

APPENDIX 2 – OMB PEER REVIEWS

On December 16, 2004, the Office of Management and Budget (OMB) issued a directive requiring Federal Agencies to have “influential scientific information” and “highly influential scientific assessments” peer reviewed. NMFS decided that the Draft Amendment 1 to the Consolidated Atlantic HMS FMP could contain “influential scientific information,” which is defined as: scientific information (factual inputs, data, models, analyses, technical information, or scientific assessments) that the Agency reasonably can determine does have or will have a clear and substantial impact on important public policies or private sector decisions. As such, NMFS requested three scientists who were not involved in the drafting of Amendment 1 to the Consolidated HMS FMP to review certain sections of the Draft Amendment.

Per the OMB peer review bulletin, NMFS requested that the peer review evaluate the clarity of hypotheses, the validity of the research design, the quality of data collection procedures, the robustness of the methods employed, the appropriateness of the methods for the hypotheses being tested, the extent to which the conclusions follow from the analysis, and the strengths and limitations of the overall product. The peer reviews were used to clarify assumptions, findings, and conclusions of the alternatives analyzed in the Draft Amendment 1 to the Consolidated HMS FMP, and to make other changes to the text, as appropriate. Following are the peer reviews.

2.1 Peer Review by Dr. Andre M. Boustany, Postdoctoral Researcher, Nicholas School of the Environment, Duke University, Durham, North Carolina, January 20, 2009

Review for Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan for Essential Fish Habitat

General comments:

I would like to commend the authors of this Fishery Management Plan (FMP) on the hard work that went into the creation of this document. The methodologies, reasoning and presentation contained in this FMP are a great improvement over previous efforts to delineate essential fish habitat for pelagic species. It seems likely that Congress did not have highly migratory species in mind when it required that essential fish habitat be described for all Federally managed species. As highly migratory species are less likely to be associated with static physiographic habitat such as bottom structure, delineating essential fish habitat is more difficult for these species than for less migratory species. In dealing with this difficulty, the authors of this FMP strike a good balance between fulfilling the requirements of the Magnuson-Stevens Act and doing what is biologically feasible given the nature of the species at hand. I agree with the authors of this FMP that using methodology that is standardized and transparent is preferred to the previous methodology used to delineate essential fish habitat. That being said, it was amazing how similar many of the areas defined as EFH were for many species using the two methodologies. This is comforting as the similarity of habitat maps using different methodologies allows one to be more confident that they are capturing the true species distribution. It seems as though most of the habitat maps that did not match up well were for

data poor species, where it is difficult to have much confidence in calculated distribution, regardless of methodology.

The background material describing the affected environment and species information was incredibly useful and was well laid out. In addition, I found the online website and supporting material to be particularly useful and would recommend that, if possible, tools such as these be included in future FMP's. Static maps such as those found in published, hardcopy formats will never be able to convey all the information found in online materials where data and layers can be turned on and off, allowing for direct comparisons among datasets and analysis methodologies. Knowing how difficult publishing materials such as these to the web can be, I would also like to commend the authors of this FMP on putting in the extra effort to make these data available online. From a user's perspective, this extra effort was appreciated as the online evaluation tool was very useful and user friendly.

I would agree with the authors that, of the alternatives listed in this FMP, Alternative 3 is the preferred one. Alternative 1, maintaining the current EFH boundaries, is overly arbitrary and lacks the transparency and standardized methodology that the authors desire. While it oftentimes results in more contiguous and visually appealing habitat maps, the old methodology is likely to result in maps that are less biologically meaningful and less defensible should others rely on these maps to enact management decisions. Likewise, I agree with the authors that the methodology employed in Alternative 2, measuring high count cells, is less desirable due to the difficulty in comparing across species. This is particularly true when using Jenks natural breaks, where groups are defined by maximizing similarities within a species as opposed to between species. Comparing Alternatives 3, 4, and 5, 95% contours would be much preferable to the other two, broader limits. While initially appearing arbitrary, 95% confidence contours are likely the most scientifically valid as 95% confidence intervals are the most commonly used limits in many fields.

As the authors have pointed out, the preferred methodology outlined in this FMP does not work well for some species. For data poor species, this methodology results in unrealistic delineations of essential habitat with many gaps in the delineated habitat distribution. However, for these species, the data are sparse enough that no objective methodology would accurately capture the true range of habitat. Although one of the goals in using the 95% contour methodology is to provide an objective methodology across species, subjective ranges based on expert opinion may be a more accurate methodology for data poor species. In cases where data limitation may be providing inaccurate and overly discontinuous ranges, objectivity could be maintained by setting a cut off value (eg. 500 data points), under which the methodology would switch from the 95% contour to expert opinion. If necessary, ranges based on expert opinion should be modified to include the limited data points available.

The authors of this management plan also mention several other potential methodologies to define essential fish habitat. Among these are: 1.) using a similar methodology to the preferred 95% contour delineation, but taking fishing effort into account, 2.) incorporating oceanographic and physiographic variables to define habitat in a dynamically, and 3.) Defining EFH on a seasonal basis to more accurately describe the shifting distributions of highly migratory fishes. While I feel that all of these methodologies would be an improvement over the

currently preferred 95% contour criteria, they are well beyond the scope of the Federally mandated requirement to identify essential fish habitat. Perhaps the most feasible of the above methodologies would be to break up the data seasonally to create a separate habitat map for each season. Maps of this type would be more informative than aggregate distribution plots as the distributions of highly migratory species shift greatly throughout the year. The drawback here would be that as data are parsed further (first by age/maturity, then by season) points available for analysis may become overly sparse, leading to inaccurate distributions for any given age/season.

Another option that would be possible to implement with the current data would be to incorporate fishing effort data to calculate catch per unit effort (CPUE) which would more accurately define regions of high fish density. The authors state that this methodology was not used as many of the datasets (tag release and recapture points) do not contain effort data and calculating CPUE's would require that these datasets be discarded. While discarding data is never preferable, it appears as though the majority of the points for many species come from datasets (logbook, survey, observer) for which effort data are available. The effect of not including effort in the creation of habitat maps appears most evident in the maps of billfish species off the coast of northern Florida. All of these maps show a pronounced lack of habitat in this region when using the Preferred Alternative methodology. Given the similarity in oceanography in this region compared to regions to the north and south, I would imagine that the gap in calculated habitat is caused by less fishing effort in this region, rather than a significantly pronounced decrease in billfish numbers in this area. It remains a possibility that for species where a majority of data points come from datasets with effort data (longline, survey) habitat maps incorporating effort data could be constructed. However, using effort data for some species and not for other species moves away from the goal of following one objective and reproducible methodology across all species.

As a potential future exercise, defining EFH dynamically using correlations to oceanography is a promising technique and will likely add much insight into the seasonal and inter-annual distributions of the highly migratory species covered under this FMP. Techniques to calculate predicted marine animal distributions based on either dynamic or climatological oceanography (General linear models, general additive models, presence only models) have become greatly automated and running these for most of the species covered under this FMP would no longer be impossibly time consuming. Again, this is beyond the charge of this FMP and I only suggest it here as a potential future exercise to more accurately describe the seasonal ranges of highly migratory species.

Specific Comments:

Several places in the text: "data" should be plural.

Section 4.1.1 First and 6th paragraphs (pg 35): The authors state that geographic features such as bathymetry contours were sometimes used in the delineation of habitat. This seems counter to the objective methodology described in Alternative 3, and it would be helpful if the authors describe when and how these features were used. While I agree that these features can

be of great use in describing habitat, I would like to see more clarity in the description of how the determination to use these features was made.

Section 4.1.2 First paragraph (pg 39): It is stated that for Alternative 2, natural breaks methodology was used. Given the problems with using this methodology to compare across species, using defined quantiles (as in Alternative 3), but with gridded cells (as in Alternative 2) would be another useful way to delineate habitat. I am not sure how this would affect the calculated boundaries compared to the defined contours drawn around the raw data points (Alternative 3), but chances are they would be similar.

Section 4.1.2 Paragraph 5 (pg. 41): The authors state that “For species that infrequently occupy nearshore waters, the edges of the probability boundary may have been clipped along a particular isobath.” Similar to the first comment above, I would like to see more clarity in how this determination was made. This will more closely follow the stated goals of transparency and standardization.

Pg 62, 1st paragraph: Change “albacoretunaare” to “albacore tuna are”.

Pg 64, 2nd paragraph: change “lrngth” to “length”

Pg 66, 1st paragraph: The sentence “The size of 196 cm is believed to be reached in the western Atlantic at eight years, as opposed to five years in the eastern Atlantic” is inaccurate. The length at age are similar between the western Atlantic and Mediterranean Sea bluefin, but age to first maturity are believed to be different.

Pg 67, 1st paragraph: Adult bluefin tuna should be defined as greater than 195 to 220 cm as opposed to 145 cm.

Pg 68 and 69: Are there no larval data for skipjack or yellowfin tuna?

Pg 81, Habitat associations section: change “winte,r” to “winter” and “28EC” to “28 C”

Section on basking sharks: It is stated that there are few winter observations of basking sharks. They are commonly observed off the coastal waters off North Carolina in the winter months. This is only provided in an “expert opinion” context as I have never seen this information published anywhere. If it to be included, the range map for this species should probably be extended further south into the South Atlantic Bight.

Pg 92, white sharks impact of fisheries section: It is stated that there are no reports indication population decreases in the white shark. See Baum et al., 2003, which showed a 80% decrease in longline CPUE of white sharks in the North Atlantic, suggesting decreases in population size over time.

Maps for sixgill and sevengill sharks: Given the rarity of fisheries encounters, the EFH maps for these species would probably be more accurate is based primarily on expert opinion or defined by bathymetry.

Pg 132, Impact of fisheries section for Oceanic whitetip shark: See Baum and Myers, 2004 for data on CPUE over time in longline fisheries for this species in the Atlantic , indicating decreasing population trend over time.

Again, well done and let me know if you have any further questions.



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Postdoctoral Researcher
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2.2 Peer Review by Dr. Jim Franks, Senior Research Scientist/Fisheries Biologist, Gulf Coast Research Laboratory, The University of Southern Mississippi, Ocean Springs, Mississippi, October 30, 2008

I have reviewed the above document. Based on that review and the lengthy discussion (which acknowledged input from NOAA scientific staff) on the document that occurred during the recent HMS Advisory Panel meeting which I attended, I have no additional comments to make other than to tell you that you and the HMS Division staff have done a very good job in the development of the document.

Jim Franks
Gulf Coast Research Laboratory
Ocean Springs, Mississippi

2.3 Peer Review by Dr. Jose I. Castro, Research Fishery Biologist, NMFS Southeast Fisheries Science Center, Miami, Florida, January 12, 2009

Dr. Castro provided an oral review via teleconference. The recommendations offered by Dr. Castro addressed life history information for sharks included in the Amendment, and their respective EFH determinations. Accordingly, changes to the text and modifications to the EFH boundaries were made in the FEIS per Dr. Castro's recommendations.

