Fiscal Impact Analysis of Proposed Atlantic Bonito Management Rule

Rule Proposal: 15A NCAC 03M .0524

Name of Commission: N.C. Marine Fisheries Commission

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Impact Summary: State government: No
Local government: No
Federal government: No
Substantial impact: No

AUTHORITY

N.C. General Statutes

G.S. 113-134.	Rules.
G.S. 113-182.	Regulation of fishing and fisheries.
G.S. 113-221.1.	Proclamations; emergency review.
G.S. 143B-289.52.	Marine Fisheries Commission – powers and duties.

Necessity: The need for management of Atlantic bonito (*Sarda sarda*) has emerged from growing concern among North Carolina Marine Fisheries Commission (NCMFC) members and the public about increasing recreational fishing pressure and the absence of a rule to implement management measures for this species. North Carolina does not currently have any means to manage the Atlantic bonito fishery, and the MFC is seeking this proposed rule to be prepared if the fishery continues to expand.

I. Summary

Atlantic bonito landings from the recreational sector have increased in state waters over the last 10 years and North Carolina accounts for 22% of the overall coastwide landings. Additionally, trends in the number of recreationally harvested fish have increased while trends in the number of released fish have remained stable over this time (Table 1). Currently, there is no targeted commercial fishery for Atlantic bonito in North Carolina. Due to the opportunistic nature of the fishery, commercial trips typically land less than 50 pounds per trip, with trips exceeding 300 pounds making up less than 5% of the total number of trips in state and federal waters. Further, there does not appear to be an immediate biological concern for the Atlantic bonito stock since there is no evidence of size truncation in the commercial and recreational fisheries over the past decade, and most fish are caught at or above the size where fifty percent or more of the fish are mature (L_{50}), which is 15 inches fork length in Atlantic bonito, except in the most recent two years of recreational data (2023, 2024). Although current data do not indicate an immediate

biological concern, the available information is not sufficient to demonstrate that the recent increase in harvest is sustainable over the long term.

For that reason, the NCMFC is proposing a rule that would do two things. First, it would establish a five-fish recreational bag limit, which is intended primarily as a precautionary cap; based on current harvest patterns, it is not expected to have a major near-term effect because anglers are not commonly retaining that many fish per trip. Second, it would grant the Fisheries Director proclamation authority, with prior NCMFC consent, to implement additional management measures more quickly if future conditions warrant action. In practice, the five-fish limit functions as an early management threshold, while the proclamation authority creates a mechanism for faster response if landings or stock conditions change.

If adopted, the immediate practical effect of the bag limit is expected to be limited, because current harvest patterns indicate that anglers rarely retain that many fish per trip. It would also provide a management framework for responding to future variable conditions (N.C.G.S. § 113-221.1) in the fishery without the delay associated with additional rulemaking. In that sense, the rule's most significant effect is not a change in current fishing behavior, but improved management readiness if conditions are variable.

The measures are not expected to reduce participation in Atlantic bonito recreational fishing, as the majority of Atlantic bonito fishing is catch-and-release or consists of catches less than five fish per trip (Table 2), which will not be restricted by the proposed management measures. The effect on commercial fishing is likely to be minimal as Atlantic bonito have low commercial value in the United States (Table 3), and they are only incidentally caught by commercial fishers pursuing other species with gill nets and hook-and-line gear.

II. Introduction and Purpose of Rule Proposal

Atlantic Bonito Life History

Atlantic bonito (*Sarda sarda*) is a small tuna species in the mackerel/tuna family Scombridae. Its body is spindle-shaped, with bluish to greenish shades dorsally, fading to silvery below. The upper sides have numerous diagonal dark stripes, with underlying diffuse dark bars. Anglers often confuse Atlantic bonito with false albacore (*Euthynnus alletteratus;* also called little tunny) and skipjack tuna (*Katsuwonus pelamis*) due to similarity in size and coloration. In addition to general misidentification, there is also significant confusion regarding the use of the same common name for many of these species. Many people, including anglers, often use names like "bonito," "bonita," "little tunny,", and "skipjack" interchangeably, and these common names can vary regionally.

