

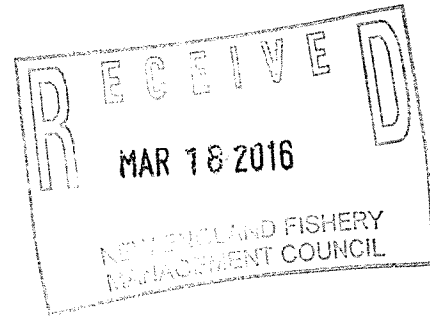
## CORRESPONDENCE

**Conservation Law Foundation \* Earthjustice \* Natural Resources Defense Council  
Oceana \* The Pew Charitable Trusts \* Wild Oceans**

March 18, 2016

Dr. John F. Quinn  
Habitat Committee Chairman  
New England Fishery Management Council

Thomas A. Nies  
Executive Director  
New England Fishery Management Council  
50 Water Street, Mill 2, Newburyport, MA 01950



Re: NEFMC Omnibus Deep-Sea Corals Amendment (OHA3)

Dear Dr. Quinn and Mr. Nies,

The undersigned organizations write to express our concerns about the ongoing development of the New England Fishery Management Council (NEFMC) Omnibus Deep-Sea Corals Amendment (Corals Amendment). We respectfully ask that the Habitat Committee consider and address these concerns as part of its deliberations on the Corals Amendment at the upcoming Committee meeting on March 22.

*First and foremost*, we are concerned about the delineation of the “discrete” protection zones based on how the boundaries for these zones, intended to protect the corals-rich submarine canyons, are currently being developed. Recent Plan Development Team (PDT) webinars illustrate that the zones are being delineated (at least thus far) based on bathymetric information, and are not fully utilizing what we believe is the best available science. The PDT’s current approach largely ignores NOAA’s deep-sea coral habitat suitability model (Corals Model), which is the most advanced and sophisticated method available for determining likely coral habitat. This model was developed over a number of years at considerable expense by scientists and deep-sea coral experts through an extensive, cross-NOAA effort, including involvement of researchers from the National Centers for Coastal Ocean Science (NCCOS), the National Marine Fisheries Service (NMFS), and the Office of Ocean Exploration and Research (OER). The model predicts coral habitat suitability based on coral observations and environmental and geological predictor variables, including depth, depth change, aspect ratio, rugosity, salinity, oxygen, substrate, temperature, and turbidity. In 2012-2014, calibration surveys for the model were conducted in the field in a range of canyons, and the model was considered to have “strong predictive power.”<sup>1</sup>

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<sup>1</sup> Clarke, L.M. (ed.). 2013. Proceedings of the 2nd National Habitat Assessment Workshop: Fisheries Science to Support NOAA’s Habitat Blueprint. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-F/SPO-

The PDT's boundary delineation method has thus far prioritized only depth and slope, effectively disregarding other important predictive variables. The scientists responsible for the model's development calculated that other factors, including bottom salinity, temperature, dissolved oxygen, and sediment size, are also critical predictors, and for some coral types, *even more important* than depth and slope.<sup>2</sup> We are thus concerned that the NEFMC is using a methodology that delineates its discrete boundaries too restrictively as a starting point. For example, the maps shown at PDT webinars would exclude even very high suitability coral habitat predicted by the model. We believe that the PDT should rely primarily on the model output, and not just a few of its component variables, to distinguish those areas that have the greatest likelihood of having corals. This will allow the PDT to capture each canyon's unique biological identity in the protection zones—researchers have found the prevalence of different coral species, abundance, colony depth, and a host of other characteristics to vary widely from canyon to canyon.<sup>3</sup>

We encourage the New England Council to approach the boundary delineation method in a way that is similar to the approach used in the mid-Atlantic, in part to adhere to the recommendations of the tri-Council 2013 Deep-Sea Corals Memorandum of Understanding, and in part to make use of the best available science concerning what areas are in need of protection. To develop boundaries for its own discrete zones, the Mid-Atlantic Council (MAFMC) Fishery Management Action Team (FMAT) relied chiefly on NOAA's Corals Model in combination with high-slope areas and recent coral observations. Specifically, the FMAT drew its boundaries around predicted very highly and highly suitable habitat for the Gorgonian and Alcyonacean orders of corals; these areas were buffered by 0.4 nautical miles to account for spatial uncertainties associated with the current resolution of the habitat model.<sup>4</sup> It is important to recognize that the FMAT's zones were under-inclusive of deep-sea coral habitat in that they only encompassed the two highest categories of suitability (very high and high) and unfortunately did not consider stony coral or sea pen habitat. Nevertheless, the MAFMC considered the zones to represent "the best available science" for areas of "coral presence and highly likely coral habitat."<sup>5</sup> The MAFMC proposed these zones, as well as a number of fishing industry-developed zones, as alternatives in the proposed protection plan it issued for public comment in January 2015. Subsequently, at an April 2015 workshop, an alternative set of zones was developed that generally reduced the zones in areas around the heads of the canyons in order to address industry concerns. The MAFMC ultimately approved the set of zones developed at the April workshop for submission to NOAA Fisheries.

