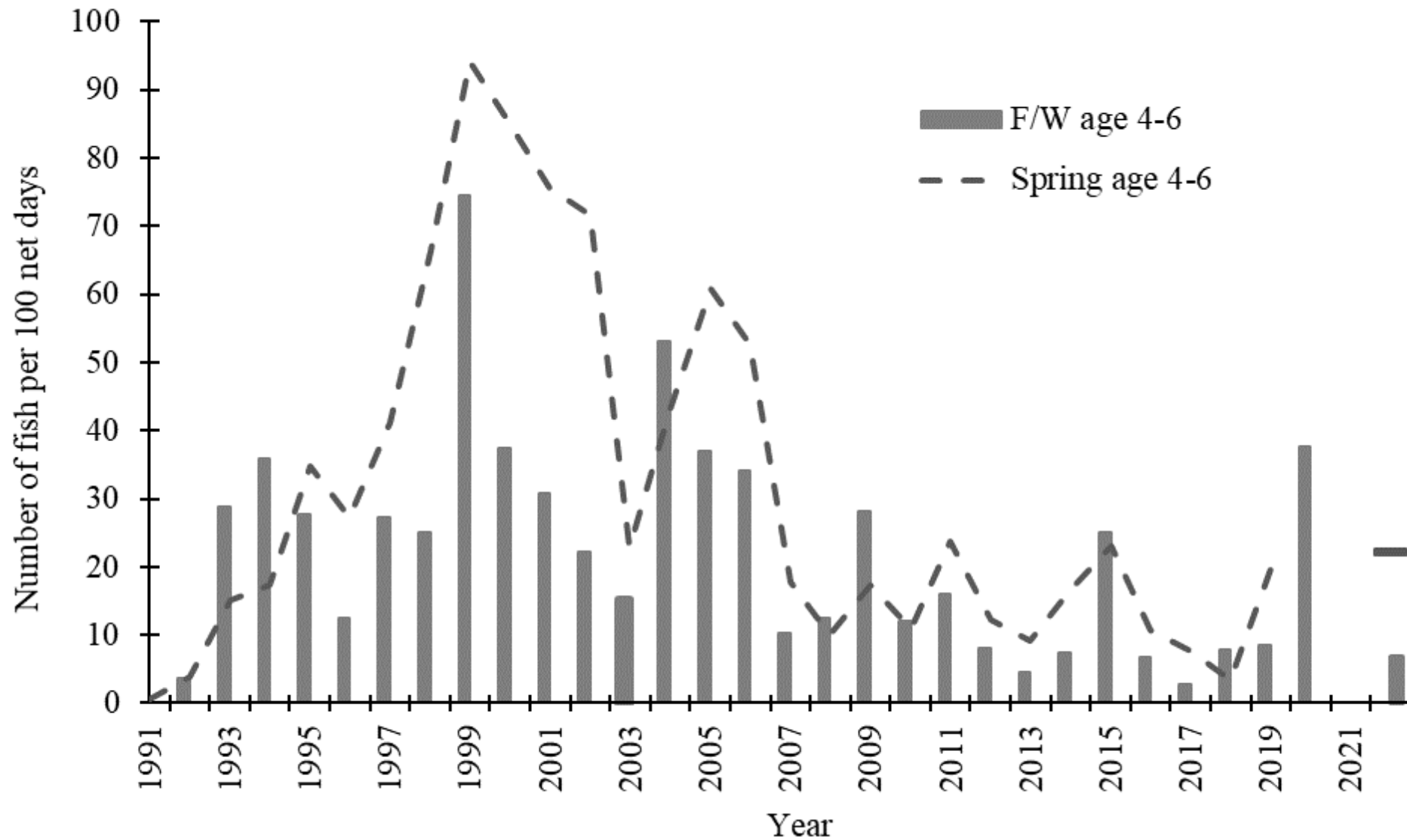
Striped Bass JAI



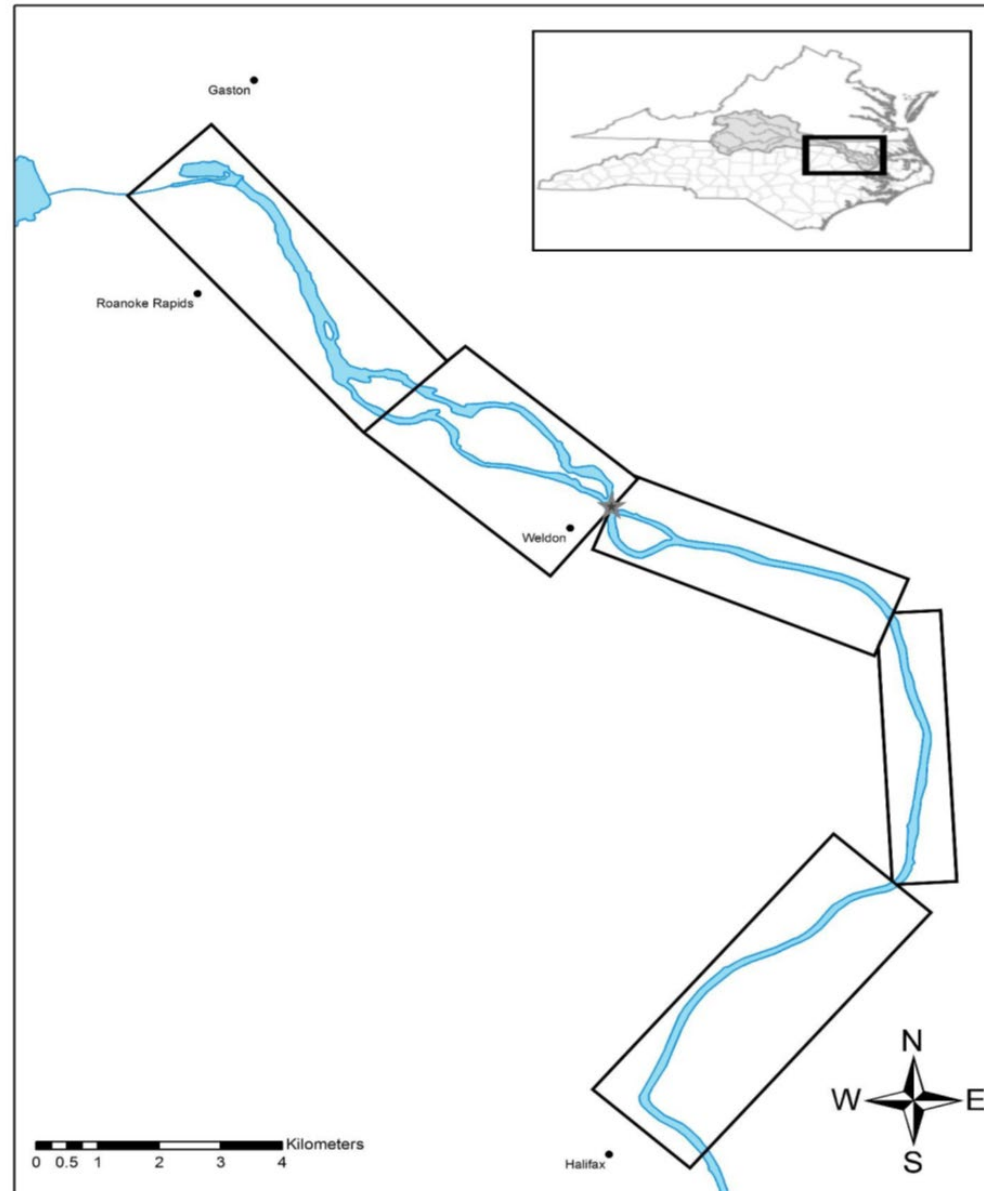
Gill Net Survey Stations Albemarle Sound