A predominantly coastal species, Atlantic bonito are found in the Eastern Atlantic from Oslo, Norway, to Port Elizabeth, South Africa, as well as in the Mediterranean and Black seas. In the Western Atlantic, they range from Nova Scotia, Canada, to the Gulf of Mexico, and south to northern Argentina, but are apparently absent from most of the Caribbean Sea (Collette and Nauen 1983). Atlantic bonito school with similarly sized Scombrid species (Yoshida 1980), and most likely migrate north during the summer and early fall and south in the winter, but there is a

lack of scientific documentation of these migrations. Current tagging studies are underway by North Carolina State University, the Nature Conservancy, and the American Saltwater Guides Association to conduct research on Atlantic bonito migratory patterns on the East Coast of the United States.

Interjurisdictional Atlantic Bonito Management

Little information exists on the status of Atlantic bonito in the Western Atlantic, and as a result their stock status is considered unknown. Internationally, small tunas, including Atlantic bonito, are assessed and managed by the International Commission for the Conservation of Atlantic Tunas (ICCAT) in the Small Tunas Species Group. Currently, the small tunas in the Atlantic are divided into five stock regions based on traditional ICCAT management areas: Northwest Atlantic, Southwest Atlantic, Northeast Atlantic, Southeast Atlantic, and Mediterranean. Atlantic bonito are one of 13 species in the Small Tunas Species Group. Of these 13 species, the seven most important, Atlantic bonito (31%), little tunny (18%), frigate tuna (13%) king mackerel (12%), Spanish mackerel (9%), bullet tuna (5%), and wahoo (4%), represent about 91% of nominal catches between 1950 and 2023. Although there is currently no ICCAT assessment or management plan for Atlantic bonito, it has been identified as a species for which more data should be collected for stock assessment (ICCAT 2019). Genetic studies have shown that there is genetic isolation between both sides of the Atlantic Ocean (Viñas et al. 2010), and clear heterogeneity among Eastern Atlantic and Mediterranean populations (Viñas et al. 2020). These studies suggest that Atlantic bonito might have multiple stock units in the Atlantic Ocean and the Mediterranean Sea that disagree with the management areas adopted by ICCAT (Viñas et al. 2020).

National fisheries regulations in the Eastern Atlantic have recently been implemented. The Turkish Ministry of Agriculture and Forestry has set a seasonal ban on all recreational and sport fishing for Atlantic bonito along all coastal regions from April 1 to August 14. These regulations are part of a nationwide initiative to safeguard marine biodiversity during peak spawning months. Outside of this time frame, regulations are a minimum size of 25 cm (10 inches) with a 5 kg (11 lb) daily limit per angler (Sport Fishing Türkiye 2025).

In the United States, the only state that has adopted regulations for Atlantic bonito is Massachusetts. In May of 2025, the Massachusetts Division of Marine Fisheries enacted the first-ever size and possession limits for both false albacore (little tunny) and Atlantic bonito. The minimum size limit for both species is 16 inches curved FL and reflects the estimated size-at-maturity for both species. Additionally, retention is limited to no more than five fish per person per day of both species combined and applies only to fish caught and possessed in state waters (0-3 miles). These new limits apply universally to all persons whether commercially or recreationally fishing; however, there are bycatch exemptions for commercial fish weirs and mechanized mackerel jigging operations, as sorting and discarding the bycatch would be unduly burdensome for these fisheries. Massachusetts has seen considerable growth in the fishery without the benefit of stock assessments, extensive understanding of species life history, or fishery management plans (FMPs) to control fishing mortality. As a result, the Massachusetts Division of Marine Fisheries chose to adopt these precautionary management measures until a time when a more robust science and management program is implemented. The new possession

limits are designed to constrain recreational harvest approximately at current levels and discourage further expansion while curtailing the development of a directed commercial fishery (Commonwealth of Mass. DMF 2025).

