



Mid-Atlantic Fishery Management Council

800 North State Street, Suite 201, Dover, DE 19901

Phone: 302-674-2331 | FAX: 302-674-5399 | www.mafmc.org

Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: July 20, 2021
To: Chris Moore, Executive Director
From: Kiley Dancy, Karson Coutre, and Julia Beaty, Staff
Subject: 2020 MRIP Estimates for Summer Flounder, Scup, and Black Sea Bass

Overview of 2020 Recreational Data Collection and MRIP Estimation Methods

The COVID-19 pandemic impacted recreational data collection by the Marine Recreational Information Program (MRIP) in much of 2020. While the mail and telephone surveys that collect effort data continued largely uninterrupted, the pandemic disrupted the Access Point Angler Intercept Survey (APAIS). All New England and Mid-Atlantic states suspended APAIS sampling starting in late March or April 2020. States resumed sampling between May and August 2020, depending on the state.

In April 2021, the National Marine Fisheries Service (NMFS) released final 2020 MRIP estimates, which were developed using imputation methods to fill gaps in 2020 catch rate data with data collected in 2018 and 2019. These proxy data match the time, place, and fishing mode combinations that would have been sampled had the APAIS continued uninterrupted. Proxy data were combined with observed data to produce 2020 catch estimates using the standard estimation methodology.

NMFS has indicated that when complete 2021 recreational data become available in 2022, they will evaluate the effects of including 2021 data (for example, alongside 2019 data and instead of 2018 data) in the imputation. Because these effects are unknown, the agency cannot predict whether it will seek to revise its 2020 catch estimates.

Additional information on 2020 data gaps and imputation methods is available in a frequently asked questions document developed by MRIP,¹ and in the presentation given to the Mid-Atlantic Council in June 2021.² Information specific to summer flounder, scup, and black sea bass estimates is provided below.

Summer Flounder, Scup, and Black Sea Bass 2020 Estimates

Harvest estimates in million pounds for 2020 are shown in Table 1 along with estimates for recent years for comparison purposes. The percent standard errors (PSEs) for the North and Mid-Atlantic

¹ <https://www.mafmc.org/s/1-2020-Marine-Recreational-Catch-Estimates-QA-52121.pdf>.

² https://www.mafmc.org/s/01_MRIP-2020-Estimation-Briefing-MAFMC-June-2021.pdf

(Maine through Virginia) for these estimates indicate that the 2020 PSE for summer flounder is above the recent 10-year average, while the PSEs for scup and black are below the recent 10-year average. The percent contribution of 2018-2019 imputed data to the annual harvest rate estimates for 2020 range from 17% for black sea bass to 25% for scup (Table 1). By wave, the percent contribution of imputed data ranges from 2-100% for summer flounder, 15-51% for scup, and 9-100% for black sea bass (Table 2).

Between 2019 and 2020, harvest estimates in weight increased by 29% for summer flounder, decreased by 9% for scup, and increased by 4% for black sea bass (Table 1). Recreational harvest in 2020 was about 31%, 98% and 56% greater than the 2020 recreational harvest limits (RHLs) for summer flounder, scup, and black sea bass, respectively (Table 3). For scup and black sea bass, these recreational overages were not unexpected as the Council and Board agreed to leave the recreational bag, size, and season limits unchanged in 2020 despite anticipated RHL overages. This was viewed as a temporary solution to allow more time to consider how to fully transition the management system to use of the revised time series of MRIP data released in 2018, including ongoing considerations related to the commercial/recreational allocations and many changes to recreational fisheries management under consideration through the ongoing Recreational Reform Initiative. For summer flounder, a 2020 overage of this magnitude was not anticipated as projected 2020 harvest was very close to the 2020 RHL. For all three species, recreational measures (bag limits, size limits, and seasons) did not change notably or at all between 2019 and 2020.

The Monitoring Committee should consider how these estimates should be interpreted and used to inform development of 2022-2023 catch and landings limits as well as recreational bag, size, and season limits for upcoming years. The Monitoring Committee will recommend 2022-2023 catch and landings limits during their July 2021 meeting and will discuss 2022 recreational bag, size, and season limits in the fall of 2021. Therefore, the Monitoring Committee will begin conversations related to appropriate use of the 2020 MRIP data in July 2021 and will continue these conversations through the fall of 2021.

