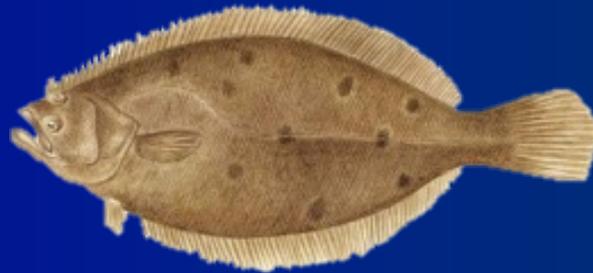




Summer Flounder 2020 ABC Review



SSC

September 9, 2019

Overview



- Summer flounder 2019 (revised) and 2020-2021 measures adopted in early 2019
 - Based on benchmark assessment peer reviewed at SAW/SARC 66, November 2018
 - Previous 2019 interim measures revised via interim final rule May 17, 2019
 - Proposed rule for 2020-2021 published July 27, 2019
- **Today:** review 2020 ABC and recommend changes if necessary

2019-2021 Specifications



- Constant catch and landings limits set each year 2019-2021

	OFL	ABC	ABC F	P*
2019 (revised)	13,609 mt (30.00 m lb)	11,354 mt (25.03 m lb)	0.364	0.372
2020	14,034 mt (30.94 m lb)		0.351	0.351
2021	14,367 mt (31.67 m lb)		0.342	0.336

Stock Status: 2018 Assessment



SSB

- 2017 SSB = 44,552 mt
- 78% of $SSB_{35\%} = SSB_{MSY} = 57,159$ mt
- Not overfished in 2017

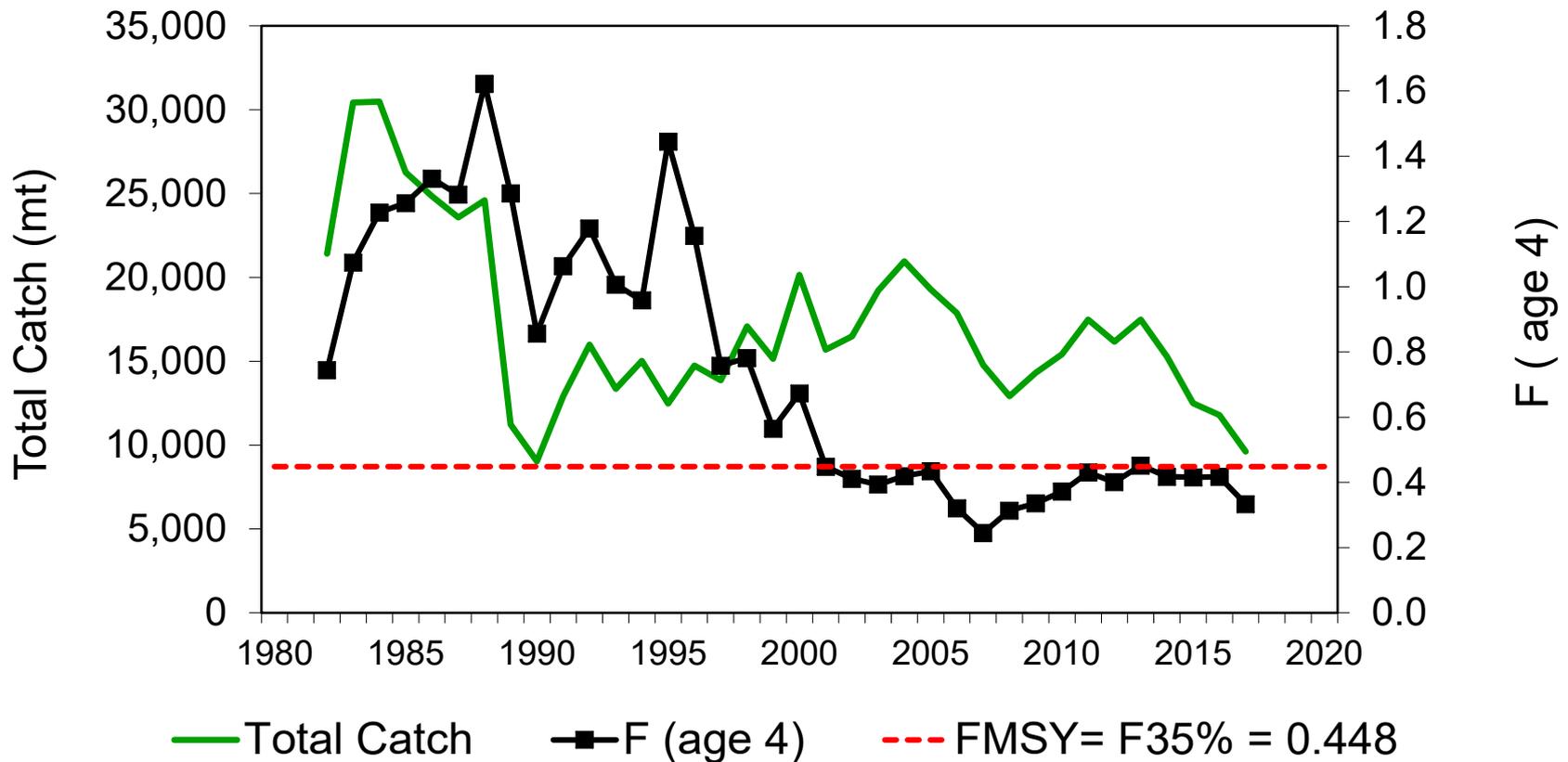
F

- 2017 $F = 0.334$
- 25% below $F_{35\%} = F_{MSY}$ proxy = 0.448
- Overfishing not occurring in 2017

Fishing Mortality



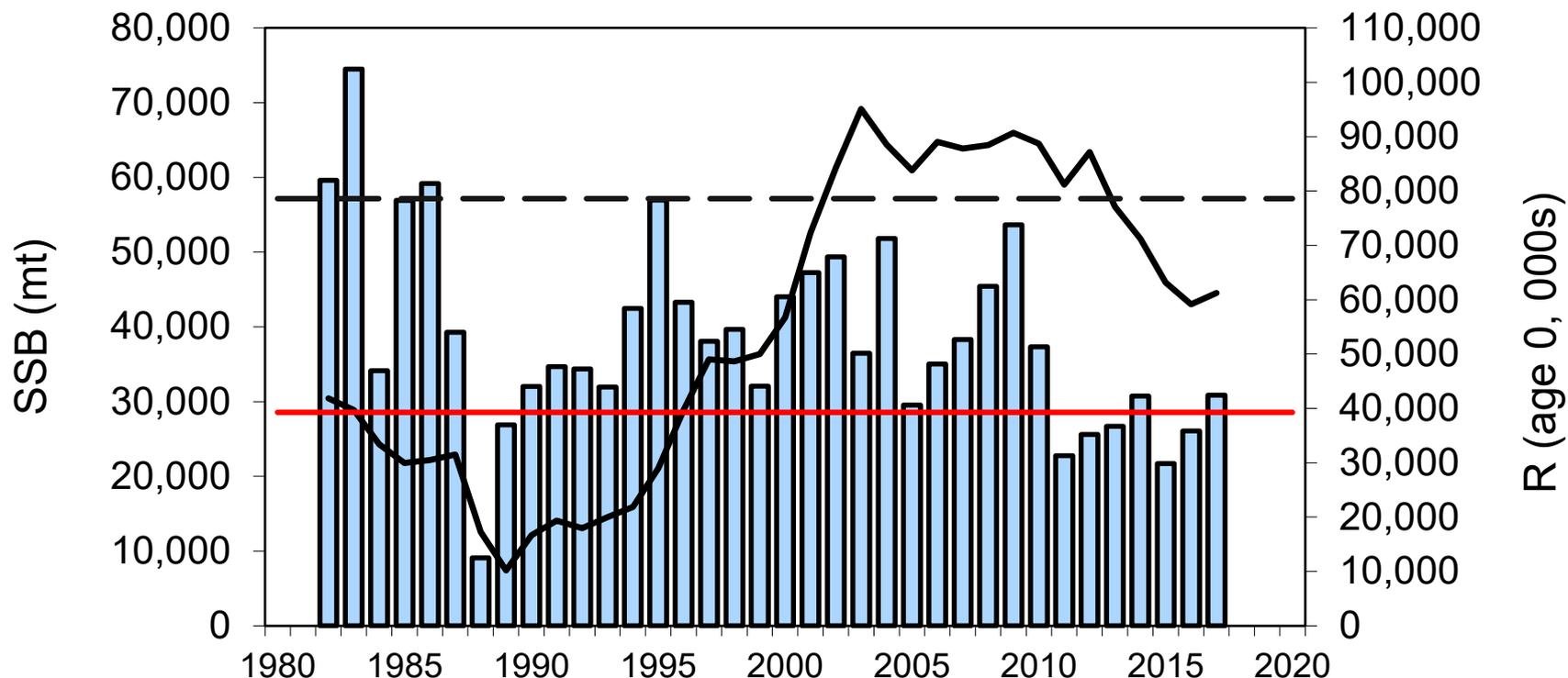
Total Catch and Fishing Mortality (F)