Currently, there are no rules for management in place for Atlantic bonito in any other states, but some states are considering management. Management is not currently being pursued, though it has been discussed by the ASMFC, the SAFMC, and the MAFMC. At the August 2016 MAFMC meeting, council staff recommended the Council consider developing management actions for the species in the future (including a potential small tuna FMP), due to a high level of public concern for the species, particularly from the recreational sector. The ASMFC Interstate Fisheries Management Program Policy Board (Policy Board) tasked ASMFC staff in February 2022 to present an options paper on possible paths forward for management of Atlantic bonito and false albacore after concerns were raised regarding increased recreational harvest of juvenile fish in some state waters. Staff presented possible options for developing different paths to management for both Atlantic bonito and false albacore at the May 2023 ASMFC Policy Board meeting. The information also included the states' ability to regulate a species and timing to implement measures without an ASMFC FMP. ASMFC staff noted that if additional species were added to the ASMFC portfolio, it would increase the workload for ASMFC and state staff, some of which are already at full capacity. Although some member states are interested in management measures for these species, ASMFC's Policy Board decided not to pursue management at the interstate level. Similarly, management of Atlantic bonito through a small tuna FMP has not been pursued yet by a federal management body.

Proposed N.C. Atlantic Bonito Management

At its May 2024 business meeting, the NCMFC passed a motion to request N.C. Division of Marine Fisheries (NCDMF) staff develop an issue paper for Atlantic bonito management, including landings information and proposed rule language, using the previous sheepshead issue paper (February 11, 2013) as a model to follow. Discussions among commissioners noted concerns expressed by recreational stakeholders about angler behavior changing in targeting Atlantic bonito in more recent years and the potential need to implement a recreational bag limit. Further concerns expressed by the NCMFC identified limited information about Atlantic bonito in this part of the Atlantic Ocean and no measure of stock status for the population, and whether these recent increases in recreational catches may not be due to more fish, but rather due to changes in fishing tactics and new technologies available to recreational anglers to improve their success in catching Atlantic bonito when available in state waters. Commissioners did not express concern for commercial catches due to Atlantic bonito having a limited shelf life as a fresh product and not being desirable frozen as likely reasons behind no similar increase in commercial harvest. Potential waste of the resource was discussed, since there are no current limits on Atlantic bonito. The NCMFC also identified the need to learn more about the fisheries and develop rule language in order to implement regulations to get ahead of a potential problem. Commissioners continued discussions on Atlantic bonito at their August and November 2024, and May 2025 business meetings with an urgency to be proactive in their management and continued to stress the need to implement a bag limit in the recreational fishery.

At the August 2025 NCMFC business meeting, NCDMF staff presented background information, which outlined life history and catch characteristics of Atlantic bonito. Commissioners discussed that Atlantic bonito appear to behave differently off southeast North Carolina than in other locations along the coast, showing preference for structure and pondered if these preferences are associated with spawning thereby making Atlantic bonito more vulnerable to harvest. Commissioners mentioned that the presentation illustrated the increasing trends in the recreational landings with smaller fish being caught in recent years and discussed the potential for implementing both a bag limit and possibly a size limit on the recreational sector. A commissioner stressed that in their own capture of Atlantic bonito the fish have a mouth-to-gills structure more like Spanish mackerel and therefore the hooks are often closer to the gills creating higher potential for release mortality. The commissioner therefore expressed hesitation to consider a size limit as it could increase discards. Smaller Atlantic bonito appear later in the season often mixed in with Spanish mackerel and regardless will result in the catch of smaller fish. The stated intention behind the NCMFC adopting a rule to delegate broad proclamation authority to the Fisheries Director is to implement a recreational bag limit soon after the rule becomes effective. The NCMFC passed a motion for NCDMF staff to bring proposed rulemaking language for a five-fish recreational bag limit per person for Atlantic bonito to its November 2025 business meeting. At the November 2025 NCMFC business meeting several proposed rulemaking options were presented, followed by a brief discussion of next steps in the rulemaking process. At the February 2026 NCMFC business meeting, the NCMFC selected a management option that would implement a five-fish recreational bag limit and delegate the authority for the Fisheries Director to issue a proclamation to manage all other parameters of the commercial and recreational fisheries with prior NCMFC consent.