Directed Shark Fisheries, Inc.
(DSF)
A Consulting Company

Chris Rilling
HMS Management Division
NMFS
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301-713-1917

December 5, 2006

Re: Comments on intent to update the EFH Amendment to HMS FMP

To: Chris Rilling.

Thank you for the opportunity to comment about the notice of intent to prepare an environmental impact statement (EIS) and update for the Atlantic Highly Migratory Species (HMS) Essential Fish Habitat (EFH) information in the Consolidated Atlantic HMS Fishery Management Plan (FMP).

Our particular area of concern is with the section of the EFH dealing with sharks. Please consider these following comments as preliminary with regard to the Atlantic HMS FMP EFH update.

There are only 18 of 22 large coastal sharks (LCS), and 6 of 7 small coastal sharks (SCS) profiled in the July 2006 HMS FMP text. At the very least, all managed sharks should be included in the EFH update, even if the National Marine Fisheries Service (NMFS) has little or no knowledge of certain species of sharks.

We intend on commenting in greater detail on individual species of sharks when the draft version of the HMS FMP EFH and EIS is available to the public.

Rusty :-)

Russell H. Hudson, President

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Atlantic States Marine Fisheries Commission (ASMFC) Coastal Shark (CS) AP Chair and commercial member representing Florida
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March 30, 2007

Mr. Chris Rilling
Highly Migratory Species Management Division
1315 East-West Highway
Silver Spring, MD 20910

RE: Notice of Intent to Amend Essential Fish Habitat for
Atlantic Highly Migratory Species

Dear Chris:

We are writing to follow up on our comments at the recent HMS Advisory Panel meeting regarding Essential Fish Habitat and the designation of a Habitat Area of Particular Concern for Atlantic bluefin tuna.

First of all, we believe that the Essential Fish Habitat (EFH) for Adult Atlantic Bluefin Tuna designated in 1999 is incomplete, omitting part of the critical area for spawning in the Gulf of Mexico. The Gulf of Mexico EFH should be expanded to include all waters within the U.S. Exclusive Economic Zone that are off the continental shelf and west of 86°W longitude.¹ We also recommend that this area be classified as a Habitat Area of Particular Concern (HAPC).

According to the NMFS regulations for EFH promulgated under the Magnuson-Stevens Fishery Conservation and Management Act, HAPCs are those portions of EFH that are judged to be particularly important to the long-term productivity of a managed species or are particularly vulnerable to degradation. Specifically, one or more of the following considerations must be met for an area to qualify as an HAPC:

- Importance of the ecological function provided by the habitat
- Extent to which the habitat is sensitive to human-induced environmental degradation
- Whether, and to what extent, development activities are, or will be, stressing the habitat type
- Rarity of the habitat type

The Gulf spawning ground qualifies under at least the first and last HAPC considerations; the area is of utmost ecological importance given that it is the only known spawning area for western bluefin, thereby also making it a rare habitat type. We believe

¹ Based on presence of bluefin tuna recorded in electronic tagging data (Block *et al.*, 2005), observer data, and pelagic longline logbooks.

the bluefin's Gulf of Mexico spawning grounds² are critical to the long-term productivity of the western Atlantic bluefin tuna population and are particularly vulnerable to human-induced degradation, including through certain types of fishing.

HAPC designation helps provide additional focus for conservation efforts and, in the case of HAPCs vulnerable to fishing impacts, carries management implications. We believe establishing the bluefin's Gulf of Mexico spawning grounds as an HAPC is necessary to identify this area as critically important to a species, which is in need of additional levels of protection from adverse impacts. While EFH designation can be difficult for highly migratory species, the existence of only one, well-defined, spatially and temporally limited breeding area for this species presents a clear case for a habitat that warrants classification as an HAPC.

The EFH regulations state that certain activities should not be located in areas identified as habitat areas of particular concern due to the risk to the habitat. Habitats that are at greater risk to impacts, either individual or cumulative, including impacts from fishing, may be appropriate for this classification. Habitats that are limited in nature or those that provide critical refugia may also be appropriate.

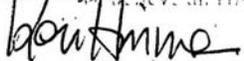
We believe an HAPC designation for the bluefin tuna's Gulf of Mexico spawning ground is appropriate for the following reasons:

- The fact that the western Atlantic stock spawns in the Gulf of Mexico and only in the Gulf of Mexico, making the area of utmost ecological importance and rarity
- The fact that all adult bluefin present in the Gulf during spawning season (March-June) are western breeders
- The seriously depleted condition of the western Atlantic bluefin population
- The ineffectiveness of rebuilding measures

In summary, the bluefin tuna's discrete and well-defined spawning ground in the Gulf of Mexico is critically important to the survival of the species and meets the requirements for the strongest designation under the EFH regulations, as a Habitat Area of Particular Concern. We therefore urge you to designate this area as an HAPC under the EFH provisions of the Final Consolidated Atlantic Highly Migratory Species FMP.

Thank you for your consideration.

Sincerely,


Ken Hinman
National Coalition for Marine Conservation


Shana Miller
Tag-a-Giant Foundation

² A discrete area described in the June 8, 2005 petition submitted by Earthjustice *et al.*, and identified in the Draft HMS FMP Amendment 2 as Alternative B(2)(c).

- The seriously depleted condition of the western Atlantic bluefin tuna population



Tag-A-Giant Foundation * P.O. Box 432 * Babylon, NY 11702 * (phone) 631-539-0624 * (toll-free) 866-533-3580

October 25, 2007

Mr. Chris Rilling
Highly Migratory Species Management Division
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Silver Spring, MD 20910

RE: Pre-Draft of Amendment 1 on Essential Fish Habitat

Dear Mr. Rilling:

The Tag-A-Giant Foundation submits the following comments on the Pre-Draft of Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan, Essential Fish Habitat. Many of the sentiments reflect our recent discussions at the HMS Advisory Panel meeting on October 3rd.

Essential Fish Habitat Mapping

We commend the change to a more quantitative approach for designating essential fish habitat (EFH) as proposed in Amendment 1. However, it is important that the HMS Division carefully analyze the methodology to ensure that it accurately represents a species' EFH. For example, there are three main concerns related to using primarily catch data to designate EFH:

1. The catchability of species varies by region, both due to fishing practices and feeding behavior. Decreased catchability in some areas may underestimate the importance of the habitat. For example, directed fishing for bluefin is prohibited in the Gulf of Mexico, so catch levels are lower even though it is the most critical habitat for spawning bluefin tuna. Similarly, bluefin tuna migratory corridors such as the east coast of Florida are important habitats but might show lower catch rates since fish are primarily in a migration phase.
2. Closed areas underestimate the importance of the area due to low to no catch since the closure was instated.
3. Catch levels are comparatively low for certain species, such as billfishes, which have no directed commercial fishery, and bluefin tuna, which have shown low landings in U.S. waters for the last four years.

Electronic tagging data and other fishery independent data should be incorporated in the EFH mapping.

We encourage the HMS Division to adopt alternative 4 to “Establish new EFH boundaries using probability contours established separately for different regions.” In the case of bluefin tuna, we endorse the use of a 95% kernel density estimate for the Atlantic Ocean but believe that the Gulf of Mexico EFH should be mapped using a 100% kernel density estimate. As suggested in the Pre-Draft, a more precautionary approach toward delineating EFH is warranted for a stock as severely overfished as Atlantic bluefin tuna.

Designation of Habitat Areas of Particular Concern (HAPC)

We applaud the HMS Division for including Alternative 2 to “Identify HAPCs for spawning bluefin tuna in the Gulf of Mexico,” and reaffirm our comments dated March 30, 2007 submitted jointly with the National Coalition for Marine Conservation. While EFH designation can be difficult for highly migratory species, the existence of only one, well-defined, spatially and temporally limited breeding area for this species presents a clear case for a habitat that warrants classification as an HAPC.

We strongly urge you to designate all waters within the U.S. Exclusive Economic Zone (EEZ) that are off the continental shelf and west of 86°W longitude as an HAPC. Data from electronic tagging, observer coverage and the pelagic longline logbook indicate that bluefin tuna congregate in this area, presumably to spawn. An HAPC designation is supported because the area qualifies under at least three of the considerations for an HAPC as promulgated under the Magnuson-Stevens Fishery Conservation and Management Act. We briefly outline support for the stipulations below:

- Importance of the ecological function provided by the habitat: western Atlantic bluefin tuna spawn in the Gulf of Mexico, and its warm waters are critical for larval survival.
- Whether, and to what extent, development activities are, or will be, stressing the habitat type: offshore aquaculture, oil platforms and other energy infrastructure could be expanded in the region, interfering with the bluefin’s traditional spawning grounds.
- Rarity of the habitat type: the Gulf of Mexico is the only known spawning area of western Atlantic bluefin tuna.

Essential Fish Habitat Descriptions

Please see the attached electronic changes to the EFH description for Atlantic bluefin tuna. Importantly, the definition of adults as ≥ 145 cm TL should be changed to ≥ 210 cm TL. As you state in the “Growth and mortality” section, two recent papers (Block et al 2005 and Diaz and Turner 2007) provide compelling evidence for a later age and larger size at first maturity. Greater than 210 cm TL would be a conservative estimate for maturity of western bluefin and would also likely include adult eastern bluefin, even though they mature earlier. The irrelevance of the 145 cm delineation is the primary reason why there isn’t much EFH mapped for adult bluefin tuna in the Gulf of Mexico using several of the alternative EFH mapping methods.

In closing, we suggest that NMFS consider including areas outside of the U.S. EEZ in its EFH designations. While this has not been done in the past, section 305(b) of the Magnuson-

Stevens Act does not preclude designation of areas on the high seas and in other nations' waters. Including international waters would more accurately represent the EFH of highly migratory species and would highlight the fact that these species are also vulnerable to habitat degradation in waters outside of the U.S. EEZ. Figure 1 depicts daily locations of all bluefin tuna confirmed to have visited a known western Atlantic spawning ground, showing both the importance of international waters and the widespread habitat utilization of this highly migratory species.

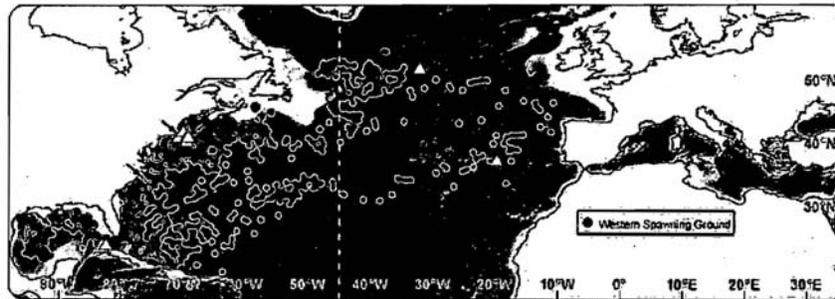


Figure 1. Positions of Atlantic bluefin tuna tagged at three western Atlantic locations (arrows) during 1996-2004 that were classified as western breeders (n=36).