SSB and Recruitment



Spawning Stock Biomass (SSB) and Recruitment (R)



■ R — SSB — ·SSBMSY = SSB35% = 57,159 mt — 1/2 SSBMSY = 1/2 SSB35% = 28,580 mt

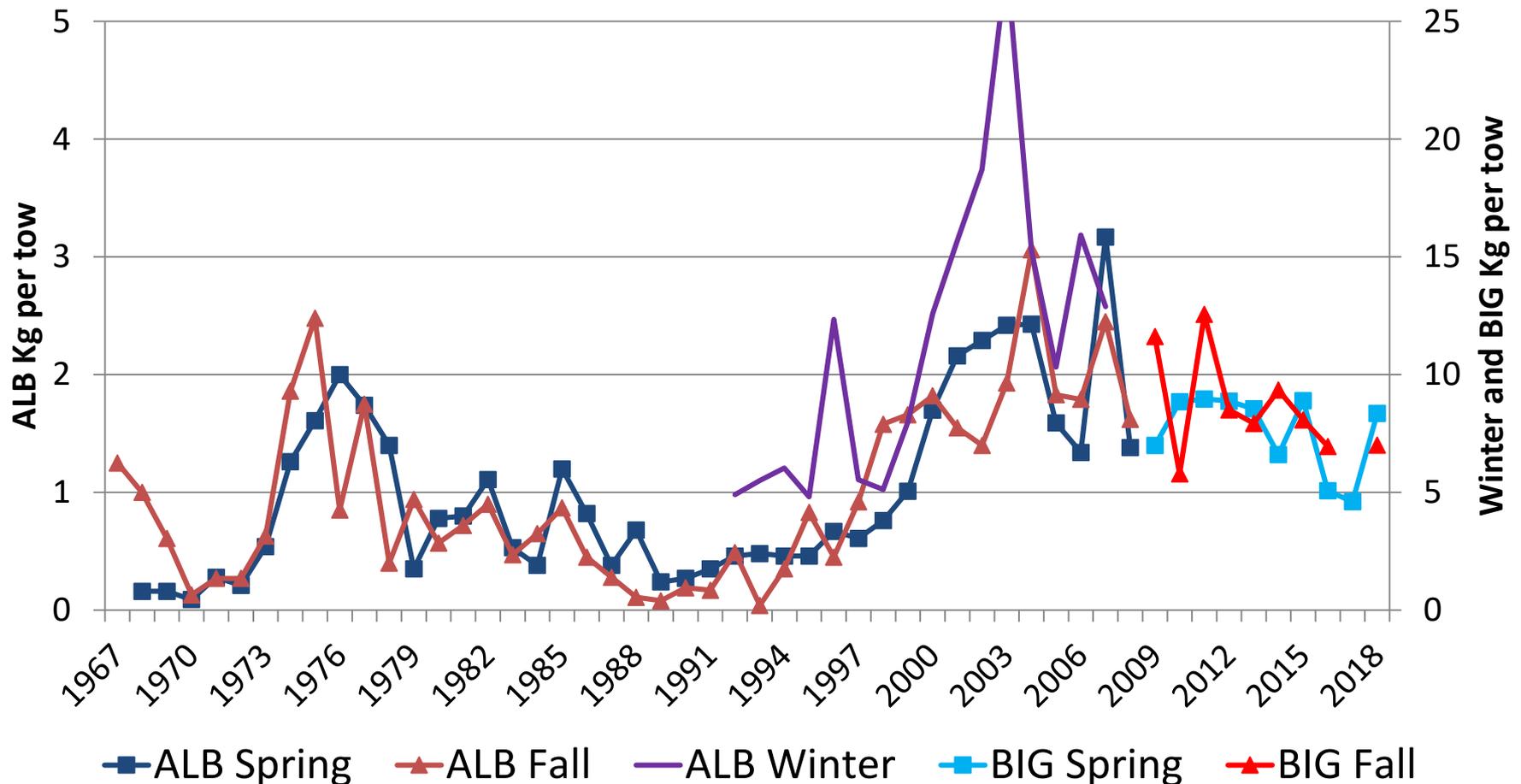
2019 Data Update



- Fishery catch and fishery independent survey data through 2018
- Survey indices show aggregate stock size increased from 2017 to 2018
- Notable fish in commercial fishery sampling:
 - Oldest fish collected to date: 20 y.o. 22-inch fish (likely male)
 - Two age 17 fish (20-in. male, 28-in. female)
 - Two very large females (31- and 32-in.; age 9)

