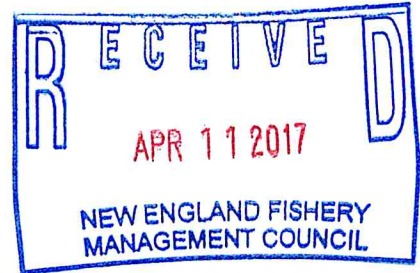


ADDITIONAL CORRESPONDENCE

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

April 11, 2017

Dr. John F. Quinn
Habitat Committee Chair
New England Fishery Management Council
50 Water Street, Mill 2
Newburyport, MA 01950



Mr. John Bullard
Regional Administrator
NOAA Fisheries Greater Atlantic Regional Fisheries Office
55 Great Republic Drive
Gloucester, MA 01950

Re: NEFMC Omnibus Deep-Sea Corals Amendment

Dear Dr. Quinn and Regional Administrator Bullard,

The undersigned organizations write with respect to the New England Fishery Management Council's (Council) Omnibus Deep-Sea Corals Amendment (Corals Amendment), which is intended to protect the region's deep-sea coral communities. These deep-sea coral communities are ecologically important, beneficial to fisheries, of high scientific interest and social utility, and highly vulnerable to disturbance.

Our groups wrote the Council about the Corals Amendment in March 2016¹ and requested that the Habitat Plan Development Team (PDT) delineate its boundaries for the discrete (canyon) zones using the methodology utilized by the Mid-Atlantic Fishery Management Council's (MAFMC) Fishery Management Action Team (FMAT) in developing the MAFMC's deep-sea coral protection plan. The FMAT methodology prioritized the use of NOAA's deep-sea coral habitat predictive model. Although we noted the FMAT approach reflects the best available science,² an alternative reflecting this request was never developed. The PDT's methodology is principally based on canyon bathymetry, resulting in boundaries that are less protective of coral habitat around the heads and shallower portions of the canyons than would be the case under the FMAT's methodology. Our groups continue to support an alternative based on the FMAT methodology.

¹ March 18, 2016 Letter from Conservation Law Foundation, Earthjustice, Natural Resources Defense Council, Oceana, The Pew Charitable Trusts and Wild Oceans to John Quinn and Tom Nies re: NEFMC Corals Amendment.

² The Magnuson-Stevens Act requires that all conservation and management measures be based on the best scientific information available. 16 U.S.C. §1851(a)(2).

mb 4/12/17

At its April 14th meeting, the Habitat Committee plans to vote on preferred alternatives for the Corals Amendment. Ahead of this vote and given the current alternatives, we have two recommendations for the 20 zones intended to protect the submarine canyons off the south side of Georges Bank. We also have a recommendation regarding the Gulf of Maine zones.

Our first recommendation is that the Committee choose the boundaries for the canyon discrete zones developed by the PDT as the preferred alternative to guide public comments.

The purpose of these canyon zones is to protect the coral habitat that is considered the highest priority for protection for the slope: the habitat in the canyons, where most coral observations have occurred and where suitable habitat for these organisms is concentrated. These boundaries are the product of an extensive technical process and seek to balance coral habitat conservation and current mobile bottom-tending gear (BTMG) fishing activity. The PDT zones also protect the EFH for redfish that occurs in the canyons' shallower areas,³ as well as protect a significant portion of the canyon Habitat Areas of Particular Concern (HAPCs) that the Council has designated. Because there is also a significant amount of predicted coral habitat and numerous observed corals that exist in between the canyons, the Committee should also adopt a broad zone. This can be done in such a way as to protect coral communities while also allowing fishing to continue along the shelf edge without an expansion of the fishing footprint.

The PDT boundaries for the 20 canyon zones would not have a significant impact on BTMG fishing. NOAA considers BTMG to pose the greatest threat to deep sea coral habitat.⁴ The PDT zones encompass very little current BTMG fishing activity, based on available vessel trip report (VTR) and vessel monitoring system (VMS) data. This is the best scientific information available.

