

**The Humane Society of the United States • Center for Biological Diversity
• Whale and Dolphin Conservation Society • Defenders of Wildlife**

Mary Colligan, Assistant Regional Administrator for Protected Resources
National Marine Fisheries Service,
55 Great Republic Drive
Gloucester, MA. 01930
Submitted to: ALWTRPScoping.Comments@noaa.gov

**Re: Notice of Intent To Prepare an Environmental Impact Statement for the Atlantic Large Whale
Take Reduction Plan [76 FR 34654]**

September 12, 2011

Dear Ms. Colligan,

On behalf of the more than 12 million members and constituents of The Humane Society of the United States (the HSUS), the Center for Biological Diversity, the Whale and Dolphin Conservation Society and Defenders of Wildlife, we are writing to provide information addressing fishery-related risk reduction for North Atlantic right whales and other large endangered whales along the U.S. east coast. The National Marine Fisheries Service (NMFS) has requested comments to inform the scope of a forthcoming Environmental Impact Statement (EIS) that will attempt to address the ongoing mortality and serious injury of large endangered whales.

The HSUS has been a member of the Atlantic Large Whale Take Reduction Team (ALWTRT) convened to comply with the Marine Mammal Protection Act (MMPA) since its inception in 1996. We also served on a working group convened in Massachusetts under court order in 1995 to address that state's entanglement of large endangered whales. The HSUS is also appointed to the NMFS Southeast Right Whale Recovery Plan Implementation Team (SEIT). All of our groups have been involved in advocating for improved efforts in right whale conservation for years. We are all too familiar with the slow pace at which management measures have proceeded in attempts to address unsustainable levels of anthropogenic mortality of endangered whales, particularly North Atlantic right whales. Most management measures have only been enacted when prompted by litigation.

Introduction

As the NMFS itself recognizes, both in the materials presented to the various meetings of the ALWTRT and on page 5 of its scoping document, mortalities and serious injuries of large endangered whales have continued, even following the most recent iteration of a take reduction plan, which was published as a final rule on October 5, 2007 [72 FR 7104]. In this plan, the NMFS stated that it would not be addressing risk from vertical lines until a subsequent rulemaking. The current scoping seeks to continue that process.

Our main conclusions from our review of the scoping document include the following:

- A plan to address the risk from vertical lines is long overdue. In the most recent biological opinion, no fishery takes were authorized, yet entanglement-related mortalities and serious injuries continue. Whales are known to be regularly entangled by vertical buoy lines.
- The scoping document fails to provide a target for risk reduction, either in absolute terms or on an area-by-area or fishery-by-fishery basis. This prevents understanding how much or what type of restriction is appropriate or how to judge success of a take reduction plan.
- The precarious status of right whales mandates that this species be given management priority with the assumption that other species will receive ancillary benefit.
- We question the sufficiency of the data underlying the risk assessment inherent in the co-occurrence model.
- We favor managing in large seasonal and temporal areas (e.g., in the northeast, in LMA 1 for much of the year rather than smaller sub-area blocks).
- For the mid-Atlantic and southeast, any plan that uses a "trigger/consequence" approach must have mandated consequences if a serious injury or mortality triggers the need for management.
- The NMFS should explore alternate means of risk reduction, including recommendations for reducing the amount of gear in the water while leaving overall catch rates largely unaffected. Gear marking should attempt to allow ready identification of the gear type/origin entangling a whale at sea even if all gear cannot be removed from the whale for hands-on examination.
- The recent NMFS Biological Opinion cannot rely on future rulemaking as a basis for its no jeopardy conclusion. Specifically, page 4 of the scoping document states that the NMFS "concluded that the fisheries are not likely to jeopardize the continued existence of the western north Atlantic right whale, humpback whale or fin whale if, in part, the proposed action assures a vertical line proposed rule in 2013 and a vertical line final rule in 2014." Without knowing how protective future rulemaking may be, the NMFS cannot count on unknown changes to insure against the likelihood of jeopardy to endangered whales.

In its scoping documents, the NMFS has requested that commenters address a specific suite of questions. 1) Where to manage? 2) When to manage? 3) How to manage? 4) How can the current gear marking strategy improve? 5) How can gear characterization reporting improve? We address each of them below along with two unasked questions: what fishing effort should be managed and what species risks should be managed with greatest priority. Within each question, where appropriate, we comment separately on the waters of the Northeast and on the area

encompassing the waters of the Mid-Atlantic and Southeast; mirroring the model the NMFS has itself chosen for configuring the discussions in the ALWTRT meetings.

