



Mid-Atlantic Fishery Management Council
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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: December 2, 2022
To: Council
From: Karson Cisneros, Staff
Subject: Protected Resources Updates

On Wednesday, December 14, the Council will receive an update on issues discussed at the November 14, 2022 Protected Resources Committee meeting and recent Atlantic Large Whale Take Reduction Team (team) meetings on November 14-18 and December 1-2. The Council will also discuss the Sturgeon Bycatch Action Plan recommendations and the potential for a joint action with the New England Fishery Management Council. Materials listed below are provided for the Council's consideration of this agenda item.

- 1) Protected Resources Committee meeting summary from November 14, 2022
- 2) Staff memo to the Committee dated November 7, 2022*
- 3) Public comments received through December 2, 2022

In addition, the Action Plan to Reduce Atlantic Sturgeon Bycatch in Federal Large Mesh Gillnet Fisheries is provided on the [Council meeting page](#) as a supplemental information.

**Note: the staff memo was updated based on new information on November 21, after the Protected Resources Committee meeting and November ALWTRT meeting. These changes were minor and did not change any overall trends.*



Protected Resources Committee Meeting Summary

Monday, November 14, 2022

Committee Members in Attendance: Chris Batsavage (Chair), Sonny Gwin (Vice-Chair), Adam Nowalsky, Skip Feller, Ken Neill, Dewey Hemilright, LCDR Matt Kahley, Maureen Davidson, Sara Winslow

Other Attendees: Karson Cisneros (Council Staff), Wes Townsend (Council Vice-Chair), Greg DiDomenico (Lund's Fisheries), Colleen Coogan (NMFS), Jennifer Goebel (NMFS), Jason Didden (Council Staff)

Meeting Summary

The Mid-Atlantic Fishery Management Council's (Council, MAFMC) Protected Resources (PR) Committee met via webinar on Monday, November 14, 2022, and reviewed materials resulting from their data request to the Atlantic Large Whale Take Reduction Team (team) and discussed potential sets of measures. The team is tasked with reducing the risk of entanglement to right whales in U.S. East Coast fixed gear fisheries including gillnet, mixed species trap/pot, and lobster and Jonah crab trap/pot fisheries.

The Committee also briefly discussed potential ways to address the need for an action to reduce Atlantic Sturgeon bycatch in federal large mesh gillnet fisheries as outlined in the recently released [Action Plan](#).

Atlantic Large Whale Take Reduction Plan

The Committee discussed data request results and related measures and acknowledged the tough decisions ahead for the team. A Committee member asked whether one buoy line on trap/pot gear is an option from December to May in the mid-Atlantic region and National Marine Fisheries Service (NMFS) staff responded that it is something that the team can model and discuss.

The Committee reviewed an industry proposal to the team focusing on mid-Atlantic gillnet measures to reduce entanglement risk. The Committee discussed that there are different types of gillnet fisheries throughout the mid-Atlantic region and these fisheries may need different types of mitigation measures. For example, a committee member was concerned that the sink gillnet fishery off the coast of North Carolina operates differently than anchored gillnet fishing further up the coast. They added that a potential requirement that one end of the gillnet be ropeless or use a pop-up buoy would not work for this tended fishery because gear is being set close together in deep water in a small area by different fishermen and a buoy at each end of the net is important to communicate where the gear is. This fishery typically has low soak times of less than three hours and is tended, with a fisherman fishing 1 to 3 nets and checking them frequently. The effort in this NC fishery has been decreasing in recent years given the variability



of the weather and production of fish. Because of this, NMFS staff discussed that this fishery likely presents very little risk.

The specific measures in the mid-Atlantic gillnet proposal were intended for implementation all year and at all depths, however it was discussed that North Carolina may need to be exempted from the one endline portion based on the nature of the fishery. The industry member who submitted the proposal added that part of the intent of the gillnet proposal was to consider reducing the risk to other large whale species under the plan.

The Committee also discussed the enforceability of measures that are based on target species and the Council's Coast Guard representative clarified that regulations by mesh size is what they would likely look for to enforce the discussed gillnet restrictions on the water. Given this, there is a chance that proposed measures by target species may get expanded to other target species that fall within the same mesh size.

The Committee also discussed all the different regulations under other take reduction plans, for example harbor porpoise and bottlenose dolphin. Any proposed measures would not be intended to increase risk or conflict with measures in those plans, which makes some modifications less feasible. One Committee member recommended that a summary of the regulations already in place from other plans be provided for fishermen to understand what should not be done. NMFS staff and another participant discussed that there are two cheat sheets available electronically ([gillnet guides](#) and [trap/pot guides](#)) or via hard copy.

Gear marking was also discussed as part of the upcoming measures to designate areas and better identify where the entanglement has occurred. The Committee discussed that gear marking could also be used to identify which fishery and regulations need to be complied with for enforcement. A Committee member added that two different colored buoys are used for each end of the gillnets in their fishery, and it is possible to put other markings if that would be helpful to describe what gear they are fishing.

The Committee also discussed the vertical net panel risk and how that is accounted for in the risk reduction measures. Staff described that vertical height is taken into account with respect to encounter rate, so the risk of an encounter with a whale increases with a higher net panel. However, there is no direct calculation of the area below the headline for risk.

Atlantic Sturgeon Action

The Committee discussed that the recommendation from the Sturgeon Action Plan is to reduce Atlantic sturgeon bycatch in federal commercial large mesh gillnet fisheries in the Greater Atlantic Region targeting Northeast multispecies, skate, monkfish, and/or spiny dogfish. They discussed that both the Mid-Atlantic and New England Fishery Management Councils (NEFMC) added a sturgeon action to their draft 2023 implementation plans in response to this recommendation.

The three paths discussed were 1) a joint action with the New England Council that only addresses monkfish and dogfish, 2) a joint omnibus action that considers monkfish, dogfish, NE



multispecies and skate, or 3) no Council action. If the third path is selected, NMFS has indicated they will develop measures to reduce Atlantic sturgeon bycatch for these fisheries through their rulemaking process.

The Committee discussed some logistics of a potential joint action including what kind of involvement the different committees may have. Staff discussed that the dogfish and monkfish species committees may be a good starting point given that they involve membership from both Councils. One member noted that it may be logistically more difficult to have a joint action that addresses some species that are only managed by the New England Council.

Another Committee member asked whether there is opportunity for interaction with the ASMFC through their Atlantic Sturgeon Board or Dogfish Board. They added that the Council does not have a Protected Resources Advisory Panel, however the ASMFC has a Sturgeon Advisory Panel which may be helpful.

Overall, the Committee recommended the following paths forward for the Council's consideration in December:

1. Joint action with the NEFMC on monkfish and dogfish
2. Joint omnibus action with the NEFMC that considers monkfish, dogfish, northeast multispecies and skate
3. Explore avenues to coordinate with the ASMFC

Public Comment

A member of the public commented that in New Jersey, some fishermen and others have been working on the sturgeon bycatch issue over a long period of time and the Council needs to make sure the tagging and observer data is thoroughly analyzed. They felt that the solutions would lie in some possible depth requirements and depth restrictions. They added that soak time is an important factor and most of the sturgeon are released alive and in relatively good shape. However, there are clear places, depths, and activities, that need to be focused in on. They also thanked the Committee and Council for the attention to the topic and are looking forward to finding solutions.