Heavy offshore trap gear used in the offshore lobster and red crab fisheries also poses a threat to long-lived and vulnerable deep-sea coral communities.⁵ While we do not support exemptions for these fisheries, if they are provided, we request that the Council explicitly recognize that trap fisheries directly damage corals. In addition, if an exemption is provided to these fisheries, the Council should include a commitment to revisit the exemption in two years, consistent with the MAFMC's coral amendment.

³ The Magnuson-Stevens Act requires that the adverse effects of fishing on essential fish habitat be minimized to the extent practicable. 16 U.S.C. § 1853(a)(7).

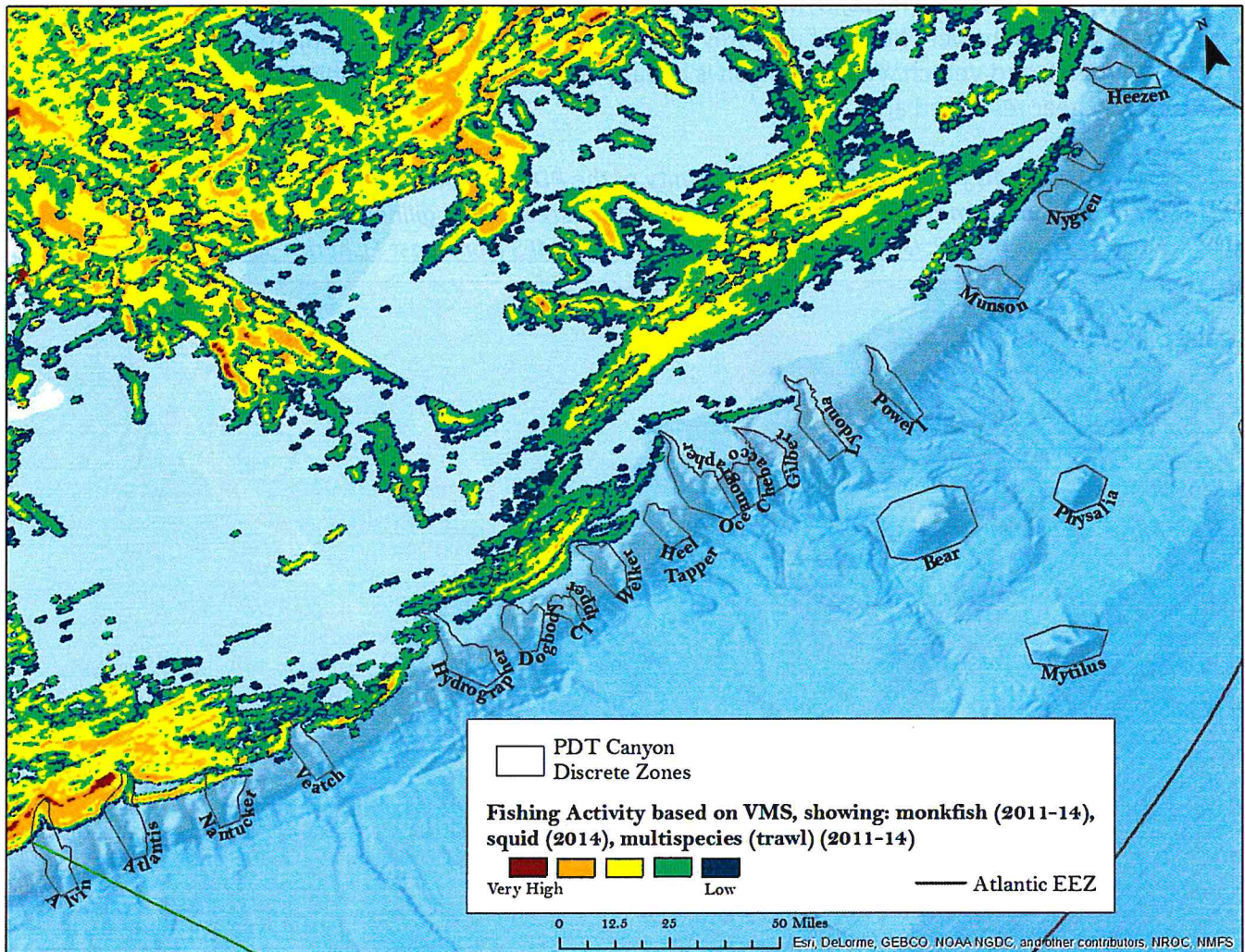
⁴ National Oceanic and Atmospheric Administration, Coral Reef Conservation Program. 2010. NOAA Strategic Plan for Deep-Sea Coral and Sponge Ecosystems: Research, Management, and International Cooperation. Silver Spring, MD: NOAA Coral Reef Conservation Program. NOAA Technical Memorandum CRCP 11. 67 pp. at 19.