Table 1: Recreational harvest estimates and coastwide PSEs for summer flounder, scup, and black sea bass from 2011-2020, in millions of pounds, Maine through Virginia, and the percent contribution of imputed data to total harvest rates for 2020.

	Summer flounder			Scup			Black sea bass		
	Harvest (mil lb)	PSE	% Imputed Harvest Rate Data	Harvest (mil lb)	PSE	% Imputed Harvest Rate Data	Harvest (mil lb)	PSE	% Imputed Harvest Rate Data
2011	13.17	8.1	-	10.32	16.7	-	3.16	15.0	-
2012	15.85	8.6	-	8.27	12.3	-	7.03	13.5	-
2013	19.22	9.8	-	12.64	13.6	-	5.67	13.8	-
2014	16.02	9.8	-	10.27	13.8	-	7.24	14.2	-
2015	11.67	7.8	-	12.17	16.0	-	9.05	11.3	-
2016	13.13	10.8	-	10.00	12.7	-	12.05	12.4	-
2017	9.94	13.4	-	13.53	13.7	-	11.47	19.4	-
2018	7.51	8.5	-	12.98	11.0	-	7.91	8.1	-
2019	7.75	9.6	-	14.11	8.8	-	8.60	7.9	-
2020	10.03	13.9	19%	12.91	8.8	25%	8.97	8.0	17%

Table 2: Recreational harvest estimates by wave and associated PSEs for summer flounder, scup, and black sea bass for 2020, Maine through Virginia, and the percent contribution of imputed data to total harvest rates by wave.

	Summer flounder			Scup			Black sea bass		
	Harvest (lb)	PSE	% Imputed Harvest Rate Data	Harvest (lb)	PSE	% Imputed Harvest Rate Data	Harvest (lb)	PSE	% Imputed Harvest Rate Data
Wave 2 (Mar/Apr)	1,251	101.4	100%	-	-	-	4	118.3	100%
Wave 3 (May/Jun)	2,163,932	13.4	60%	2,623,491	17.7	51%	2,139,345	18.5	41%
Wave 4 (Jul/Aug)	6,992,979	19.3	8%	6,452,987	12.3	19%	3,544,447	12.0	10%
Wave 5 (Sep/Oct)	866,407	22.4	2%	3,709,975	17.6	15%	2,127,234	12.0	9%
Wave 6 (Nov/Dec)	2,363	75.3	20%	126,009	23.1	51%	1,161,093	28.5	10%

Table 3: Recreational harvest relative to the RHL for summer flounder, scup, and black sea bass based on 2020 MRIP harvest estimates in millions of pounds.

	Summer Flounder	Scup	Black Sea Bass
2020 RHL (mil lb)	7.69	6.51	5.81
2020 MRIP estimate (mil lb)	10.06	12.91	9.05
% Over/Under	+31%	+98%	+56%

The estimated percent of recreational harvest (in numbers of fish) by recreational fishing mode in 2020 appears to be similar to previous years for scup and black sea bass. Summer flounder estimates show a slightly higher than average proportion of shore harvest in 2020 compared to recent years (Figure 1).