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MEMORANDUM

Date: November 7, 2022*
To: Protected Resources Committee
From: Karson Cisneros, Staff
Subject: Review of ALWTRT Process, Risk, and Mitigation in the Mid-Atlantic Region

**Note: this memo was updated on November 21, after the Committee meeting and November ALWTRT meeting with target risk reduction values of 88-93% (previously 90%) and more precise percentage breakdowns in Figures 1 and 2.*

The Protected Resources Committee will meet on November 14th, 2022 to review the results of the Committee's data request to the Atlantic Large Whale Take Reduction Team (team) and discuss potential measures. The Committee will provide feedback for the Council's representation on the team. This document provides summary and context for the data request results. As described in more detail below, this team is making final recommendations at their November and December 2022 meetings.

Background

NMFS and the Atlantic Large Whale Take Reduction Team (team) originally developed the [Atlantic Large Whale Take Reduction Plan \(plan\)](#) in 1997 to reduce the level of serious injury and mortality of three strategic stocks of large whales (North Atlantic right, humpback, and fin) in commercial gillnet and trap/pot fisheries and has modified the plan as needed since its establishment. NMFS has determined that additional risk reduction is needed in all East Coast gillnet and trap/pot fisheries regulated under the plan to meet the requirements of the Marine Mammal Protection Act (MMPA) and reduce the risk of mortalities and serious injuries to the endangered North Atlantic right whale.

A final rule implementing modifications to reduce mortalities and serious injuries caused by incidental entanglement in the Northeast American lobster and Jonah crab trap/pot fishery was published on September 17, 2021. These modifications were considered Phase 1 of recent plan modifications and were intended to achieve the minimum 60 percent target reduction in risk to North Atlantic right whales within the Northeast American lobster and Jonah crab trap/pot fisheries at the time.

Given new information since the 2021 modifications were initiated, the risk reduction estimated to be necessary to reduce mortality and serious injuries of right whales in U.S. commercial fisheries to below the Population Biological Removal level (PBR), as required by the MMPA, has increased to approximately an 88-93 percent risk reduction target. Further, in a recent summary judgment in the Center for Biological Diversity, et al., v. Raimondo, et al., the presiding judge ruled that the 2021 Final Rule (considered Phase 1) failed to satisfy the requirements of the MMPA because it did not reduce mortality and serious injury to below PBR within 6 months of implementation.

Given that recent court ruling and the updated 88-93 percent risk reduction target, additional risk reduction will be necessary from all fixed gear fisheries coastwide that are regulated under the Plan. The team is tasked with recommending measures to achieve this target reduction to NMFS.

Atlantic Large Whale Take Reduction Team

[The team](#) is composed of 60 fishermen, scientists, conservationists, and state and federal resource managers from Maine to Florida. The East Coast Councils and the ASMFC each have one representative on the team. In addition, two MAFMC Council members are on the team as industry representatives from the trap/pot fishery. At team meetings, members are encouraged to bring the perspectives from the groups they represent, while also being willing to listen, learn from each other, and work towards compromise and consensus.

In 2022, the team has met for multi-day meetings in May and September to develop sets of mitigation measures to be analyzed for risk reduction, with several informational webinars before and after these meetings. The informational webinars have included topics such as new model updates or results, new information about right whales, and updates on ropeless gear technology. All team meetings are open to the public and an opportunity for public comments is typically scheduled for a designated period on the agenda. Presentation slides and recordings from recent webinars as well as information about upcoming meetings can be found on the [team webpage](#).

The team is meeting November 14-18 to 1) review new model results based on ideas offered by caucuses, 2) hear the results of constituent conversations from one another, 3) consolidate team feedback on a handful of packages, and 4) outline a potential Team recommendation. In preparation for this meeting, there will be a webinar to review analyses on November 9 from 6 p.m.-9 p.m. Finally, on December 1-2, 2022, the team will meet to discuss and arrive at final recommendations to NMFS.

MAFMC Protected Resources Committee

The Protected Resources Committee (Committee) met in September 2021 and September 2022 to discuss the potential modifications to the plan. These meetings promoted stakeholder engagement, provided feedback to NMFS, and informed the Council's representation on the team. In addition, at their September 2022 meeting the Committee requested:

- Mid-Atlantic risk units by primary fishery, by month, as well as total risk units for the coastwide MAFMC fisheries by month.
- Information available and/or being used to evaluate vertical gillnet height to determine entanglement risk reduction in Mid-Atlantic gillnet fisheries.

The results of this data request were distributed to the Committee on October 13, 2022 and are included in the appendix of this document. Information from this data request is also presented in data summaries within the Risk Information section of this document. The Committee can discuss these results and comment on any related considerations and recommendations.

Risk Information

The primary tool for assessing the amount of risk of lethal entanglement associated with the different fishing gear in the water is a NMFS developed model referred to as the Decision Support Tool (DST). An earlier version of the DST was peer-reviewed by an independent panel of scientists in November 2019. The DST uses fishery information obtained from state and Federal fisheries to establish vertical line density, which when combined with modelled whale densities produces a co-occurrence model. The characteristics of gear configurations inform the threat posed by the gear in causing serious injury or mortality to right whales. The tool can be used to select gear characteristics, rope strength, and area fished and overlays gear and whale density by area and season. The results can provide a relative risk “score” for given scenarios of when, where, and how fishing occurs.

Figures 1-3 below provide a broad overview of the risk to right whales coastwide and the amount of risk reduction needed to reach prescribed targets. These figures are based on analyses presented by NMFS at the September 2022 team meeting. As shown in Figure 1, 2.5% of the overall coastwide risk to right whales is from the other trap pot category and 3.5% is from the gillnet category. The bulk of the risk coastwide is from the lobster/Jonah crab category. Similarly, the bulk of the risk coastwide comes from the Gulf of Maine region, followed by Southern New England, Mid-Atlantic, and the Southeast region (Figure 2). Tables 1-3 are focused on the Mid-Atlantic and Southern New England regions based on the results of the data request from the Committee to the team in September 2022. As illustrated in Figure 3, Southern New England includes New York and northern New Jersey, therefore those risk percentages were included in this report. These regional boundaries are for risk description purposes in the model, however measures developed for risk reduction do not need to use these boundaries as constraints.

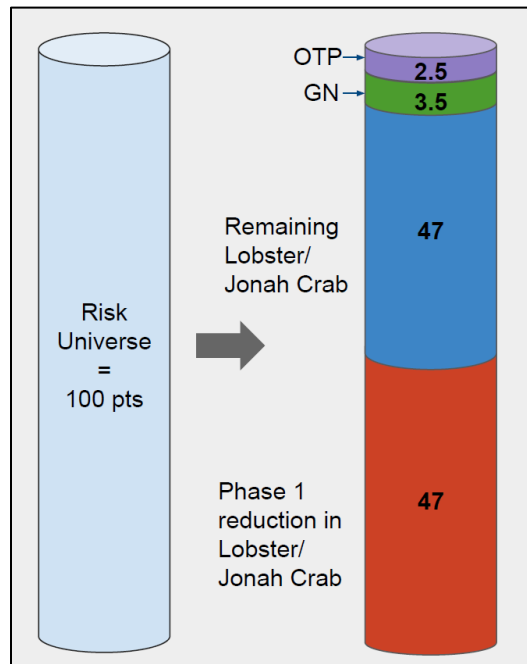


Figure 1. Total risk across all U.S. fisheries under the plan, coastwide. The second bar represents the proportion of risk by gear type/fishery (OTP=other trap/pot, GN=gillnet). The red portion represents the amount of risk reduced through mitigation measures already implemented. The team is tasked with developing measures to go from the current 47 risk points to between 88 and 93 total risk points reduced coastwide. One risk point=one percentage point of total risk. Source: preliminary analyses subject to revision, [presented](#) by NMFS in November 2022).