⁵ NOAA has taken images, for example, of red crab traps in coral habitat in the canyons. NOAA. 2013. Office of Ocean Exploration and Research. Nygren/Heezen Intercanyon, images EX1304L2_IMG_20130811T153528Z_ROVHD_CRAB_TRAP_FSH, EX1304L2_IMG_20130811T153734Z_ROVHD_CRAB_TRAP_FSH, EX1304L2_IMG_20130811T153849Z_ROVHD_FSH_BOULDER_COR, available at <http://service.ncddc.noaa.gov/rdn/oer-rov-cruises/ex1304l2> (Underwater Still Images Zip File).

Figure 1a. BTMG fishing activity in the vicinity of the PDT canyon discrete zones, based on VTR data for all bottom trawl (<65' and >65'), as well as dredge and gillnet, from 2011-13 [Source: [MARCO Mid-Atlantic Ocean Data Portal](#) and [NOAA NMFS Northeast Fisheries Science Center](#)].



Figure 1b. BTMG fishing activity in the vicinity of the PDT canyon discrete zones based on VMS data (squid, monkfish, and multispecies (trawls) from 2011-14). [Source: [MARCO Mid-Atlantic Ocean Data Portal](#) and [NOAA NMFS Northeast Fisheries Science Center](#)]



Our organizations strongly oppose the fishing industry's boundary alternative developed at the March 13th workshop in New Bedford, MA. This alternative is a radical departure from the goals and purposes of the amendment and is not supported by the best available science. In the PDT alternative, the boundaries around the heads of the canyons generally follow the 300-meter contour. In the industry alternative, these landwards boundaries would start much deeper, at approximately 600 meters if only lobster is exempted and at 950 meters if neither lobster nor red crab are exempted. This means that the industry alternative, relative to the PDT alternative, leaves out many canyon areas where corals have been actually observed as well as large areas of coral habitat. For example, the PDT zones contain almost 40% more habitat considered highly and very highly suitable for structure-forming soft corals than the

industry alternative.⁶ In addition, certain coral species with high structural value, such as Paragorgia (bubblegum) and Primnoa, have depth ranges that extend well into the shallower portions of the canyons that would be left unprotected under the industry alternative. It is these colonies that are most vulnerable to fishing gear impacts and most valuable as fish habitat because they are most proximate to where fishing currently occurs.

Most significantly, the industry alternative allows the expansion of the footprint of BTMG fishing, contrary to one of the stated purposes of the amendment and to NOAA's guidance on deep-sea coral protection. There are only a few canyons where the use of BTMG appears to extend below 300 meters and these incursions do not occur uniformly around the canyon heads but rather only in certain places [see Figures 2a-b below for maps that depict VTR and VMS data for a diversity of BTMG fisheries over multiple years in comparison to several isobaths (depicted by broad zones), and the discrete zones.].⁷ Reliance on a 600-meter isobath uniformly around the canyon heads for all the canyon zones would allow for future expansion of the BTMG fisheries into what is currently relatively pristine deep-sea coral habitat. The shallow reaches of multiple canyons that are currently not subject to the use of BTMG would be left unprotected against the expansion of such gear. Because deep-sea corals are extremely slow-growing and can live to be more than a thousand years old, such an expansion, even if partial or sporadic, would have essentially permanent consequences for the fragile habitat.