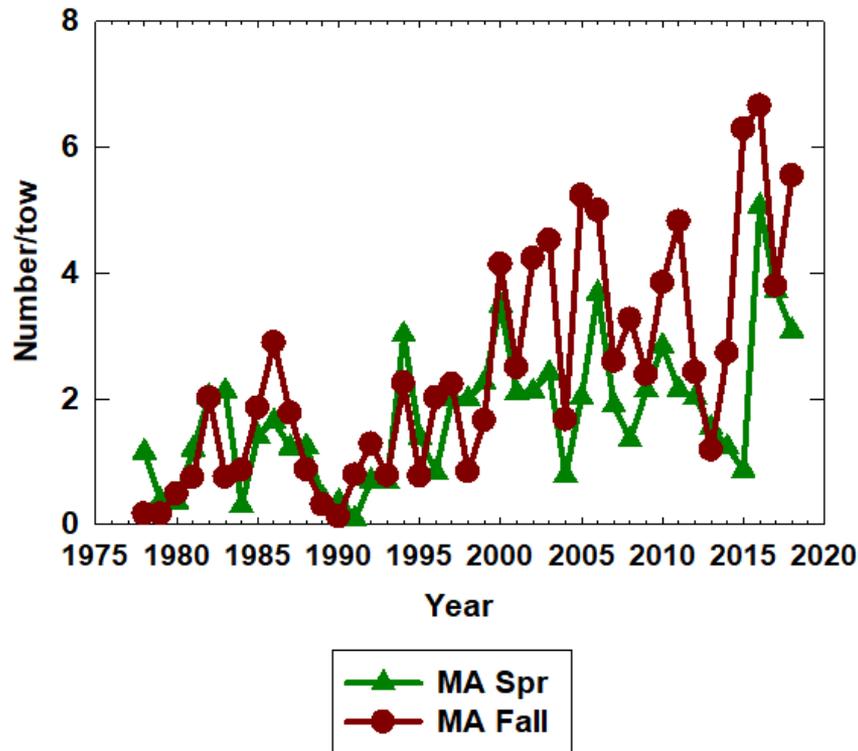
2019 Data Update

NEFSC Summer Flounder Biomass Indices

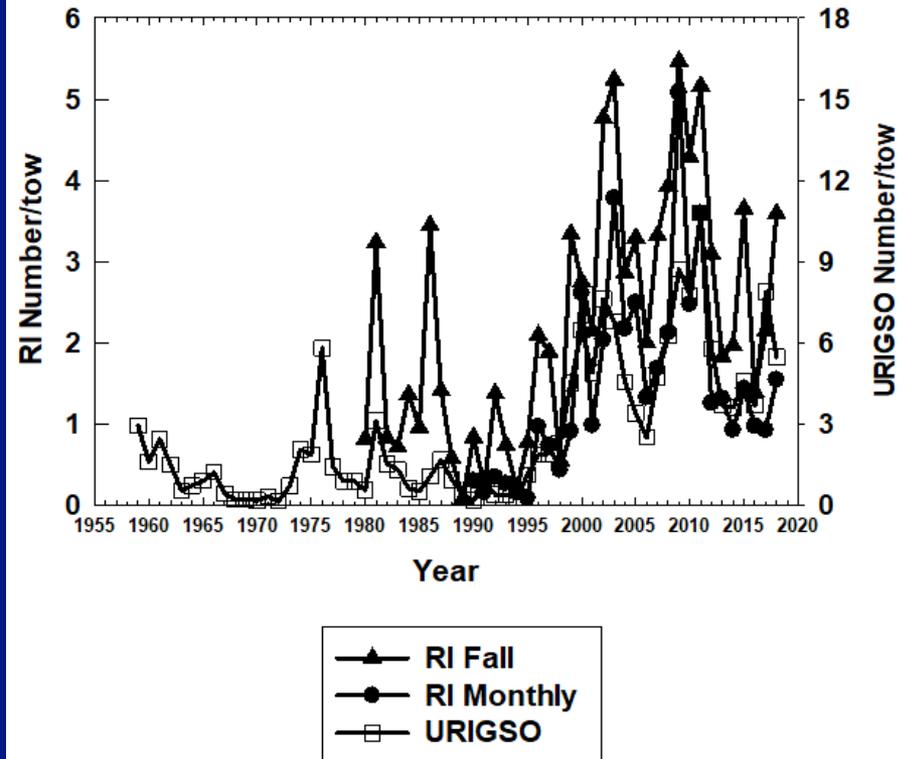


2019 Data Update

MA Trawl Surveys

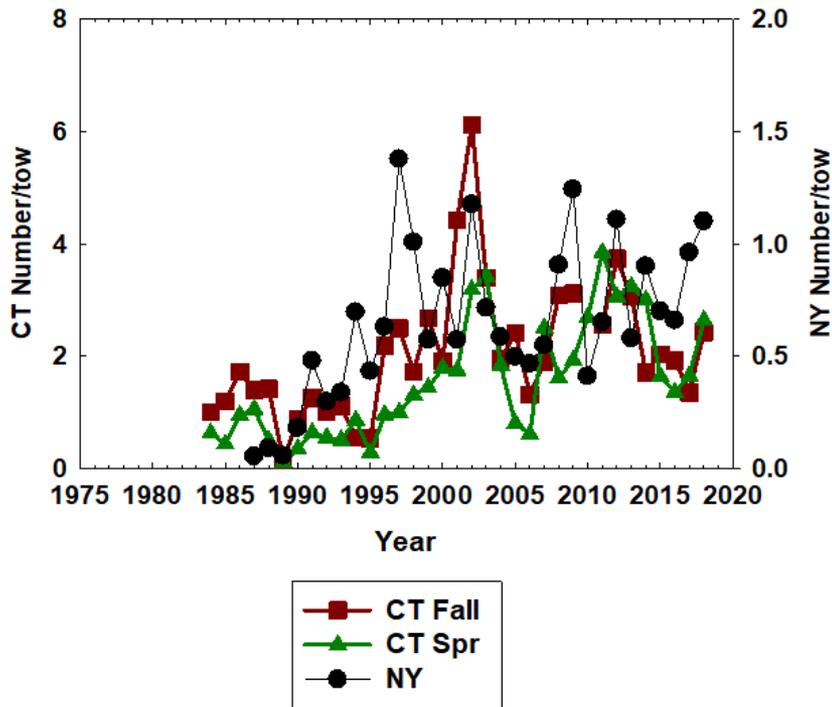


RI Trawl Surveys

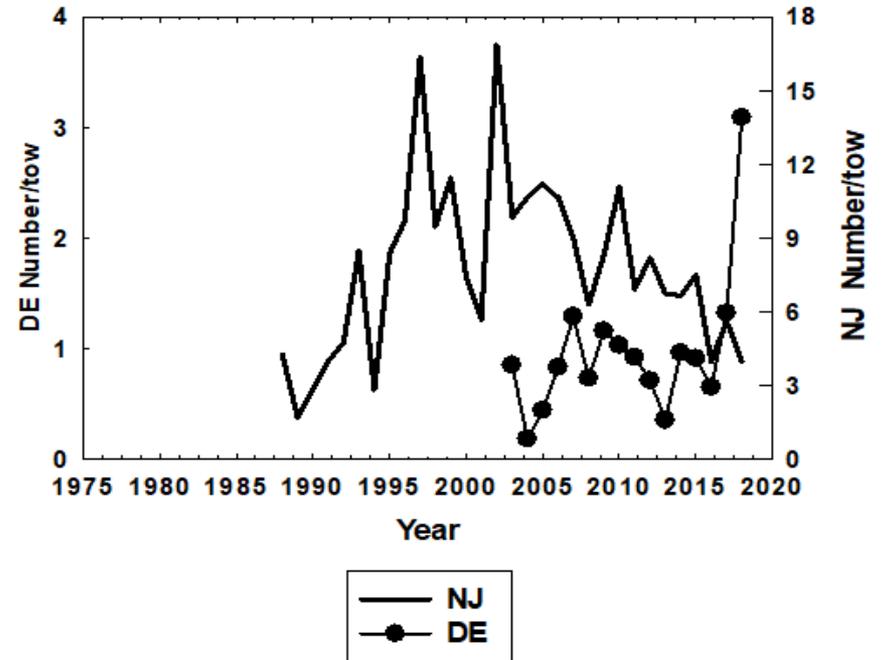


2019 Data Update

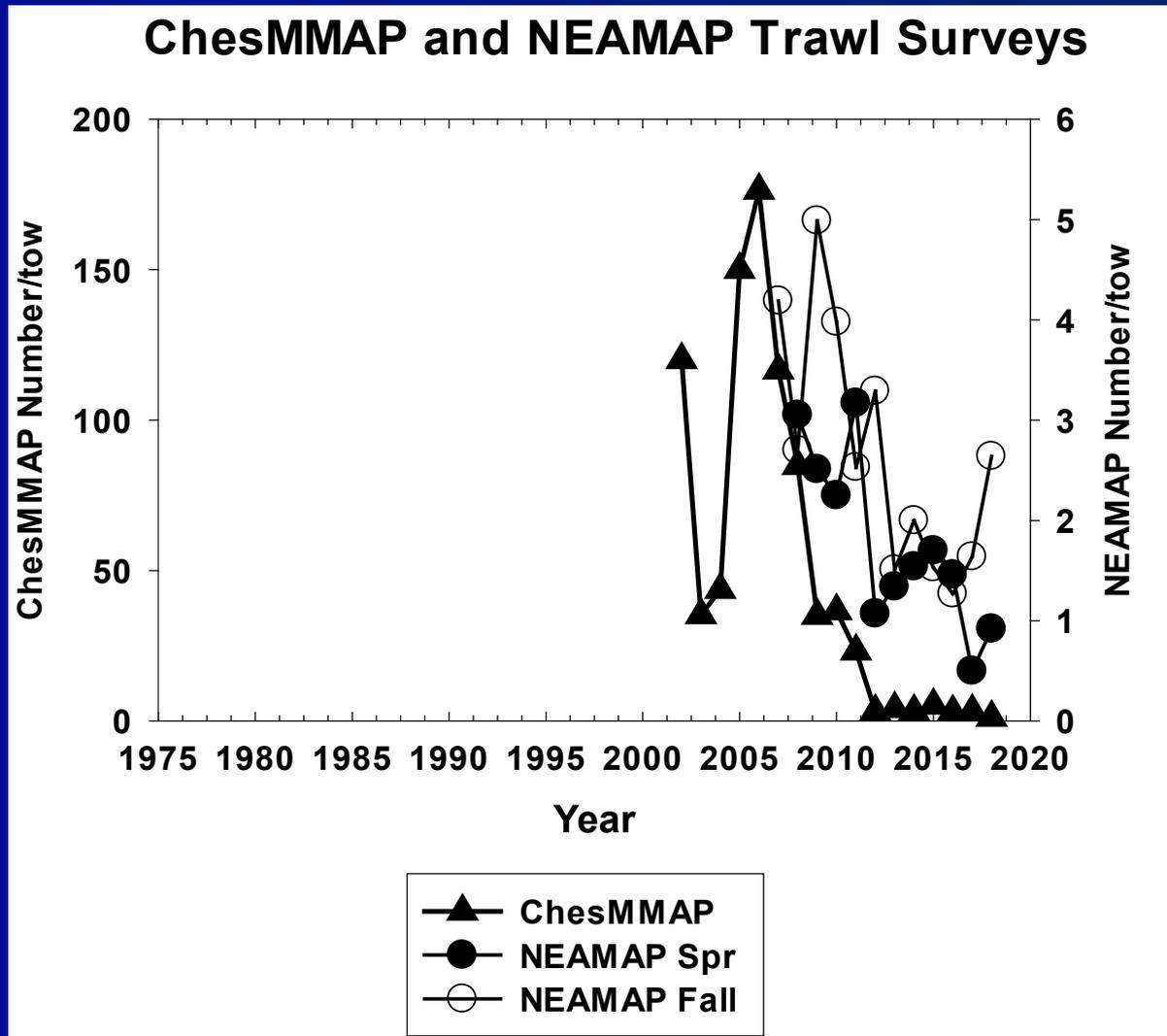