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132, 89 p.; *see also* Nizinski, M.S., Hey, T.P., Kinlan, B.P. and Shank, T.M. 2014. An Integrated Approach to Predictive Habitat Suitability Modeling and Field Surveys in Northwest Atlantic Submarine Canyons: Model Validation and Habitat/Faunal Characterization. Presentation at the 2<sup>nd</sup> International Symposium on Submarine Canyons, Edinburgh 2014.

<sup>2</sup> Kinlan, B.P., M. Poti, A.F. Drohan, D.B. Packer, D.S. Dorfman, and M.S. Nizinski. Predictive modeling of suitable habitat for deep-sea corals offshore of the northeast United States. Deep Sea Research Part I: Oceanographic Research Papers (in review).

<sup>3</sup> E.g., NOAA, Deep Sea Coral Research and Technology Program 2014 Report to Congress.

<sup>4</sup> MAFMC/NOAA Fisheries, Deep Sea Corals Amendment to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan, Public Information Document, at 19 (May 2015).

<sup>5</sup> *Id.* at 25.

While the NEFMC ultimately has the discretion to develop deep-sea coral protections differently from the MAFMC, it is critical at least that it do so in a carefully considered way and based on the best available science. We believe that the approach being taken in New England is more subjective and will produce inconsistent results across and between the different canyons compared to those resulting from the MAFMC approach. For example, even the “compromise” April 2015 workshop-developed protection zones ultimately approved by the MAFMC included *all* of the most important, i.e., very high suitability, habitat—the zones being developed by the PDT, on the other hand and as noted above, currently *exclude* very high suitability habitat (as well as high suitability habitat). Accordingly, our groups ask that the Committee discuss the varying approaches to delineation of discrete protection zones at its upcoming meeting and take the steps it believes are necessary to ensure the deep-sea coral protection plan being developed for consideration by the Council is based on the best available science and otherwise meets the Council’s needs and goals for this action.

*Second*, to our knowledge, the PDT has not included and considered to date other highly relevant regulatory boundaries as alternatives in this action. It is important that these area designations and closures be considered as alternative discrete protection zones and/or be used as minimally-protective starting points for drawing the discrete zones. Specifically, as part of the Omnibus Habitat Amendment 2, the Council approved “Habitat Area of Particular Concern” (HAPC) designations for many of the canyons and two of the seamounts that are targeted in the Corals Amendment. These HAPC designations were made for the broad ecological purpose of protecting habitat-forming deep-sea coral communities for the benefit of managed fish species.<sup>6</sup> The NEFMC also took into account these features’ general ecological importance, sensitivity to anthropogenic stresses, and rare habitats and organisms.<sup>7</sup> In addition, tilefish gear restricted areas (GRAs) are in place in Veatch, Lydonia, and Oceanographer Canyons specifically; Lydonia and Oceanographer Canyons are also subject to monkfish and squid/mackerel/butterfish closures. We note that the MAFMC decided to adopt the boundaries of the tilefish GRA for the Norfolk Canyon protection zone.

*Third*, because the rulemaking is incomplete for the MAFMC’s deep-sea coral amendment, the FMAT, Habitat Committee, and Council should receive and fully utilize NOAA Fisheries feedback from the rulemaking process in order to ensure successful complementary action in New England. Although the MAFMC took final action on its deep-sea coral amendment in June 2015, to the best of our understanding, the amendment has not been transmitted to NOAA Fisheries for review and initiation of rulemaking. If consideration of the NOAA Fisheries’ action requires a short delay in Council action, this is an appropriate trade-off because it could forestall a longer delay at a later stage.

Further, it is worth noting that a number of decisions about the Essential Fish Habitat (EFH) value of coral areas, and associated management actions, were explicitly passed along during

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<sup>6</sup> See New England Fishery Management Council, Omnibus Essential Fish Habitat Amendment Volume 2: EFH and HAPC Designation Alternatives Environmental Impacts, Draft-Oct. 1, 2014, at 399-400.

<sup>7</sup> *Id.*

the Omnibus Habitat Amendment process to be addressed in the Corals Amendment. It now appears that the process is solely targeted at using the elective element of the Magnuson - Stevens Act under the deep coral provisions, ignoring the EFH value in this action and the attendant consideration of EFH management needs.

*Fourth and finally*, we strongly recommend that the Committee and Council develop a complete Statement of Purpose and Need, as well as Goals and Objectives, for this amendment. While the Council has had some discussion of these amendment elements, they remain incomplete as of the last draft of the amendment from September 2015. Currently, technical staff must speculate about Council intent because there are no goals or measurable objectives in the amendment. Among other things, these will be critical to the National Environmental Policy Act review process. Both the Mid-Atlantic and South Atlantic Councils carefully specified the purpose and need statements in the Deep-Sea Corals Amendment and Comprehensive Ecosystem-Based Amendment 1, respectively.

In closing, we ask again that the Committee consider these comments at its March 22, 2016 meeting and recommend appropriate adjustments to the development of the Corals Amendment. This is an important amendment: the region's deep-sea coral communities are ecologically important, beneficial to fisheries, of high scientific interest and social utility, and highly vulnerable to disturbance. These resources certainly warrant the Council's special attention and a high level of protection. We look forward to working with the Council towards approval of a deep-sea coral protection plan for the region that is robust and based on the best available science.