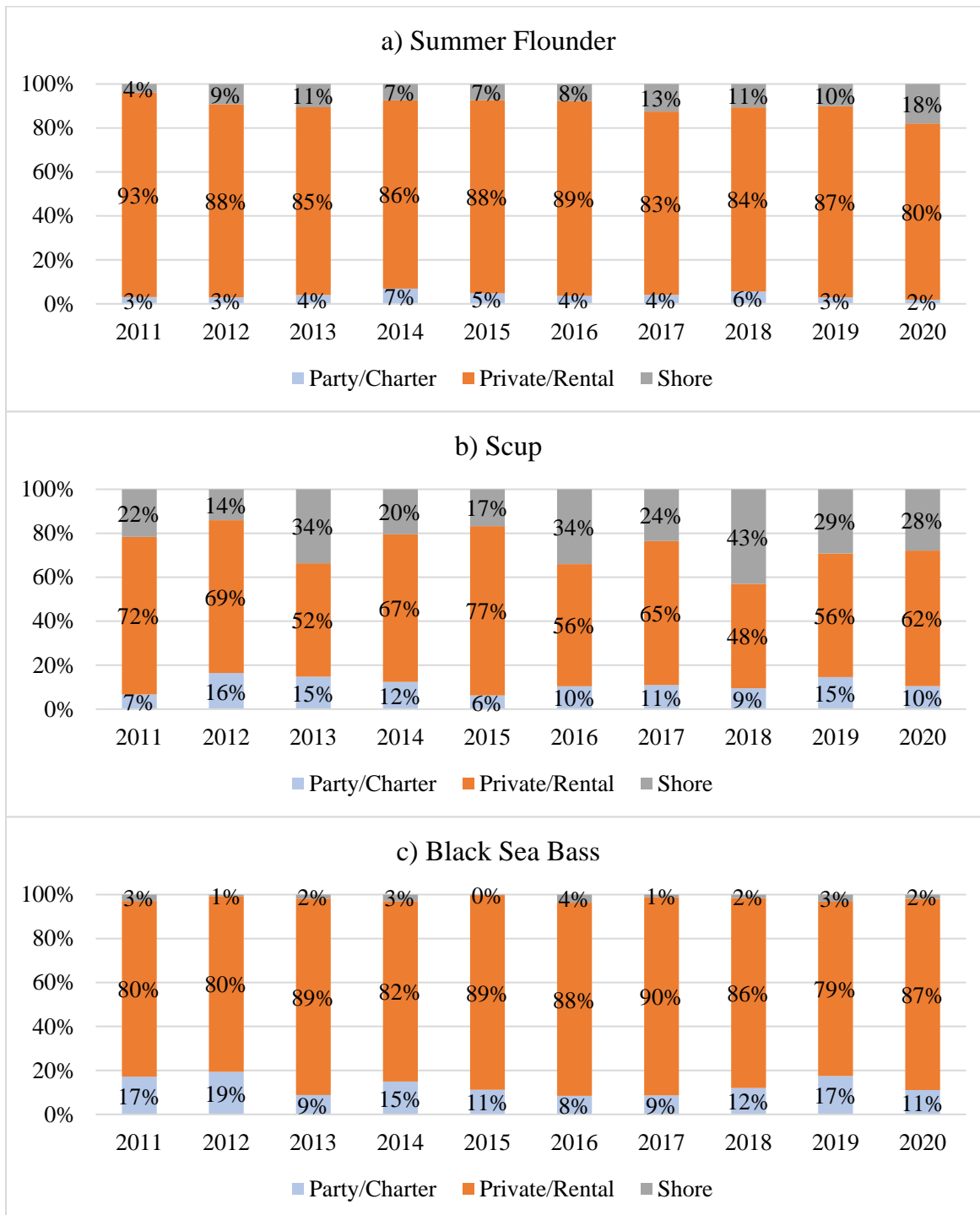


Figure 1: Estimated percent harvest (in number of fish) by recreational fishing mode, 2011-2020 for a) summer flounder, b) scup, and c) black sea bass.

The estimated percent of recreational harvest (in numbers of fish) by area (state vs. federal waters) in 2020 shows a higher than average proportion of harvest from federal waters for all three species. Summer flounder harvest is estimated at 39% from federal waters in 2020 compared to a 2011-2019 average of 18%; scup in 2020 is estimated at 10% from federal waters compared to a 2011-2019 average of 3%, and black sea bass is estimated at 44% from federal waters compared to a 2011-2019 average of 38% (Figure 2).