CT and NY Trawl Surveys



NJ and DE Trawl Surveys



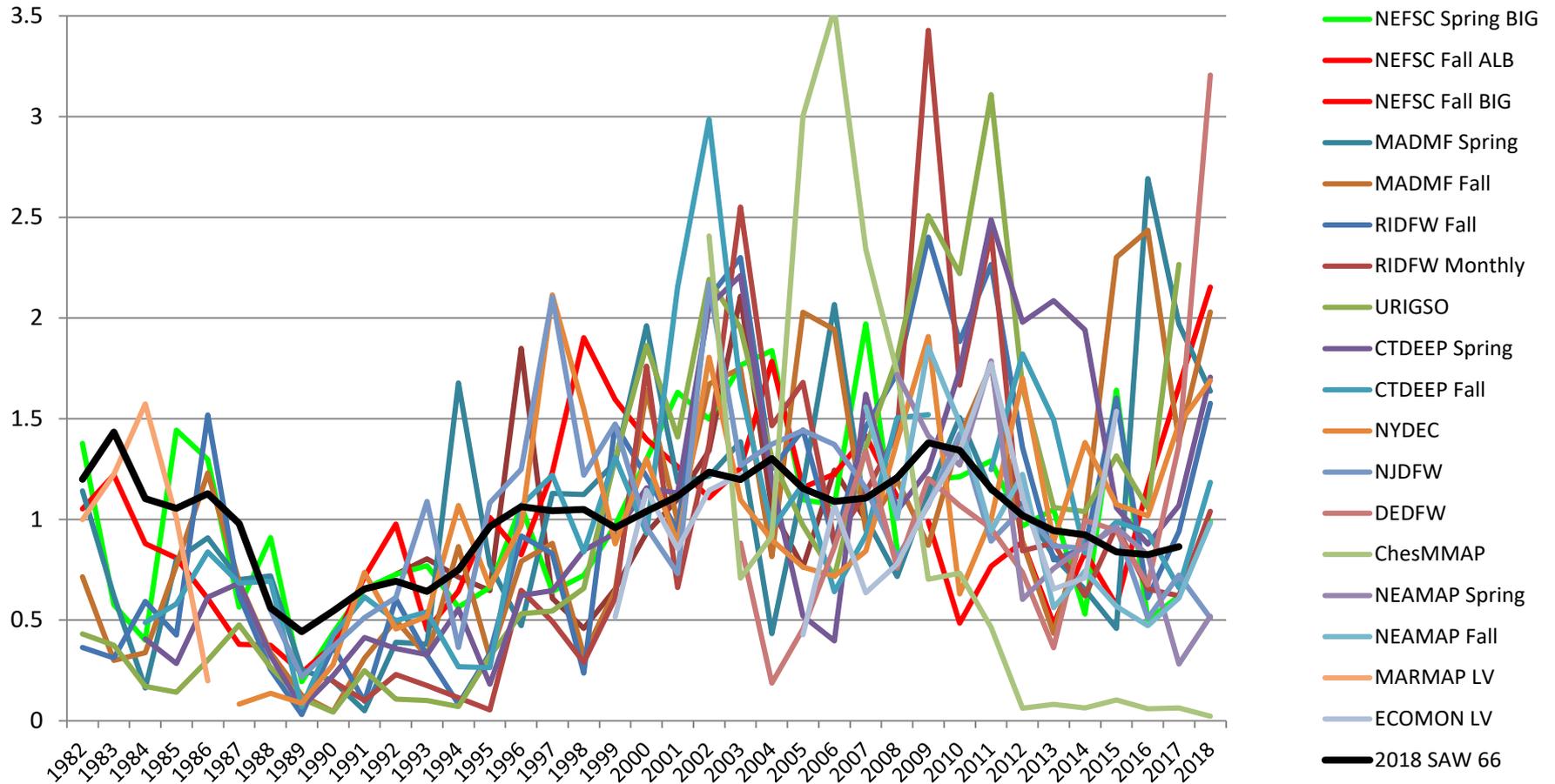
2019 Data Update



2019 Data Update

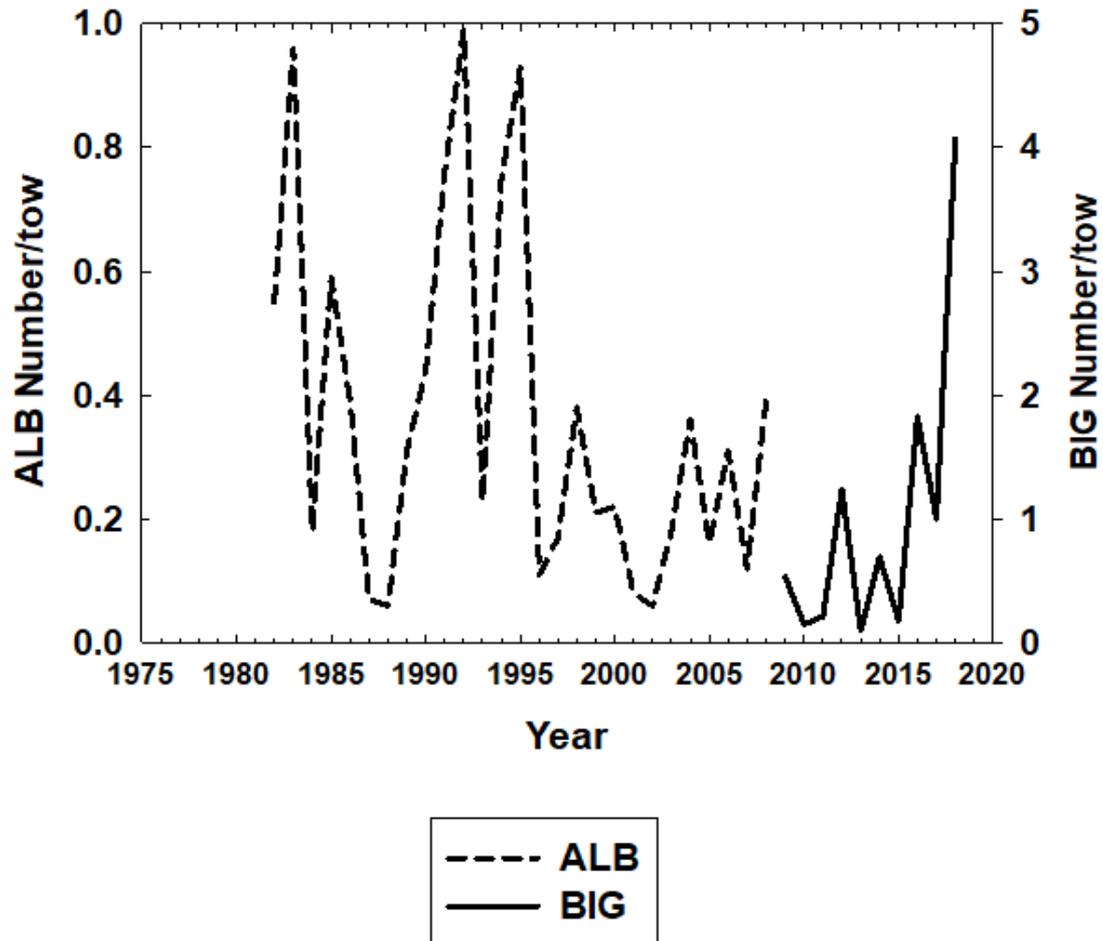


Summer flounder Aggregate Numeric Indices
Scaled to time series means



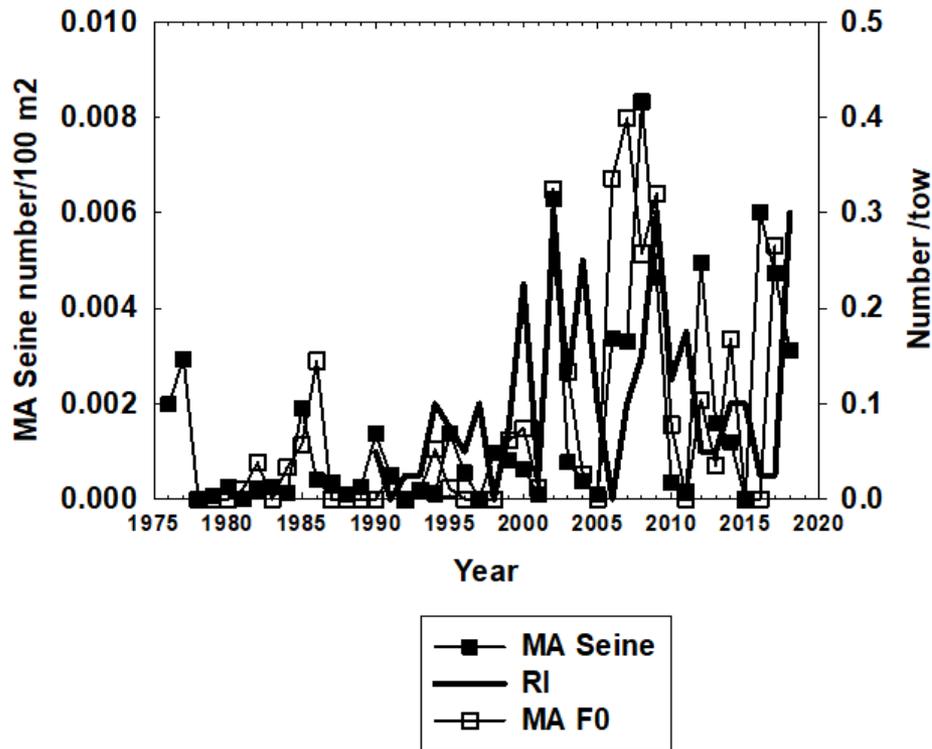
2019 Data Update

NEFSC Fall Age 0 Indices

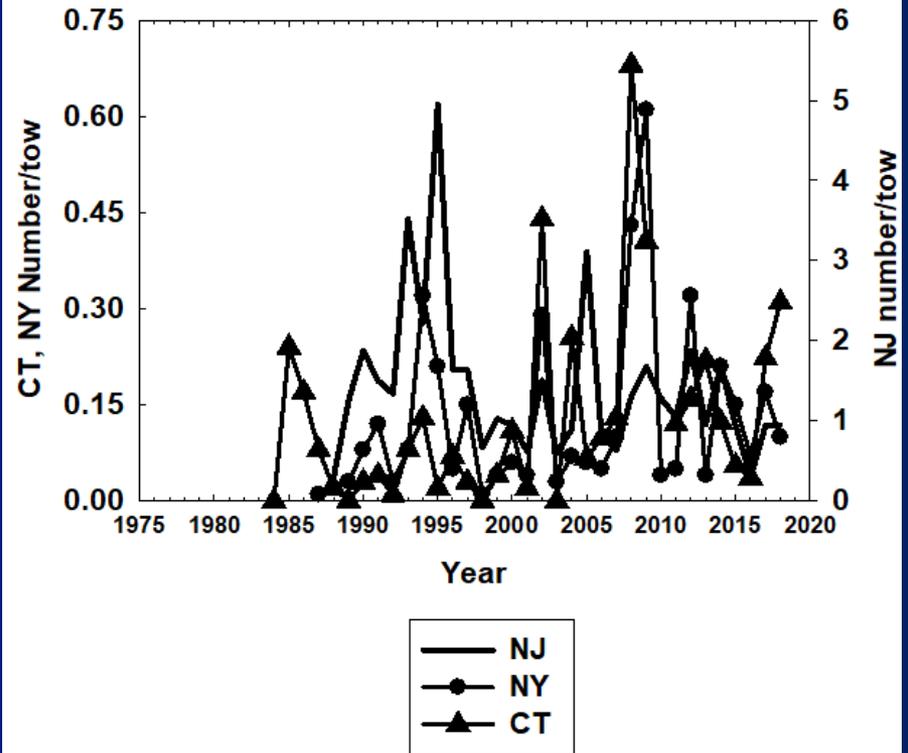