Sincerely,

**Pam Lyons Gromen**  
Executive Director  
Wild Oceans

**Brad Sewell**  
Senior Attorney, Director of Fisheries & US Atlantic  
Natural Resources Defense Council

**Peter Baker**  
Director, U.S. Oceans, Northeast  
The Pew Charitable Trusts

**Roger Fleming**  
Attorney  
Earthjustice

**Peter Shelley**  
Vice President  
Conservation Law Foundation

**Gib Brogan**  
Fisheries Campaign Manager  
Oceana

Cc: Michelle Bachman, EFH Omnibus Amendment Coordinator



# Atlantic States Marine Fisheries Commission

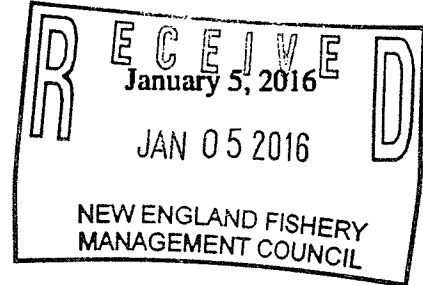
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Douglas E. Grout (NH), Chair

James J. Gilmore, Jr., (NY), Vice-Chair

Robert E. Beal, Executive Director

*Vision: Sustainably Managing Atlantic Coastal Fisheries*



Mr. Thomas Nies  
Executive Director  
New England Fishery Management Council  
50 Water Street  
Newburyport, Massachusetts 01950

Dear Tom,

This is in response to your letter on December 18, 2015 requesting data on the distribution of lobster fishing activity in and around the canyons off Georges Bank and Southern New England. We are working to obtain this information for the Council and have begun to reach out to state representatives and industry members.

Addendum X to the American Lobster Fishery Management Plan requires trip level reporting by a portion of active fishermen. The harvester report includes location fished; however, this is specified by NMFS Statistical Area. As a result, the location information from these trip reports is too coarse to determine the impact of potential deep sea coral protection zones on the lobster fishery.

We are currently exploring others ways to obtain more precise information on the distribution of offshore lobster fishing effort. These may include working with the Atlantic Offshore Lobstermen's Association, creating a committee of representative lobster fishermen, and involving industry directly through a survey. We are likewise working to obtain information on the distribution of the offshore Jonah crab fishery for the Council's consideration. Given that lobster and Jonah crab are part of a growing mixed crustacean fishery, deep sea coral protection zones also have the potential to significantly impact Jonah crab fishermen.

Since there is no dataset from which to assemble information on the distribution of lobster fishing effort, substantial work will be required to compile the data requested by the Council. The Commission will work to have this information for the February Habitat Committee meeting, but due to the complexity of gathering the data, we may not be able to meet this timeframe. If this is the case, the Commission will provide the Habitat Committee with an update and a timeframe of when the data will be available.

We look forward to working closely with the Council on this important issue.

Sincerely,

Robert E. Beal

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New England Fishery Management Council

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E.F. "Terry" Stockwell III, *Chairman* | Thomas A. Nies, *Executive Director*

December 18, 2015

Mr. Robert E. Beal  
Executive Director  
Atlantic States Marine Fisheries Commission  
1050 N. Highland Street, Suite 200 A-N  
Arlington, VA 22201

Dear Bob:

Our Council is currently working on an omnibus amendment to protect deep-sea coral habitats in the New England region from the impacts of fishing. During a December 15, 2015 meeting of the Habitat Plan Development Team, it came to our attention that Vessel Trip Report (VTR)-based maps of the distribution of effort in the lobster fishery may be missing some important grounds.