Thank you for considering our comments. We look forward to reviewing the proposed rule for Amendment 1 later this year.

Sincerely,

Shana Miller
Science and Policy Coordinator



NATIONAL COALITION FOR MARINE CONSERVATION
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October 29, 2007

Mr. Chris Rilling
NMFS Highly Migratory Species
Management Division
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RE: Comments on Pre-Draft of Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan; Essential Fish Habitat

Dear Chris,

The National Coalition for Marine Conservation (NCMC) strongly urges the National Marine Fisheries Service to designate the Atlantic bluefin tuna's spawning grounds in the Gulf of Mexico as a Habitat Area of Particular Concern (HAPC) to focus conservation efforts on a rare habitat type that is critically important to the management of this severely depleted species.

Under Section 2.2 of the Pre-Draft Essential Fish Habitat Amendment, we support Alternative 2. Identify HAPCs for spawning bluefin tuna in the Gulf of Mexico.

In scoping comments submitted March 30, 2007, jointly with the Tag-A-Giant Foundation, we identified an area of the Gulf of Mexico that is of critical importance to the survival and productivity of western Atlantic bluefin tuna. The western Atlantic bluefin's only known spawning ground is a discrete area of the Gulf off the continental shelf and west of the 86 degree longitude line [described in the June 8, 2005 petition by Earthjustice *et al* and identified in the Draft HMS FMP Amendment 2 as Alternative b(2)(c)]. This unique area meets the requirements for the strongest protection under the EFH regulations and merits designation as an HAPC.

According to the EFH guidelines, one or more of four criteria should be met for HAPC designation. We believe each of these criteria is satisfied:

1) *The importance of the ecological function provided by the habitat.*

Western Atlantic bluefin spawn in the identified area and only in this area. All adult bluefin present in the Gulf from March-June each year are western breeders. There is no other area of the Atlantic where this is true, and which is of such vital importance to a species whose spawning population has been reduced to just 18 percent of its 1975 level - an already heavily fished population - with little sign of improvement. (ICCAT SCRS/2006/013)

2) *The extent to which the habitat is sensitive to human-induced environmental degradation.*

Bluefin in the Gulf are vulnerable to a number of sources of human degradation (see #3 below), including through certain types of fishing. Western bluefin are subject to fishing pressures within their spawning grounds during spawning season, in particular pelagic longline fisheries operating there. According to recent research, we know that the warm waters of the Gulf are favorable for spawning - i.e., the development of eggs and larvae - but are physiologically stressful for the large adult tunas, making them susceptible to high rates of mortality by fishing and other human-induced stresses. (Block *et al*, *Nature* 4/28/2005)

3) *Whether, and to what extent, development activities are, or will be stressing the habitat type.*

- Despite past legislation to restrict oil drilling in the Gulf of Mexico, recent actions have raised the prospect of expanded drilling, including several bills in Congress to open new areas to exploration. Recent discoveries of large reserves of oil in a 300-square-mile region of deep water offshore of Louisiana could add pressure to drill in areas used by bluefin for spawning. (Christian Science Monitor, 9/8/2006) Recent decisions by NMFS regarding Liquefied Natural Gas (LNG) development in the Gulf, and its possible adverse impacts on bluefin tuna and other marine fishery resources, underscore the seriousness of the potential threat from energy development.
- The Gulf of Mexico Fishery Management Council is developing an amendment to promote offshore aquaculture, including fish ranching,

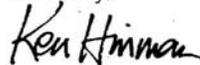
the practice of holding wild fish in pens to grow them out to marketable size. The plan asks NMFS to conduct a rulemaking to allow for the "aquaculture" of tuna and other highly migratory species. Tuna ranches, which corral thousands of juvenile bluefin in the Mediterranean, are a major contributing factor to the decline of the eastern Atlantic/Mediterranean population. Exacerbating the problem, forage fish are often rounded up as live feed for the penned fish, depleting the prey base for tuna and other predators. Such activity in the western bluefin's spawning grounds could degrade the bluefin's environment, including through depleting sources of prey.

- The emergence of dead zones in the Gulf of Mexico, in areas that tuna use for spawning, could shift bluefin migration patterns and alter historical spawning behavior, according to a recent study by the University of New Hampshire. Silt from the Mississippi River is most likely responsible for filling in the area south of the mouth of the river and lowering oxygen levels, rendering it unable to support the life it once did. Such dead zones could pose a significant threat to spawning success for bluefin tuna.

In summary, the area identified as the western Atlantic bluefin tuna's spawning ground in the Gulf of Mexico - the only known spawning ground for this severely depleted species - qualifies as a rare and unique habitat for its essential ecological functions, and breeding bluefin and their spawning habitat are vulnerable to numerous human-induced environmental degradations in this region. Therefore, the NCMC supports designation of this area as a Habitat Area of Particular Concern and urges NMFS to make this designation during the upcoming rulemaking for Essential Fish Habitat in Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan.

Thank you for your consideration.

Sincerely,



Ken Hinman
President



NICHOLAS SCHOOL OF THE ENVIRONMENT AND EARTH SCIENCES
DUKE UNIVERSITY

October 30, 2007

Mr. Chris Rilling
Highly Migratory Species Management Division
1315 East-West Highway
Silver Spring, MD 20910

Dear Mr. Rilling,

As an academic member of the Highly Migratory Species Advisory Panel, I wanted to make several comments regarding the Pre-Draft of Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan.

Firstly, I would like to commend you and your division on your improved methodology for determining the extent of essential fish habitat (EFH). The use of objective criteria for the designation of EFH will aid in knowing how these areas were determined. In addition, the use of repeatable and transparent methodologies will also avoid potential criticism for your division that decisions were made arbitrarily.

I did have one specific comment in regards to the maps showing bluefin tuna EFH. This concerns the cutoff of 145 cm for the delineation between "juvenile" and "adult" Atlantic bluefin tuna. Recent analyses of catch records from the Gulf of Mexico (Diaz and Turner, 2006) as well as electronic tagging data (Block et al., 2005) agree in their conclusions that few bluefin tuna spawn in the Gulf of Mexico before age 9 (approximately 215 cm curved fork length) and the age to 50% maturity is likely upwards of 11-12 years of age (240-250 cm CFL).

There have been studies from the Mediterranean Sea that show bluefin tuna as young as age 4 that appear to be reproductively mature (Tiews, 1963; Rodriguez-Roda, 1971), however, it remains unclear how many, if any, of these fish are present in the Western Atlantic. Electronic tracking data suggest a much larger size to first reproduction in Mediterranean Sea fish that were tagged in the Western Atlantic (207 cm mean CFL at tagging, Block et al., 2005). This apparent discrepancy may come from the fact that the Mediterranean Sea likely holds more than one discrete stock of bluefin tuna (Carlsson et al., 2004), which may have differing maturity schedules. Tracking data have so far failed to show any of the "early maturing" bluefin residing in the Western Atlantic Ocean.

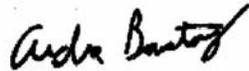
Using these data together, a minimum cut off between "juvenile" and "adult" bluefin tuna should be in the range of 210-215 cm and a 50% maturity cutoff should be in the range of 240-250 cm. Changing these numbers will have large impacts in the area designated EFH for both adult (figures 2.1-2.4, 3.5) and juvenile bluefin tuna (figure 3.4). In

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addition to expanding the range of juvenile bluefin tuna due to the addition of numerous size classes (146-240 cm fish), using the larger sizes for maturity will cause a shift in the areas that are designated EFH for adult bluefin tuna. Specifically, the areas of the Mid-Atlantic and South Atlantic Bights will be deemphasized while the areas in the Gulf of Mexico and New England waters will be emphasized.

I thank you again for your time and hard work on this and other aspects of HMS management. Should you have any follow up questions, please feel free to contact me at any time.

Sincerely,



Dr. Andre M. Boustany
Postdoctoral Researcher
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MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

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Chairman

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Daniel T. Furlong
Executive Director

Lee G. Anderson
Vice Chairman

November 4, 2008

Mr. Chris Rilling
NMFS HMS Management Division
1315 East-West Highway
Silver Spring, MD 20910

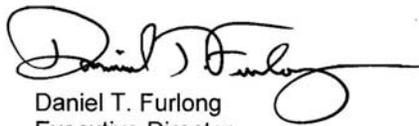
Dear Chris,

At its October Council meeting, the Mid-Atlantic Council passed the following two motions regarding the EFH Draft Amendment 1 to the Consolidated HMS FMP – Essential Fish Habitat:

- 1) Move that the Council support Alternative 3 – establish new EFH boundaries based on the 95% probability boundary.
- 2) Move that the Council support Alternative 2 (preferred alternative) -- designate a HAPC for spawning BFT in the Gulf of Mexico while maintaining current HAPCs.

These motions passed overwhelmingly and we hope our support of your preferred alternatives is beneficial for you. We would also like to thank you for holding your public hearing in conjunction with our Council meeting on Wednesday evening October 15. Should you have any questions on the motions, please contact Tom Hoff of the Council staff.

Sincerely


Daniel T. Furlong
Executive Director



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401
410/573-4575



November 18, 2008

ER 08/968

Mr. Chris Rilling
National Marine Fisheries Service
Highly Migratory Species Management Division
1315 East-West Highway
Silver Spring, MD 20910

Dear Mr. Rilling:

The Department of the Interior has reviewed the Draft Integrated Environmental Impact Statement (DEIS) and Fishery Management Plan Amendment for Revision of Existing Atlantic Highly Migratory Species Essential Fish Habitat, dated September 2008. Please consider the following comments in completing the final version of the DEIS.

SPECIFIC COMMENTS

Pg iii. Here and at numerous other points in the document, it is incorrectly stated that Habitat Areas of Particular Concern (HAPCs) were identified for sandbar sharks off Chesapeake Bay, MD. In actuality, the HAPCs were identified for the Chesapeake Bay in Virginia.

Thank you for the opportunity to present these comments. If there are any questions, please contact George Ruddy of the U.S. Fish and Wildlife Service's Chesapeake Bay Field Office at (410) 573-4528.