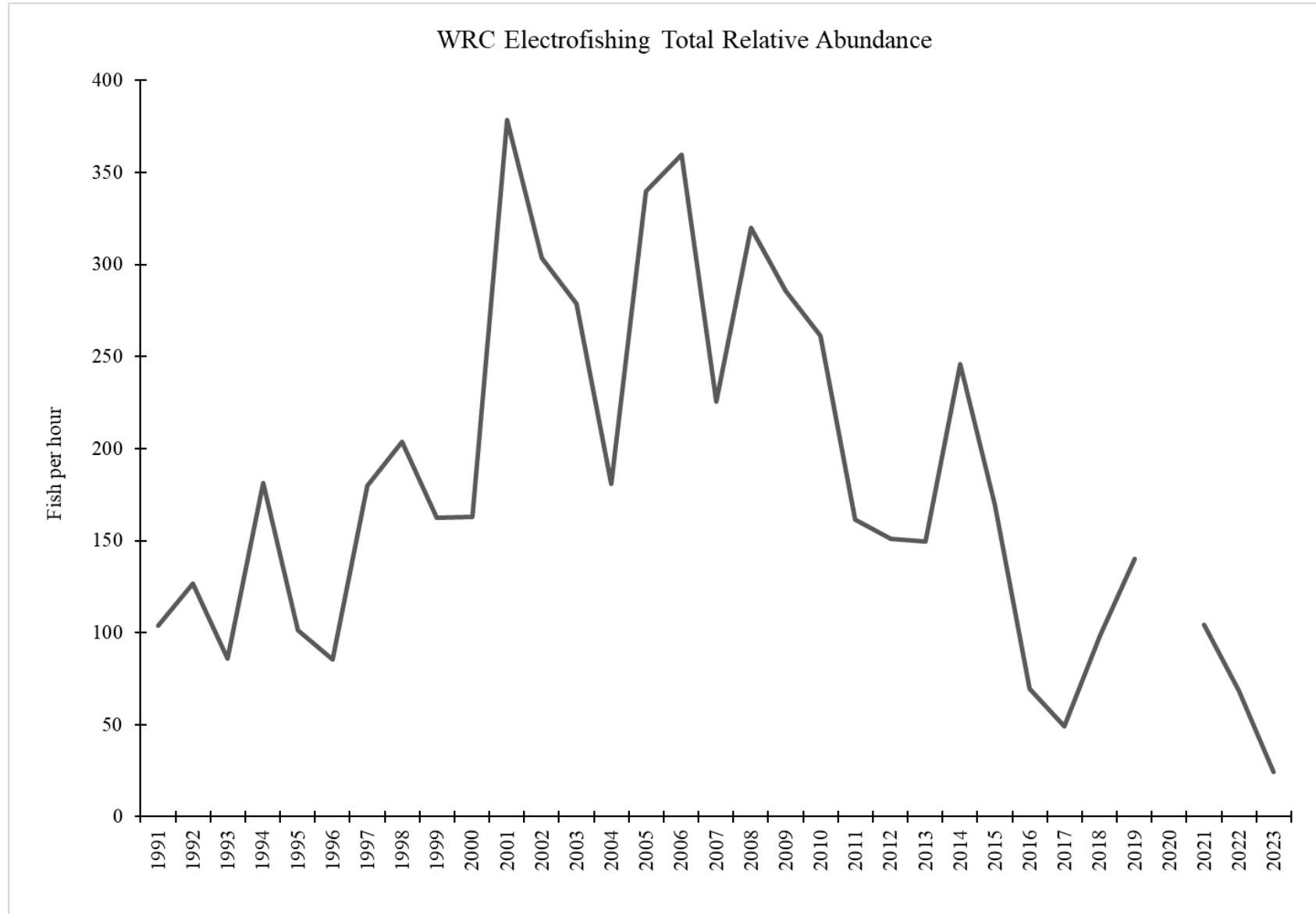
Fisheries-Independent Gill Net Surveys



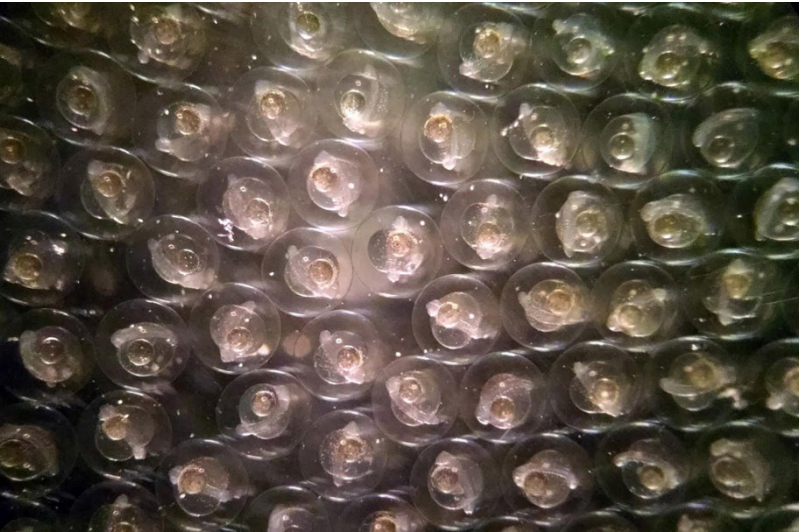
WRC Electrofishing Survey Roanoke River



WRC Electrofishing Survey Roanoke River



2023 Stocking Update

