Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmfc.org

MEMORANDUM

May 9, 2013

TO: South Atlantic State – Federal Fisheries Management Board

FROM: South Atlantic Advisory Panel

SUBJECT: Advisory Panel Comments on the Draft Black Drum FMP

The Black Drum Advisory Panel (AP) met via conference call to review and provide comments on the Draft Black Drum FMP. The AP has provided the following comments regarding recreational measures, commercial measures, and *De Minimis* criteria options for state management. The following AP members participated on the call: Bernie McCants (NC) and Tom Powers (VA). The following individuals presented information on the call- Jordan Zimmerman (TC Chair), Toni Kerns (ASMFC Staff), and Kirby Rootes-Murdy (ASMFC Staff). Tom Ogle (SC) was not able to participate in the call but sent in the attached comments (see pg. 3).

Recreational Measures

The AP members on the call expressed agreement for option 6, to allow states to continue their current management programs until the coastwide stock assessment is concluded in 2015 when more information may be available on the status of the resource. The members did agree that North Carolina should put measures in place since currently there are no measures for the recreational fishery.

Minimum Size Limit

While there was no consensus on a specific size or the need to protect juvenile black drum through to sizes of sexual maturity, the AP members did agree on the need to implement measures that protect black drum juveniles through the first year of their recruitment class. Due to the range in size black drum juveniles may be before reaching year 1 along the Atlantic coast, the Board may consider different size limits for each state/region.

Slot Limit & Trophy Allowance

While the AP members could not reach consensus on a specific slot limit due to the varying sizes of black drum by region, if Option 2 (slot limits) was chosen. There was agreement that the Board should allow the take of one fish larger than the maximum size limit. The AP members also suggested the Board consider a vessel trophy limit of 1 or 2 fish per vessel. An AP member suggested that a trophy fish should be a very large fish, 32" may be considered small for a trophy given that the biological data available on black drum indicate that they are long-lived fish (can live up to 50-60 years old) and grow to a significant size.

Bag Limit

The AP members were in favor of using a bag limit. The AP members agreed a bag limit should not be greater than 10 fish. If a state were implementing a larger size limit the Board may want to consider a bag limit of 5 fish or less.

Commercial Measures

The AP members on the call expressed agreement for option 6, to allow states to continue their current management programs until the coastwide stock assessment is concluded in 2015 when more information may be available on the status of the resource. The members did agree that North Carolina should put measures in place since currently there are no measures for the commercial fishery.

Minimum Size Limit & Slot Limit

The AP members did not come to consensus on a minimum size limit for the commercial fishery but did feel a size limit should be used. One member felt the size limit should consider the gear type used in the fishery to minimize dead discards. Another member felt the commercial and recreational size limit should be the same.

Trip Limits

While there was no agreement on a new standard trip limit to supersede states already enforcing a trip limit, the AP members recommended that NC should implement a trip limit, possibly at 500 lbs per vessel per day since this trip limit has been previously considered by the state.

De Minimis

The AP members stated that *de minimis* landings criteria could be up to 3% of the coastwide landings. The TC Chair suggested that recreational landings alone should not be used to set *de minimis* due to the high percent standard error in the landing for several states. The AP concurred with this statement.

DATE: May 5, 2013

TO: Kirby Rootes-Murdy, ASMFC FMP Coordinator

FROM: Tom Ogle, Inshore Species AP, ASMFC

Thank you for inviting me to submit my comments via email since I will be unable to participate in the conference call May 9th.

Re: DRAFT DOCUMENT **Interstate Fishery Management Plan for Black Drum**

1. I support the development of a coastwide FMP for black drum not only to protect the fishery but also to provide more equitable distribution of fishing opportunities. All Atlantic states regulate the catch but North Carolina, which does not regulate the recreational or commercial harvest. In some years NC lands more black drum than all the other Atlantic states combined (Fig.5, p.16).