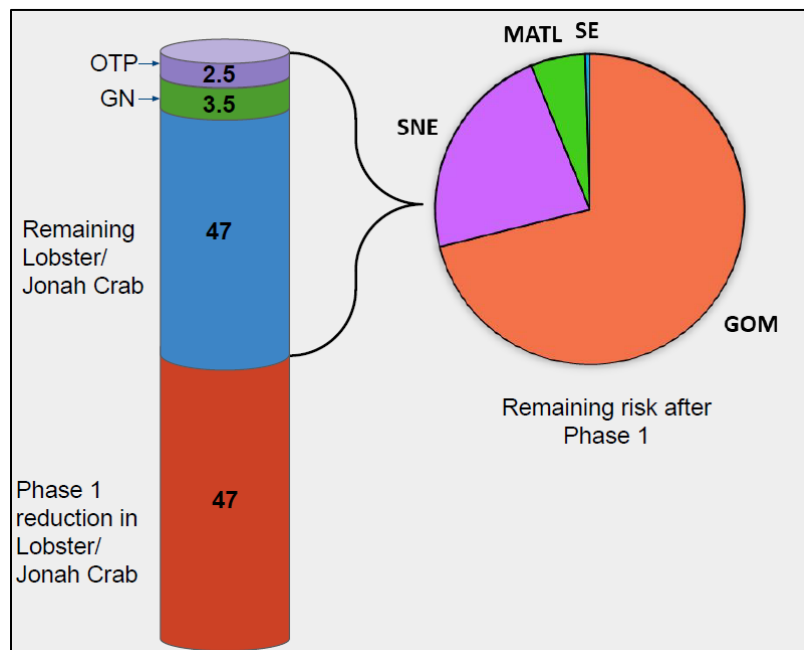


Figure 2. Risk by gear/fishery from Figure 1 with pie chart illustrating remaining risk by region (MATL=Mid-Atlantic, SNE=Southern New England, SE=Southeast, GOM=Gulf of Maine). Source: preliminary analyses subject to revision, [presented](#) by NMFS in November 2022).

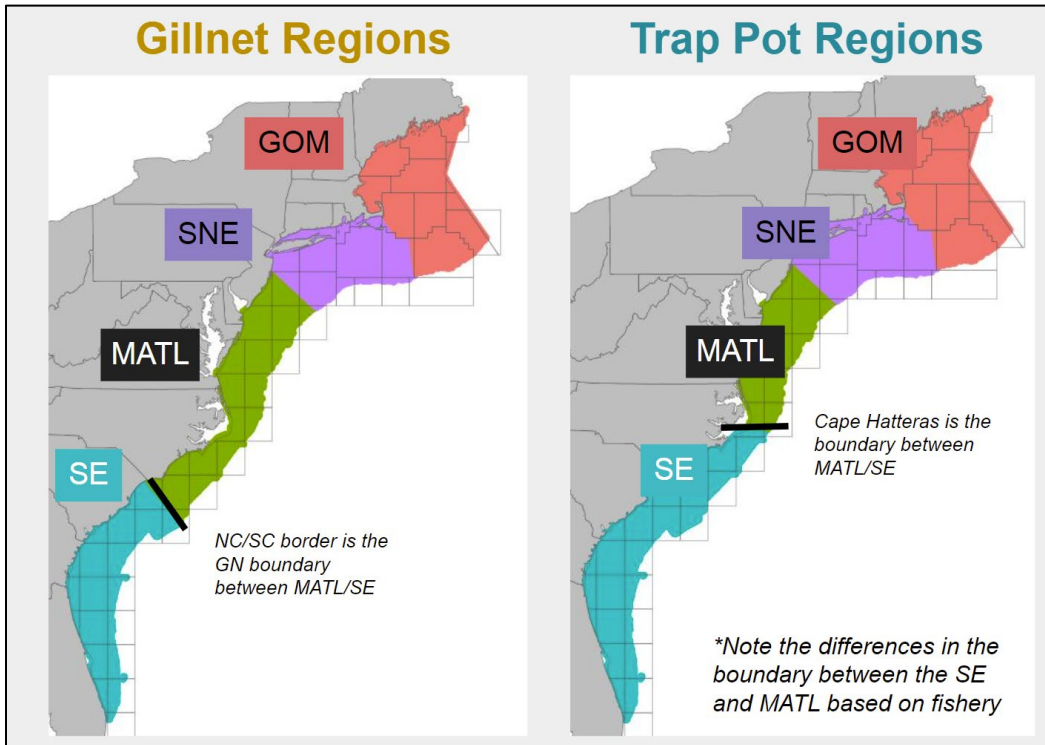


Figure 3. Regional boundaries used in risk analyses by gear category (source: preliminary analyses subject to revision, [presented](#) by NMFS in September 2022).

Table 1. Mid-Atlantic and Southern New England region total risk percentages by mesh size for gillnet fisheries. Percentages will not sum to 100% as this table excludes the Gulf of Maine and Southeast regions. See Appendix for all regions (source: data request results).

Region	Gillnet Fishery	Coastwide Relative Risk	Within Gillnet Relative Risk
MATL	Region Total	0.41%	12.07%
	Large Mesh	0.06%	1.63%
	Medium Mesh	0.21%	6.11%
	Small Mesh	0.15%	4.32%
SNE	Region Total	1.93%	57.23%
	Large Mesh	1.90%	56.31%
	Medium Mesh	0.03%	0.86%
	Small Mesh	0.00%	0.05%

Table 2. Mid-Atlantic and Southern New England Region total risk percentages by species categories (top species landed) for gillnet fisheries. The fishery category “Fed” includes all mesh sizes and species of gillnet fishing in federal waters. Percentages will not sum to 100% as this table excludes the Gulf of Maine and Southeast regions. See Appendix for all regions (source: data request results).

Region	Gillnet Fishery	Coastwide Relative Risk	Within Gillnet Relative Risk
MATL	Region Total	0.41%	12.07%
	Dogfish	0.30%	8.80%
	Fed	0.22%	6.62%
	InshoreSpp	0.05%	1.62%
	MonkfishSkate	0.05%	1.58%
	SharkSpp	0.00%	0.07%
SNE	Region Total	1.93%	57.23%
	Dogfish	0.02%	0.48%
	Fed	1.90%	56.20%
	InshoreSpp	0.03%	0.97%
	MonkfishSkate	1.88%	55.74%
	NEGroundfish	0.00%	0.04%

Table 3. Monthly risk percentages for the Southern New England and Mid-Atlantic regions and gillnet (GN) and other trap/pot (OTP) gear categories. These percentages are relative to total risk across all regions and gears (source: spreadsheet provided to team, September 2022). OTP includes fisheries for hagfish, shrimp, conch/whelk, red crab, Jonah crab, rock crab, black sea bass, scup, tautog, cod, haddock, Pollock, redfish (ocean perch), white hake, spot, skate, catfish, stone crab, and cunner.