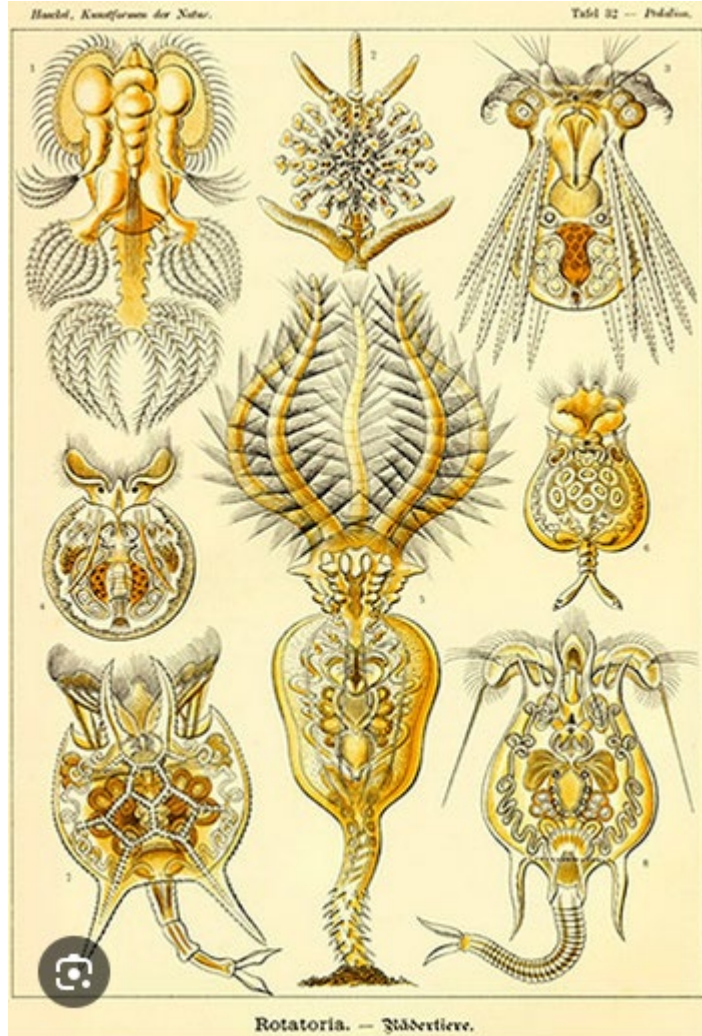


2023 Stocking Update

Stocking Location	Stocking Date	Size Stocked	n Stocked
Jamesville, lower Roanoke River	April 30, May 2, May 8	Fry	1,429,822
Western Albemarle Sound	June 21, 22, 23	Phase I	668,243