Sincerely,

for Leopoldo Miranda
for Leopoldo Miranda
Field Office Supervisor

cc: OPEC Shawn Alam



NATIONAL COALITION FOR MARINE CONSERVATION
4 Royal Street, S.E., Leesburg, VA 20175

December 11, 2008

Mr. Chris Rilling
HMS Management Division
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

RE: Comments on Draft Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan; Essential Fish Habitat

Dear Chris,

The National Coalition for Marine Conservation (NCMC) strongly supports the National Marine Fisheries Service's decision to designate the Atlantic bluefin tuna's spawning grounds in the Gulf of Mexico as a Habitat Area of Particular Concern (HAPC). Under Section 4.2, we endorse the NMFS Preferred Alternative (Alternative 2), Designate a HAPC for spawning bluefin tuna in the Gulf of Mexico west of 85 degrees W Longitude and south of 29 degrees N Latitude while maintaining current HAPCs.

As explained in our previous comments¹, NCMC believes the discrete area of the Gulf of Mexico identified in Alternative 2 - the western Atlantic bluefin's only known spawning ground - is of critical importance to the severely-depleted breeding population of western bluefin; it meets the requirements for the strongest protection under the EFH regulations; and it merits designation as an HAPC.

The case for HAPC designation is compelling, because each of the criteria under the Essential Fish Habitat HAPC Guidelines is satisfied and protection of

¹ NCMC/Tag-A-Giant Comments on Notice of Intent to Amend Essential Fish Habitat for Atlantic Highly Migratory Species, March 30, 2007, and NCMC Comments on Pre-Draft of Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan; Essential Fish Habitat, October 29, 2007.

the western Atlantic bluefin tuna's habitat in the Gulf of Mexico is necessary to the survival and productivity of the spawning population :

- 1) **The designated habitat area is of critical importance to the ecological function of western Atlantic bluefin tuna.**
- 2) **The designated habitat area is sensitive to human-induced environmental degradation.**
- 3) **Development activities are, or will be stressing the designated habitat area.**
- 4) **The designated habitat is rare and unique.**

Western Atlantic bluefin tuna spawn in the area of the Gulf of Mexico identified in Alternative 2 and only in this area. As Amendment 1 states, the latest tagging and ichthyoplankton survey data indicate the widespread presence of mature bluefin and bluefin larvae throughout this area. For this reason, it is of vital importance to a species whose spawning population has been reduced to just 18 percent of the 1970 level.²

Bluefin spawning habitat in the Gulf is vulnerable to a number of sources of human-induced degradation. While Amendment 1 states that fishing gears used in federally- and state-managed fisheries have a minimal impact on HMS EFH, it also states that, if future analyses indicate certain gears "are having a more than minimal and not temporary effect on EFH...then NMFS will propose alternatives to avoid or minimize those impacts in a subsequent rulemaking." We note here that western bluefin are subject to fishing pressures within their spawning grounds during spawning season, in particular as bycatch in pelagic longline fisheries targeting other species.³

In addition, reduced availability of prey fish is considered an adverse impact on EFH.⁴ The most abundant prey fish in the gulf, menhaden, is the region's largest volume fishery, currently with no limits on total catch.

The Gulf of Mexico Fishery Management Council is developing a plan to permit offshore aquaculture in federal waters of the gulf, including fish farming, the practice of holding wild fish in pens to grow them out to marketable size. To support such activities, forage fish, including menhaden, are rounded up as live feed for the penned fish, or reduced into fish meal and fish oil and used as aqua-

² ICCAT SCRS/2008

³ According to recent research, the warm waters of the Gulf are favorable for spawning - i.e., the development of eggs and larvae - but are physiologically stressful for the large adult tunas, making them susceptible to high rates of mortality by fishing and other human-induced stresses. Block *et al*, *Nature* 4/28/2005

⁴ 50 CFR 600.815 (a)(7)

feed. The potential increase in demand for forage fish that would result from development of offshore aquaculture, if local sources of feed are utilized, could reduce the prey base available for tuna and other wild predators. NMFS EFH guidelines state that "actions that reduce the availability of a major prey species, either through direct harm or capture...may be considered adverse effects on EFH if such actions reduce the quality of EFH."⁵ Fish farms in the western bluefin's spawning grounds could degrade the bluefin's EFH in other ways. For example, retention structures, their contents and by-products, may result in adverse impacts and/or changes to the biological, chemical or physical properties of the surrounding environment.

Recent actions have raised the prospect of expanded offshore oil drilling in the Gulf of Mexico, including several bills in Congress to open new areas to exploration. Recent discoveries of large reserves of oil in a 300-square-mile region of deep water offshore of Louisiana could add pressure to drill in areas used by bluefin for spawning.⁶ Recent decisions by NMFS regarding Liquefied Natural Gas (LNG) development in the Gulf, and its possible adverse impacts on bluefin tuna and other marine fishery resources, underscore the seriousness of the potential threat from energy development.

Bluefin tuna are one of over a hundred species linked to pelagic sargassum during some point in their life history. The Gulf of Mexico contains more sargassum than any other region outside the Sargasso Sea. Bluefin larvae have been found in gulf sargassum in on-going studies of its importance as nursery habitat to pelagic species carried out by the Gulf Coast Research Laboratory at the University of Southern Mississippi.⁷ In 2004, this floating habitat was declared EFH under the Magnuson-Stevens Act and the South Atlantic Fishery Management Council enacted a virtual ban on harvest from the Florida Keys northward. The Gulf Council, however, has yet to take similar action to minimize adverse effects on sargassum caused by fishing under their jurisdiction. At the 2005 meeting of the International Commission for the Conservation of Atlantic Tunas, ICCAT adopted a U.S.-initiated resolution directing ICCAT's scientists to assess the ecological status of sargassum as habitat for tuna, billfish and sharks, and asking countries to report on activities that may adversely affect the abundance of sargassum.

⁵ 50 CFR 600.815 (a)(7). The Guidelines also note that "FMPs should list the major prey species for the species in the fishery management unit." This is a serious short-coming in the Consolidated Atlantic HMS FMP, which contains no such information for bluefin. Amendment 1 does, however, list under Research and Information Needs the need to identify major prey species for tuna and swordfish, including preferred feeding areas, and we urge NMFS to gather and assemble this information for inclusion in the FMP.

⁶ Christian Science Monitor, 9/8/2006

⁷ The NCMC Marine Bulletin, No. 117, Spring 2007.

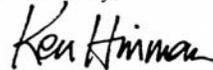
Dead zones in the Gulf of Mexico, in areas that tuna use for spawning, could shift bluefin migration patterns and alter historical spawning behavior, according to a recent study by the University of New Hampshire. Silt from the Mississippi River is most likely responsible for filling in the area south of the mouth of the river and lowering oxygen levels, rendering it unable to support the life it once did. Such dead zones could pose a significant, long-term threat to spawning success for bluefin tuna.

To summarize, western Atlantic bluefin tuna breed in the designated area of the Gulf of Mexico and *only* in this area. As the only known Atlantic spawning ground for these fish, it qualifies as a rare and unique habitat, essential to the ecological function of this rare, depleted species, which is in need of additional levels of protection from adverse impacts.

The NCMC enthusiastically supports designation of the area identified in Preferred Alternative 2 as a Habitat Area of Particular Concern and urges NMFS to include this designation in the Final Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan.

Thank you for considering our views.

Sincerely,



Ken Hinman
President



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

December 12, 2008

Mr. Chris Rilling
Highly Migratory Species Management Division F/SF1
Office of Sustainable Fisheries
1315 East West Highway
Silver Spring, MD 20910

Re: Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan Essential Fish Habitat, Draft Environmental Impact Statement (September 2008)
CEQ # 20080360

Dear Mr. Rilling:

In accordance with the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed Amendment 1 to the Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan (FMP) Essential Fish Habitat (EFH) Draft Environmental Impact Statement (DEIS). Based on our review of the DEIS, EPA has rated the DEIS as "LO" (Lack of Objections). A copy of EPA's ranking system is enclosed for your reference. We offer the following comments for your consideration in the Final EIS and subsequent Amendments.

Project History

In 2004, the National Marine Fishery Service (NMFS) began the comprehensive review of all HMS EFH in the Consolidated HMS FMP, which was released in 2006. In that document, the National Marine Fishery Service provided new information collected since the EFH boundaries were established in 1999. NMFS did not modify or update any of the existing EFH identifications, descriptions, or boundaries in the consolidated HMS FMP or propose any new measures to minimize impacts from fishing gear. The document presented new EFH information and data collected since 1999.

Purpose and Need

The purpose of this Amendment is to update and revise existing HMS EFH as necessary, to consider any new Habitat Areas of Particular Concern (HAPC) or modifications to existing HAPCs, analyze fishing and non-fishing impacts on EFH, and consider measures to minimize fishing impacts as necessary, if any types of fishing gear are determined to have a negative effect on EFH. The Magnuson-Stevens Act regulations call for a comprehensive review of all EFH.

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information at least once every five years, and this Amendment constitutes Phase 2 of the comprehensive review and update of EFH for all HMS that began with the Consolidated HMS FMP. In addition, new information has become available since 2006, including information on the biology, distribution, habitat requirements, life history characteristics, migratory patterns, spawning, pupping, and nursery areas of the Atlantic HMS, and has been taken into consideration when updating EFH in this Amendment.

Alternatives

The DEIS evaluates alternatives for two actions: (1) identifying EFH and (2) designating HAPCs. For identifying EFH, this DEIS evaluates three alternatives in detail, including a No Action. For designation of HAPCs, four alternatives, including No Action, were developed to identify designation strategies. HAPCs are areas within the EFH that should be identified based on one or more of the following considerations: importance of the ecological function, extent to which the habitat is sensitive to human induced environmental degradation, whether and to what extent development activities are or will be stressing the habitat type, and the rarity of the habitat. The DEIS also analyzes fishing impacts on EFH.

For Essential Fish Habitat, the identified Preferred Alternative is Alternative 3 – establish new EFH boundaries based on the 95 percent probability boundary. Alternatives 4 and 5 were dismissed because they were more precautionary and would identify larger areas for EFH and may run counter to the intent of identifying areas that are considered essential. The DEIS identifies Alternative 2 for designation of HAPC: designate a HAPC for spawning bluefin tuna in the Gulf of Mexico while maintaining current HAPCs.

A preliminary determination was made that HMS gears, with the exception of BLL, were not having negative impact on EFH. Similarly, the DEIS states that other state and Federally managed gears do not appear to have an impact on HMS EFH, with the possible exception of some bottom-tending gears in shark nursery areas in coastal bays and estuaries. If the analysis determines that bottom longline gear, or any other gears, are having a more than minimal and not temporary effect on EFH then NMFS will propose alternatives to avoid and minimize those impacts in a subsequent rulemaking.

Comments

Based on the information provided for Alternative 3 (Preferred Alternative for EFH boundaries), the disadvantage of this alternative is that data-poor species result in smaller, discontinuous areas than data-rich species. The species with limited data should be clearly listed, as well as an approach to try to verify or modify these EFH boundaries, to ensure they are protective. The DEIS does not provide adequate information to show that this is a protective approach for all species covered in the document.