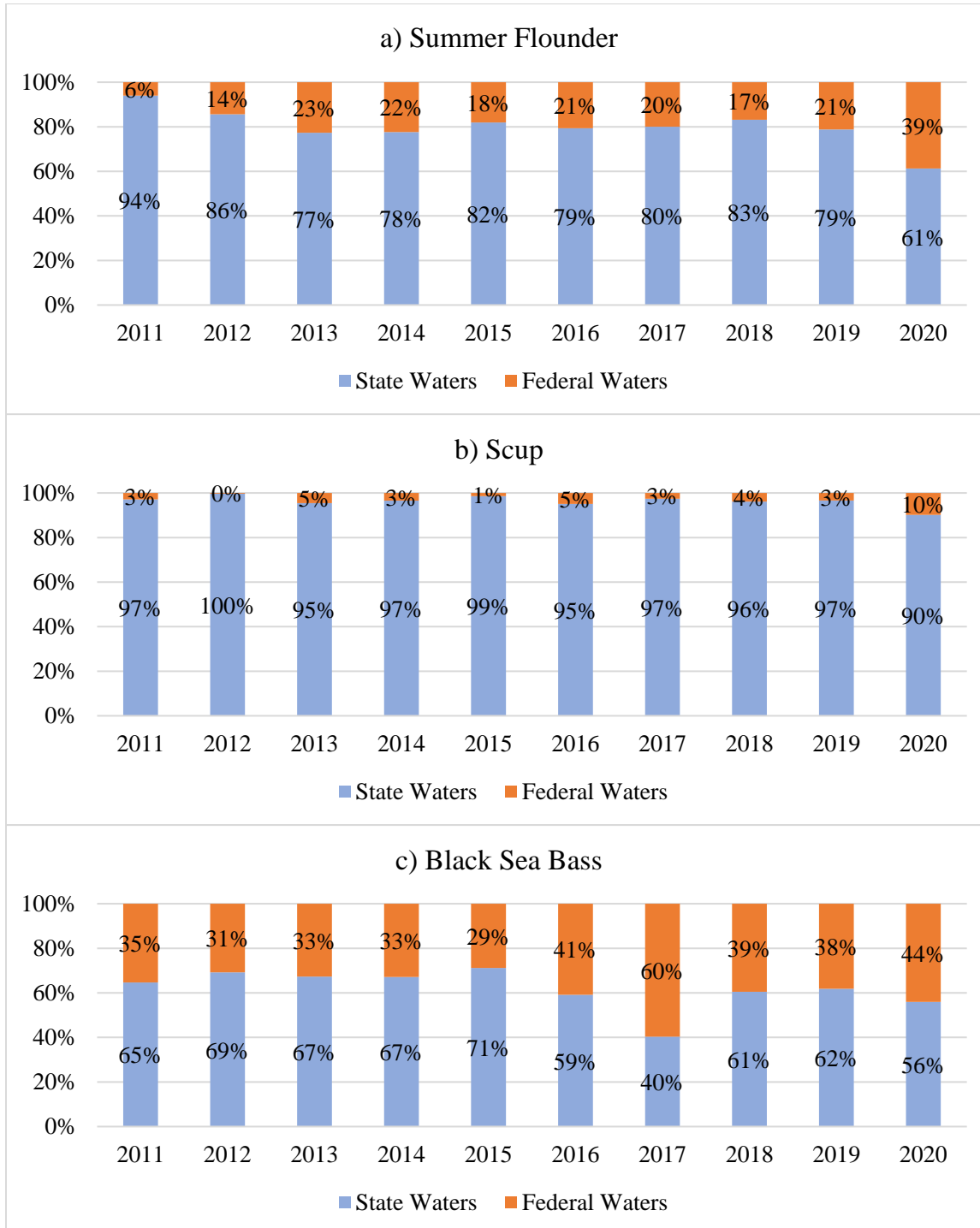


Figure 2: Estimated percent harvest (in number of fish) by fishing area (state waters or 0-3 miles at sea vs. federal waters or 3-200 miles at sea), 2011-2020 for a) summer flounder, b) scup, and c) black sea bass.

By state, 2020 estimates are generally within the range of recent years for most states and species (Figure 3). However, in some cases, 2020 estimates fluctuated more than what might have been expected under status quo management measures; for example, 2020 New Jersey estimates for summer flounder increased fairly substantially from 2019 despite only a very minor season change.