The industry alternative is, in fact, not intended to freeze the BTMG footprint. Rather, the BTMG fishery representatives at the March workshop explicitly said that the ~600 meter boundary was chosen in order to accommodate the lobster fishery, i.e., ensure that the maximum depth at which lobster traps are set is not included in the protection zones in the event that the lobster fishery did not receive an exemption. If the industry alternative were adopted, it would allow for a *significant expansion* of the area currently fished with BTMG.

The industry's recommended canyon zones are far less protective than the canyon protection zones adopted by the MAFMC, which extend as shallow as 200 meters in places. The industry's alternative for this amendment is even less protective than the Mid-Atlantic's "broad" protection zone, which is intended to protect intercanyon coral habitat and which averages 450 meters on the landward side. The industry's boundary alternative also fails to protect any redfish EFH on the slope. This EFH extends only as deep as 600 meters. Because this is the approximate shallowest boundary of the industry alternative, all redfish EFH on the slope in the vicinity of the canyons would be left unprotected if this alternative were chosen.

⁶ This is based on NOAA's deep-sea coral habitat predictive model, which has been field-validated in the northeast canyons. More information on this model and the validation process is available at <https://coastalscience.noaa.gov/projects/detail?key=35>; see also 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-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 2nd International Symposium on Submarine Canyons, Edinburgh 2014.

⁷ The map view has been rotated in order to capture the largest possible extent of the discrete and broad zones.

Our groups' second canyon zone recommendation is that the Committee and Council add an additional boundary alternative that would represent a true "freeze the footprint" approach, based on recent BTMG activity. Considering the industry is currently being provided the opportunity to add an alternative to the amendment, there should be opportunity to add other reasonable alternatives that achieve the amendment's goals and purposes.

There is no current boundary alternative that makes fine-scale adjustments for BTMG fishing activity, while still prioritizing the protection of the shallower water coral habitat and coral observations. If combined with exemptions for the lobster and red crab fisheries, such an alternative would have minimal to no impact on current fishing. It would also be consistent with a principal amendment purpose—to "freeze" the BTMG footprint—something that the industry alternative is not.

We suggest two options for quickly developing such an alternative. The first would be to modify the PDT boundaries for the canyon zones to exclude areas of current BTMG activity as shown by the VTR and VMS data; because all these data layers are GIS files, this is a relatively simple exercise. The second option would be through a collaboration among stakeholders. The MAFMC held a collaborative workshop by which a diverse range of stakeholders reached consensus on boundaries, using GIS mapping and a range of data relating to coral habitat and the location of fishing activity. The recent New England workshops did not provide the same opportunity for collaboration; however, a less formal process could bring key stakeholders together to develop the framework for a consensus stakeholder freeze-the-footprint alternative.

Our final recommendation is that the Committee adopt the PDT boundary alternatives for the Gulf of Maine region as the preferred alternative with no exemption for lobster trap gear. We are concerned with use and expansion of both mobile and fixed bottom tending gears (e.g., traps, gillnets and longlines), given the demonstrable impacts they exhibit,⁸ and as fisheries activities in the region evolve.