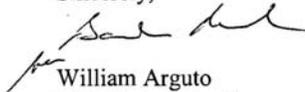
Additional information should be provided on how determinations will be made regarding impacts from fishing gear. Further assurance should be given as to how any impacts will be addressed. Additional information on the conservation measures in Chapter 6, and how they relate to the Alternatives, should also be included in the Final EIS.

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A discussion should be provided to discuss the monitoring plans, data gaps and how future data will be obtained and used. A glossary and list of acronyms should be provided in the document.

Thank you for the opportunity to offer these comments. If you have any questions, please contact Barbara Okorn at (215)814-3330.

Sincerely,



William Arguto
NEPA Team Leader
Office of Environmental Programs

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RATING THE ENVIRONMENTAL IMPACT OF THE ACTION

- **LO (Lack of Objections)** The review has not identified any potential environmental impacts requiring substantive changes to the preferred alternative. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposed action.
- **EC (Environmental Concerns)** The review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact.
- **EO (Environmental Objections)** The review has identified significant environmental impacts that should be avoided in order to adequately protect the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). The basis for environmental Objections can include situations:
 1. *Where an action might violate or be inconsistent with achievement or maintenance of a national environmental standard;*
 2. *Where the Federal agency violates its own substantive environmental requirements that relate to EPA's areas of jurisdiction or expertise;*
 3. *Where there is a violation of an EPA policy declaration;*
 4. *Where there are no applicable standards or where applicable standards will not be violated but there is potential for significant environmental degradation that could be corrected by project modification or other feasible alternatives; or*
 5. *Where proceeding with the proposed action would set a precedent for future actions that collectively could result in significant environmental impacts.*
- **EU (Environmentally Unsatisfactory)** The review has identified adverse environmental impacts that are of sufficient magnitude that EPA believes the proposed action must not proceed as proposed. The basis for an environmentally unsatisfactory determination consists of identification of environmentally objectionable impacts as defined above and one or more of the following conditions:
 1. *The potential violation of or inconsistency with a national environmental standard is substantive and/or will occur on a long-term basis;*
 2. *There are no applicable standards but the severity, duration, or geographical scope of the impacts associated with the proposed action warrant special attention; or*
 3. *The potential environmental impacts resulting from the proposed action are of national importance because of the threat to national environmental resources or to environmental policies.*

RATING THE ADEQUACY OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS)

- **1 (Adequate)** The draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.
- **2 (Insufficient Information)** The draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the proposal. The identified additional information, data, analyses, or discussion should be included in the final EIS.
- **3 (Inadequate)** The draft EIS does not adequately assess the potentially significant environmental impacts of the proposal, or the reviewer has identified new, reasonably available, alternatives, that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant

environmental impacts. The identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. This rating indicates EPA's belief that the draft EIS does not meet the purposes of NEPA and/or the Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS.

Directed Shark Fisheries, Inc.
(DSF)
A Consulting Company

December 12, 2008

Chris Rilling
Highly Migratory Species Management Division
1315 East-West Highway
Silver Spring, MD 20910

FAX: 301-713-1917
E-mail: HMSEFH@noaa.gov

Re: EFH Amendment to HMS FMP

To: Chris Rilling,

Directed Shark Fisheries, Inc. (DSF) appreciates the opportunity to comment on the draft Essential Fish Habitat (EFH) Amendment 1 to the Consolidated Highly Migratory Species (HMS) Fishery Management Plan (FMP).

There are several good elements to the information available with this EFH Amendment. DSF will not spend much time on those subjects, but instead we shall share a few concerns on the incomplete information.

With the prohibited shark scientifically named *Carcharhinus brachyurus* and commonly named the Narrowtooth Shark, Copper Shark, and/or Bronze Whaler, DSF has for over a decade complained about the inclusion of this shark species in any National Marine Fisheries Service (NOAA Fisheries) management unit, due to its virtual non-existence in the United States (US) regions of the Atlantic Ocean. Certain NOAA Fisheries shark scientists seem to be in agreement with me and I quote from the following website:

<http://www.iucnredlist.org/details/41741>

"*C. brachyurus* is absent from the western North Atlantic (Garrick 1982, Compagno 1984, Russell 1993, Castillo-Génez *et al.* 1998, J. Castro, pers. comm., L. Natanson, pers. comm., M. Grace, pers. comm.)"

For too many years the NOAA Fisheries has misled the public to believe that American commercial fishermen have overfished this species of shark. Only recently did the NOAA Fisheries change the status of Narrowtooth shark from the "overfished with overfishing occurring" status to the "unknown" status. Now is the time to remove the Narrowtooth shark entirely from the management regime. If the NOAA Fisheries insists



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**Directed Shark Fisheries, Inc.
(DSF)**

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on keeping it as a prohibited species that does exist in US waters, then it shows an utter disregard to American commercial fishermen by selling a bill of goods to the US public.

Next as a concern of incomplete information is the shark scientifically named *Carcharhinus plumbeus* and commonly known in our region of the world as the Sandbar shark. The NOAA Fisheries seems intent on disregarding older documentation of the range of this shark. My instant example is the secondary nursery ground offshore of Brownsville, Texas that was identified before 1960 by Stewart Springer in his report titled "The Natural History of the Sandbar Shark", and published in 1960.

The NOAA Fisheries seems to be intent on staying with the recent, incomplete information compiled by the more recent "shark experts" who seem to have an advocacy agenda against the commercial shark fishery for the past two decades. This is the same shark fishing community that NOAA Fisheries encouraged into existence during the 1980's and has successfully destroyed in recent years almost completely.

My last point in this short EFH comment about the extensive HMS species is the online HMS chart found at:

http://sharpfin.nmfs.noaa.gov/website/EFH_mapper/HMS/map.aspx

The NOAA Fisheries manages 39 species of sharks, yet only includes 35 species. Missing besides the Narrowtooth shark is the Bigeye SandTiger shark, the Caribbean sharpnose shark and the Galapagos shark. Why?

The Caribbean sharpnose shark is one of the most common sharks found south of the latitude of 24 degrees North. It can only be differentiated from the Atlantic sharpnose shark by doing a necropsy to achieve a vertebrae count. The State of Florida does not prohibit this shark due to this identification issue, yet the NOAA Fisheries does continue to prohibit this animal. This shark species needs to be removed from the prohibited shark category and the public deserves to know the truth about this species of shark and its true status.

The Bigeye Sandtiger shark is a rare event shark found at the deepest regions of the ocean. It is virtually never caught or landed. The NOAA Fisheries needs to include information about what little they know about this animal in the online web site and any other printed formats.

The Galapagos shark is common around islands, such as the US Caribbean territories. With Amendment 4 looming on the horizon, this animal needs to be detailed in the NOAA Fisheries formats also.

And of course it seems the Narrowtooth shark does not exist, and again I implore the NOAA Fisheries to remove it from the management units altogether at least until you can prove its existence in the US waters.

Next to last is my concern over the lack of information with the online website and Amendment 1 with regard to straddling stocks. For example many Blacktip sharks, Sandbar sharks and Dusky sharks appear to overwinter in the Mexican waters. Why does the NOAA Fisheries not include this reality with the online web site mapper? Such



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Directed Shark Fisheries, Inc.

(DSF)

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information could accelerate communications and efforts on the straddling stock issues of these sharks rather than unilaterally blaming the US commercial fishermen for everything that ails the highly migratory species of sharks. Something is wrong with this picture both literally and figuratively.

Last is an item I noticed in reading through the draft September 2008 text of the EFH HMS FMP Amendment 1 on page # 65 about the adult Bluefin Tuna predators includes smaller tuna it states. Is that language correct?

Again, thank you for the opportunity to comment. Hopefully, the NOAA Fisheries can use these comments from the DSF.

Rusty :-)


Russell H. Hudson, President
Directed Shark Fisheries, Inc. (DSF)
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American Elasmobranch Society (AES) member
National Marine Fisheries Service (NMFS) Highly Migratory Species (HMS) Advisory Panel (AP) member
Atlantic States Marine Fisheries Commission (ASMFC) Coastal Shark (CS) AP commercial member representing Florida
South Atlantic Fishery Management Council (SAFMC) Marine Protected Area (MPA) AP Commercial member representing Florida
100-ton United States Coast Guard (USCG) Licensed Sea Captain Retired
Commercial, For-Hire & Recreational Deep-Sea Fishing experience, 1963-2008
Former Atlantic Large Whale Take Reduction Team Member (ALWTRT)
Former Bottlenose Dolphin Take Reduction Team Member (BDTRT)



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PAGE 03

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EARTHJUSTICE

BOZEMAN, MONTANA DENVER, COLORADO HONOLULU, HAWAII
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SEATTLE, WASHINGTON TALLAHASSEE, FLORIDA WASHINGTON, D.C.
ENVIRONMENTAL LAW CLINIC AT STANFORD UNIVERSITY

December 12, 2008

Via Email and United States Mail

Chris Rilling
NMFS Highly Migratory Species Management Division
1315 East-West Highway
Silver Spring, MD 20910
Email: environment@mms.gov

Re: Draft Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan; Essential Fish Habitat

Dear Mr. Rilling:

On behalf of the Blue Ocean Institute, please accept these comments on the Draft Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan. Blue Ocean Institute strongly supports the National Marine Fisheries Service's preferred Alternative for designation of Habitat Areas of Particular Concern (HAPCs) and we encourage the Service to designate the western Atlantic bluefin tuna's spawning grounds in the Gulf of Mexico as a HAPC. We also incorporate the comments filed by Tag-A-Giant Foundation and National Coalition for Marine Conservation and fully support the recommendations contained therein.

I. The Bluefin Spawning Habitat Meets the Criteria for HAPC Designation

Areas within designated Essential Fish Habitat (EFH) can be designated as HAPCs based on one of the following considerations: (1) the importance of the ecological function provided by the habitat; (2) the extent to which the habitat is sensitive to human-induced environmental degradation; (3) whether and to what extent development activities are, or will be, stressing the habitat type; and (4) the rarity of the habitat type. Several of these considerations weigh strongly in favor of designating the western Atlantic bluefin tuna's spawning grounds as HAPC.

A. The Gulf of Mexico provides important ecological function

The Gulf of Mexico is the only known spawning ground for the critically depleted western Atlantic bluefin tuna. The habitat provided by the Gulf supports not only adult breeders, but the warm waters present favorable conditions necessary for the development of eggs and larva. Fish in the Gulf of Mexico are of the highest value to the western population because they are all there to breed, having survived at least 10 years of the Atlantic fishery gauntlet. Because the spawning stock has continued to decrease to startlingly low numbers (it is currently at approximately 25% of the 1975 levels) even under international management, recognizing the importance of the Gulf of Mexico habitat to the spawning population is a vital first step towards meaningful domestic protection.