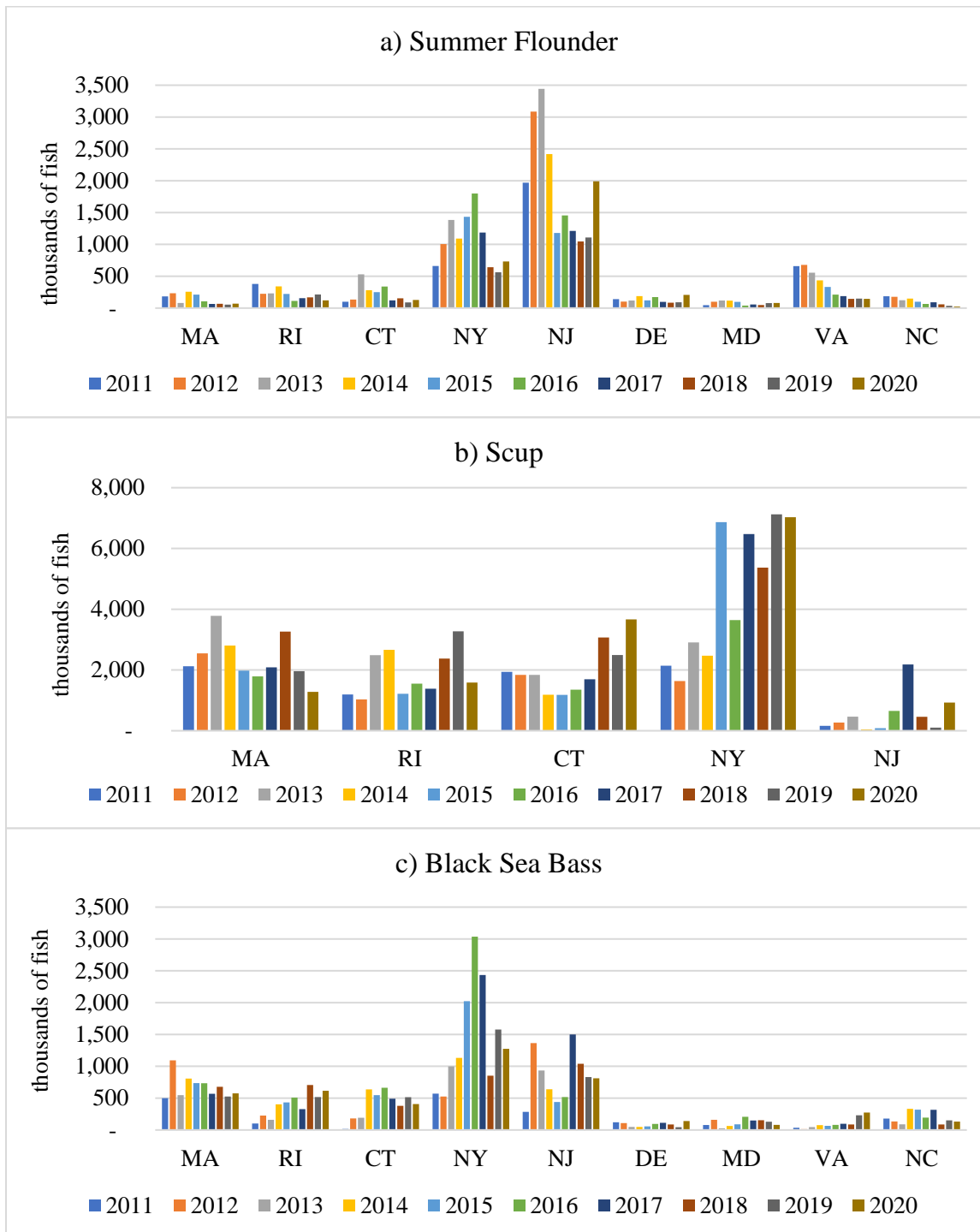


Figure 3: Estimated harvest (in thousands of fish) by state, 2011-2020 for a) summer flounder, b) scup, and c) black sea bass. MA through NJ only shown for scup as other states generally account for less than 1% of annual harvest.