2019 Data Update

MA and RI Age 0 Indices

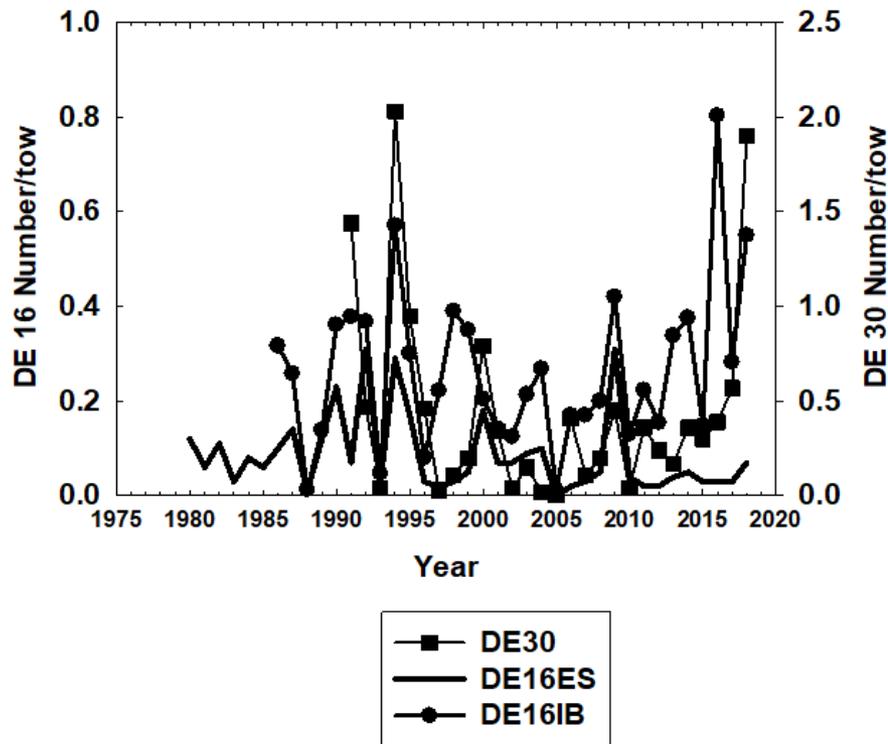


CT, NY and NJ Age 0 Indices

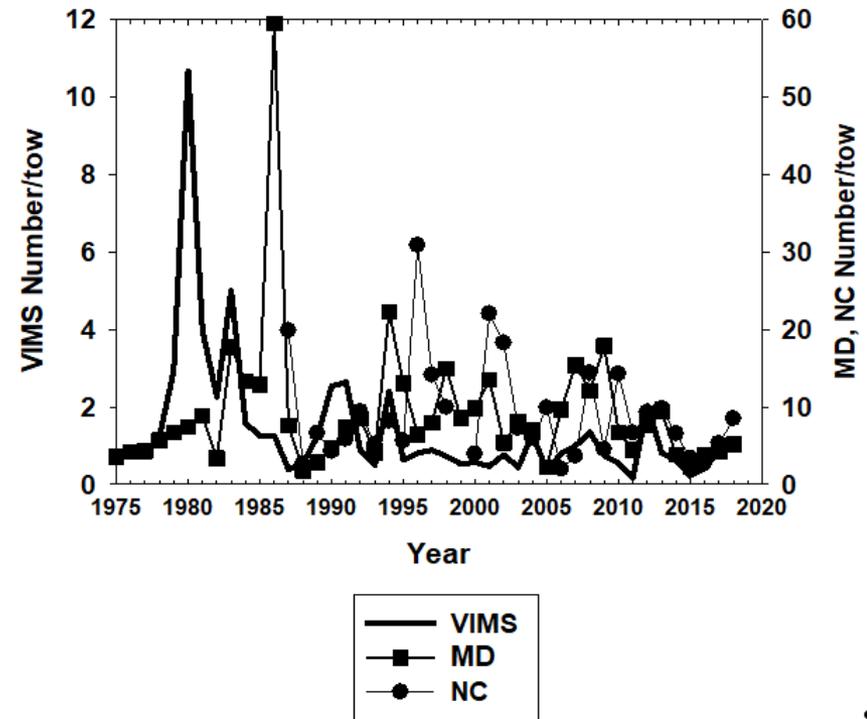


2019 Data Update

DE Age 0 Indices

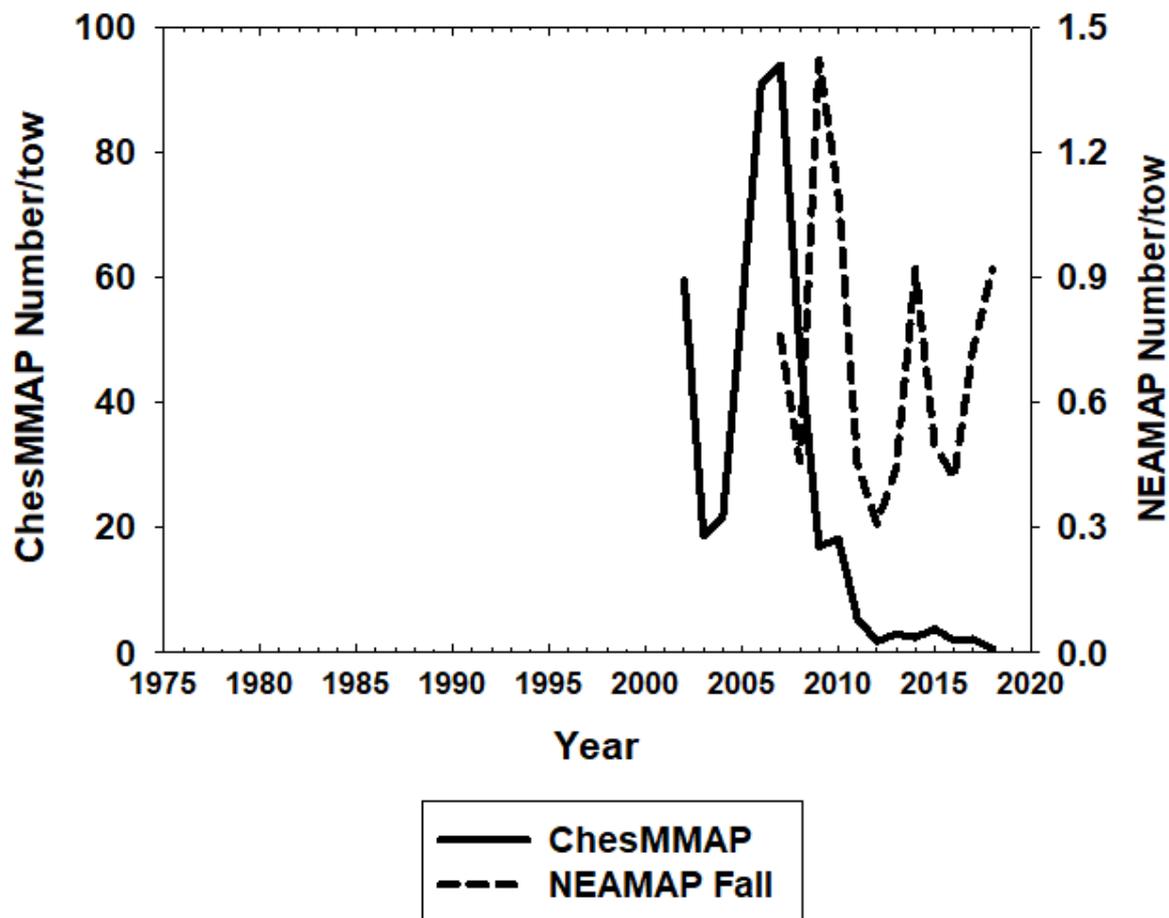


MD, VIMS and NC Age 0 Indices



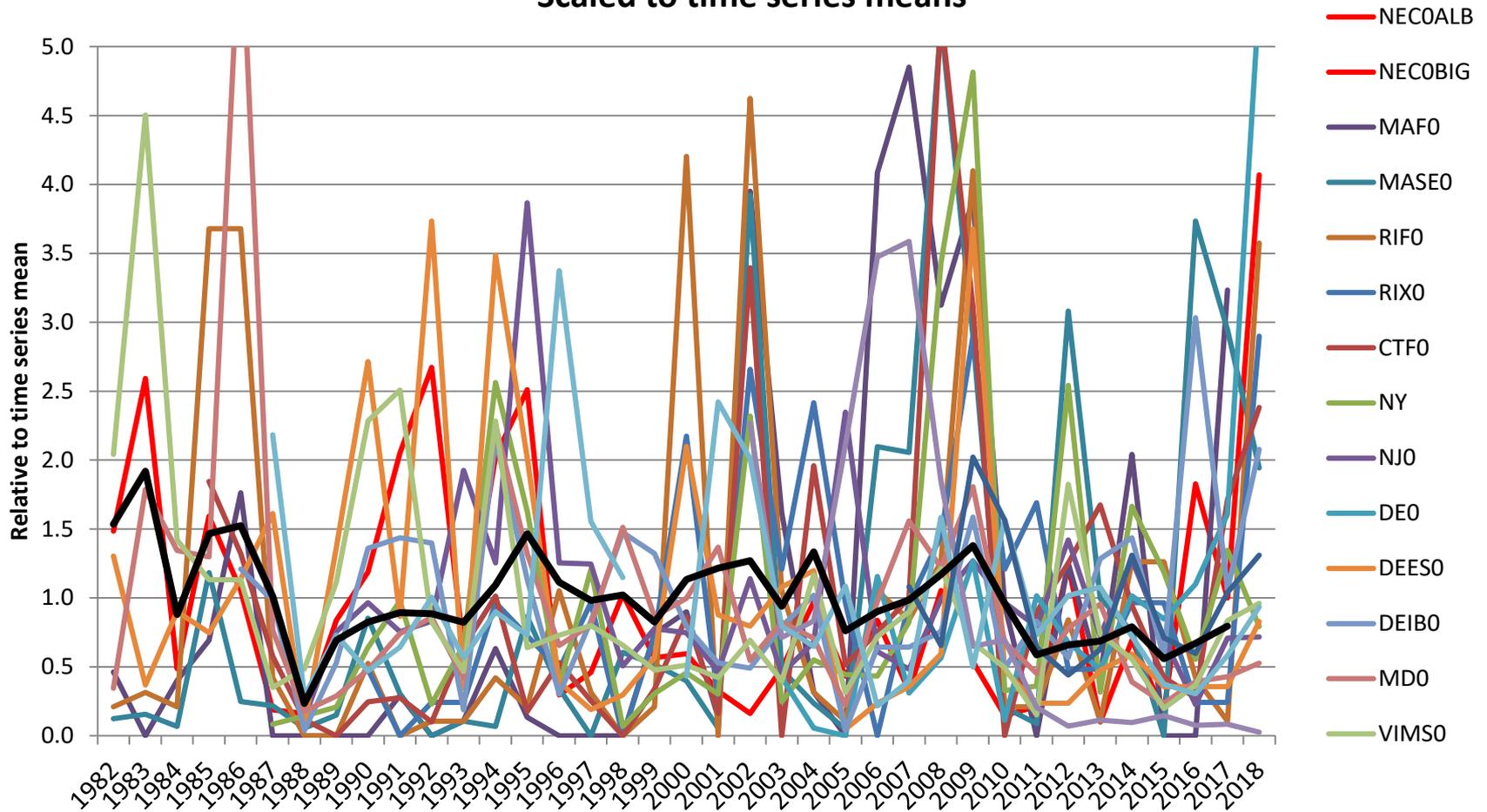
2019 Data Update