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B. Bluefin in the Gulf face numerous threats from human-induced environmental degradation

As the Draft Environmental Impact Statement (DEIS) describes at length, the essential spawning habitat in the Gulf of Mexico is under assault from human activities. Specifically, offshore aquaculture, oil and gas development activities, and fishing activities all may interfere with the bluefin's spawning habitat.

C. Rarity of Habitat

Scientists have repeatedly confirmed that the Gulf of Mexico is the only known spawning area for the western Atlantic bluefin tuna.

II. Non-Fishing Threats to Bluefin Habitat Must Be More Thoroughly Analyzed

Although NMFS will take a positive step forward by designating the bluefin spawning habitat as HAPC, we are concerned that NMFS's evaluation of the non-fishing threats to that habitat is incomplete. NMFS has completely failed to address the potential threat posed by seismic exploration activities associated with the expansion of oil and gas development in the Gulf of Mexico.

Oil and gas exploration and production in the Gulf of Mexico OCS is extensive and expanding. The trend in this activity has been from shallower into deeper waters. According to a report issued by the Mineral Management Service (MMS) in May 2004, "[t]he Gulf of Mexico is now in its ninth year of sustained expansion of the deepwater frontier," an expansion of oil and gas exploration and development that "shows no sign of diminishment"¹

Along with this expansion has come "a dramatic increase in the acquisition of 3-D seismic data."² To map the ocean floor, the oil and gas industry typically relies on airguns, long submersible cannons that are towed behind boats in complex arrays, firing shots of compressed air into the water about every ten seconds. The intense pulses that they produce travel down through the water column, penetrate the seafloor, and rebound to the surface where they can be recorded and analyzed. A typical seismic survey "takes place day and night and may continue for days, weeks, or months depending on the size of the survey."³

There are several types of seismic surveys, including 2-D seismic surveys (an older technology that results from a ship towing a single-source array), 3-D seismic surveys (a newer technology that employs two source arrays that alternate firings), and so-called 4-D surveys, or time-lapse surveys, in which surveys are repeated every six months to note changes in subsurface features over time. According to MMS, time-lapsed seismic surveys "will likely be the next significant seismic technology to be applied routinely in the deepwater GOM."⁴

¹ Deepwater Gulf of Mexico 2004: America's Expanding Frontier at xi (MMS, May 2004).

² Id. at 6.

³ Geological and Geophysical Exploration for Mineral Resources on the Gulf of Mexico Outer Continental Shelf, Final Programmatic Environmental Assessment, July 2004, at II-11 (hereinafter "PEA").

⁴ Deepwater Gulf of Mexico 2004: America's Expanding Frontier at 6 (MMS, May 2004).

The pace of seismic surveying in the Gulf of Mexico is significant and is projected to increase. According to the PEA, as many as five regional seismic surveys may be conducted at any one time in the Gulf, with more than 30 surveys conducted annually. PEA at III-23. In 2003, more than one thousand lease blocks were surveyed seismically in the GOM. *Id.* at II-20, t.II-4. In 2008, levels will be two and a half times what they were in 2003. *Id.* MMS anticipates continued high levels of seismic surveying through the year 2014, with a peak in 2011 of more than six times the number of lease blocks surveyed as in 2003. *See id.* Lease blocks typically are 4.8 kilometers on a side, so the total area represented by these numbers is substantial.

The impacts of high-intensity seismic exploration are not theoretical. A large seismic array can produce peak pressure levels higher than that of virtually any other man-made source, save explosives—over 250 decibels. This is roughly ten times louder than standing twenty feet from a Saturn V rocket at takeoff. As we discuss below, a substantial body of evidence shows that the great bursts of energy used in probing the seafloor can kill, injure, and disturb marine animals. High-intensity sounds pose a unique danger to marine organisms in part because of the critical role that acoustics play in animal behavior and in part because of the great distances and diverse range of habitat over which intense sound can propagate underwater. Under certain conditions, intense low-frequency sound can propagate over thousands of kilometers and across entire ocean basins. Even mid-frequency sound from a powerful source can spread across hundreds of square kilometers.

Where the seafloor is hard and rocky, the pulses generated by the array might be heard for thousands of miles; under certain conditions, they can reverberate in such a way as to sound nearly continuous, masking the calls of baleen whales, fish (especially groupers) and other animals that rely on the acoustic environment for breeding and survival.⁵

Scientists agree, and the publicly-available scientific literature reflects, that intense man-made underwater sound can induce a range of adverse effects in whales, dolphins and other marine wildlife, including but not limited to:

- mortality or serious injury caused by the physical impact and effect of intense sound vibrations, including hemorrhaging of tissues in lungs, air cavities, or other structures of the body;
- mortality or serious injury caused by the possible formation of nitrogen bubbles in the bloodstream, leading to embolism;
- stranding in shallow water or beaching caused by these or other effects, such as aversive reactions;
- temporary or permanent loss of hearing, which impairs an animal's ability to communicate, avoid predators, and detect and capture prey;

⁵ International Whaling Commission, 2004 Report of the Scientific Committee: Annex K (reporting data on nearly continuous sound produced by seismic surveys);

- avoidance behavior, which can lead to abandonment of habitat or migratory pathways, energetic consequences, and disruption of mating, feeding, nursing, or migration;
- aggressive (or agonistic) behavior, which can result in injury;
- masking of biologically meaningful sounds, such as the call of predators or potential mates; and
- declines in the availability and viability of prey species, such as squid, fish and shrimp

Seismic surveys also significantly impact fish, including commercially targeted fish, such as the bluefin, and have been shown to decrease catch rates. In Norway, for example, catch rates of cod and haddock fell dramatically (between 45 and 70%) in the vicinity of an airgun array, affecting fishermen across an area nearly 5000 square kilometers in size, and did not recover within five days after operations ended.⁶ Another series of studies demonstrated that airguns can cause extensive and apparently irreversible damage to the inner ears of pink snapper – damage severe enough to compromise survival – even at exposure levels that might occur several kilometers from a source.⁷ Studies are just beginning on the effects on fishes and other organisms that depend on sound production in territory defense and finding mates.

The threats posed by seismic activity most certainly affect the water column habitat that is so vital to the western Atlantic bluefin tuna. We urge NMFS to carefully analyze these potential impacts and propose appropriate measures to minimize such impacts.

III. Conclusion

We have reached a tipping point for the severely depleted western Atlantic bluefin tuna; further declines will eliminate this evolutionarily significant unit of the species. Although the United States has been operating under a “rebuilding plan” for the species for the last decade, the 2007 spawning stock biomass was recently estimated to be 7% below the level of the rebuilding plan’s first year. SCRS Report at 77. Protecting the bluefin in the Gulf of Mexico must be at the heart of any effective efforts at species recovery. Despite the clearly recognized importance of the Gulf spawners, NMFS has allowed continued bycatch mortality of mature bluefin tuna on their spawning ground by the US pelagic long line fleet. We hope that by deciding to focus future conservation efforts for bluefin on the Gulf, NMFS will take even more proactive steps towards protecting these last spawners.

⁶ Engås, A., S. Lokkeborg, E. Ona, and A.V. Soldal, “Effects of seismic shooting on local abundance and catch rates of cod (*Gadus morhua*) and haddock (*Melanogrammus aeglefinus*),” *Canadian J. Fish. Aquatic Sci.* 53, (1996): pp. 2238-49.

Very truly yours,



Katherine D. Renshaw
Stephen E. Roady
Earthjustice
Counsel for Blue Ocean Institute



Carl Safina
President
Blue Ocean Institute



MONTEREY BAY AQUARIUM

Chris Rilling
National Marine Fisheries Service
HMS Division
1315 East-West Highway,
Silver Spring, MD 20910

December 10, 2008

Dear Mr Rilling,

Please find enclosed over 853 postcards from visitors to the Monterey Bay Aquarium who support your proposal for protection for bluefin tuna in the Gulf of Mexico breeding grounds.

Kind regards,

A handwritten signature in cursive script, appearing to read "Alison Barratt".

Alison Barratt

Communications Associate Manager
Monterey Bay Aquarium's
Center for the Future of the Oceans
www.montereybayaquarium.org

T: (831) 647 6856
C: (831) 521 9135

Support Ocean-Friendly Seafood www.seafoodwatch.org
Take Action for the Oceans www.oceanaction.org

From Bk1492@aol.com
Sent Sunday, September 21, 2008 10:57 am
To HMSEFH@noaa.gov , americanvoices@mail.house.gov
Cc
Bcc
Subject public comment rin 0648 av00 eis - essential fish habitat

the scandal plagued us dept of commerce noaa division has a new plan. this agency has been in charge of the decimation of the fish species in our oceans, decimating one species after another so that fish profiteers can profit mightily. some of the fish profiteers make millions on one fishing trip caring not one whit about starving the marine mammals that depend on eating, shooting seals, and meanwhile completely decimating fish stocks. you certainly cannot trust this agency to take any action that protects our fish species. they have been bought out by the fish profiteers, who have under the law of the commons decimated our oceans.

the slimy, skanky corrupt washington administration is a lame duck. we should wait with any proposals until the new administration. the present administration has proven how absolutely inept they are in every single facet of life. the 100 year war in iraq costing american taxpayers, etc. over 80% of americans disapprove of the present administration and its policies - that is reason enough to cool it with this proposal.

i also note that bills that are titled one thing, usually end up doing the exact opposite. i believe this is probably another one of those sneaky bills. put this proposal in the wastebasket for the time being.
b. sachau
15 elm st
florham park nj 07932

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(<http://www.walletpop.com/?NCID=emlcntuswall00000001>)

----- Original Message -----

From jean public <jeanpublic@yahoo.com>
Date Fri, 19 Sep 2008 08:36:42 -0700 (PDT)
To bk1492@aol.com
Subject comment

[Federal Register: September 19, 2008 (Volume 73, Number 183)]
[Notices]
[Page 54384-54386]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr19se08-35]

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-AV00

Atlantic Highly Migratory Species; Essential Fish Habitat

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From dan.potrepka@rcn.com

Sent Tuesday, September 23, 2008 10:27 pm

To HMSEFH@noaa.gov

Cc

Bcc

Subject Blue Fin breeding grounds habitat designation

I would like to voice my support for the National Marine Fisheries Service's recommendation that the Atlantic bluefin tuna's spawning grounds in the Gulf of Mexico be designated a federal Habitat Area of Particular Concern (HAPC). The recommendation would protect bluefin tuna spawning providing all the benefits of conservation to the species and to humanity

I am also impressed and supportive of the fact that HAPCs recommendations will focus conservation efforts thereby bringing heightened awareness to the ecological importance of habitat vulnerability to degradation through fishing and/or non-fishing activities.