I. What Fishery Effort Should Be Managed

Although we will later critique the adequacy of data on which co-occurrence scores are assigned (and risk predicted), the information provided to the ALWTRT and in scoping hearings indicates that addressing the risk from fisheries in the northeast should be the highest priority. The NMFS stated that a forthcoming plan proposes management of risk posed by vertical lines. Much of the focus of options for risk reduction that have been put forward in scoping and ALWTRT meetings appears to target trap/pot effort in the northeast. Given the greater density of gear in the northeast, this emphasis seems generally appropriate.

Using Best Available Science Regarding Fishing Effort

The Industrial Economics model that the NMFS seeks to use focuses on calculating areas of greatest overlap of the distribution of whales and fishing gear. This was called the co-occurrence model. However, the baseline that was used when Industrial Economics presented the co-occurrence model to the ALWTRT in 2010, was based on effort data no more recent than 2008 (see various materials provided to the ALWTRT, including co-occurrence model charts). The fact that the NMFS has made it clear in the scoping document that it does not intend to publish a proposed rule containing a take reduction plan until 2013 means that those data will be 5 years old by that year and 6 years old by the time of the publication of a final rule in 2014. The effort data used in the model may be still largely accurate in its depiction of areas with greatest gear density, but it is also likely that changes in fishery management or reporting may make them obsolete. The NMFS must use the best available science and data up to the time that it proposes the rule. 16 U.S.C. § 1371(a)(3)(A); *see also* 16 U.S.C. § 1386(a) (requiring that annual stock assessment reports prepared by the NMFS utilize “the best scientific information available” in describing the commercial fisheries that interact with a stock, including the rate of serious injury and mortalities “based on the appropriate standard unit of fishing effort”); 16 U.S.C. § 1387(f)(4)(A) (take reduction plans must be based on a review of the stock assessment reports “and any substantial new information”). That means that NMFS must develop a risk management model dynamic enough to consider both temporal/spatial patterns of greatest fishery effort and analyze the risk reduction resulting from the various alternative management measures.

As discussed in greater depth below, the sampling designs used to generate estimates of fishery effort and the nature of the information collected by different states can vary widely. Estimates with wide variances in confidence and data that are not robust will confound any attempt at a reliable calculation of fishery effort as well as any meaningful evaluation of risk reduction that has occurred once a plan is in place.

Under-Analyzed Risk: Exemptions and gillnets

In the 2007 ALWTRP, the inshore area of Maine and other areas were exempted from groundline-related risk reduction measures [72 FR 57111]. We believe that the NMFS must include in its current rulemaking process the best available effort data to illuminate risk. Even if areas were exempted under the sinking groundline rule, the NMFS must provide and analyze the risk from vertical lines in the exempted areas. Without this information the NMFS will present an incomplete picture of what fisheries or gear need to be managed and where management should be focused.

We are concerned that gillnet risk, both in the mid-Atlantic and the northeast, was not addressed at all in scenarios for risk reduction provided during scoping hearings (e.g., risk reduction from deploying greater numbers of traps in a single trawl was discussed for trap/pot fisheries but no options were presented for reducing endlines in gillnets nor reducing the risk from the nets themselves). As we will note below, there is a stronger pattern evident for gillnet entanglement of humpbacks than exists for right whales, but this latter species also is subject to potentially serious entanglement in gillnets (for example, right whale #3120 was sighted on October 20, 2010 near Jeffreys Ledge entangled in gillnet; it was still presumed entangled in the spring of 2011 when it was sighted with an unusually pale left pectoral flipper and an additional right whale was sighted entangled in gear consistent with gillnetting in February of 2011). Furthermore, risk reduction for humpbacks must not be discounted.

II. What Species' Risk Should Be Managed With Greatest Priority

We believe that management measures should be directed primarily toward reducing mortality and serious injury of right whales with the assumption that humpbacks (and other species) will receive an ancillary benefit from those measures, particularly in areas of temporal and spatial overlap. We first wish to discuss, however, our concerns with the sufficiency of information used to depict species distribution (and thus their risk as evaluated by the co-occurrence model).

Failure of the Co-Occurrence Model to Include Sources of Information Needed to Evaluate Risk

We will address the areas alleged to have the highest risk in the next section, "Where to manage," but must first point out our concerns regarding assumptions about the whales' habitat use to identify areas of greater or lesser risk. Pointing out what is missing from the characterization of whale distribution and habitat use will help illustrate our later concerns about *what* is being managed and *where* it is being managed.