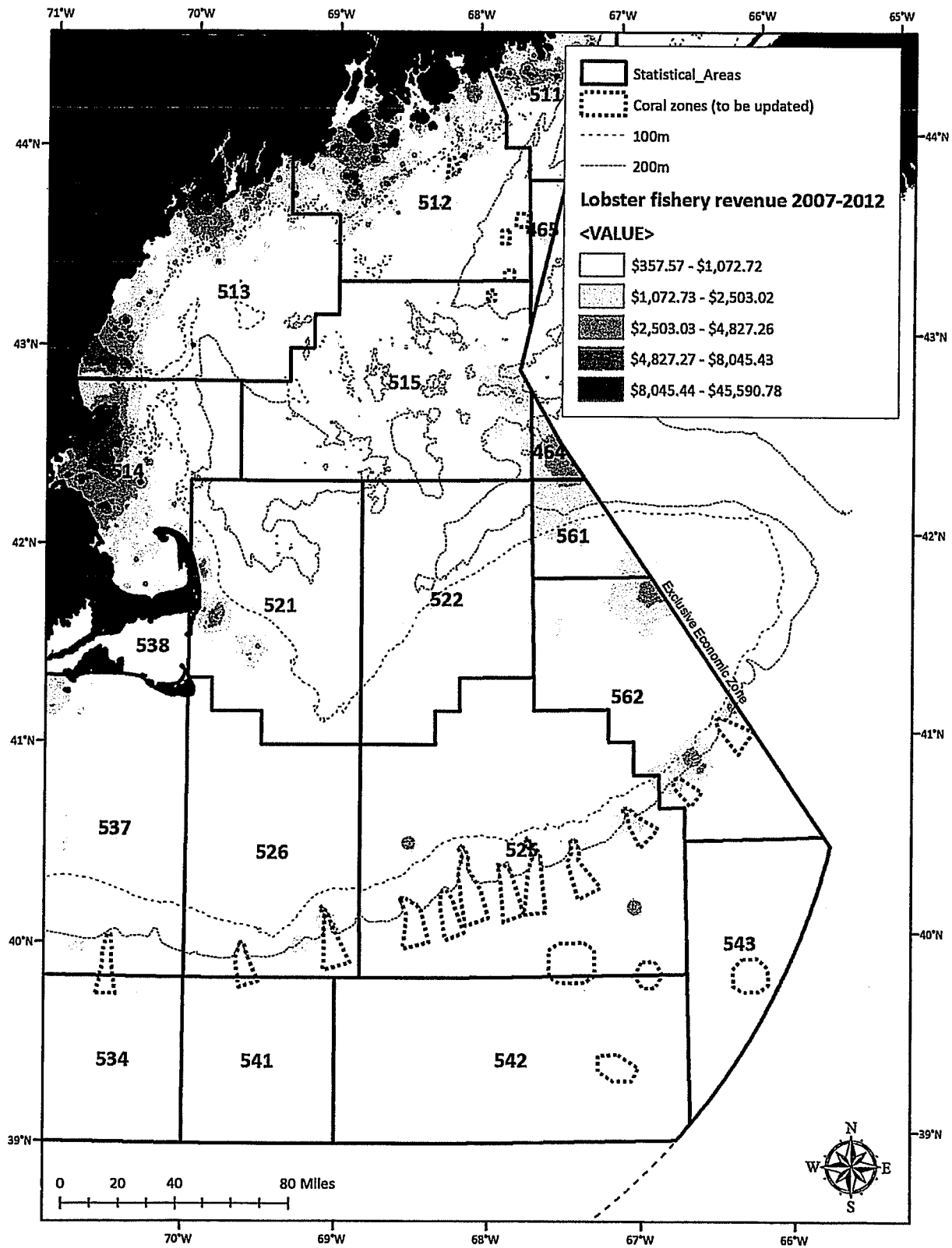
The enclosed figure shows the distribution of revenues in the lobster fishery between 2007 and 2012. More recent data from 2013 and 2014 (not shown) indicate similar patterns of effort. As you can see, there is no reported effort in the vicinity of Lydonia and Oceanographer Canyons. Industry members in the audience said that lobster effort is distributed along the entire shelf edge between Heezen and Alvin canyons, but that vessels fishing in some locations may not be represented in the vessel trip report data. We do not know if this is because they do not hold other federal permits that trigger the VTR requirement, or because VTRs record only one location for each sub-trip (gear/statistical area).

We are reaching out to you and your staff to see if you have data that can help us to better understand the distribution of lobster fishing activity in and around the canyons off Georges Bank and Southern New England. To be clear, the Council has not yet indicated that they intend to restrict the use of lobster traps within coral zones, but we want to be prepared to analyze effects on all fisheries operating within the region.

Michelle Bachman is the plan coordinator for this amendment and can answer any questions you may have.

Sincerely,

Thomas A. Nies  
Executive Director





UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Silver Spring, MD 20910

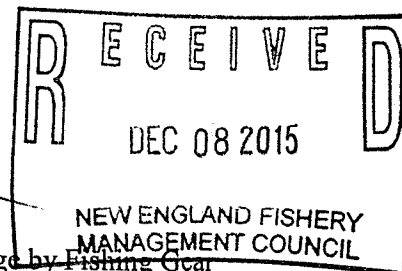
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JUN 11 2014

MEMORANDUM FOR: Executive Directors, Regional Fishery Management Councils  
Chairs, Regional Fishery Management Councils  
NMFS Regional Administrators  
Director, Office of Sustainable Fisheries

FROM: Buck Sutter, Director  
Office of Habitat Conservation

SUBJECT: Protection of Deep-Sea Corals from Physical Damage by Fishing Gear  
under the MSA Deep Sea Coral Discretionary Authority



The attached informational document was developed by the NMFS Office of Habitat Conservation and reviewed by NOAA General Counsel, the Office of Sustainable Fisheries, and the NMFS Regional Offices. The purpose of the document is to provide options and information for NMFS Regional Offices and the regional fishery management councils as they implement the discretionary provisions for deep-sea coral protection included in the Magnuson-Stevens Fishery Conservation and Management Act Section 303(b)(2). These provisions provide that any fishery management plan (FMP) which is prepared by any Council or the Secretary, with respect to any fishery, may:

- A) designate zones where, and periods when, fishing shall be limited, or shall not be permitted, or shall be permitted only by specified types of fishing vessels or with specified types and quantities of fishing gear;
- B) designate such zones in areas where deep sea corals are identified under section 408 [the Deep Sea Coral Research and Technology Program], to protect deep sea corals from physical damage from fishing gear or to prevent loss or damage to such fishing gear from interactions with deep sea corals, after considering long-term sustainable uses of fishery resources in such areas. 16 U.S.C. § 1853(b)(2)(A)-(B).