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From [Dinda Evans <dindamcp4@yahoo.com>](mailto:dindamcp4@yahoo.com)

Sent Tuesday, September 23, 2008 10:37 pm

To HMSEFH@noaa.gov

Cc

Bcc

Subject I am in support of the bluefin HAPC.

Please write to NMFS in support of habitat designation

The National Marine Fisheries Service is recommending that the Atlantic bluefin tuna's spawning grounds in the Gulf of Mexico be designated a federal Habitat Area of Particular Concern (HAPC). The recommendation, part of a new draft Essential Fish Habitat Amendment to the Atlantic Highly Migratory Species Fishery Management Plan, "would highlight the importance of the area for bluefin tuna spawning and provide added conservation benefits if steps are taken to reduce impacts from development activities," says the agency.

NMFS received a joint request last year from the National Coalition for Marine Conservation (NCMC) and the Tag-a-Giant Foundation to consider establishing a new HAPC for spawning bluefin tuna in the Gulf of Mexico, the sole breeding ground for the severely depleted western Atlantic population. The HAPC would coincide with the area identified in a petition submitted to NMFS in June 2005 (by NCMC, Oceana, Blue Ocean Institute, NRDC and Monterey Bay Aquarium) and based on new electronic tagging studies by Dr. Barbara Block of Stanford University.

According to NMFS, HAPCs are intended to focus conservation efforts and bring heightened awareness to the ecological importance of special areas and their vulnerability to degradation through fishing and/or non-fishing activities.

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From SHSLFoundation@aol.com
Sent Wednesday, September 24, 2008 8:10 am
To HMSEFH@noaa.gov
Cc tcarmbruster123@msn.com
Bcc

Subject Supporting HAPC for Bluefin

To:
Chris Rilling
NMFS HMS Division
1315 East-West Highway
Silver Spring, MD 20910

From:
SandyHook SeaLife Foundation™ ~ *Marine Conservation through Education*

Comments:

SandyHook SeaLife Foundation supports protection of the Atlantic bluefin tuna spawning ground in the Gulf of Mexico through the creation of a federal HAPC. We believe that recent studies by Dr. Barbara Block of Stanford University indicate such a move is necessary to prevent further depletion of the western Atlantic bluefin tuna population.

Thank you.

Mary M. Hamilton, Executive Director
SandyHook SeaLife Foundation™ ~ *Marine Conservation through Education*
Project Editor - SandyHookPress
Headquarters: Highlands, NJ 07732
Mailing address: 326 Stokes Rd. #372 Medford, NJ 08055
Contact: 609.953.2677 or SHSLFoundation@aol.com
Website: <http://www.sandyhooksealife.org>

From [Donnie Wayne <wayne325@knology.net>](mailto:wayne325@knology.net)
Sent Wednesday, October 1, 2008 8:23 pm
To HMSEFH@noaa.gov
Cc
Bcc
Subject spawning are for bluefin tuna
This is a great IDEA! for spawning bluefin tuna we need it Thanks

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From [Paul Rowan <paul@newparadigmfund.com>](mailto:paul@newparadigmfund.com)

Sent Thursday, October 2, 2008 4:21 pm

To HMSEFH@noaa.gov

Cc

Bcc

Subject save our fish from extinction - NOW

Dear Mr. Rilling :

I have reviewed your bio and you appear to be an intelligent man. The evidence is overwhelming as well as compelling that the long liners must be reigned in. If not some of our greatest marine species have no chance at survival. I am an avid sport fisherman and a member of The Billfish Foundation. The time has come for REAL action to control the butchers of the sea. STOP THE LONGLINERS NOW ! If we do so now our future generations may enjoy the beauty of deepsea sport fishing. If not a certain extinction is definite result. YOU can do something.

Truly yours,

Paul E. Rowan

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From [Bizz Baker <bizz@treasurerealty.com>](mailto:bizz@treasurerealty.com) ▶
Sent Thursday, October 2, 2008 4:32 pm
To HMSEFH@noaa.gov
Cc
Bcc
Subject Stop longlining in the Gulf of Mexico to protect blue fin tuna stocks!!! Thanks.

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From Wjmeng@aol.com

Sent Thursday, October 2, 2008 8:43 pm

To HMSEFH@noaa.gov

Cc

Bcc

Subject Bluefin HAFC

I support the HAFC and recommend complete closure of the Gulf of Mexico and Atlantic to long lining of any type. This type of fishing is non selective and is destroying the fish and other wildlife indiscriminately.
Bill Murchie

Looking for simple solutions to your real-life financial challenges? [Check out WalletPop for the latest news and information, tips and calculators.](#)

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5/19/2009

From Tama Olver <tamaolver@comcast.net>

Sent Friday, October 3, 2008 8:11 pm

To HMSEFH@noaa.gov

Cc

Bcc

Subject Atlantic bluefin tuna spawning grounds designation as a federal Habitat Area of Particular Concern

The National Marine Fisheries Service is recommending that the Atlantic bluefin tuna's spawning grounds in the Gulf of Mexico be designated a federal Habitat Area of Particular Concern (HAPC). The recommendation, part of a new draft Essential Fish Habitat Amendment to the Atlantic Highly Migratory Species Fishery Management Plan, "would highlight the importance of the area for bluefin tuna spawning and provide added conservation benefits if steps are taken to reduce impacts from development activities," says the agency.

The designation could make a significant contribution to reversing the dreadful decline of Atlantic bluefin and, combined with other measures, assure healthy populations of the fish for future generations.

There is so much about the health of our oceans and their inhabitants that science has yet to learn. When scientists make a breakthrough to understand something critically important, such as the location of spawning grounds for the bluefin, it is critical to act promptly to capitalize on that discovery.

I am in complete support of the designation of the Atlantic bluefin-tuna's spawning ground in the Gulf of Mexico as a federal Habitat Area of Particular Concern.

Best regards, Tama H. Olver, 220 Chestnut Street, Pacific Grove, CA 93950

PS Please consider the environment before printing this e-mail.

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From [glen sturm <fishchaser1@msn.com>](mailto:glen.sturm@fishchaser1.msn.com)

Sent Monday, October 6, 2008 7:14 pm

To HMSEFH@noaa.gov

Cc

Bcc

Subject longliners in gulf of mexico

Dear Mr. Rilling, concerning the long lining issue in the gulf. I have lived in the Florida Keys for 25 plus years and fish offshore and out into the Gulf. I have never caught a Bluefin Tuna. That should be a concern considering the amount of time I have put in fishing. I would have released it if I had caught one, but that is a conservation move on my part. I think it would be a wise decision to ban long lining in the Bluefin nursery. The fish have to have a sanctuary somewhere. We can change occupations but the fish cannot leave the sea, so while I feel for the commercial fisherman. It will only put off for a few years the loss of his work as the stock drops to the point that it won't make financial sense to continue to fish for Tuna, and the stocks may not be able to rebound!

Thank you,
Glen Sturm

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From [Suzanne Donazetti <sdonazetti@gmail.com>](mailto:sdonazetti@gmail.com)

Sent Wednesday, October 29, 2008 1:25 pm

To HMSEFH@noaa.gov

Cc

Bcc

Subject bluefin tuna HAPC

Dear Mr. Rilling,

I am writing to support the creation of a HAPC for bluefin tuna in the Gulf of Mexico. In fact I think you should put the entire area off limits to development, fishing and oil drilling. Maybe a few wind farms would be okay.

Thanks for the fine job you all are doing to protect our fish.

Sincerely,

Suzanne Donazetti

6284 Dawn Day Drive
Columbia MD 21045
443-325-0703

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From "Jim Rose Jr." <jimjr@leasingsservicesinc.com> ▶
Sent Wednesday, November 12, 2008 4:28 pm
To HMSEFH@noaa.gov
Cc
Bcc
Subject Gulf of Mexico Bluefin Tuna
Attachments image001.gif 1K
Chris Rilling,

I am a recreational angler and have been very interested in the plight of the bluefin tuna for about a decade. I try to keep up with Dr. Barbara Block's (Stanford University) research on this magnificent fish, and am very concerned that we will allow this species to continue be fished into oblivion.

Dr. Block's research shows that the Gulf of Mexico is the prime spawning grounds for this tuna, and as such, should be put off limits to any fishing pressure from commercial or recreational anglers (or long-liners or purse seiners, etc.). The US should take the lead on the world stage to make sure the bluefin tuna does not become extinct.

It angers me to see that the national and world councils (ICCAT) that control the harvest of these fish are comprised by a majority of commercial fishing interests. It would seem that these guys would want to keep the levels of bluefin tuna populations at a sustainable level, but it's easy to see that this is not what is happening. Continued over-harvest in the Eastern Atlantic continues to deplete both the Eastern and Western Atlantic populations.

And what happens when the commercial quotas in the US are not met due to the declining populations of fish? The trip limits are increased so that when the dwindling numbers of schools are found, more fish can be taken. I think the thought process here is that if we don't take our quota here, it will be given to other countries—sheer madness!

Please do all that can be done to make sure my kids and grandkids will have the chance to witness these fish in the coming decades. It's almost too late!

Sincerely,

Jim Rose, Jr.
PO Box 202
Shelby, NC 28151-0202

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From Alan Duckworth <aduckworth@blueocean.org>

Sent Tuesday, November 18, 2008 8:50 am

To HMSEFH@noaa.gov

Cc aduckworth@blueocean.org

Bcc

Subject Comments on EFH Amendment to HMS FMP

Dear Chris Rilling,

To protect the western population of bluefin tuna and promote population growth, their spawning grounds in the Gulf of Mexico needs to be closed to purse seine and long-line commercial fishing during the breeding season.

Yours truly, Alan Duckworth

Alan Duckworth, PhD
Research Scientist
Blue Ocean Institute
P.O. Box 250
East Norwich, NY 11732
Phone: 516.922.9500 ext. 206
Fax: 516.922.9505
Email: aduckworth@blueocean.org
Web: www.blueocean.org

The Blue Ocean Institute works to inspire a closer relationship with the sea through science, art, and literature. We develop conservation solutions that are compassionate to people as well as to ocean wildlife, and we share reliable information that enlightens personal choices, instills hope, and helps restore living abundance in the ocean.

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From [Shana Miller <skmiller76@optonline.net>](mailto:skmiller76@optonline.net) ▶
Sent Friday, December 5, 2008 9:54 am
To HMSEFH@noaa.gov
Cc
Bcc
Subject Comments on EFH Amendment to HMS FMP
Attachments [A1 EFH comments_TAG.pdf](#) 95K

Dear Chris:

Attached please find the Tag-A-Giant Foundation's comments on Draft Amendment 1 to the HMS FMP – Essential Fish Habitat.

Please let me know if you have any questions.

I hope you are doing well!