Summarizing the available data, landings from the recreational sector have increased in state waters over the last 10 years and North Carolina accounts for 22% of the overall coastwide landings. Additionally, trends in the number of recreationally harvested fish have increased while trends in the number of released fish have remained stable over this time. Currently, there is no targeted commercial fishery for Atlantic bonito in North Carolina. Due to the opportunistic nature of the fishery, commercial trips typically land less than 50 pounds per trip, with trips exceeding 300 pounds making up less than 5% of the total number of trips in state and federal waters. Further, there appears to be no biological concern for the Atlantic bonito stock since there is no evidence of size truncation in the commercial and recreational fisheries over the past decade, and most fish are caught at or above the L_{50} (15 inches FL) except in the most recent two years of recreational data (2023, 2024). Likewise, there is no biological evidence that higher harvest in recent years is sustainable. While these trends do not indicate the need for immediate management, it would be prudent to continue to monitor landings and collect additional biological information for this species.

The proposed rule delegates authority to the Fisheries Director to issue a proclamation to address variable conditions in the Atlantic bonito fishery to manage time, area, means and methods, season, size, and except for a bag limit of five fish per person per day for recreational purposes that would be set in rule. Implementation of the proposed rule, once in effect, would include formal monitoring of the commercial and recreational Atlantic bonito fisheries by the NCDMF. Formal monitoring would mean NCDMF annually providing a landings summary with trends in

the fishery, length frequency distributions, updates on any biological studies, and any changes in management that may occur at the state and federal level to the NCMFC at its first business meeting after July 1, typically occurring in August. Including NCMFC consent in the rule provides the opportunity during a public meeting for the NCMFC to review and discuss the proposed issuance of a proclamation since there is no baseline stock assessment of Atlantic bonito and no FMP to address adaptive management when landings are variable year to year.

III. Fiscal Analysis

The purpose of this document is to examine the potential economic impacts (costs and benefits) of the proposed Atlantic bonito management rule.

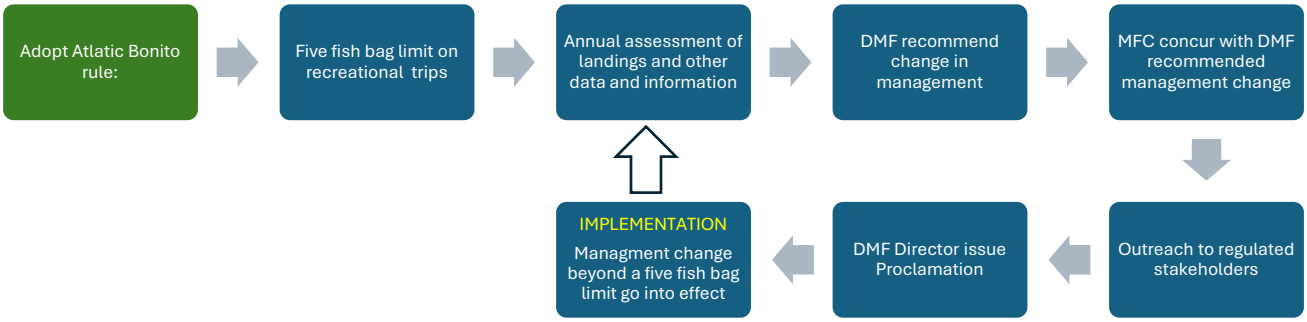
In the near term, the rule would impose a five-fish recreational bag limit. This restriction could reduce harvest for anglers who currently retain more than five Atlantic bonito per trip. However, NCDMF's collected data indicate that most recreational trips land less than five fish, and because many recreational Atlantic bonito fishing trips are catch-and-release and the available catch and trip data are imprecise, NCDMF cannot reliably estimate the magnitude of any resulting change in harvest, effort, or discards. Supporting data are provided in the companion document. "Atlantic Bonito Management Issue Paper" that was presented to the NCFMC at its February 2026 business meeting located here: [https://www.deq.nc.gov/marine-fisheries/marine-fisheries-commission/february-2026/atlantic-bonito-issue-paper/open].