The information included in this document is consistent with NOAA policies established in its *Strategic Plan for Deep-Sea Coral and Sponge Ecosystems*.

We hope this information is useful to you as you consider mechanisms for the protection of deep-sea corals.

Please contact Dr. Tom Hourigan ([Tom.Hourigan@noaa.gov](mailto:Tom.Hourigan@noaa.gov)) in my Office with any questions or if you would like further information about the Deep Sea Coral Research and Technology Program.

mb, cbk, pmf 12/11/15





## **Protection of Deep-Sea Corals from Physical Damage by Fishing Gear under the MSA Deep Sea Coral Discretionary Authority**

### **Purpose**

The National Oceanic and Atmospheric Administration (NOAA) is a steward of the nation's living marine resources. This document will assist NOAA offices and the regional fishery management councils (Councils)<sup>1</sup> when developing protective measures for deep-sea corals under section 303(b)(2)(B) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA).<sup>2</sup> Section 303(b)(2) provides that any fishery management plan (FMP) which is prepared by any Council or the Secretary, with respect to any fishery, may:

- A) designate zones where, and periods when, fishing shall be limited, or shall not be permitted, or shall be permitted only by specified types of fishing vessels or with specified types and quantities of fishing gear;
- B) designate such zones in areas where deep sea corals are identified under section 408 [the Deep Sea Coral Research and Technology Program], to protect deep sea corals from physical damage from fishing gear or to prevent loss or damage to such fishing gear from interactions with deep sea corals, after considering long-term sustainable uses of fishery resources in such areas. 16 U.S.C. § 1853(b)(2)(A)-(B).

We encourage use of this discretionary authority to advance the agency's and Councils' conservation objectives. NOAA's Strategic Plan for Deep-Sea Coral and Sponge Ecosystems seeks to ensure that fisheries that may interact with known and likely deep-sea coral ecosystems are identified and monitored and that such ecosystems are protected from the impacts of fishing gear (see Figure 1).<sup>3</sup> This document is consistent with those policy goals.

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<sup>1</sup> Hereafter, "Council" includes NOAA's National Marine Fisheries Service (NMFS), when it prepares fishery management plans or amendments under MSA sections 304(c) (Secretarial plans) and (g) (Atlantic highly migratory species plans).

<sup>2</sup> This document supercedes NMFS Office of Habitat Conservation's Essential Fish Habitat and Deep-sea Coral Authorities White Paper (Feb. 2010).

<sup>3</sup> NOAA 2010. *NOAA Strategic Plan for Deep-Sea Coral and Sponge Ecosystems: Research, Management, and International Cooperation*. Silver Spring, MD: NOAA Coral Reef Conservation Program. NOAA Technical Memorandum CRCP 11. 67 pp.  
[http://coris.noaa.gov/activities/deepsea\\_coral/](http://coris.noaa.gov/activities/deepsea_coral/) Deep-sea sponge habitats can play similar ecological roles and face similar threats as deep-sea coral habitats, but they are outside the scope of the discretionary authority and thus not addressed in this document.

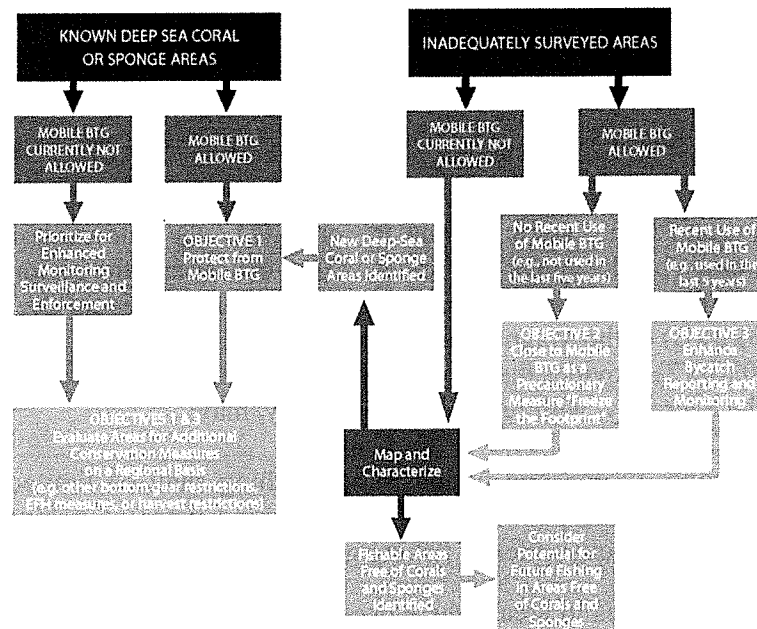


Figure 1: NOAA’s precautionary approach to manage bottom-tending gear, especially mobile bottom-tending gear and other adverse impacts of fishing on deep-sea coral and sponge ecosystems, as described in NOAA’s Strategic Plan for Deep-Sea Coral and Sponge Ecosystems.

## Scope

This document focuses on the use of MSA section 303(b)(2)(B) discretionary authority to minimize physical damage from fishing gear to deep-sea corals identified by the Deep Sea Coral Research and Technology Program. Such measures would also prevent loss or damage to gear from interactions with deep-sea corals. In addition to the discretionary authority, other MSA provisions may be relevant to deep-sea corals. *See Other MSA Provisions* (explaining mandatory requirements for essential fish habitat and bycatch).