Sincerely,
Shana

.....
Shana Miller
Science & Policy Coordinator
Tag-A-Giant Foundation
P.O. Box 432
Babylon, NY 11702
(631) 539-0624
toll-free: (866) 533-3580
smiller@tagagiant.org
www.tagagiant.org



Tag-A-Giant Foundation • P.O. Box 432 • Babylon, NY 11702 • (phone) 631-539-0624 • (toll-free) 866-533-3580

December 5, 2008

Mr. Chris Rilling
Highly Migratory Species Management Division
1315 East-West Highway
Silver Spring, MD 20910

RE: Comments on Draft EFH Amendment 1

Dear Chris:

The Tag-A-Giant Foundation submits the following comments on Draft Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan, Essential Fish Habitat. We would first like to applaud you and your team for the tremendous level of effort and consideration that you have invested in this amendment. The draft is an improvement over current essential fish habitat (EFH) designations, and we recognize the sophistication and utility of the online EFH mapper.

Designation of a HAPC for bluefin tuna in the Gulf of Mexico

We commend the HMS Division for its preferred alternative #2 to designate a Habitat Area of Particular Concern for spawning bluefin tuna in the Gulf of Mexico. We reaffirm our written comments dated March 30, 2007 and October 25, 2007 and testimony at the last several HMS Advisory Panel meetings. While EFH designation can be difficult for highly migratory species, the existence of only one, well-defined, spatially and temporally limited breeding area for this species presents a clear case for a habitat that warrants classification as a HAPC.

Preferred Alternative 2 establishes a HAPC according to the coordinates listed in Table 2.1 of Draft Amendment 1, which is roughly equivalent to a polygon west of 85°W longitude and south of 29°N latitude. While we would support this designation as proposed, we suggest that the area be amended to include all waters west of 86°W and off the continental shelf (*e.g.*, offshore of the 200 m contour) to the boundary of the U.S. Exclusive Economic Zone (EEZ). This alternative area, although smaller, is more scientifically accurate and is based on analyses of the combined electronic tagging and fishery data sets. This also avoids concerns about the HAPC encompassing an island. The Draft says that the proposed polygon was based on a request from the National Coalition of Marine Conservation and us. In actuality, our joint comments dated March 30, 2007 also proposed the area west of 86°W and off the

continental shelf. We strongly recommend that this change be made to the preferred HAPC boundary designation.

We support NMFS's preference of Alternative 2 over Alternative 3 and 4 for several reasons. Alternative 3, which would establish the HAPC boundary based on the 95% probability boundary for bluefin tuna larvae, is biased due to larval sampling stations. Alternative 4, which would establish the HAPC boundary based on the 95% probability boundary for bluefin tuna adults, does not capture the entire spawning ground yet also designates areas of the eastern Gulf, which represent an important migratory corridor for spawning fish but not the spawning ground.

An HAPC designation is supported because the Gulf of Mexico spawning ground qualifies under at least three of the considerations for an HAPC as promulgated under the Magnuson-Stevens Fishery Conservation and Management Act. We briefly outline support for the stipulations below:

- Importance of the ecological function provided by the habitat: western Atlantic bluefin tuna spawn in the Gulf of Mexico, and its warm waters are critical for larval survival.
- Whether, and to what extent, development activities are, or will be, stressing the habitat type: offshore aquaculture, oil platforms and other energy infrastructure could be expanded in the region, interfering with the bluefin's traditional spawning grounds.
- Rarity of the habitat type: the Gulf of Mexico is the only known spawning area of western Atlantic bluefin tuna. Genetic and otolith research indicate that unique biodiversity is represented within the Gulf of Mexico.

Lastly, we ask that you remove the Teo *et al.* (2007) overlay from the HAPC maps as it misrepresents the data. The layers are not digitized accurately, and the high/medium/low breeding phase breakdown is an incorrect interpretation of the data. Furthermore, including the data overemphasizes the location of 28 individuals displaying breeding behavior as compared to thousands of points from the observer program, logbooks, and electronic tagging. Somehow there was a misunderstanding of this paper in which the focus was to specifically highlight the actual spawning period. Prior work (Block *et al.* 2005) and ongoing work pays much more attention to the arrival and exit corridors, when the bluefin may actually be feeding and biting hooks, in addition to the spawning region. If you must include the overlay, please contact us, and we will send you the actual shapefiles so the data will at least be accurate.

Essential Fish Habitat Identification

We support NMFS's preferred alternative #3 to identify EFH based on the 95% probability boundary as it results in a more quantitative and transparent process. However, we strongly recommend that NMFS include the final HAPC boundary in its entirety in the adult bluefin tuna EFH identification. This exception would be warranted given the unique status of an HAPC and will increase the consistency of critical habitat designations. A more precautionary approach toward delineating EFH is warranted for a stock as severely overfished as Atlantic bluefin tuna.

Essential Fish Habitat Descriptions

We thank NMFS for the change in the juvenile/adult length cut-off from 145 cm TL to 231 cm FL. This reflects recent data that provide compelling evidence for a later age and larger size at first maturity (Block *et al.* 2005; Diaz and Turner 2007) and resulted in more realistic juvenile and adult EFH in the Draft Amendment 1 as compared to the Pre-Draft.

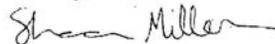
Typographic Corrections

As discussed at the September 29th HMS Advisory Panel meeting, we found a few minor typographic errors in Draft Amendment 1. Per your request, we are including an itemized list in our comments:

- p.10: Under Alternative 2, second sentence should read, "Specific boundary coordinates are provided in Table 2.1."
- p.13: Table 2.1 should reference "Alternative 2 – preferred" rather than Alternative 3.
- p.64: First sentence of second paragraph should read "followed by migration to the Gulf of Mexico to spawn in April, May and June."
- p.64: Last sentence of second paragraph, "lrnght" should be "length."
- p.66: Juvenile length should be (<231 cm FL).
- p.67: Adult length should be (≥231 cm FL).

Thank you for considering our comments.

Sincerely,



Shana Miller
Science and Policy Coordinator

From [joe mourant <joe.mourant@googlemail.com>](mailto:joe.mourant@googlemail.com)

Sent Thursday, December 11, 2008 5:27 am

To "HMSEFH@noaa.gov" <HMSEFH@noaa.gov>

Cc

Bcc

Subject Bluefin Tuna Preservation

After reading your website, I would like to add this comment in support of the necessity of protection for the Bluefin Tuna's breeding habitats.

Regards,

J.Mourant

<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From [Alison Barratt <ABarratt@mbayaq.org>](mailto:ABarratt@mbayaq.org) ▶
Sent Thursday, December 11, 2008 8:00 pm
To HMSEFH@noaa.gov
Cc
Bcc
Subject Support for the EFH amendment to protect bluefin tuna breeding grounds
Attachments [HAPC.doc](#) 2.5MB

Dear Mr Rilling,

Please find enclosed 1035 letters from members of the Monterey Bay Aquarium's Ocean Action Team who support your proposal for protection for bluefin tuna in the Gulf of Mexico breeding grounds.

Kind regards,

Alison
<<HAPC.doc>>

Alison Barratt

Communications Associate Manager
Monterey Bay Aquarium's
Center for the Future of the Oceans
www.montereybayaquarium.org

T: (831) 647 6856

C: (831) 521 9135

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From [Hilary Goodwin <hgoodwin@oceanleadership.org>](mailto:hgoodwin@oceanleadership.org) ▶

Sent Friday, December 12, 2008 1:43 pm

To HMSEFH@noaa.gov

Cc

Bcc

Subject EFH Draft Amendment 1 to the 2006 Consolidated HMS FMP

To whom it may concern:

I am in favor of additional EFH boundaries being designated for all Atlantic HMS. I think more needs to be done to protect sharks since many species are overfished and some even endangered. I previously interned at the Marine Fish Conservation Network and not enough is being done to protect HMS. I believe Alternative 3 would be sufficient to map Atlantic HMS EFH. Regarding a bluefin HAPC, I believe Alternative 2 would be sufficient and is long overdue. Losing these top predators should be a critical concern to NOAA. I know HMS are hard to protect; therefore, enforcing these protections should be a top priority.

Hilary Goodwin

Hilary Goodwin
Program Associate, National Oceanographic Partnership Program
Consortium for Ocean Leadership
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<https://vmail.nems.noaa.gov/frame.html?rtfPossible=true&lang=en>

5/19/2009

From Mercedes Lee <mlee@blueocean.org> ▶
 Sent Wednesday, December 17, 2008 10:31 am
 To HMSEFH@noaa.gov
 Cc Carl Safina <csafina@blueocean.org>
 Bcc
 Subject NMFS Bluefin Tuna HAPC proposal comments
 Attachments [BOI HMS Mgt Plan Comments 12-17-08.pdf](#) 83K

Below and attached please find comments from Blue Ocean Institute regarding NMFS' proposal to create a Habitat Area of Particular Concern for Bluefin Tuna in the Gulf of Mexico.

December 17, 2008

Mr. Chris Rilling
 HMS Management Division
 National Marine Fisheries Service
 1315 East-West Highway
 Silver Spring, MD 20910

Dear Mr. Rilling:

We strongly support NMFS' proposal to create a Habitat Area of Particular Concern for the Bluefin's sole spawning grounds in the Gulf of Mexico. It's the least that can be done.

The fact is, for years the Western Atlantic Bluefin Tuna catch quota has been set much too high, and the ongoing depletion we continue to face will result in catastrophic reverberations if not sufficiently addressed.

Plans to permit offshore aquaculture in federal waters of the Gulf of Mexico will adversely impact Essential Fish Habitat by increasing demand for forage fish, reducing natural food sources for wild Bluefin Tuna and other species.

We're no longer dealing with uncertainty. It is certain that Bluefin Tuna populations continue to diminish. It is certain that there are other numerous human-induced degradations that are affecting essential fish habitat, such as climate change. It is certain the challenges are great.

After much debate, it's been proved that the severely depleted Western Atlantic Bluefin Tuna is an independent stock/population. And designating a Habitat Area of Particular Concern for Bluefin Tuna will be a critically important step if it is to have any semblance of a chance at returning to viability. Other actions NMFS should take include:

- developing an Environmental Impact Statement for offshore aquaculture in federal waters;
- reigning in permits for offshore aquaculture in federal waters;
- reducing fishing for feedfish;
- designating the area identified as Preferred Alternative 2 as a Habitat Area of Particular Concern
- include this designation in the Final Amendment 1 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan

We appreciate your consideration.

With regards,

Carl Safina, Ph.D.
 President

Muttontown Park and Preserve
 Chelsea Mansion
 34 Muttontown Lane
 P.O. Box 250 • East Norwich, NY 11732
 Telephone: (516) 922-9500
 Website: www.blueocean.org
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5/19/2009

BLUE OCEAN INSTITUTE

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