The rule would also establish proclamation authority for the Fisheries Director, with prior NCMFC consent, to implement additional management measures if future conditions warrant action. Although any additional restrictions would depend on future biological or fishery conditions, establishing this framework in advance provides regulatory certainty to the regulated community regarding the types of measures that could be implemented. It may also improve compliance slightly if a proclamation is issued in the future, because stakeholders would already have notice of the potential management tools available. It is also possible that no additional management measures would ever be implemented beyond the five-fish recreational bag limit.

The costs to the regulated community would primarily consist of reduced harvest opportunities under the five-fish bag limit and any future restrictions that may be adopted through proclamation. Recreational fishers who do not retain Atlantic bonito, or who retain five or fewer fish per trip, would not be affected by the bag limit. The proposed rule is not expected to create costs for the State because enforcement of the bag limit and any future proclamation-based measures would occur through existing Marine Patrol duties without requiring additional resources.

The rule's primary long-term benefit would be to expedite implementation of additional management measures if changes in commercial or recreational trends, length frequency distributions, biological studies, or state and federal management indicate that further action is needed. Figure 1 below illustrates the steps that would follow adoption of the rule if additional management measures were later implemented through proclamation.

Figure 1. Steps from Adoption of Rule to Implementation



IV. Conclusion

Although the rule's near-term effects are expected to be minimal and its long-term benefits are not readily quantifiable due to data limitations and uncertainty about future conditions, the rule would provide three real advantages: (1) a precautionary harvest cap, (2) regulatory certainty about potential future management tools, and (3) faster, transparent response capability through proclamation authority with prior public NCMFC consent. These improvements would enhance NCDMF's ability to manage Atlantic bonito sustainably while preserving public participation in the process, ultimately benefiting both the species and North Carolina's marine resources users.

Because additional management measures may never be needed, and because the available data are highly imprecise, it is impractical to predict the likelihood of realizing costs and benefits associated with future proclamation-based management. Any such measures could be implemented only through the Fisheries Director's use of proclamation authority, with prior consent from the NCMFC. That prior consent would be considered at an NCMFC business meeting, where the public may attend and provide comment in advance of and during the meeting.

Table 1. Recreational harvest (number of fish landed and weight in pounds) and releases (number of fish) and commercial harvest (weight in pounds) of Atlantic bonito from North Carolina for the period 1994–2025. Data with an asterisk is preliminary (up to October for recreational and up to September for commercial) and not included in averages. PSE is Percent Standard Error. (Source: Marine Recreational Information Program and North Carolina Trip Ticket Program)