ChesMMAP and NEAMAP Age 0 Indices



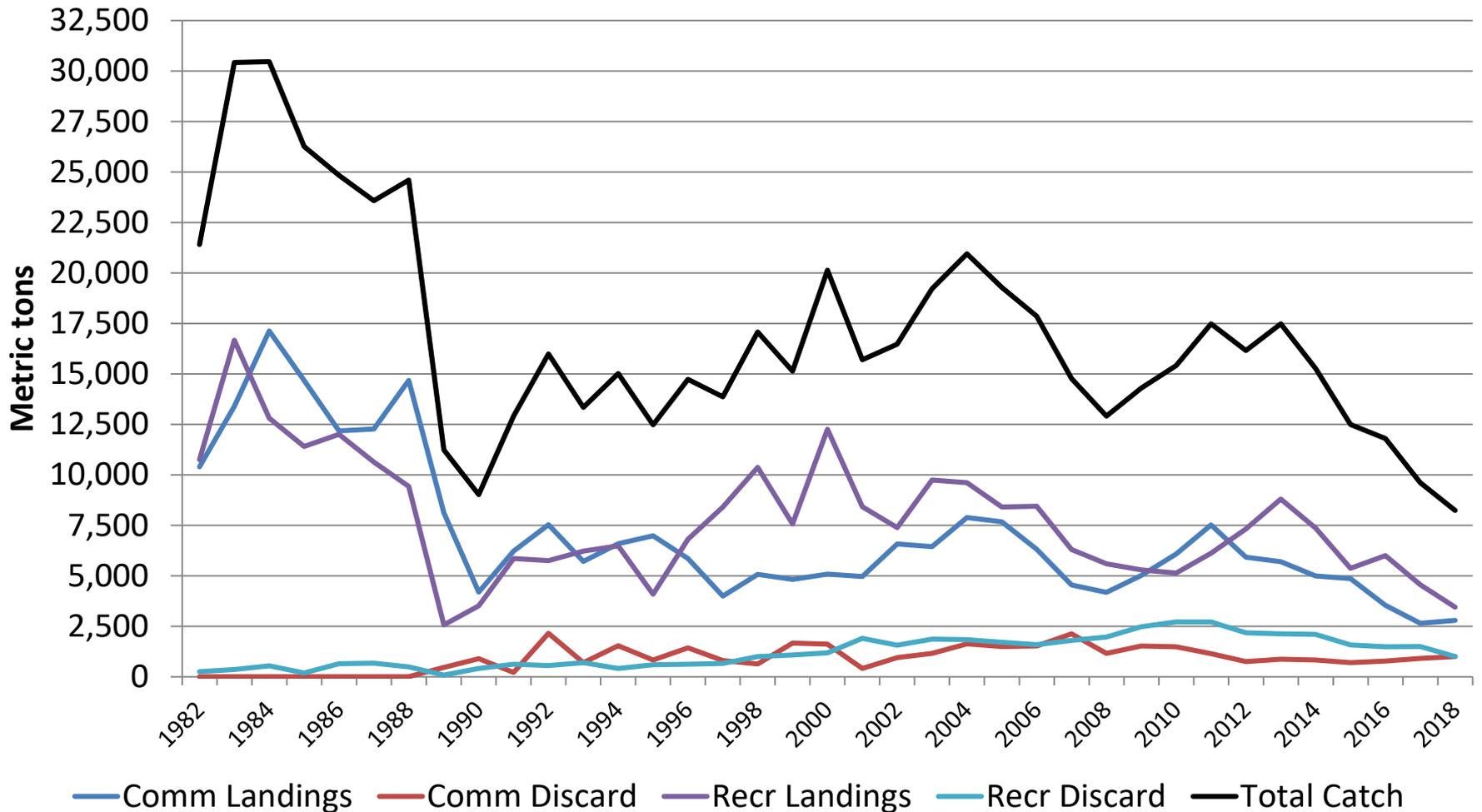
2019 Data Update

Indices of summer flounder age 0 recruitment
Scaled to time series means



Catch & Landings

Summer Flounder Fishery Total Catch: 1982-2018 with 'New' MRIP

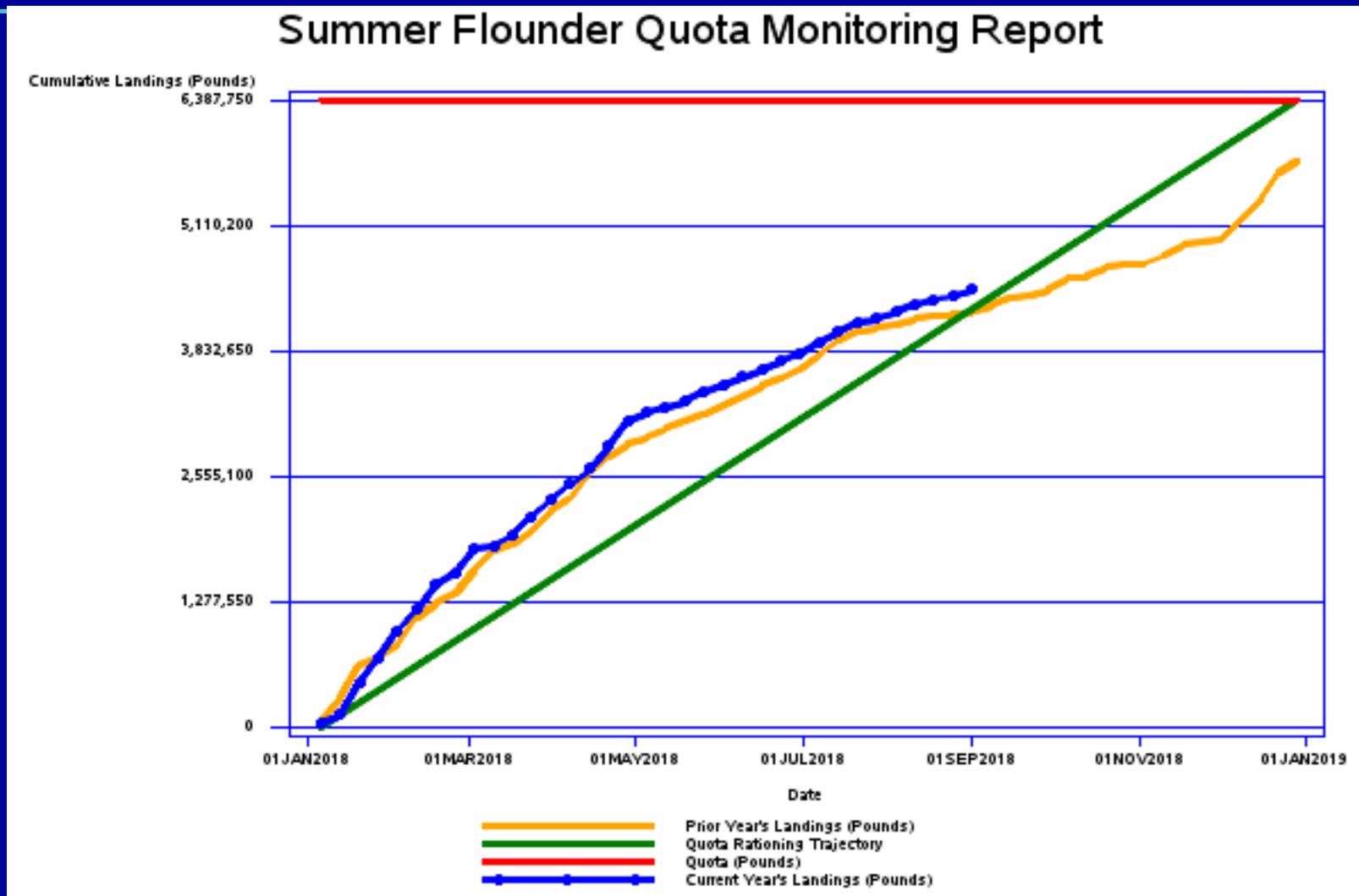


Fishery Performance



Year	Comm. Landings (mil lb)	Comm. Quota (mil lb)	Comm. % Over/Under	Rec. Harvest – OLD MRIP (mil lb)	RHL (mil lb)	Rec. % Over/Under	Rec. Harvest – NEW MRIP (mil lb)
2014	11.07	10.51	+5%	7.39	7.01	+5%	16.24
2015	10.68	11.07	-4%	4.72	7.38	-36%	11.83
2016	7.81	8.12	-4%	6.18	5.42	+14%	13.24
2017	5.83	5.66	+3%	3.19	3.77	-15%	10.06
2018	6.14	6.44	-5%	3.35	4.42	-24%	7.60
5-yr Avg.			-1%			-11%	