## What are considered Deep-Sea Corals?

There is strong scientific consensus on the taxa that are considered “corals”<sup>4</sup> but less consensus on what is considered “deep sea.” For the purposes of this document and the implementation of the MSA, NOAA has defined the term “deep-sea corals” as azooxanthellate corals (i.e., corals that do not depend upon symbiotic algae and light for energy) generally occurring at depths below 50 meters.<sup>5</sup> Of particular ecological importance and conservation concern are “structure-

<sup>4</sup> Cairns, S.D. 2007. Deep-water corals: an overview with special reference to diversity and distribution of deep-water scleractinian corals. *Bulletin of Marine Science*, 81(3): 311-322.

<sup>5</sup> See NOAA Strategic Plan for Deep-Sea Coral and Sponge Ecosystems, *supra* note 3; 1<sup>st</sup> Report to

forming deep-sea corals,” those colonial deep-sea coral species that provide vertical structure above the seafloor that can be utilized by other species<sup>6</sup> and are most likely to be damaged by interactions with fishing gear. Structure-forming deep-sea corals include both branching stony corals that form a structural framework (e.g., *Lophelia pertusa*) as well as individual colonies of corals, such as gorgonians and other octocorals, black corals, gold corals, and lace corals (Table 1). These are often referred to as habitat-forming deep-sea, deep-water, or cold-water corals.

Class	Subclass	Order	Common Name	Additional Information
<b>Anthozoa</b> —corals, sea anemones, sea pens	Hexacorallia	Scleractinia	Stony corals	A few species form deep-water reef-like structures known as bioherms, coral banks, or lithoherms.
		Zoantharia	Gold corals	Only a few zoanthids in the family Parazoanthidae (e.g., genus <i>Kulamanamana</i> & <i>Savalia</i> ) form rigid skeletons.
		Antipatharia	Black corals	Many branching forms. Certain species harvested for jewelry in Hawaii.
	Octocorallia	Alcyonacea*	True soft corals	Most are not major structure-forming species.
		Gorgonacea	Gorgonians, sea fans, sea whips	Many branching forms. At least 12 families contain major structure-forming species.
		Pennatulacea	Sea pens	Unlike other species, sea pens are found on soft sediments. Contribution as habitat and to biodiversity is not well understood.
<b>Hydrozoa</b> —hydroids and hydromedusae	Hydroidolina	Anthoathecata (Family Stylasteridae)	Stylasterids or lace corals	Can form branching colonies. May be confused with stony corals but the resemblance is superficial.

\*Gorgonians are included by many taxonomists in the Order Alcyonacea.

**Table 1:** Major deep-sea coral groups (phylum Cnidaria)<sup>7</sup>

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*Congress on Implementation of the Deep Sea Coral Research and Technology Program, infra note 7; and The State of Deep Coral Ecosystems of the United States* (NOAA 2007).

<sup>6</sup> Lumsden SE, Hourigan TF, Bruckner AW, Dorr G (eds.) 2007. *The State of Deep Coral Ecosystems of the United States*. NOAA Technical Memorandum CRCP-3. Silver Spring MD.

<sup>7</sup> NOAA 2008. *1<sup>st</sup> Report to Congress on the Implementation of the Deep Sea Coral Research and Technology Program*. [http://www.nmfs.noaa.gov/habitat/2010\\_deepcoralreport.pdf](http://www.nmfs.noaa.gov/habitat/2010_deepcoralreport.pdf).

### ***What is the role of the Deep Sea Coral Research and Technology Program (DSCRTP)?***

The DSCRTP was established under MSA section 408 to identify and map locations of deep-sea corals, monitor activity in locations where deep-sea corals are known or likely to occur, and submit information to the Councils. Section 408 also authorizes the program to conduct research, develop technologies or methods designed to assist fishery participants in reducing interactions between gear and deep-sea corals, and engage in other activities.<sup>8</sup> The program integrates expertise and resources available across NOAA to provide scientific information needed to conserve and manage deep-sea coral ecosystems.<sup>9</sup>

Upon request, the DSCRTP has been providing available information on deep-sea corals to some Councils and Regions to assist them with management initiatives. The DSCRTP is also compiling a database of information on known deep-sea coral locations. The database and its records are undergoing peer review and then, consistent with MSA confidentiality requirements, will be made publicly available through a U.S. Geological Survey web site, OBIS-USA.gov, and through a NOAA web application. The records of deep-sea coral locations are also being used to identify areas likely to contain deep-sea corals using scientific modeling approaches coupled with new field research. In addition, the Program will continue to work with Councils and other partners to develop an updated list of known areas with major structure-forming deep-sea coral aggregations for inclusion in the Program's statutorily required biennial report to Congress on efforts to identify, monitor, and protect deep-sea corals.