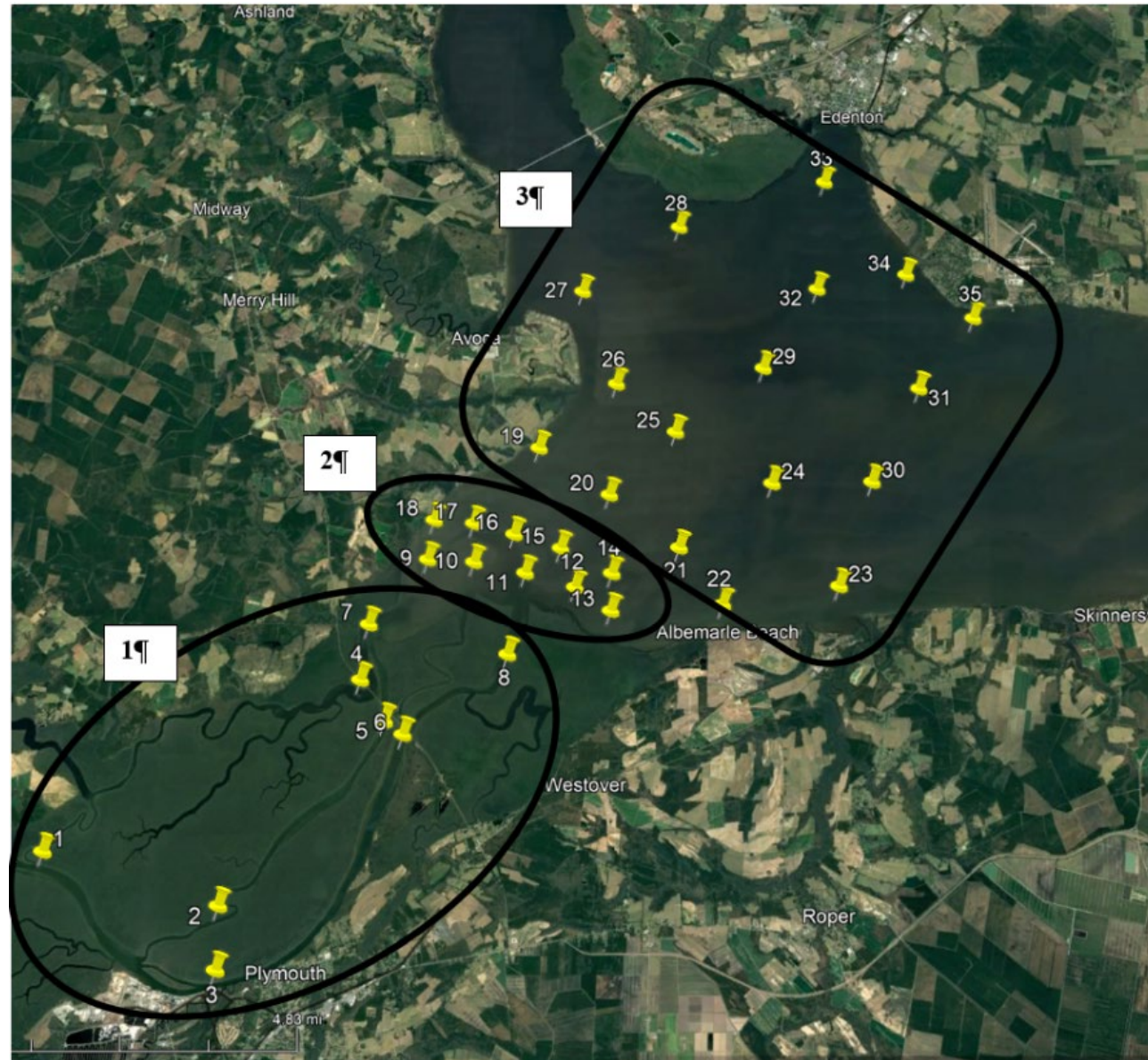
Laval/Zooplankton Sampling 2023



Zooplankton sample including several species of copepods (1–5), gastropod larva (6) doliolids (7), fish eggs (8), and decapod larva (9)



Laval/Zooplankton Sampling 2023



Steps Moving Forward

2023 Revision to Amendment 2 to document adaptive management changes¶

- → New TAL of 8,349 pounds is too low to effectively manage¶
- → Implement harvest moratorium due to low TAL, and five consecutive years of spawning failures¶



Moratorium will be in effect in 2024 (no harvest)

- Stock will be monitored through surveys annually, and will be first indication of improved stock conditions
- Future stock assessments will determine when the stock recovery is adequate, and biomass has rebounded to allow for future harvest





Questions?