2. I agree that EFH and HAPC for black drum coincide with those referenced in Amendment 2 to red drum FMP and are vital to the survival of black drum as well as red drum (p.19)

3. **Option: Minimum Size (p.29).** Given that black drum are susceptible to growth overfishing and recruitment overfishing (p. 4). The cornerstone of any FMP should ensure most fish have an opportunity to spawn at least once before harvest. Females become sexually mature around ages 4-6 (p. 3). The maximum minimum size limit used by any state is 16" TL, which is probably a 2 year old fish. Virtually none of these fish would even be close to spawning age. Increasing minimum size to 18"TL would increase the age at harvest close to age 4, likely allowing some individuals to spawn prior to capture. Perhaps minimum size could be incrementally increased over time.

   Option: Slot Limit (p.29). There should be a slot limit but unsure of what the maximum size should be. Near 30"TL, i.e., 18" – 30"TL.

   Option: Trophy Allowance (p.29). Suggest following the lead of NMFS for Bluefin Tuna and allow one "trophy fish" above maximum size limit per angler per **year**. Definitely not one per day!

   Option: Bag Limit (p. 30). Something in the range of 3-5 fish per angler per day.

4. Commercial Fisheries Management Measures (p. 30). Minimum size same as for recreational fishers and a trip limit at a level allowing sustainability.

5. The Research and Data Needs must be met to intelligently and effectively manage this fishery and should be given priority (p.43).

Thank you for this opportunity to express my views.

Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmfc.org

MEMORANDUM

May 14, 2013

To: **Louis Daniel, Chair, South Atlantic State-Federal Fisheries Management Board**

From: **Kent Smith, Chair, Habitat Committee**

Subject: **Black Drum Habitat Information in Draft FMP**

After reviewing the habitat section of the draft Black Drum Interstate Fishery Management Plan (FMP), the Habitat Committee (HC) recommends that several minor modifications be incorporated into the final FMP. Further, the draft FMP relies heavily on existing the habitat information from Amendment 2 to the FMP for Red Drum. Therefore, the HC recommends the development of a new source document to provide habitat information for all of the Commission-managed sciaenids, similar to the "Atlantic Coast Diadromous Fish Habitat" source document. Once the sciaenid source document is complete, the HC recommends the development of a black drum habitat addendum.

In general, the draft FMP requires some reorganization of the existing information (e.g. organize habitat requirements by life stage – larvae, juveniles, and adults). Also, a few figures should include scales (e.g. Figure 2 on page 7). The HC will also try to provide a few additional sources for black drum habitat information. The HC will share more detailed edits with the South Atlantic FMP Coordinator and Plan Development Team.

The HC also identified the lack of species-specific information for black drum, using habitat information from the Amendment 2 to the FMP for Red Drum. The development of a source document should provide more detailed information on black drum habitat requirements by life stage. Specifically, the draft FMP is lacking information regarding:

- The critical habitats, or habitat areas of particular concern, are too broadly defined, and it appears that all habitats are critical for black drum. The essential fish habitat discussed in the draft FMP pertains to red drum. The most important habitats need to be better distinguished and defined for black drum specifically.
- Salinity and substrate need to be better defined and associated with each life stage of the species. There is no discussion about the importance of hard bottom structures in the life cycle of black drum.
- References to black drum spawning should consider evidence from areas outside the Chesapeake Bay, such as Florida. More effort needs to be put into the habitat characterizations of each state's regional estuaries and the role they play in the life stages of the species.
- The threats that actually have an effect on the life stages of black drum need to be the focus of the "Threats" section.
    - A case in point is the discussion about marine debris in the spawning habitat. What effect does trash have on spawning and eggs? Then, debris is not mentioned in the discussion about marshes and the role marsh grasses play with regards to juvenile habitat.

MEMORANDUM

- The FMP needs to include a description of threats for each life stage, from offshore wind and sand mining for beach nourishment.
- There needs to be more discussion regarding runoff and hydrologic alterations.

Thank you for considering the HC's review of the draft Black Drum FMP.