Month	SNE OTP	MATL OTP	SNE GN	MATL GN
Jan.	0.1%	0.5%	0.4%	0.3%
Feb.	0.2%	0.1%	0.5%	0.3%
Mar.	0.2%	0.0%	0.0%	0.3%
Apr.	0.3%	0.1%	1.5%	0.2%
May	0.4%	0.1%	1.0%	0.0%
Jun.	0.2%	0.0%	0.2%	0.0%
Jul.	0.1%	0.0%	0.1%	0.0%
Aug.	0.1%	0.0%	0.0%	0.0%
Sept.	0.1%	0.0%	0.0%	0.0%
Oct.	0.2%	0.1%	0.0%	0.0%
Nov.	0.4%	0.3%	0.1%	0.1%
Dec.	0.2%	0.9%	0.2%	0.4%

Mitigation Information

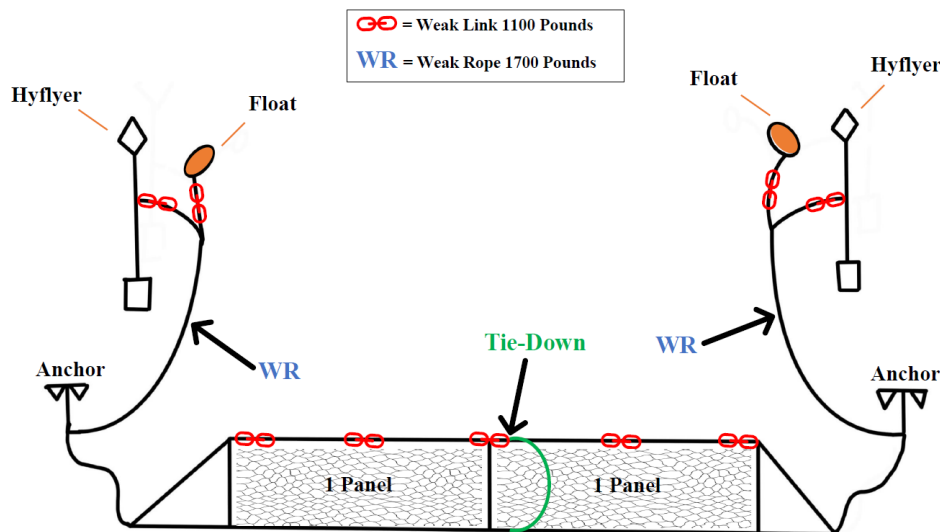
Ideas discussed by the team to mitigate risk for gillnet fisheries include changing configurations such as increasing the minimum number of net panels per set to reduce endline numbers, reducing the number of buoy lines on a set of gillnet, gear tending or daytime-only sets for gillnets, installation of weak links at panels and weak rope that breaks at forces of less than 1,700 lb (771 kg), establishing seasonal restricted areas, dynamic management for some gillnet fisheries, and expanding gear marking requirements.

MAFMC staff are aware of one Mid-Atlantic region-based industry proposal submitted to the team modelers for risk reduction analysis, outlined below. More proposals from the region may have been submitted to the modelers, however these submissions are not shared across the team until the results are presented at team meetings.

Mid-Atlantic industry proposal submitted to team modelers for risk reduction analysis:¹

Gillnet gear/fishery requirements in the Mid-Atlantic (as defined in figure 5):

1. Anchored gillnets targeting smooth dogfish and spiny dogfish will use one endline buoy (*not necessary to make tending requirements*)
2. Anchored gillnets targeting bluefish will use one endline buoy (*not necessary to make tending requirements*)
3. Anchored gillnets targeting monkfish/skates (*with net panel tie down and 1,100-pound weak links in each net panel*) with weak rope (1,100lbs) in buoy surface system with a 1,700-pound rope attached to anchor for retrieval.



*Mid-Atlantic weak links in panel differ from construction relative to weak link requirements.
Contact Kevin Wark or Greg DiDomenico with any questions.

¹ Source: Gregory DiDomenico, Lund's Fisheries and team member, personal communication

Figure 4. Mid-Atlantic gillnet configuration with weak links and weak rope labeled throughout the design. Source: Greg DiDomenico, Lund’s Fisheries and team member, personal communication.

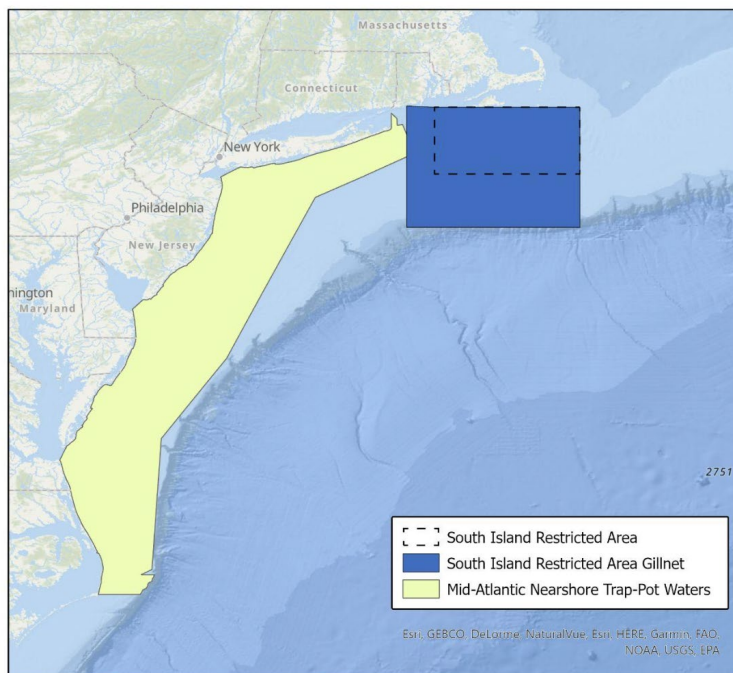


Figure 5. The yellow shaded region is the area referred to as ‘Mid-Atlantic’ in the industry request outlined above. This area extends further north than the ‘Mid-Atlantic’ presented in the NMFS risk reduction model results and shown in Figure 3.

Table 4. Industry gillnet proposal results provided by the DST modeling team. Note that risk reduction points in the final column are not additive, so for example combining the last two rows does not guarantee that 2 risk points were reduced. Because of this, combinations of measures are run in large packages that are intended to obtain reductions close to the 90 points.²

Measure	Fishery	Region	Time	Risk Reduction
100% Weak Rope	Gillnet (Inshore Spp, Anchor)	Coastwide	Year-Round	<0.5
100% Weak Rope	Gillnet (Dogfish, Anchor)	Coastwide	Year-Round	<0.5
75% Weak Rope	Gillnet (Monkfish & Skate)	Coastwide	Year-Round	1
100% Weak Net Panels	Gillnet (Monkfish & Skate)	Coastwide	Year-Round	1

Ideas discussed for trap/pot fisheries include changing configurations such as traps per trawl to reduce buoy line numbers, requiring only one endlines in certain offshore areas where weak rope is not feasible, installation of weak inserts or ropes in buoy lines to break at forces of less than 1,700 lb (771 kg), establishment or modification of seasonal restricted areas, and expansion of gear marking requirements.

² Source: Gregory DiDomenico, Lund’s Fisheries and team member, personal communication

In addition, Council Member, commercial fisherman, and team member, Sonny Gwin is currently testing ropeless gear through the [NEFSC gear lending library program](#). The gear library is a collection of on-demand or “ropeless” systems, built with help and donations from environmental and academic organizations, that are lent to fishermen for testing. Currently, ropeless gear is still in the experimental stage rather than an option to be considered as a mitigation measure for the upcoming team recommendations.