The co-occurrence model (the model) relies largely on whale sightings data from systematic surveys (e.g., the surveys conducted by the NMFS-NEFSC) or the right whale consortium data base. A number of science and conservation members of the ALWTRT have recommended that non-systematic sources be incorporated to better inform the agency's understanding of habitat use; however, the co-occurrence model presented at public hearings during the scoping process still does not incorporate this sort of information. We note, for example, that the graphics

presented in scoping hearings do not include the important understanding gleaned from a limited satellite telemetry project by Baumgartner and Mate (2003) that shows right whales roaming into areas not illustrated on the co-occurrence maps (including poorly surveyed areas as well as the exempted waters of inshore Maine). Nor do the co-occurrence maps account for sightings made from the fast Catö ferry between Maine and Canada whose observers have noted numerous and frequent sightings of right whales. Similarly, we believe it is no coincidence that sightings documented in or near the state waters of Maine are overwhelmingly in areas with regular whale watch vessel traffic or a research station (i.e., Mt. Desert), which more likely indicates a gap in sighting effort than it indicates an absence of whales.

The NMFS itself has acknowledged in the Final Environmental Impact Statement (FEIS) that accompanied its 2007 ALWTRP, with regard to systematic surveys, "only a small amount of the overall effort from these surveys occurred within Maine state waters" (see: FEIS pg. 3A-8 at <http://www.nero.noaa.gov/whaletrp/eis/Volume%20I/CHAPTER%203.0%20Regulatory%20Alternatives.pdf>). Also in the FEIS, the agency opines that: "[b]ased on the information presented in Mate et al. (1997), NMFS concluded that right whales typically do not spend substantial amounts of time in the coastal waters of Maine. Rather, they appear to move into Maine state waters briefly." (FEIS at 3A-3) We agree that most right whales in Maine waters are transiting, rather than remaining to feed. This results in two important considerations. First, transient animals will be difficult to document, given the limited to non-existent sighting effort in Maine state waters. Thus their co-occurrence score will be skewed artificially low. Second, the risk to a whale from transiting a dense field of vertical lines is likely significant even if they are there only briefly. This is analogous to the common-sense notion that pedestrians spending even a short amount of time on a busy interstate highway are at greater risk than they would be spending longer amounts of time on a sparsely travelled suburban neighborhood road simply because of the intensity use of the area.

In fact, because females with calves tend to spend more time at or near the surface (Baumgartner and Mate, 2003), those that transit the exempted area off Maine are likely at greater risk from vertical lines than groundlines. The NMFS must be especially precautionary with this vulnerable demographic that is necessary to insure the future of the species. Neither the difficulty inherent in documenting transiting whales with limited survey effort, nor the risk they face from transiting a dense field of vertical lines in inshore waters, appears to have been taken into account in the model's attempt to depict areas of greatest risk.

Another source of data regarding potential risk is available from acoustic buoys. Cornell University assiduously collects data from acoustic buoys placed along shipping lanes near Stellwagen Bank. No matter the date that these comments will be read by NMFS, the on-line map on the Cornell "Listen for Whales" website will show right whales detected vocalizing near these buoys (see: <http://www.listenforwhales.org/Page.aspx?pid=467>). This monitoring program illustrates the virtual year-round presence of right whales, whereas the co-occurrence model does not appear to reflect this understanding. Further, a pilot program using passive acoustic monitoring in the waters off New York similarly showed right whales in the area at times (and likely densities) not illustrated in the co-occurrence model (Biedron, et al., 2008). Monitoring units in this New York study detected right whale contact calls south of Long Island during 26 of

the 75 recording days. These sources of non-systematic indices of whale distribution may not allow an objective abundance score in the way that systematic visual sightings do, but they are nonetheless important to factor into our understanding of distribution of whales and risk. The recent NMFS draft recovery plan for sei whales relies heavily on acoustic technology to further our understanding of their habitat use and consequent risks [75 FR 39916]. The fact that the NMFS intends to rely on this technology to inform itself on habitat use by sei whales means that it recognizes this technology can play an important role. We believe the NMFS should also utilize this approach to assist in understanding habitat use and risk to right whales in the co-occurrence model.