Spanish Mackerel Alternative Management White Paper
State-Federal South Atlantic Management Board
May 2013

1.0 Introduction
This white paper discusses alternative measures that could be considered by the State-Federal South Atlantic Management Board under the adaptive management/framework procedures of Amendment 1 to the Interstate Fishery Management Plan (FMP) for Spanish mackerel. Spanish mackerel are cooperatively managed by the states through the Commission in state waters, and by the South Atlantic Fishery Management Council and NOAA Fisheries in federal waters. The management unit for Spanish mackerel consists of all estuarine waters to the inshore boundary of the Exclusive Economic Zone (EEZ) from New York through the east coast (Monroe/Dade county line) of Florida.

The purpose of this white paper is to consider seasonal flexibility in the minimum size limit of Spanish mackerel for pound nets in North Carolina. This would allow for conversion of dead discards so as to minimize waste from this fishery.

2.0 Overview

2.1 Statement of the Problem
A portion of the Spanish mackerel entering estuarine pound nets in North Carolina during August and September are just under the legal size limit of 12 inches fork length. When the nets are bunted and the fish bailed, the undersized Spanish mackerel are difficult to release alive and quickly die, unlike other species. An allowance for a minimum size limit of 11.5 inches fork length for pound nets during August and September would reduce these dead regulatory discards.

2.2 Background
The majority of North Carolina's commercial Spanish mackerel fishery occurs in state waters, with less than five percent (5%) of harvest, on average, occurring in federal waters (Table 1). Landings from state waters are split between the ocean (53.09%) and Pamlico Sound (37.27%), with other estuarine water bodies accounting for less than five percent of remaining harvest (Table 1).

Commercial harvest of Spanish mackerel in North Carolina is dominated by landings from gill nets, with an average of 92.12% of landings attributed to this gear (Table 2). Pound nets account for an average of 6.69% of Spanish mackerel landings with remaining gears each contributing less than 1% of total landings. Of the pound net landings, on average, over 99% of all harvest occurs in Pamlico Sound (Table 3). Pound net harvest generally occurs during the summer and fall months, with the highest average landings of Spanish mackerel occurring in June (Table 4). The second and third highest average landings occur during the months of July and August, respectively.

In recent years, fishermen have noted the presence of increased numbers of Spanish mackerel that are ¼-inch to ½-inch short of the 12 inch fork length minimum size limit in pound nets during August and September. While the fish are alive in the pound, once the net is bunted and bailing commences, they die before being released. This may be due to a combination of temperature, stress and crowding. Most pound nets are constructed using 1 ½-inch to 1 5/8-inch inch mesh in the pound and 4-inch to 6-inch mesh for the leads. While individual fishermen have experimented with different wall or panel mesh sizes depending on the target species, there is no consistent use of cull panels. Those who have used cull

panels have noted the difficulty and lack of success in being able to release the undersized fish quickly enough to prevent dead discards during this time of year.

In order to further illustrate the impact of the existing minimum size limit on this gear during August and September, an analysis was conducted using fishery-dependent and fishery-independent sampling data (Appendix A). The results of the analysis indicate that approximately 200 pounds of Spanish mackerel between 11 ½ and 12 inches (i.e., undersized fish) were landed annually from pound nets during the months of August and September in North Carolina. These results illustrate the difficulty in culling the undersized Spanish mackerel from the catch at this time of the year, and the impact of the minimum size limit on dead discards.

2.2 Description of the Fishery

Spanish mackerel (*Scombermorus maculates*) are distributed throughout the western Atlantic and Gulf of Mexico (Collette and Russo 1979, 1984). The most recent assessment report continues to support the existence of two stocks, one in the eastern Atlantic and one in the eastern Gulf of Mexico (SEDAR 2012). The Miami-Dade/Monroe County, Florida boundary has been used as the management boundary for the two stocks, separating the South Atlantic Fishery Management Council and the Gulf of Mexico Fishery Management Council jurisdictions.

Atlantic group Spanish mackerel generally range from the Florida Keys northward through New York and occasionally to southern New England. They migrate seasonally, overwintering off the east coast of Florida and migrating northward to the Carolinas and the mid-Atlantic in the spring as waters warm (Berrien and Finan 1977). The spawning season for Spanish mackerel generally increases from north to south, due mainly to warmer water temperatures (SEDAR 2012).