The DSCRTP may present a Council with research on, and known locations of, deep-sea coral areas and areas with expected habitat suitable to support deep-sea corals. Should a Council or other organization have information on the location or bycatch of deep-sea corals, it may provide that information to the DSCRTP. If the DSCRTP concurs with that information, it may submit the information to the Council as an area that the Council could consider for protection under the deep-sea corals discretionary authority. The DSCRTP, in consultation with the appropriate Council(s), will periodically review any new information available on deep-sea coral areas and propose revisions and/or amendments to these areas as warranted. If possible, the DSCRTP will schedule such reviews to coincide with a Council's existing essential fish habitat review schedule to maximize efficiency and effectiveness.

As explained below, under the deep-sea coral discretionary authority, a Council may adopt measures that restrict or prohibit fishing or fishing gear. NOAA may provide recommendations to assist Councils in identifying deep-sea coral zones and potential protective actions. These recommendations are in line with MSA section 408, described above, which provides, among other things, that the DSCRTP develop methods designed to assist fishing industry participants in reducing interactions between fishing gear and deep sea corals. The DSCRTP may provide recommendations to a Council for the initial incorporation of deep-sea coral information into an

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<sup>8</sup> See 16 U.S.C. § 1884.

<sup>9</sup> See [http://coralreef.noaa.gov/deepseacorals/noasrole/research\\_technology/](http://coralreef.noaa.gov/deepseacorals/noasrole/research_technology/) for further information.

FMP and for any subsequent modification to fishery management actions. If applicable, NOAA may also provide recommendations for protection of deep-sea corals identified as EFH, including recommendations for designating deep-sea corals as habitat areas of particular concern (HAPCs). In making recommendations, the DSCRTP will coordinate with the appropriate NOAA office(s).

### **Deep-Sea Coral Discretionary Authority**

This section addresses designating deep-sea coral zones and adopting protective measures in an FMP, FMP amendment or omnibus amendment that applies to several FMPs. Such measures must be consistent with the National Standards, other MSA provisions and other applicable law. When using the discretionary authority, an FMP/amendment should clearly state the purpose, need and rationale for the action; be supported by the factual record, including environmental, economic and social impact analyses; and cite to the authority. Example citation: “The purpose of this action is to protect deep-sea corals from physical damage from fishing gear as authorized by section 303(b)(2)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.”

#### ***Designating Deep-Sea Coral Zones***

When designating deep-sea coral zones, the following parameters and considerations apply:

1. The authority may only be used for deep-sea coral areas identified by the DSCRTP.
2. Deep-sea coral zones may only be designated within the U.S. Exclusive Economic Zone (EEZ) and within the geographical range of a fishery managed under an FMP. A Council may develop protective measures for such zones that apply to any fishing, not just that managed under the applicable FMP.<sup>10</sup> Thus, measures may apply to fishing that is managed under a different federal FMP or to state-regulated fishing that is authorized in the EEZ.
3. A Council should coordinate with potentially affected Councils, state commissions, and states to ensure that it has sufficient information to support the need for its action and to analyze impacts of the action on other fisheries.<sup>11</sup>

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<sup>10</sup> There may be instances where deep-sea corals extend from the EEZ into state waters. While a Council cannot designate the state waters portion as a deep-sea coral zone under MSA section 303(b)(2)(B), it could describe the deep-sea corals in its FMP. A Council could also explore whether protective measures should be applied to federal permittees when fishing near the deep-sea corals in state waters. However, there would have to be a conservation and management need under the MSA for such action. Should this scenario arise, please consult NOAA General Counsel for further guidance.

<sup>11</sup> See 16 U.S.C. § 1853(a)(9) (requiring FMP to have a fishery impact statement addressing likely effects on and possible mitigation measures for participants in fisheries in adjacent areas under the authority of another Council, after consultation with that Council and representatives of the fisheries’ participants). Often, a Council will consult directly with other Councils when developing an action that might affect their fisheries. In addition, where a fishery extends beyond the geographical area of authority of any one Council, the Secretary may designate a Council to prepare an FMP/amendment or require that the

4. Long-term sustainable uses of fishery resources in the deep-sea coral areas must be considered. This consideration informs but does not limit the scope of protective measures that a Council may adopt.
5. Deep-sea coral zones and protective measures may be adopted even if there are no vessels currently fishing at or near the areas or there is no indication that current fishing activities are causing physical damage to deep-sea corals.
6. To ensure the effectiveness of protective measures, deep-sea coral zones may include, as necessary, additional areas beyond the exact locations of the deep-sea corals.

Areas considered as priorities for protective measures should be identified on a case-by-case basis considering the following ecological factors and other factors as appropriate:<sup>12</sup>

- the size of the reef or coral aggregation, or density of structure-forming deep-sea corals;
- the occurrence of rare species;
- the importance of the ecological function provided by the deep-sea corals as habitat;
- the extent to which the area is sensitive to human-induced environmental degradation;
- the likelihood of occurrence of deep-sea corals in unsurveyed areas based on the results of coral habitat suitability models or similar methods.

### ***Protective Measures***

Within the designated deep-sea coral zone's, there are various options available for protecting the corals from physical damage from fishing gear, including but not limited to:<sup>13</sup>

1. Restrictions on the location where fishing may occur. If a closure to all fishing is being considered, it must comply with requirements at MSA section 303(b)(2)(C),<sup>14</sup> which include establishing a timetable for review of the closed area's performance. This review should be conducted in consultation with the DSC RTP. Given the additional

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FMP/amendment be jointly prepared. *Id.* § 1854(f)(1).