Comments by industry representatives at the March 15th workshop in Portsmouth, NH indicated a desire to greatly minimize or eliminate the Gulf of Maine alternatives and focus the only coral conservation actions for the region on deep canyon and slope environments. This ignores the sensitivity and vulnerability of coral habitats as a component of EFH.⁹ Deep-sea corals were explicitly excluded in the implementation of the SASI model used to identify areas of concern for fishing gear impacts, although the decision noted that "[d]espite the decision not to incorporate susceptibility and recovery scores for [deep-sea corals] into the spatial SASI model, their vulnerability, combined with information about their spatial distribution (relative

⁸ See, for example, Auster, P.J., D. Packer, R. Waller, S. Auscavitch, M.J. Kilgour, L. Watling, M.S. Nizinski, I. Babb, D. Johnson, J. Pessutti, A. Drohan and B. Kinlan. 2014. Imaging Surveys of Select Areas in the Northern Gulf of Maine for Deep-sea Corals and Sponges during 2013-2014. Report to the New England Fishery Management Council - 1 December 2014. 23 p. DOI: 10.13140/RG.2.1.4760.0163

⁹ Stevenson, D., L. Chiarella, et al. (2004). Characterization of fishing practices and marine benthic ecosystems of the northeast US shelf, and evaluation of potential effects of fishing on Essential Fish Habitat. National Marine Fisheries Service NOAA Technical Memorandum. Gloucester, MA. NMFS-NEFSC 181: 179.

to substrate and energy, when known), may help the Council to better evaluate alternatives to minimize the impacts of fishing on EFH.”¹⁰ Earlier assessments of the gear impacts literature state that damage to corals could be considered “permanent” in an ecological sense.¹¹ Further, such rationale assumes an equivalency in conservation value of canyon-slope and Gulf of Maine regions which has not been analyzed or discussed in any explicit fashion to date. A recent genetic study, presented this past September in Boston, MA at the Sixth International Symposium on Deep Sea Corals, demonstrates *Primnoa* in the western Gulf region (Western Jordan Basin and Schoodic Ridge) are genetically “distinct from populations elsewhere.”¹² These results suggest these Gulf of Maine sites should be a high conservation priority.

The MAFMC’s deep-sea coral protection plan was nationally-acclaimed both because of the level of protection provided, which included a strong “freeze-the-footprint” component, and because the plan gained the support of all stakeholders. Our groups hope for a similar result in New England and stand ready to assist the Committee and Council.

Sincerely,

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Michelle Bachman, NEFMC
Michael Pentony, NOAA Fisheries
Lou Chiarella, NOAA Fisheries

¹⁰ New England Fishery Management Council (NEFMC). 2011. Essential Fish Habitat (EFH) Omnibus Amendment: "The Swept Area Seabed Impact (SASI) Model: A Tool For Analyzing The Effects Of Fishing On Essential Fish Habitat." NEFMC; 303 p.

¹¹ Northeast Region Essential Fish Habitat Steering Committee. 2002. Workshop on the Effects of Fishing Gear on Marine Habitats off the Northeastern United States, October 23-25, 2001, Boston, Massachusetts. Northeast Fish. Sci. Cent. Ref. Doc. 02-01; 86 p. Available from: National Marine Fisheries Service, 166 Water St., Woods Hole, MA 02543-1026.

¹² Coykendall, D.K. et al. 2016. Contrasting ? patterns of population genetic connectivity in octocorals from the northern Atlantic Ocean. Oral Presentation. 6th International Symposium Deep Sea Corals. Boston, Massachusetts. 11-16 September 2016.

Figure 2a. Fishing activity in the vicinity of the PDT canyon discrete zones and select depth contours based on VMS data for monkfish (2011-14), squid (2014) and multispecies trawl (2011-14). [Source: [MARCO Mid-Atlantic Ocean Data Portal](#) and [NOAA NMFS Northeast Fisheries Science Center](#)]