Appendix: Data request results from NMFS

Region	Gillnet Fishery	Coastwide Fishery Input		Gillnet Fishery Input	
		Relative Risk CoOccurrence	Relative Risk Threat	Relative Risk CoOccurrence	Relative Risk Threat
All Regions	All Fisheries	2.63%	3.34%		
GOM_GB K	All Fisheries	0.59%	0.69%	22.55%	20.67%
GOM_GB K	Anchored Nets	0.59%	0.69%	22.55%	20.67%
GOM_GB K	Dogfish	0.01%	0.01%	0.37%	0.38%
GOM_GB K	Fed	0.32%	0.39%	12.05%	11.64%
GOM_GB K	InshoreSpp	0.00%	0.00%	0.00%	0.00%
GOM_GB K	Large Mesh	0.26%	0.32%	9.96%	9.49%
GOM_GB K	Medium Mesh	0.33%	0.37%	12.59%	11.19%
GOM_GB K	MonkfishSkate	0.15%	0.19%	5.56%	5.63%
GOM_GB K	NEGroundfish	0.25%	0.29%	9.56%	8.56%
GOM_GB K	Small Mesh	0.00%	0.00%	0.00%	0.00%
MAB	All Fisheries	0.37%	0.41%	13.88%	12.07%
MAB	Anchored Nets	0.33%	0.37%	12.57%	10.96%
MAB	Dogfish	0.28%	0.30%	10.35%	8.80%
MAB	Fed	0.20%	0.22%	7.52%	6.62%
MAB	InshoreSpp	0.05%	0.05%	1.93%	1.62%
MAB	Large Mesh	0.04%	0.06%	1.57%	1.63%
MAB	Medium Mesh	0.19%	0.21%	7.06%	6.11%
MAB	MonkfishSkate	0.04%	0.05%	1.52%	1.58%
MAB	SharkSpp	0.00%	0.00%	0.08%	0.07%
MAB	Small Mesh	0.14%	0.15%	5.25%	4.32%
SE	All Fisheries	0.28%	0.31%	11.62%	10.02%
SE	Anchored Nets	0.03%	0.03%	1.15%	1.03%
SE	Fed	0.01%	0.01%	0.46%	0.41%
SE	InshoreSpp	0.26%	0.28%	10.58%	9.08%
SE	Large Mesh	0.00%	0.00%	0.00%	0.00%

SE	Medium Mesh	0.02%	0.03%	0.98%	0.89%
SE	SharkSpp	0.00%	0.00%	0.09%	0.08%
SE	Small Mesh	0.26%	0.28%	10.64%	9.14%
SNE	All Fisheries	1.38%	1.93%	51.94%	57.23%
SNE	Anchored Nets	1.38%	1.93%	51.89%	57.19%
SNE	Dogfish	0.01%	0.02%	0.49%	0.48%
SNE	Fed	1.35%	1.90%	50.77%	56.20%
SNE	InshoreSpp	0.03%	0.03%	1.06%	0.97%
SNE	Large Mesh	1.36%	1.90%	50.91%	56.31%
SNE	Medium Mesh	0.03%	0.03%	0.97%	0.86%
SNE	MonkfishSkate	1.34%	1.88%	50.34%	55.74%
SNE	NEGroundfish	0.00%	0.00%	0.04%	0.04%
SNE	Small Mesh	0.00%	0.00%	0.06%	0.05%

Vertical and Horizontal Risk

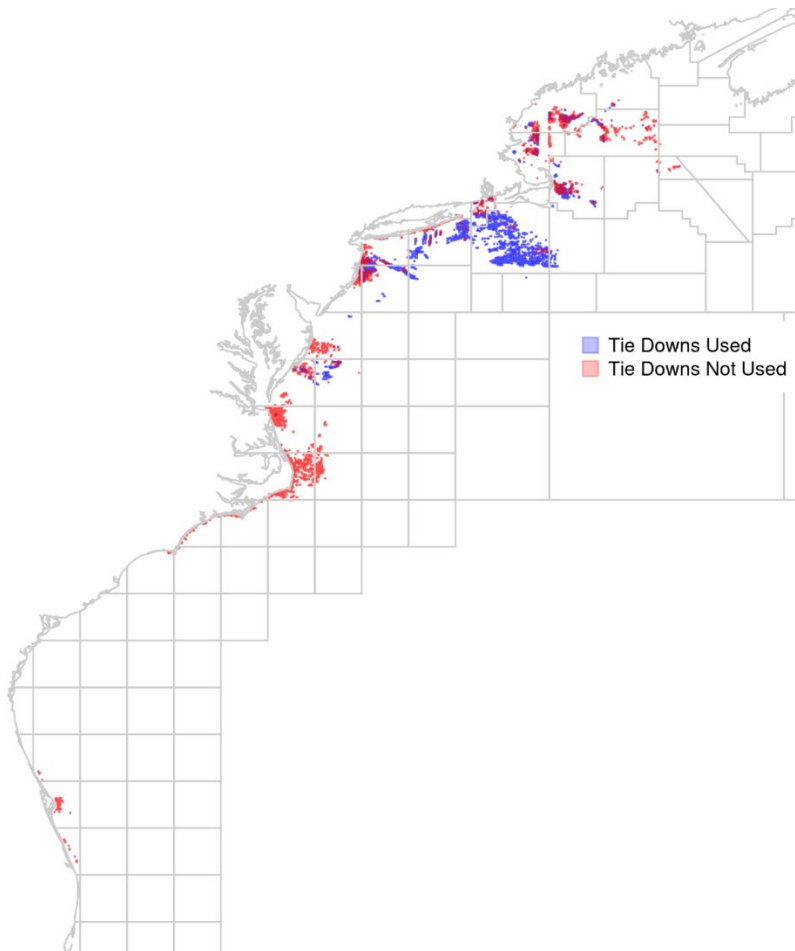
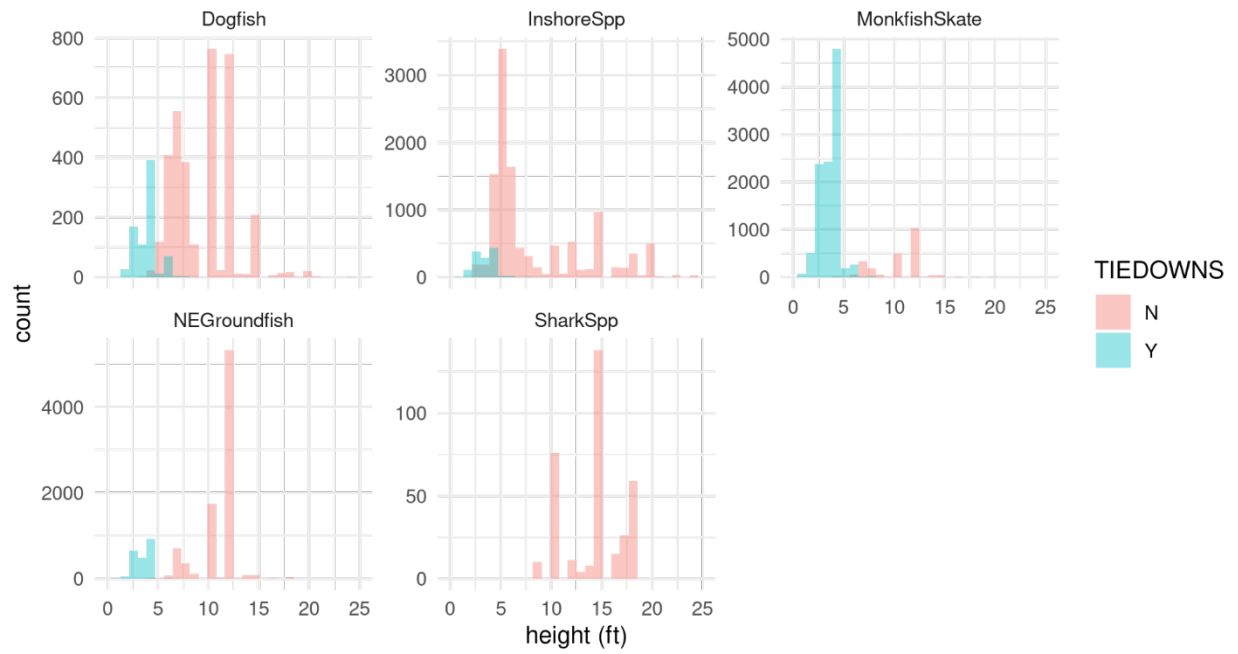
ScenarioName	Month	Vertical Line	Monthly Percentage	Horizontal Line	Monthly Percentage
BaselineGOM_Anchor	1	46.09109	7.59%	4.742719	3.23%
BaselineGOM_Anchor	2	10.55413	1.74%	2.301595	1.57%
BaselineGOM_Anchor	3	1.956442	0.32%	0.344849	0.24%
BaselineGOM_Anchor	4	202.109	33.30%	89.4086	61.00%
BaselineGOM_Anchor	5	127.4512	21.00%	38.72234	26.40%
BaselineGOM_Anchor	6	43.02431	7.08%	1.694402	1.16%
BaselineGOM_Anchor	7	36.97014	6.09%	2.404448	1.64%
BaselineGOM_Anchor	8	4.184867	0.69%	0.393903	0.27%
BaselineGOM_Anchor	9	1.166583	0.19%	0.055315	0.04%
BaselineGOM_Anchor	10	43.67533	7.19%	1.771113	1.21%
BaselineGOM_Anchor	11	51.92512	8.55%	1.791034	1.22%
BaselineGOM_Anchor	12	38.38759	6.32%	2.985074	2.04%
BaselineGOM_Anchor	Total	607.4958		146.6154	
BaselineGOM_Medium	1	33.02155	10.10%	3.417327	4.16%
BaselineGOM_Medium	2	5.204686	1.59%	0.578509	0.70%
BaselineGOM_Medium	3	1.251085	0.38%	0.297153	0.36%
BaselineGOM_Medium	4	130.167	39.80%	60.155	73.20%
BaselineGOM_Medium	5	84.5226	25.80%	12.58961	15.30%
BaselineGOM_Medium	6	9.011757	2.76%	0.726125	0.88%
BaselineGOM_Medium	7	9.821699	3.00%	1.024092	1.25%
BaselineGOM_Medium	8	1.007812	0.31%	0.097304	0.12%