POCKET SLIDES



Peer Review Conclusions

- Approach for handling data during Covid-19 was appropriate
- Base model estimates agree with general data trends
- Model results are a credible representation of current stock status
- Endorsed the results for management
- Environmental factors not yet understood may be contributing to lack of stock rebuilding



Summary of Recent Management Changes

- TAL reduced to 51,216lbs in 2021
- Recreational limit reduced to 1 fish per person per day
- Commercial limit reduced to 10 fish per license holder
- 18-25" slot limit for ASMA w/ no harvest over
- 18-22" slot limit for RRMA w/ no harvest over



TAL Monitoring 2021-2023

ASMA Rec			
Year	Max Daily Landing Estimate (lbs)	TAL (lbs)	Total Landings (lbs)
2021	767	12,804	8,258
2022	1232	12,804	8,417
2023	1773	12,804	9,511
2024		2,087	

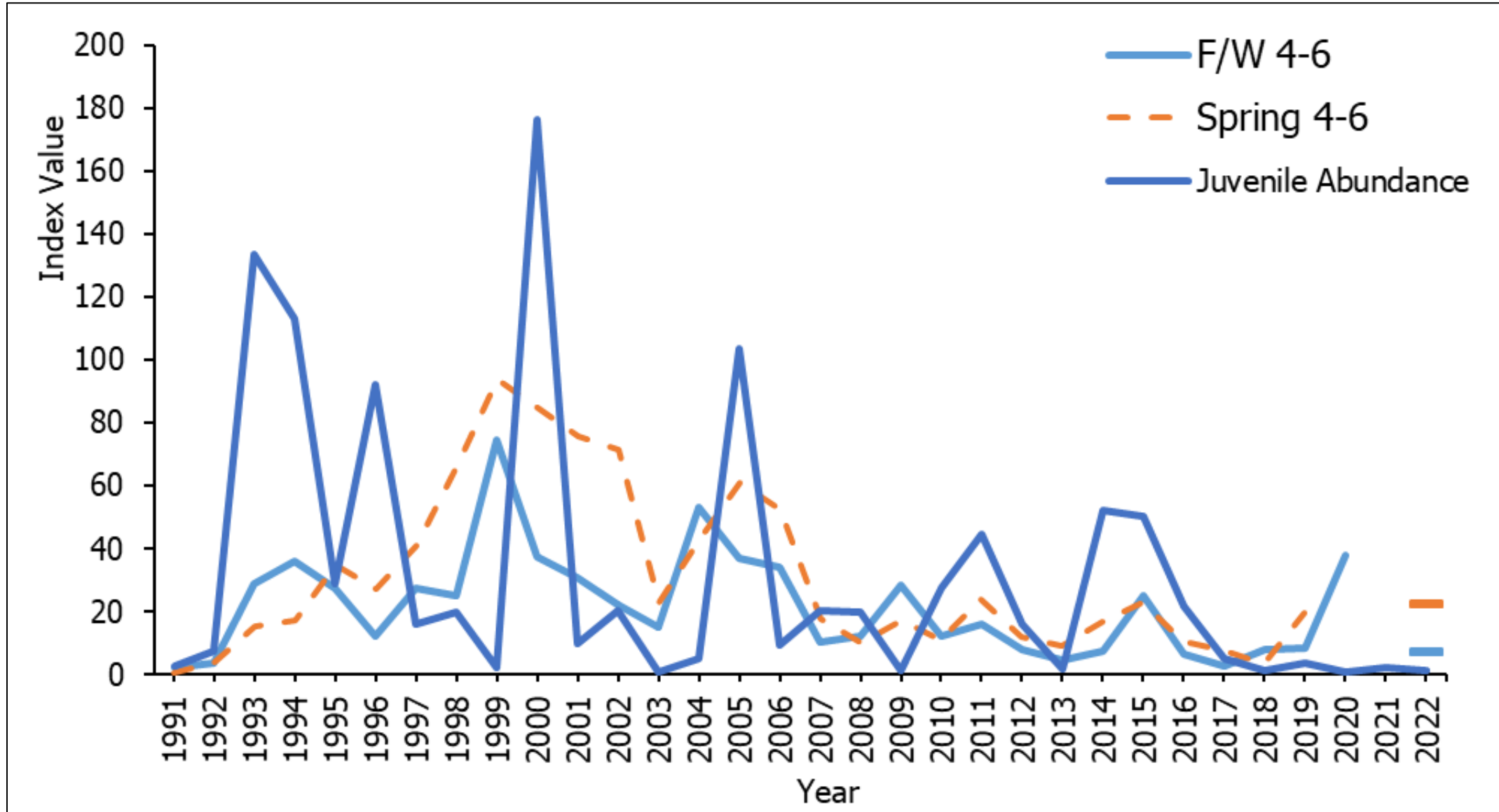


TAL Monitoring 2021-2023

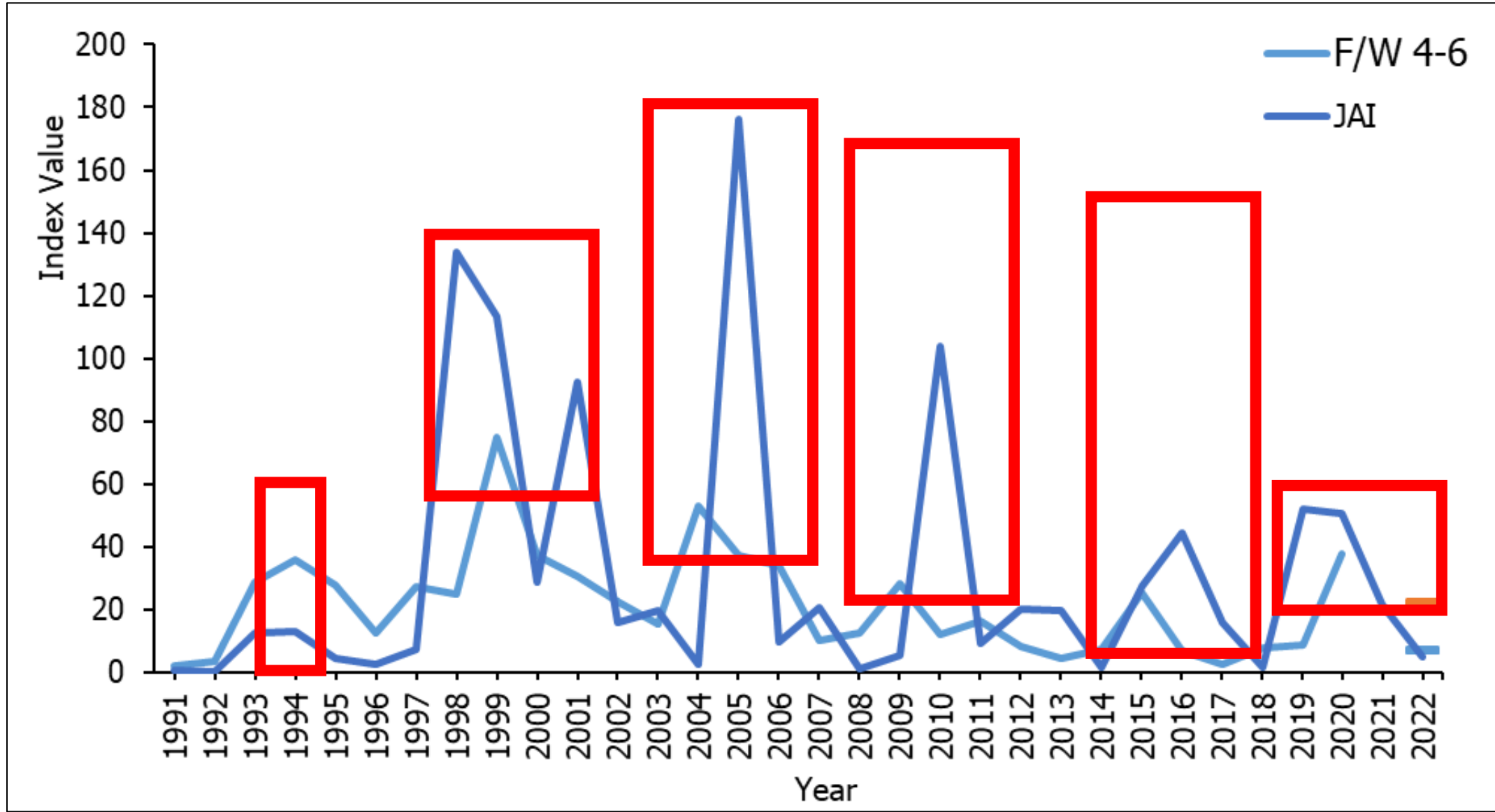
ASMA Commercial			
Year	Max Daily Landing Estimate (lbs)	TAL (lbs)	Total Landings (lbs)
2021	2834	25,608	27,930
2022	2641	25,608	24,026
2023	2194	25,608	20,436
2024		4,175	