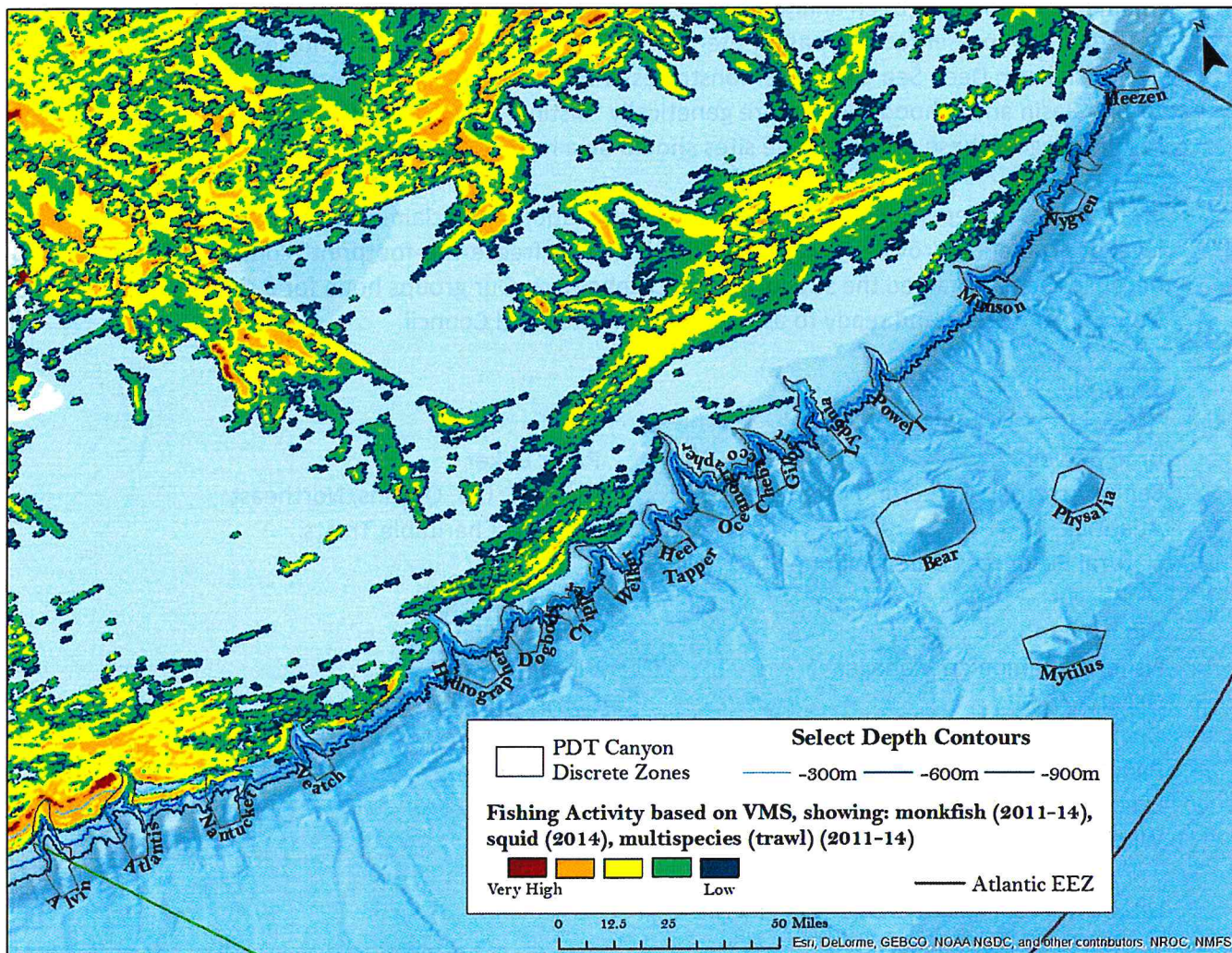


Figure 2b. Fishing activity in the vicinity of the PDT canyon discrete zones and select depth contours based on VTR data (2011-2013) for gillnet, dredge, and bottom trawl (<65' and >65').
 [Source: [MARCO Mid-Atlantic Ocean Data Portal](#) and [NOAA NMFS Northeast Fisheries Science Center](#)]