Another source of information on risk that has not been considered in the co-occurrence model is the location of prior entanglements. Although NMFS has reminded the ALWTRT that it is not possible to identify where most entanglements occurred, it would be remiss of the NMFS not to consider whether areas in which we know the origin of gear involved in entanglements are also areas that its co-occurrence model has identified as areas in which entanglements would be considered more likely to occur. If there is a greater than expected proportion of gear involved in entanglements originating in areas not deemed higher risk in the model (as we believe there is based on information provided to the ALWTRT), then the model may be inappropriately risk-prone.

Another indication that co-occurrence maps may not accurately consider areas of risk is that the co-occurrence model and management options arising from it do not appear consistent with what we know of areas of risk gleaned from the fishery-related Dynamic Area Management (DAM) program and the vessel-related Dynamic Management Area (DMA) program. We have attached maps that were provided to either the ALWTRT or to our groups upon our request that illustrate a number of areas in which aggregations of right whales occur year after year in the same general areas outside of the times when seasonal area management restrictions are/were in place. These DAMs and DMAs are based on models developed by the NMFS Northeast Fisheries Science Center and the stipulated boundaries of each were designed to capture the area into which whales might be reasonably be expected to move over a two week period (Clapham and Pace, 2001). As can readily be seen, these areas of repeated DMAs and DAMs in the northeast depict areas of presumed risk whose boundaries extend into areas that are rated as a lower risk area for right whales or exempted areas in the co-occurrence model. [See Figures 1 and 2].

While there is considerable systematic effort to detect right whales in Georgia and Florida (and to a lesser extent in South Carolina), our understanding of risk in the mid-Atlantic is limited. Little effort is directed to detecting whales in the mid-Atlantic during their migration, yet we know that they migrate seasonally through this area. Most of what we know of their presence in the mid-Atlantic comes from observations of their northerly migration in the spring (Knowlton *et al.*, 2002). Firestone and colleagues (2008) used the Right Whale Consortium database through 2005 to model the time it takes for right whales departing their calving grounds to migrate through their mid-Atlantic migratory corridor as they return in the spring to northeastern feeding grounds. The researchers provided the caveat that there were only a small number of observations in the mid-Atlantic during the first half of the year when right whales are migrating northward from their calving grounds and even fewer observations in the fall (*ibid*).

It is parsimonious to presume that whales that migrate north in the spring somehow got to the south by first swimming southward, so the even sparser data on the southbound migration is largely an artifact of limited sightings effort, not lack habitat use. A recent paper by Schick et al. (2009) analyzed additional sightings and telemetry data on female right whales, including a fall north-to-south transit by one satellite tracked individual. The study authors found some females transiting even further offshore than previously thought, with one tracked female going 37 miles offshore. However, we reiterate that there has been very little study of the fall migration for right whales travelling from the north to give birth in the calving areas in the south. It is vital that any model that tries to identify areas of highest risk incorporate information from non-standardized surveys so that risk can better evaluated.

The NMFS must consider the sources of non-standardized information we have enumerated when considering where and when to enact risk-reduction measures. It cannot simply rely on systematic survey data that provide a sightings per unit effort (SPUE) model, because gaps in surveys and survey effort may be inappropriately construed as gaps in distribution (as we will discuss further below). The many non-standardized sources (e.g. acoustic buoys, telemetry studies, information on origin of fishing gear removed from whales, etc.) may be critical to understanding the real risk that is faced. Nor can the NMFS rely on information used for evaluating risk from groundlines to presume that these may be low risk areas for vertical lines.

Prioritizing Management Measures to First Address Risk to North Atlantic Right Whales

Fishery-related mortality and serious injury of both right whales and humpback whales exceed their Potential Biological Removal (PBR) levels as established in the Stock Assessment Reports mandated by the Marine Mammal Protection Act (MMPA) [See 16 U.S.C. § 1386 (requiring preparation of stock assessments)]. In the case of right whales, the PBR is 0.7 and the five-year average annual mortality and serious injury is 2.8, with 0.8 of that from fisheries (NMFS 2011). Humpback whales have a PBR of 1.1 but a five-year average annual mortality and serious injury of 4.6, with 3.0 of that from fisheries (*ibid.*). Other endangered whales interacting with east coast gillnet and trap/pot fisheries include fin whales, which sustain documented serious injury and mortality that is estimated to be less than their PBR; and sei whales which have an even more limited interaction with U.S. fisheries.