	Recreational						Commercial	
Year	# Landed	PSE	# Released	PSE	Weight Landed (lb)	PSE	Weight (lb)	Total Weight (lb)
1994	11,860	48.2	18,933	48.6	23,712	56.7	37,372	61,084
1995	10,528	73.8	2,407	49.2	41,312	80.6	34,717	76,029
1996	864	58.2	10,845	56.1	5,394	71.9	16,267	21,661
1997	31,090	41.4	29,816	52.7	162,980	41.8	42,372	205,352
1998	13,513	68.4	8,836	72.7	145,837	87.7	21,352	167,189
1999	6,045	44.8	2,682	73	38,657	44.2	23,291	61,948
2000	13,617	93.4	9,257	58.4	69,579	89.9	13,343	82,922
2001	7,722	48.2	5,001	56.1	23,603	50.7	16,531	40,134
2002	28,728	64	30,165	65.7	97,115	66.1	15,456	112,571
2003	2,275	58.8	12,968	50.9	6,685	51.2	27,379	34,064
2004	10,274	56.6	19,082	39.3	48,251	57.3	9,302	57,553
2005	2,102	76.6	42,363	98.6	9,388	73.8	11,672	21,060
2006	1,037	102.4	2,755	51.4	4,457	102.4	9,770	14,227
2007	7,685	48.1	4,523	41.8	34,693	46.3	16,085	50,778
2008	5,230	56.8	23,411	61.1	39,093	61.8	16,576	55,669
2009	1,380	71.8	2,561	92.2	13,799	85.4	9,981	23,780
2010	447	42.4	16,583	41.6	8,019	47.1	15,686	23,705
2011	21,235	73.1	28,618	42.1	287,458	66.4	11,039	298,497
2012	6,913	37.1	7,858	35.6	95,947	49.3	11,343	107,290
2013	19,182	59.9	4,609	41.3	99,252	55.4	10,506	109,758
2014	18,379	49.3	59,926	62.7	91,227	53.6	9,081	100,308
2015	16,973	44.8	1,325	60.8	102,408	42.8	20,989	123,397
2016	3,411	64.7	10,196	45.2	22,127	60.3	14,838	36,965
2017	1,999	45.6	40,094	75.6	9,579	53	11,345	20,924
2018	12,577	42.5	11,745	66.4	42,879	49.7	13,848	56,727
2019	35,875	66.6	24,033	66.1	122,931	48.6	14,045	136,976
2020	52,337	50.9	23,818	55.3	179,803	47.9	15,926	195,729
2021	20,178	26.6	7,793	44.5	104,789	29.1	7,351	112,140
2022	12,301	45.4	11,763	70.7	70,411	45.7	6,576	76,987
2023	72,973	40.4	31,930	70.4	268,260	36.8	17,876	286,136
2024	61,813	34.4	7,513	48.6	130,686	43.2	12,100	142,786
2025	96,013*	26.9*	36,892*	27.5*	303,905*	28.6*	32,326*	336,231*
Average	16,469	56	16,562	58	77,430	58	16,581	94,011

A PSE value greater than 50 indicates very imprecise estimates.

A PSE value between 30 and 50 indicates using the data with caution.

A PSE value less than 30 indicates estimates have a relatively low margin of error.

Table 2. Maximum, minimum, and average recreational landings and release rates (numbers per trip) in North Carolina by area, 2011-2024. (Source: Marine Recreational Information Program)

		Landings			Releases		
Year	Area	Average	Minimum	Maximum	Average	Minimum	Maximum
2011	State	1.7	0.0	1.7	0.5	0.0	0.5
	Federal	0.4	0.0	0.4	1.9	0.0	1.9
2012	State	0.8	0.0	0.8	1.1	0.0	1.1
	Federal	0.8	0.0	0.8	0.8	0.0	0.8
2013	State	2.4	0.0	2.4	0.3	0.0	0.3
	Federal	0.5	0.0	0.5	0.8	0.0	0.8
2014	State	1.7	0.0	1.7	3.6	0.0	3.6
	Federal	0.4	0.0	0.4	4.8	0.0	4.8
2015	State	2.9	0.0	2.9	0.1	0.0	0.1
	Federal	1.4	0.0	1.4	0.1	0.0	0.1
2016	State	0.5	0.0	0.5	0.7	0.0	0.7
	Federal	0.2	0.0	0.2	1.0	0.0	1.0
2017	State	0.2	0.0	0.2	9.2	0.0	9.2
	Federal	0.3	0.0	0.3	1.5	0.0	1.5
2018	State	1.2	0.0	1.2	0.8	0.0	0.8
	Federal	1.1	0.0	1.1	1.2	0.0	1.2
2019	State	3.0	0.0	3.0	1.7	0.0	1.7
	Federal	1.2	0.0	1.2	1.8	0.0	1.8
2020	State	3.8	0.0	3.8	1.0	0.0	1.0
	Federal	0.9	0.0	0.9	1.7	0.0	1.7
2021	State	1.3	0.0	1.3	0.6	0.0	0.6
	Federal	1.1	0.0	1.1	0.3	0.0	0.3
2022	State	1.1	0.0	1.1	0.2	0.0	0.2
	Federal	0.9	0.0	0.9	2.8	0.0	2.8
2023	State	2.9	0.0	2.9	2.2	0.0	2.2
	Federal	1.8	0.0	1.8	0.1	0.0	0.1
2024	State	2.0	0.0	2.0	0.3	0.0	0.3
	Federal	1.7	0.0	1.7	0.2	0.0	0.2