Since 1950, the majority (greater than 85% on average) of commercial landings has been attributed to the east coast of Florida, followed by North Carolina and Virginia. While these three states account for greater than 99% of commercial landings, the states of Maine, Massachusetts, New York, Rhode Island, Connecticut, Delaware, Maryland, New Jersey, South Carolina and Georgia also have recorded commercial landings of Spanish mackerel.

2.3 Stock Status

A benchmark assessment of the Atlantic group Spanish mackerel stock was conducted through the South East Data, Assessment, and Review (SEDAR) process in 2012. SEDAR 28 assessed both Gulf and Atlantic migratory groups of Spanish mackerel, and the results indicate that the Atlantic stock is neither overfished (SSB/MSST = 2.29) nor is overfishing (F_{2011}/F_{msy} = 0.521) occurring (SEDAR 2012).

3.0 Proposed Management Solution

To alleviate the issue of dead discards from pound nets in North Carolina during the months of August and September, the NC Division of Marine Fisheries (NCDMF) is proposing an allowance for a seasonal exemption from the minimum size limit. Rather than a complete exemption from the 12-inch fork length minimum size, NCDMF proposes a reduction in the minimum size limit to 11 ½-inches fork length. This exemption would apply only to pound nets in North Carolina's estuarine waters and only during the months of August and September. The impacts of these measures would be reviewed by the Technical Committee and/or Plan Development Team in annual compliance reports. The intent of the proposed measure is to reduce and/or eliminate seasonal regulatory discards.

4.0 References

Berrien P and D Finan. 1977. Biological and fisheries data on Spanish mackerel, Scomberomorus maculatus (Mitchill). Highlands (NJ): NMFS Sandy Hook Laboratory. Technical Series Report No 9. 52 p.

Collette, B. B., and J. L. Russo. 1979. An introduction to the Spanish mackerels, genus *Scomberomorus*, p. 3-16, In: Nakamura and Bullis (eds.), Proceedings: Colloquium on the Spanish and king mackerel resources of the Gulf of Mexico. Gulf States Marine Fisheries Commission, No. 4, Gulf States Marine Fisheries Commission, Ocean Springs, MS.

Collette, B. B., and J. L. Russo. 1984. Morphology, systematics, and biology of the Spanish mackerels (*Scomberomorus*, Scombridae). Fish. Bull., U.S. 82(4):545-692.

SEDAR. 2012. SEDAR 28 – South Atlantic Spanish mackerel Stock Assessment Report. SEDAR, North Charleston SC. 438 pp.

Table 1. North Carolina commercial landings of Spanish mackerel by water body (2000-2012).

Year	Other Waterbodies	Ocean > 3 miles	Ocean 0-3 miles	Pamlico Sound	Grand Total
2000	66,293	22,807	448,755	121,572	659,427
2001	45,053	29,513	402,104	177,003	653,673
2002	80,692	16,590	449,574	151,591	698,447
2003	12,481	20,120	350,237	73,947	456,785
2004	12,705	33,902	327,743	81,893	456,243
2005	13,847	56,295	205,376	170,484	446,002
2006	7,669	49,998	316,980	96,015	470,662
2007	8,630	51,090	374,857	53,301	487,878
2008	32,517	13,224	257,820	111,844	415,405
2009	47,910	30,805	431,166	451,931	961,812
2010	45,781	3,830	177,566	684,690	911,867
2011	21,536	34,644	255,384	559,653	871,217
2012	13,383	39,697	464,799	398,560	916,439
Total	**408,497**	**402,515**	**4,462,361**	**3,132,484**	**8,405,857**
Average (2000-2012)	**31,423**	**30,963**	**343,259**	**240,960**	**646,604**
Percent Average (2000-2012)	**4.86**	**4.79**	**53.09**	**37.27**	**100.00**

Table 2. North Carolina commercial landings of Spanish mackerel by gear type (2000-2012).