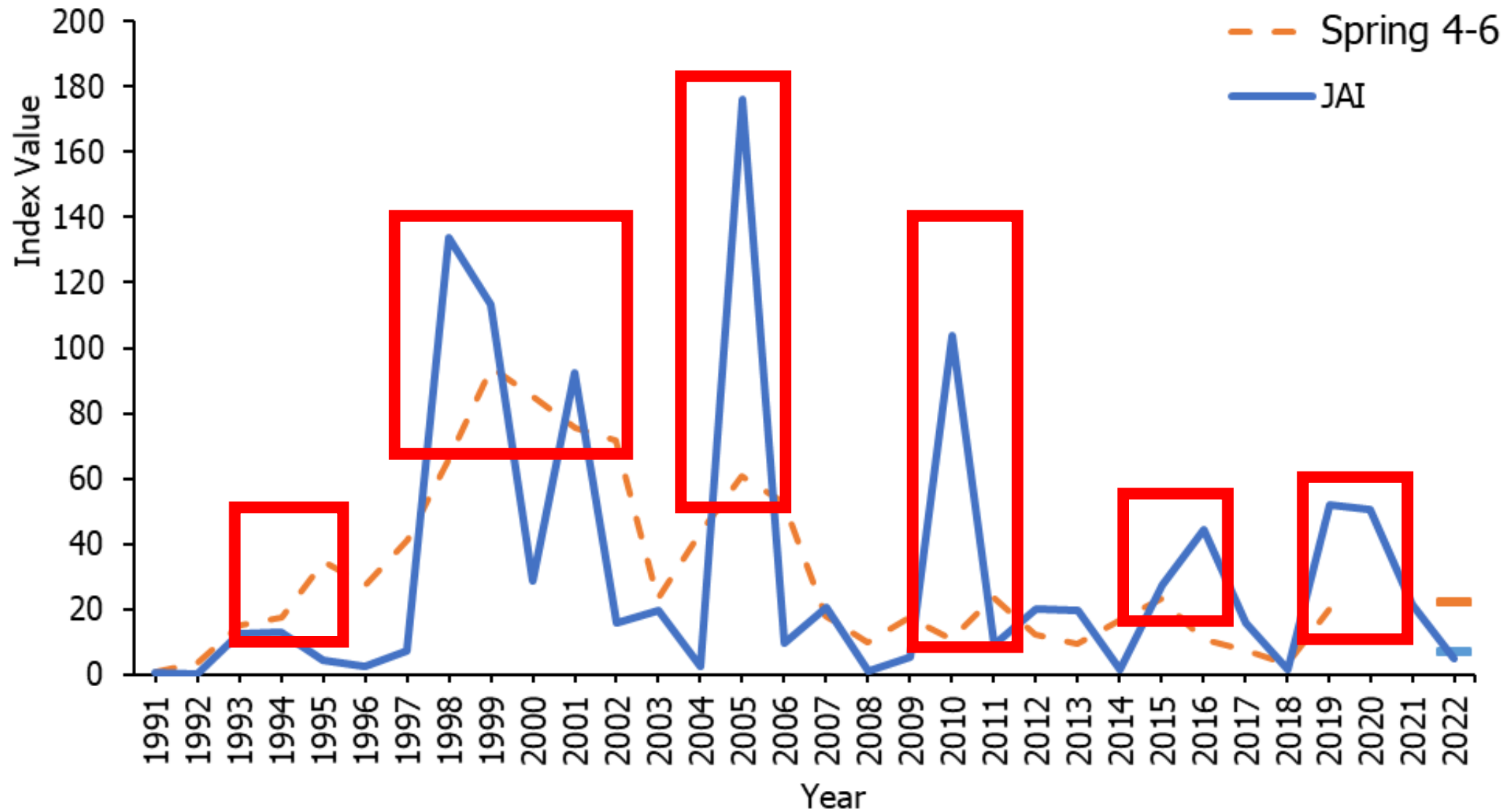
Juvenile Abundance vs Adult Abundance



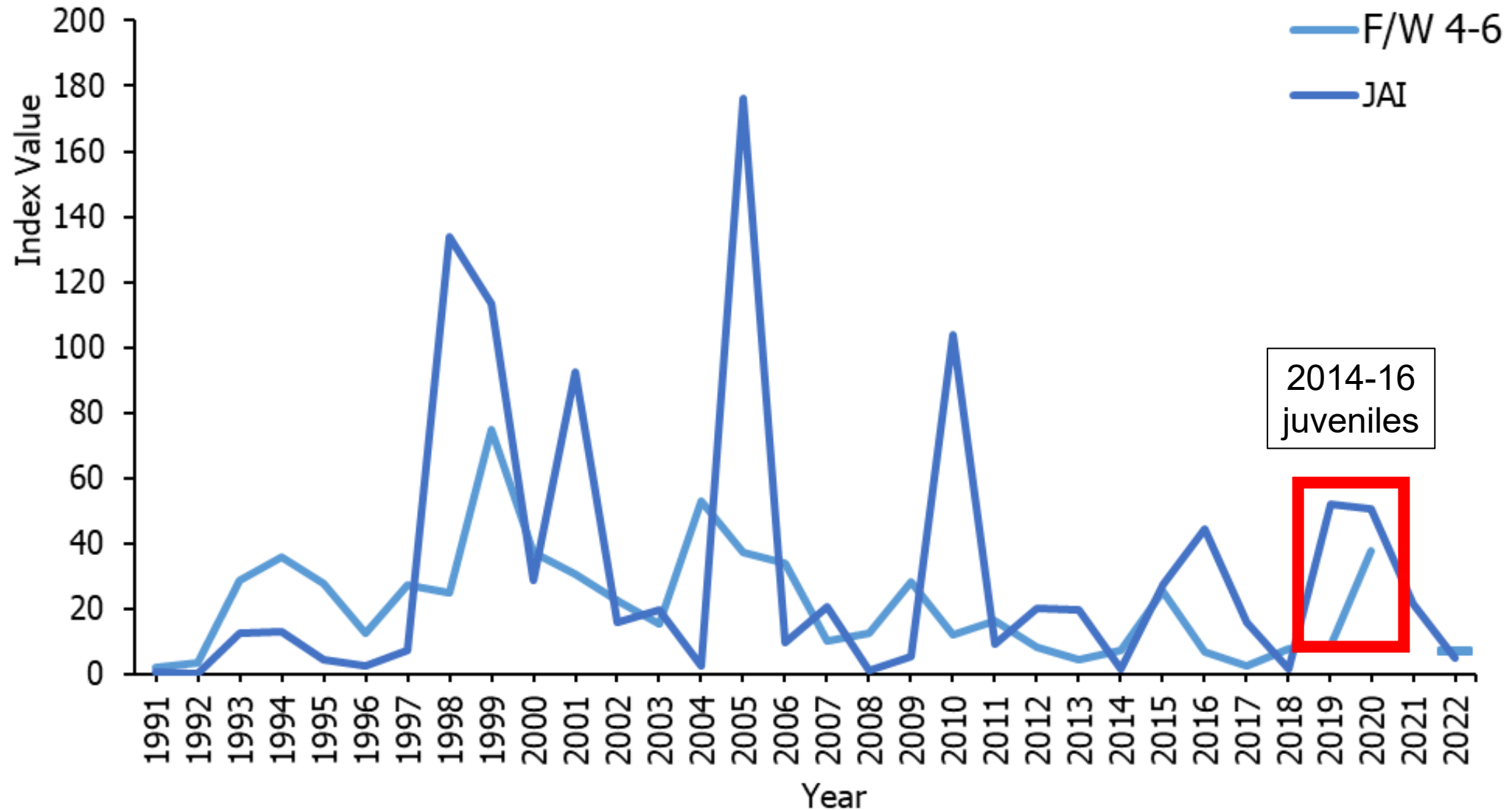
Juvenile Abundance vs Adult Abundance