BaselineGOM_Medium	9	0.367902	0.11%	0.018322	0.02%
BaselineGOM_Medium	10	10.79997	3.30%	0.756062	0.92%
BaselineGOM_Medium	11	19.59623	5.99%	0.966821	1.18%
BaselineGOM_Medium	12	22.25243	6.80%	1.606226	1.95%
BaselineGOM_Medium	Total	327.0247		82.23255	
BaselineMAB_Dogfish	1	29.68759	26.40%	53.19302	25.50%
BaselineMAB_Dogfish	2	32.79275	29.10%	54.52909	26.20%
ScenarioName	Month	Vertical Line	Monthly Percentage	Horizontal Line	Monthly Percentage
BaselineMAB_Dogfish	3	20.30708	18.00%	32.02306	15.40%
BaselineMAB_Dogfish	4	8.051443	7.15%	10.3781	4.98%
BaselineMAB_Dogfish	5	0.210004	0.19%	0.496012	0.24%
BaselineMAB_Dogfish	6	0.06614	0.06%	0.184252	0.09%
BaselineMAB_Dogfish	7	0.001485	0.00%	0.004506	0.00%
BaselineMAB_Dogfish	8	0.000376	0.00%	0.000792	0.00%
BaselineMAB_Dogfish	9	0.00546	0.00%	0.014046	0.01%
BaselineMAB_Dogfish	10	0.028625	0.03%	0.091102	0.04%
BaselineMAB_Dogfish	11	1.473949	1.31%	5.226653	2.51%
BaselineMAB_Dogfish	12	19.96963	17.70%	52.31314	25.10%
BaselineMAB_Dogfish	Total	112.5945		208.4538	
BaselineMAB_Medium	1	18.85803	25.30%	36.66607	24.60%
BaselineMAB_Medium	2	19.16178	25.70%	34.62159	23.20%
BaselineMAB_Medium	3	13.28205	17.80%	20.52014	13.80%
BaselineMAB_Medium	4	6.879288	9.24%	9.915614	6.65%
BaselineMAB_Medium	5	0.301169	0.41%	0.825152	0.55%
BaselineMAB_Medium	6	0.065782	0.09%	0.180298	0.12%
BaselineMAB_Medium	7	0.001583	0.00%	0.005723	0.00%
BaselineMAB_Medium	8	0.001074	0.00%	0.007575	0.01%
BaselineMAB_Medium	9	0.007607	0.01%	0.038676	0.03%
BaselineMAB_Medium	10	0.028417	0.04%	0.113036	0.08%
BaselineMAB_Medium	11	1.200586	1.61%	4.638275	3.11%
BaselineMAB_Medium	12	14.66511	19.70%	41.54582	27.90%
BaselineMAB_Medium	Total	74.45247		149.078	
BaselineSE_Small	1	1.405068	7.56%	25.43418	8.13%
BaselineSE_Small	2	1.56002	8.39%	24.87009	7.95%
BaselineSE_Small	3	3.282163	17.70%	60.34989	19.30%
BaselineSE_Small	4	2.179121	11.70%	31.6137	10.10%
BaselineSE_Small	5	0.251687	1.35%	2.519905	0.81%
BaselineSE_Small	6	0	0.00%	0	0.00%
BaselineSE_Small	7	0	0.00%	0	0.00%
BaselineSE_Small	8	0	0.00%	0	0.00%
BaselineSE_Small	9	0	0.00%	0	0.00%