Table 3. North Carolina commercial landings in pounds by gear and value, 1994-2024. (Source: North Carolina Trip Ticket Program)

	Gear					
Year	Gill Nets	Hook & Line	Other*	Total	Value	Price/Pound
1994	30,848	5,742	782	37,372	$14,201	$0.38
1995	29,576	4,999	143	34,717	$6,943	$0.20
1996	5,880	10,015	372	16,267	$3,843	$0.24
1997	35,689	6,119	564	42,372	$9,455	$0.22
1998	17,030	4,260	63	21,352	$24,199	$1.13
1999	11,083	12,196	12	23,291	$20,832	$0.89
2000	6,240	7,089	14	13,343	$18,798	$1.41
2001	11,814	4,689	28	16,531	$10,433	$0.63
2002	5,058	10,384	14	15,456	$11,741	$0.76
2003	19,494	7,763	122	27,379	$18,563	$0.68
2004	5,521	3,706	76	9,302	$9,086	$0.98
2005	174	10,898	600	11,672	$7,286	$0.62
2006	5,501	4,099	170	9,770	$10,503	$1.08
2007	4,382	11,683	20	16,085	$20,403	$1.27
2008	8,310	8,101	165	16,576	$19,937	$1.20
2009	3,359	6,422	200	9,981	$14,060	$1.41
2010	12,985	2,435	266	15,686	$20,152	$1.28
2011	5,160	4,890	989	11,039	$20,041	$1.82
2012	7,173	3,879	291	11,343	$15,833	$1.40
2013	2,666	7,721	119	10,506	$15,460	$1.47
2014	3,969	4,771	341	9,081	$14,386	$1.58
2015	13,100	7,664	225	20,989	$32,905	$1.57
2016	10,487	4,346	6	14,838	$26,780	$1.80
2017	7,084	4,130	131	11,345	$20,261	$1.79
2018	8,248	5,552	48	13,848	$25,228	$1.82
2019	10,256	3,705	84	14,045	$15,556	$1.11
2020	10,824	5,062	41	15,926	$12,835	$0.81
2021	4,649	2,646	56	7,351	$16,620	$2.26
2022	4,689	1,775	112	6,576	$12,544	$1.91
2023	15,744	1,972	160	17,876	$30,287	$1.69
2024	8,583	3,279	238	12,100	$19,733	$1.63

*Other gear includes seines, trawls, and pound nets

Appendix I.: Proposed Rule Changes

15A NCAC 03M .0524 is proposed for adoption as follows:

15A NCAC 03M .0524 ATLANTIC BONITO

(a) It shall be unlawful to possess more than five Atlantic bonito per person per day for recreational purposes.

(b) The Fisheries Director may, with prior consent of the Marine Fisheries Commission, by proclamation and pursuant to 15A NCAC 03H .0103, impose any of the following requirements on the taking of Atlantic bonito:

(1) specify time;

(2) specify area;

(3) specify means and methods;

(4) specify season;

(5) specify size; and

(6) specify quantity, except as provided in Paragraph (a) of this Rule.

History Note: *Authority G.S. 113-134; 113-182; 113-221.1; 143B-289.52*

Appendix II.: Literature Cited

Collette B. B., and C. E. Nauen. 1983. FAO species catalogue: Vol. 2. Scombrids of the world. An annotated and illustrated catalogue of tunas, mackerels, bonitos and related species known to date. FAO Fisheries Synopsis 125(2):34-35.

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ICCAT. 2019. Report for biennial period, 2019-2019 English version SCRS. Section 9.12 SMT – Small Tunas, pp. 194-214. Madrid, Spain.

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