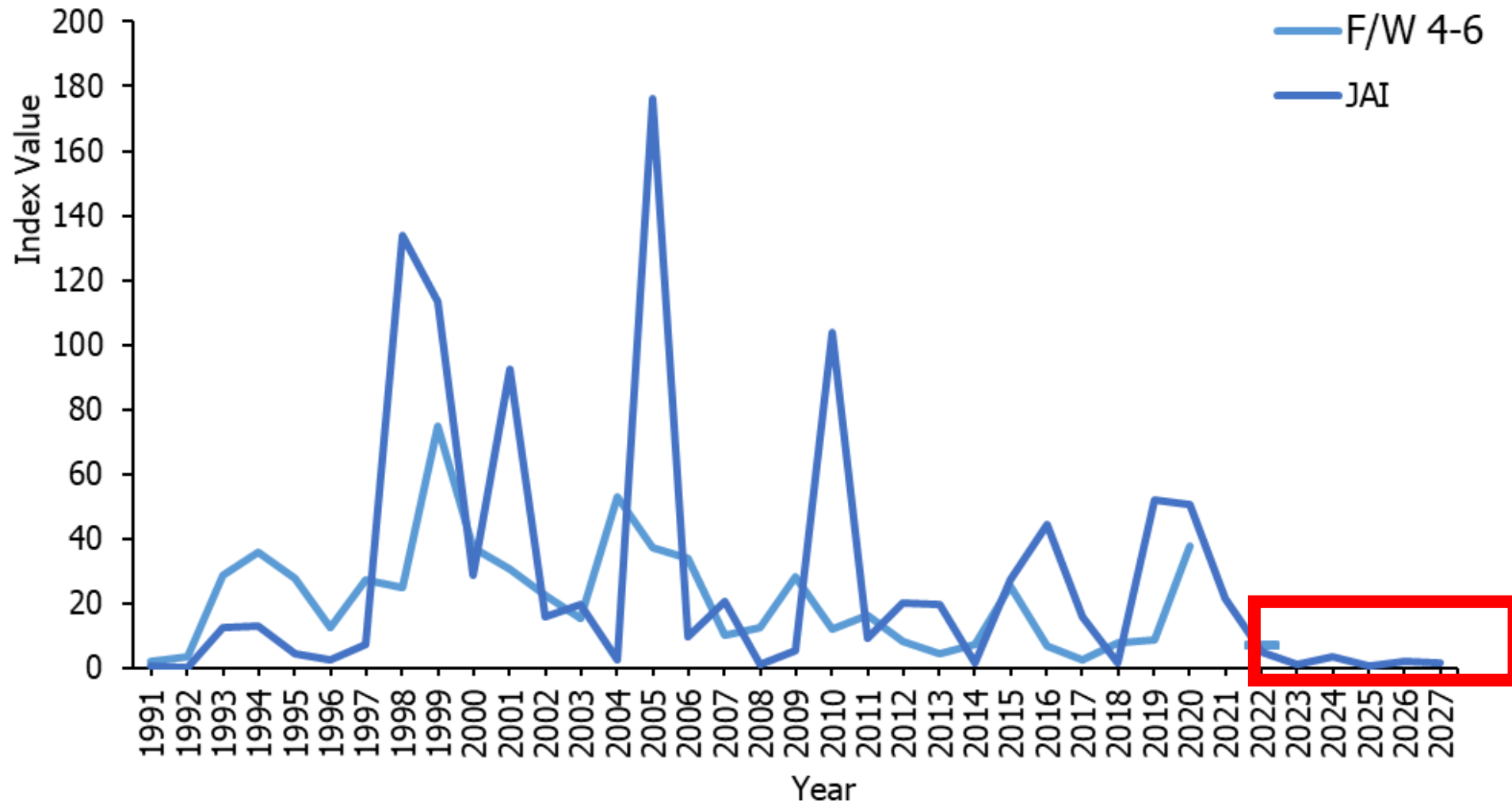
Juvenile Abundance vs Adult Abundance



Juvenile Abundance vs Adult Abundance



Juvenile Abundance vs Adult Abundance



Fisheries-Independent Surveys