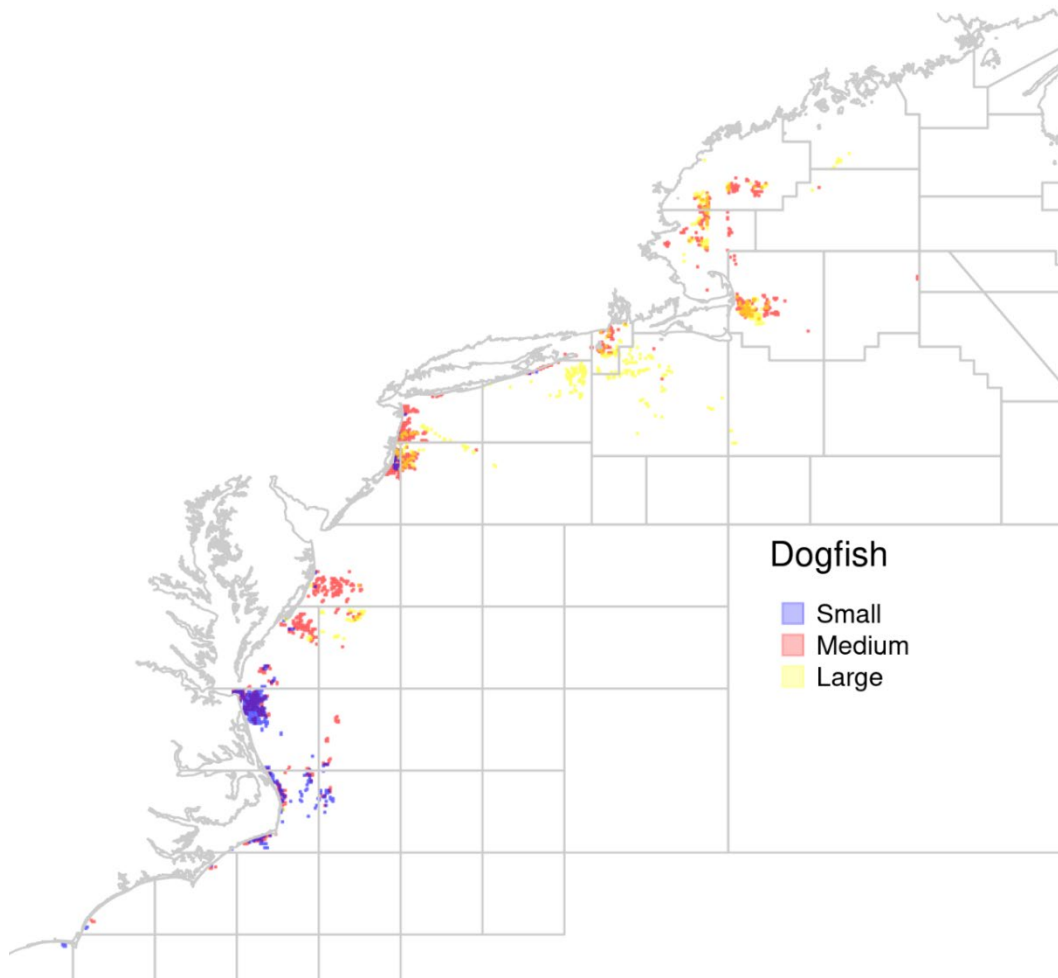
BaselineSE_Small	10	0.952427	5.12%	15.66405	5.01%
BaselineSE_Small	11	3.32112	17.90%	52.52312	16.80%
BaselineSE_Small	12	5.632477	30.30%	99.69987	31.90%
BaselineSE_Small	Total	18.58408		312.6748	
BaselineSNE_Fed	1	239.8873	11.70%	0.461795	4.48%
BaselineSNE_Fed	2	245.0077	12.00%	0.457805	4.44%
BaselineSNE_Fed	3	3.884488	0.19%	1.559853	15.10%
ScenarioName	Month	Vertical Line	Monthly Percentage	Horizontal Line	Monthly Percentage
BaselineSNE_Fed	4	738.136	36.10%	1.788192	17.40%
BaselineSNE_Fed	5	507.7239	24.80%	2.792708	27.10%
BaselineSNE_Fed	6	81.33352	3.98%	0.789468	7.66%
BaselineSNE_Fed	7	46.95308	2.30%	0.687874	6.68%
BaselineSNE_Fed	8	6.721202	0.33%	0.480284	4.66%
BaselineSNE_Fed	9	10.78827	0.53%	0.283032	2.75%
BaselineSNE_Fed	10	16.30192	0.80%	0.382563	3.71%
BaselineSNE_Fed	11	42.77083	2.09%	0.244059	2.37%
BaselineSNE_Fed	12	104.6741	5.12%	0.37569	3.65%
BaselineSNE_Fed	Total	2044.182		10.30332	
BaselineSNE_MonkfishSkate	1	236.8852	11.70%	2.686663	13.40%
BaselineSNE_MonkfishSkate	2	244.9428	12.10%	2.688034	13.40%
BaselineSNE_MonkfishSkate	3	3.327484	0.16%	3.062694	15.30%
BaselineSNE_MonkfishSkate	4	737.5844	36.40%	3.387746	16.90%
BaselineSNE_MonkfishSkate	5	503.184	24.80%	3.525677	17.60%
BaselineSNE_MonkfishSkate	6	79.89676	3.95%	0.761531	3.81%
BaselineSNE_MonkfishSkate	7	44.24726	2.18%	0.274484	1.37%
BaselineSNE_MonkfishSkate	8	4.876928	0.24%	0.033739	0.17%
BaselineSNE_MonkfishSkate	9	10.06934	0.50%	0.638522	3.19%
BaselineSNE_MonkfishSkate	10	15.17049	0.75%	0.18851	0.94%
BaselineSNE_MonkfishSkate	11	42.15552	2.08%	0.196935	0.99%
BaselineSNE_MonkfishSkate	12	102.7691	5.07%	2.546732	12.70%
BaselineSNE_MonkfishSkate	Total	2025.109		19.99127	
BaselineGOM_Fed	1	45.97589	11.80%	4.372939	16.00%
BaselineGOM_Fed	2	9.547231	2.44%	1.089374	4.00%

BaselineGOM_Fed	3	1.404553	0.36%	0.118055	0.43%
BaselineGOM_Fed	4	78.29945	20.00%	8.731099	32.00%
BaselineGOM_Fed	5	41.58803	10.60%	2.961145	10.90%
BaselineGOM_Fed	6	42.97158	11.00%	1.670848	6.13%
BaselineGOM_Fed	7	36.78971	9.41%	2.200405	8.07%
BaselineGOM_Fed	8	4.179818	1.07%	0.360199	1.32%
BaselineGOM_Fed	9	1.159976	0.30%	0.048456	0.18%
ScenarioName	Month	Vertical Line	Monthly Percentage	Horizontal Line	Monthly Percentage
BaselineGOM_Fed	10	43.46652	11.10%	1.588475	5.83%
BaselineGOM_Fed	11	48.55126	12.40%	1.342878	4.93%
BaselineGOM_Fed	12	37.2019	9.51%	2.769541	10.20%
BaselineGOM_Fed	Total	391.1359		27.25341	
BaselineGOM_NEGroundfish	1	37.50652	14.30%	3.958519	11.60%
BaselineGOM_NEGroundfish	2	7.707363	2.93%	1.096794	3.22%
BaselineGOM_NEGroundfish	3	1.422689	0.54%	0.126375	0.37%
BaselineGOM_NEGroundfish	4	80.00213	30.40%	11.09646	32.50%
BaselineGOM_NEGroundfish	5	48.74485	18.50%	12.65469	37.10%
BaselineGOM_NEGroundfish	6	9.339682	3.55%	0.690799	2.03%
BaselineGOM_NEGroundfish	7	10.41194	3.96%	0.856151	2.51%
BaselineGOM_NEGroundfish	8	1.382864	0.53%	0.079521	0.23%
BaselineGOM_NEGroundfish	9	0.496598	0.19%	0.022201	0.07%
BaselineGOM_NEGroundfish	10	16.00128	6.08%	0.895945	2.63%
BaselineGOM_NEGroundfish	11	23.46743	8.92%	1.000531	2.93%
BaselineGOM_NEGroundfish	12	26.57667	10.10%	1.624336	4.76%
BaselineGOM_NEGroundfish	Total	263.06		34.10232	