Year	Gill Nets	Beach Seine	Pound Net	Trawl	Handlines	Pots	Haul Seine/ Swipe Net	Other Gears	TOTAL
2000	624,750	5,273	21,792	1,611	2,839	1,098	1,952	111	659,426
2001	598,447	3,356	33,163	780	15,972	165	1,738	54	653,675
2002	669,295	337	24,118	1,746	1,571	749	529	104	698,449
2003	448,390	365	5,218	658	1,060	494	560	40	456,785
2004	449,784	207	3,524	186	2,087	29	407	19	456,242
2005	437,948	801	2,184	355	2,988	22	1,654	49	446,001
2006	458,727	6,155	2,783	109	2,366	11	503	8	470,662
2007	477,824	1,458	3,440	195	3,799	730	301	132	487,879
2008	362,013	378	49,534	653	2,041	184	563	40	415,406
2009	720,702	3,156	228,201	1,237	4,698	205	3,573	40	961,812
2010	808,308	1,676	96,490	324	2,639	63	2,349	18	911,867
2011	812,876	443	53,702	65	1,715	-	2,356	60	871,217
2012	874,160	15	38,612	978	2,289	10	197	178	916,439
Grand Total	**7,743,225**	**23,620**	**562,761**	**8,894**	**46,064**	**3,760**	**16,682**	**853**	**8,405,858**
Average (2000-2012)	**595,633**	**1,817**	**43,289**	**684**	**3,543**	**289**	**1,283**	**66**	**646,604**
Percent Average (2000-2012)	**92.12**	**0.28**	**6.69**	**0.11**	**0.55**	**0.04**	**0.20**	**0.01**	**100.00**

Table 3. North Carolina Spanish mackerel pound net landings by waterbody (2000-2012).

Waterbody	Total Pounds (2000-2012)	Average (2000-2012)	Percent Average (2000-2012)
Albemarle Sound	941	72	0.17
Core Sound	1,314	101	0.23
Croatan Sound	924	71	0.16
Neuse River	39	3	0.01
Pamlico River	28	2	0.00
Pamlico Sound	559,467	43,036	99.42
Roanoke Sound	5	< 1	<1
Grand Total	**562,718**	**43,286**	**100.00**

Table 4. North Carolina Spanish mackerel pound net landings by month (2010-2012).

Year	May	June	July	August	September	October	Total
2010	3,500	55,471	26,038	11,182	283	16	96,490
2011	2,118	35,463	10,571	5,291	214	45	53,702
2012	3,173	24,191	5,761	2,719	2,622	146	38,612
Grand Total	8,791	115,125	42,370	19,192	3,119	207	188,804
Monthly Average	**2,930**	**38,375**	**14,123**	**6,397**	**1,040**	**69**	**62,935**

Appendix A. Pound net analysis

Biological data collected from Spanish mackerel in the NCDMF's various fisheries-dependent and fisheries-independent programs were used to fit the allometric length-weight (in-lb) relation:

$$W = aL^b$$

where L is length in inches, W is weight in pounds, and *a* and *b* are parameters of the function. The predicted value of *a* was 0.000385 and the predicted value of *b* was 2.95.

Length samples of Spanish mackerel collected from the NCDMF Sciaenid Pound Net Sampling Program during 2010 through 2012 were used to characterize the length-frequency distribution of Spanish mackerel landed in North Carolina by pound nets. The numbers at length were converted to weight at length using the allometric length-weight function described above. This was done to estimate the proportion of weight at length.

The average landings per year of Spanish mackerel by pound nets in North Carolina during August and September were computed using landings data from 2010 through 2012 (Table 1). This average was applied to the estimated proportion of weight at length to estimate landed weight at length.

The estimated weight of Spanish mackerel landed by pound nets in North Carolina during August and September for fish greater than or equal to 11.5 inches and less than 12.0 inches is 197.2 pounds.

Table 1. Annual landings of Spanish mackerel by pound nets in North Carolina during August and September, 2010–2012.

Year	Pounds
2010	11,465
2011	5,505
2012	5,341
Average	7,437