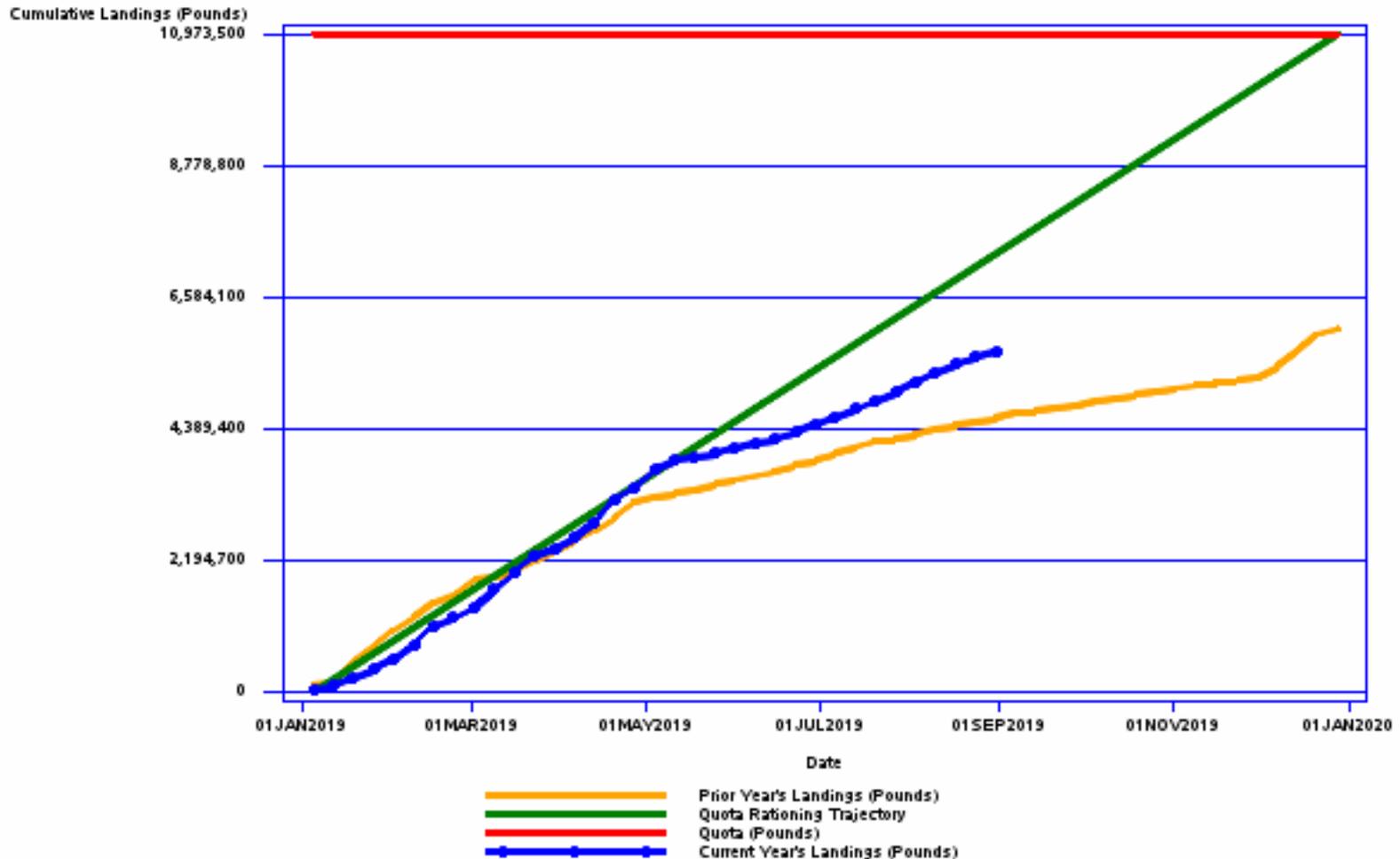
Commercial Quota Monitoring – this time last year



70% of commercial quota harvested as of week ending September 1, 2018.

Commercial Quota Monitoring – 2019

Summer Flounder Quota Monitoring Report



52% of commercial quota harvested as of week ending August 31, 2019.

Preliminary MRIP Estimates Through Wave 3

State	Preliminary Harvest (lb)
MASSACHUSETTS	11,613
RHODE ISLAND	402,311
CONNECTICUT	73,945
NEW YORK	586,433
NEW JERSEY	522,033
DELAWARE	32,961
MARYLAND	36,706
VIRGINIA	116,161
NORTH CAROLINA	21,915
TOTAL	1,804,078

23% of revised 2019 RHL (7.69 mil lb)

AP Fishery Performance Report



General Management Issues (All 3 Species)

- “No faith” in MRIP data, particularly revised estimates
 - Perceived inaccuracies, especially proportions by mode
 - Concern with high PSEs
 - Confusion about how MRIP scales up catch estimates from raw data
 - e.g., advisor requesting “number of anglers” MRIP estimates for NY (vs. number of trips)

AP Fishery Performance Report



General Management Issues (All 3 Species)

- Concern that MRIP estimates do not reflect catch by anglers going back to private docks
- Request for use of mobile app reporting for anglers
- MRIP intercept survey appears to disproportionately sample Montauk area at expense of rest of NY

AP Fishery Performance Report



General Management Issues (All 3 Species)

- Permitting, monitoring and reporting process should be overhauled for both sectors
- Latent permits should be addressed at state and federal levels (commercial and for-hire)
- Concern about “for-hire guides” on private vessels in New York that are not properly reporting

AP Fishery Performance Report



General Management Issues (All 3 Species)

- Enhanced reporting needed for the recreational fishery; comments included:
 - Rec. fishery should have same level of reporting as commercial
 - Electronic reporting should be required for private anglers
 - 1 disagreed with mandatory private angler reporting since most “fish for fun” and reports would be less accurate

AP Fishery Performance Report



Environmental and Ecological Issues

- Last year, NEAMAP survey hit a dead zone (low salinity and DO; off NJ coast)
 - Concerned about water quality impact on summer flounder
- Timing of trawl surveys should be improved to reflect changes in spawning behavior
 - E.g., lots of small summer flounder caught in small mesh off Ocean City/Baltimore Canyon; not captured by surveys

AP Fishery Performance Report



Environmental and Ecological Issues

- Virginia advisor noted his expectation that this year's rec. estimates would be lower than last year's given colder/wetter spring in 2019

AP Fishery Performance Report



Management Issues

- MRIP estimates by sector “ludicrous” (i.e., shore mode now estimated to catch twice as much as party/charter mode)
- Sector allocation: large recreational overages in late 90s/early 2000s; actual realized landings were often not 60%/40% even under old estimates
 - New higher rec. estimates aren’t a “new situation” given fluctuations in harvest proportions in past

AP Fishery Performance Report



Management Issues

- Summer flounder management has been a “failure,” particularly for recreational fishery
 - Stock increased under lower size limits; under higher size limits, stock started to decline again
 - Should revert to measures used under rebuilding
- Frustration with difficulty finding keeper fluke and high rec. discards
- Advisors suggested: lower minimum size limits, slot limits, cumulative length limit with mandatory retention

AP Fishery Performance Report



Management Issues

- Two advisors: cumulative length limit has been discussed in past and dismissed by managers, should be tested
 - One response: difficult to enforce, especially on party boats
- Suggestion for 100% retention in both sectors/prohibition on discards
 - One response: can't compel people to keep fish they don't want

AP Fishery Performance Report



Management Issues

- Suggestion for flexibility in size limit regulations for upper Chesapeake Bay to allow more retention, similar to different size limits by area for Delaware Bay

AP Fishery Performance Report



General Fishing Trends

- Past few years in MA: seeing fewer keeper fluke inshore in rec. fishery; likely due to higher water temperatures; need to go further offshore for keepers
- Fishing difficult in southern NJ in recent years
- NY fishing variable by location
- Keepers difficult to find near Block Island

AP Fishery Performance Report



Research Recommendations

- Updated research on discard survival, including variation with temperature, depth, and other variables
- More tagging research to evaluate discards (vs. cage studies which do not account for modified predation and feeding)
- Research into spawning behavior and stock structure of summer flounder

AP Fishery Performance Report



Research Recommendations

- Research into recreational gear impacts on discard mortality, including use of circle hooks
- Study on history of management successes/failures for the recreational fishery; factors influencing angler behavior and effort
- Full audit of fishery participation in rec. and commercial fisheries, including reporting and permitting requirements

Prior SSC Recommendations



- February 2019: recommended two sets of ABCs for 2019-2021 (varying and averaged)
 - Council and Board adopted averaged approach (constant ABCs 2019-2021)
 - SSC recommended that the selected harvest policy be sustained for full 3-year period

Prior SSC Recommendations



- Projections reviewed for both full 36-yr recruitment series and recent 7-yr below avg. R
 - SSC used recent 7-yr series: near-term conditions more likely to reflect recent recruitment patterns
- SSC-modified OFL probability distribution
- Lognormal distribution of OFL with CV = 60%; Proj. B/B_{msy} ~84%

Staff ABC Recommendation



- Maintain previously adopted 2020 ABC
- Next expected assessment update: 2021 to inform 2022-2023

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