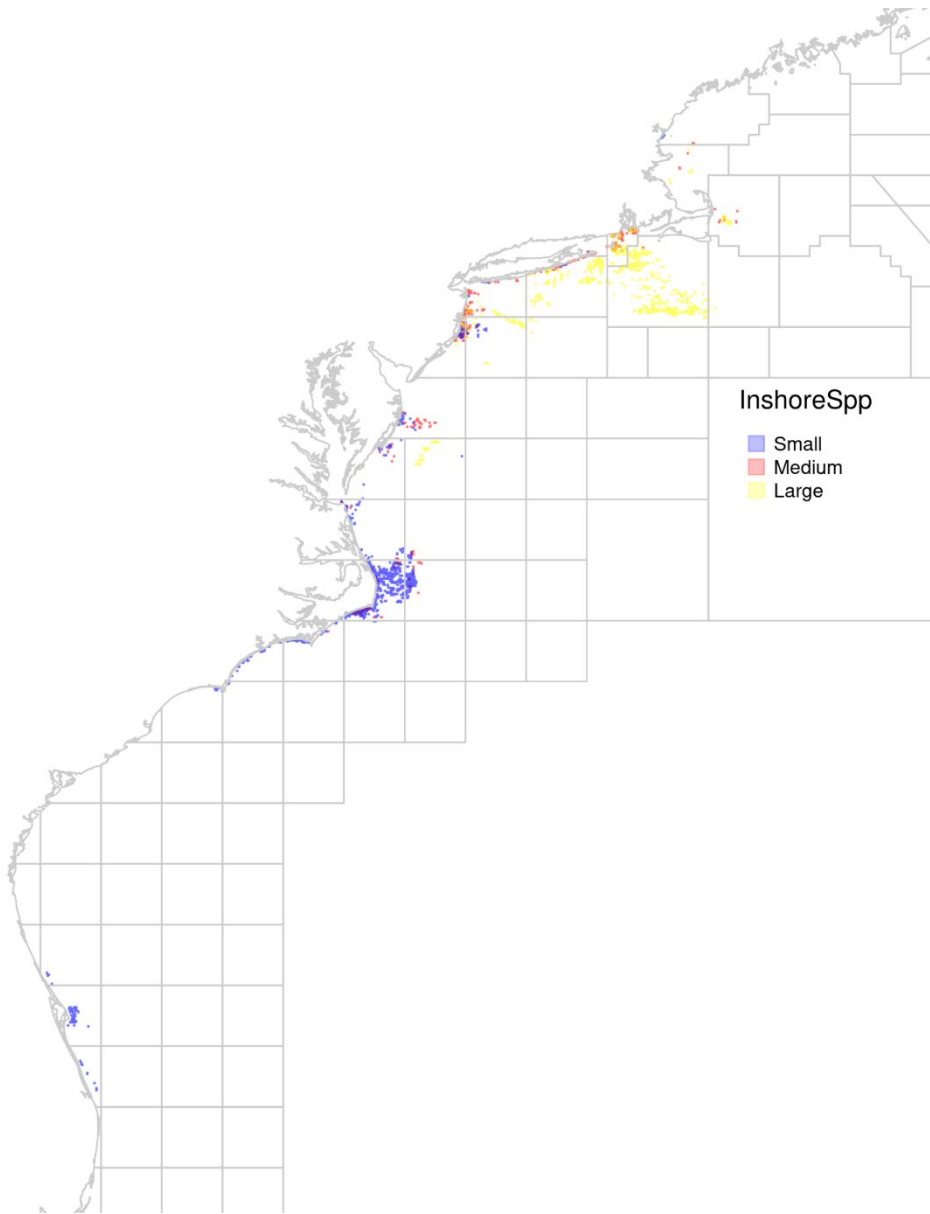
Tie Downs / Net Height



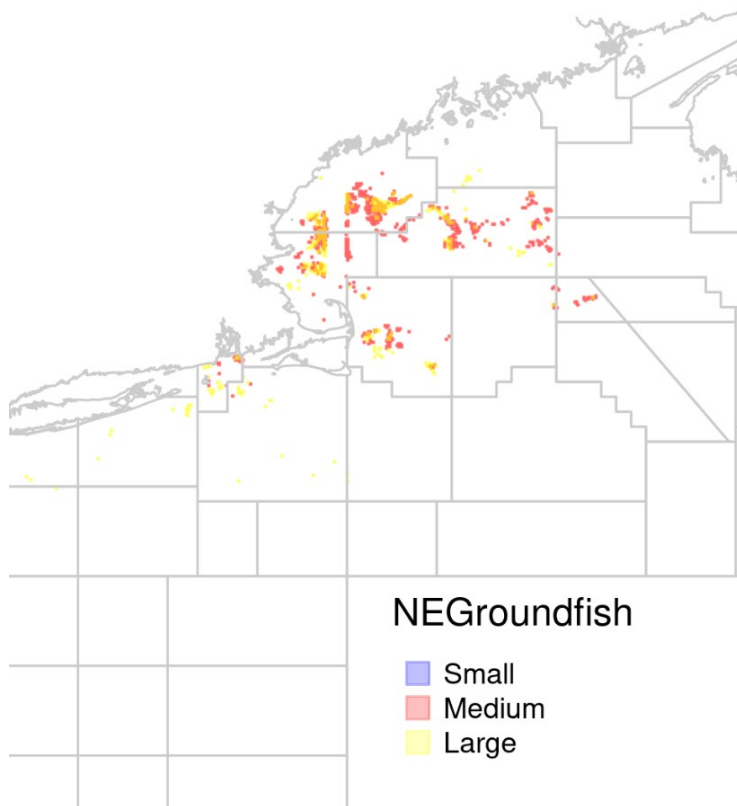
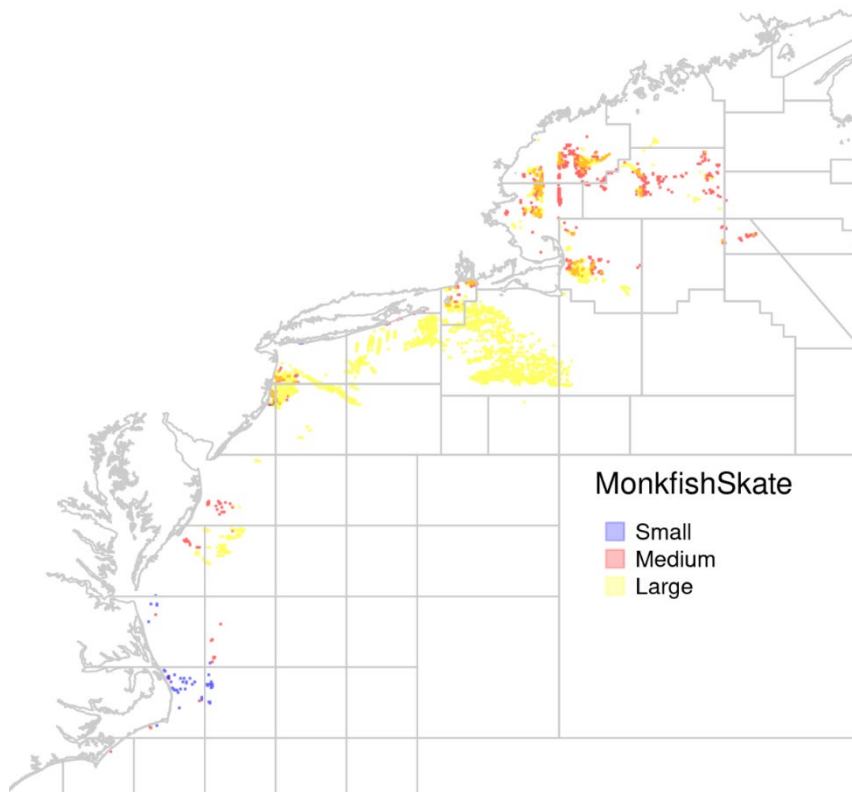
Mesh Sizes By Fishery



Mesh Sizes By Fishery



Mesh Sizes By Fishery



From: James Fletcher <unfa34@gmail.com>

Sent: Wednesday, November 16, 2022 10:41 AM

To: brian.galvez@noaa.gov; Spedden, Shelley <sspedden@mafmc.org>; Didden, Jason <jdidden@mafmc.org>; Moore, Christopher <cmoore@mafmc.org>

Subject: rope less gear protection of Whales

United National Fisherman Assoc has put fort: **ALL MOBILE GEAR TO PROTECT WHALES: DREDGES; TRAWL; BEAM TRAWLS non anchored gill netting ; WHAT EVER. NOAA / NMFS REFUSES TO DISCUSS UTILIZATION OF ALL MOBILE GEAR TO HARVEST LOBSTERS FISH ALL SPECIES IN THE EEZ; WHY WILL NOAA NMFS NOT DISCUSS ALL MOBILE GEAR? NO POTS, NO ROPES, NO ANCHORED GILL NETS, ?**

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United National Fisherman's Association James Fletcher Director 123 Apple Rd Manns Harbor NC 27953 land 252-473-3287 cell 757-435-8475