<sup>12</sup> See NOAA Strategic Plan for Deep-Sea Coral and Sponge Ecosystems, *supra* note 3.

<sup>13</sup> See *supra* page 1 (quoting authority for fishing and gear restrictions under 16 U.S.C. § 1853(b)(2)(A)).

<sup>14</sup> With respect to any closure of an area to all fishing, an FMP/amendment must ensure the closure: “(i) is based on the best scientific information available; (ii) includes criteria to assess the conservation benefit of the closed area; (iii) establishes a timetable for review of the closed area's performance that is consistent with the purposes of the closed area; and (iv) is based on an assessment of the benefits and impacts of the closure, including its size, in relation to other management measures (either alone or in combination with such measures), including the benefits and impacts of limiting access to: users of the area, overall fishing activity, fishery science, and fishery and marine conservation.” 16 U.S.C. § 1853(b)(2)(C).

- requirements and process, a Council may want to consider whether targeted gear restrictions, as opposed to a full fishing closure, would provide sufficient protection.
2. Restrictions on fishing by specified types of vessels or vessels with specified types and quantities of gear. These could include, for example, limits on the use of specified fishing-related equipment, required equipment modifications to minimize interactions with deep-sea coral communities, prohibitions on the use of explosives and chemicals, prohibitions on anchoring or setting equipment, and prohibitions on fishing activities that cause damage to deep-sea corals.
  3. Proactive protection by freezing the footprint of current fishing activities of specified types of vessels or vessels with specified types and quantities of gear to protect known or expected locations of deep-sea corals.
  4. Limits on the harvest or bycatch of species of deep-sea coral that provide structural habitat for other species, assemblages, or communities.

### **Other MSA Provisions**

The deep-sea coral authority is discretionary, but there are other mandatory requirements that may be applicable, including MSA provisions on essential fish habitat and bycatch.

### ***Essential Fish Habitat (EFH)***

MSA section 303(a)(7) requires that an FMP describe and identify EFH for the fishery, minimize to the extent practicable adverse effects caused by fishing, and identify other actions to encourage the conservation and enhancement of the EFH. Federal action agencies must consult with NOAA on activities that may adversely affect EFH, and NOAA provides non-binding conservation recommendations to the agencies through that process.<sup>15</sup> If a deep-sea coral area is EFH (e.g., essential for spawning, breeding, feeding or growth to maturity of fish managed under an FMP),<sup>16</sup> then it must be identified as such and the above requirements apply.

For deep-sea corals identified through the DSCRTP, the Council may also adopt additional measures under the deep-sea coral discretionary authority. Unlike the EFH requirements, the discretionary authority does not require a showing that corals are habitat for federally-managed fish or that current fishing activities are causing physical damage. The discretionary authority has no required consultation process for non-fishing activities that may affect deep-sea corals. However, there may be avenues for providing non-binding recommendations to conserve or protect corals through other processes under the MSA (*see e.g.*, section 305(b)(3)(A)), National Environmental Policy Act, Fish and Wildlife Coordination Act, and other authorities.

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<sup>15</sup> See 16 U.S.C. § 1855(b) and 50 C.F.R. § 600.905 *et seq.* (setting forth EFH consultation requirements and guidance).

<sup>16</sup> EFH is defined as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.” 16 U.S.C. § 1802(10). *See also* EFH Guidelines at 50 C.F.R. § 600.810 *et seq.*

### ***Bycatch Requirements***

National Standard 9 of the MSA requires that conservation and management measures minimize bycatch and to the extent bycatch cannot be avoided, minimize bycatch mortality.<sup>17</sup> The MSA defines “bycatch” as fish that are harvested in a fishery but that are not sold or kept for personal use.<sup>18</sup> Because deep-sea corals fall under the statutory definition of “fish,”<sup>19</sup> the MSA bycatch provisions are applicable to them.

When analyzing proposed conservation and management measures, if a Council has information that bycatch of deep-sea corals may occur, it should address the above bycatch requirements regardless of whether the DSCRTP has identified the resources as deep-sea coral areas. For deep-sea corals identified through the DSCRTP, a Council may adopt additional measures under the deep-sea coral discretionary authority. Designation of appropriate deep-sea coral zones that prohibit the use of bottom-contact fishing gears is likely to be among the most effective approaches to minimize bycatch of deep-sea corals.

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<sup>17</sup> 16 U.S.C. § 1851(a)(9). *See also id.* § 1853(a)(11) and 50 C.F.R. § 600.350 (NS 9 Guidelines).

<sup>18</sup> 16 U.S.C. § 1802(2) and 50 C.F.R. § 600.350(a)(2)(c). *See also Managing the Nation’s Bycatch: Priorities, Programs and Actions for the National Marine Fisheries Service* (NMFS 2008) (including as “bycatch” the discarded catch of any living marine resource plus retained incidental catch and unobserved mortality due to a direct encounter with fishing gear).

<sup>19</sup> *See* 16 U.S.C. § 1802(12) (defining “fish” as “finfish, mollusks, crustaceans, and all other forms of marine animal and plant life other than marine mammals and birds”).