Humpback whales have a substantially greater abundance estimate than right whales and the trend in abundance of humpbacks indicates a more positive recovery trajectory than right whales. Because of this, we believe that management measures should be directed primarily toward reducing mortality and serious injury of right whales with the assumption that humpbacks (and other species) will receive an ancillary benefit from those measures, particularly in areas of temporal and spatial overlap. We are, however, concerned that humpbacks appear to sustain more entanglements in gillnet gear whereas right whales entanglements appear to originate more with lines used in trap/pot gear (Johnson, *et al.*, 2005). Because of this, management of entanglement risk may need to be somewhat more species-specific.

III. Where to manage

The co-occurrence model provided to the ALWTRT and in scoping hearings shows the overlap of fishing effort and endangered whales. Various maps have been circulated showing scores for the co-occurrence of higher densities of fishing gear and ostensibly higher areas of habitat use by whale species. For purposes of these comments, and consistent with our identification of right whales as being a higher priority for management attention, we will largely refer to right whales as we discuss where risk management should be targeted. In scoping hearings, the NMFS made available maps that identify the areas it deems to have the highest or lowest co-occurrence scores (see referenced maps available at: <http://www.nero.noaa.gov/whaletrp/VerticalLineScoping/>).

As we have previously noted, these maps do not properly incorporate our understanding of right whale habitat use gleaned from non-standardized telemetry studies, acoustic detections and other sources of information on distribution and risk. This must be remedied. But if we take the co-occurrence scores at face value, it is apparent that there is greater risk in the Northeast than the mid-Atlantic or Southeast. For that reason, it appears that the NMFS should impose the most restrictive management in the Northeast. Nevertheless, it must be remembered that the reporting of fishing effort by the different states is highly variable and that information on distribution of right whales during their migration through the mid-Atlantic is sparse to non-existent. As a result, the depiction of risk in the mid-Atlantic may be substantially under-estimated. Further, as we have noted, humpback whales tend to be entangled in gillnets to a greater extent than right whales and the gillnet effort in the mid-Atlantic and parts of the Southeast is significant.

Northeast

As was discussed above, we are concerned that "risk scores" in these areas of co-occurrence are misleading because the serious lack of sighting effort in some areas will lead, we believe, to an artificially low score. There is a recent example of this concern. Winter aggregations of right whales in the vicinity of Jordan Basin are now well-recognized by the NMFS but prior to 2004, there were virtually no winter surveys in the area. It was not until after that year that it was determined that there were not only whales predictably in the area, but and the NMFS acknowledged that this might be an important mating area for them during the winter (Science Daily, 2009; Working Waterfront 2011). Prior to this expansion of survey effort, distributional maps had indicated that there were almost no whales in the area of Jordan Basin. A co-occurrence map based on SPUE analysis during years prior to 2005 would likely have concluded that the Jordan Basin is an area with little risk, though the co-occurrence maps provided to the ALWTRT now "more appropriately" show this to be an area of moderate to high risk. Even the currently designated NMFS survey areas are targeted to 9 specific areas and the reports for the surveys in recent years state that there "were no broadscale surveys conducted" as there have been in the past. (see NRWSS annual survey reports at: <http://www.nefsc.noaa.gov/psb/surveys/>). The "past" broad scale surveys referenced appear to have been done in years prior to 2007 (*ibid.*). Even the NMFS maps on this PSB site showing 11 areas surveyed in the northeast, depict large gaps in survey area and effort (see <http://www.nefsc.noaa.gov/psb/surveys/NARWSS.html>). If you don't look for something, you won't find it" and it is this very problem that concerns us with regard to assumptions being

made regarding risk in areas that are infrequently or inadequately surveyed, but from which SPUE assessments are generated.

Further, NMFS cannot assume it should exempt the same northeastern waters from vertical line risk-reduction simply because NMFS exempted those areas in its groundline risk reduction rule [72 FR 57111]. Groundlines pose a greater risk to whales diving to the bottom of the water column to forage or to feed with their mouths open, something that whales may not be doing in nearshore waters of Maine. However, any whale transiting a field of vertical lines and surface buoy systems faces risk regardless of its dive profile. As noted above, Baumgartner and Mate (2003) found that females with calves tend to spend more time at or near the surface, so those transiting the currently exempted area off Maine are likely more at risk from vertical lines than from groundlines.

We note that the presentation to the ALWTRP in December 2010 by Industrial Economics, and the materials presented during the scoping hearings, do not evaluate co-occurrence risk in any currently exempted area. This is risk-prone and inappropriate. Whether or not the NMFS determines it should manage the risk, the NMFS *must* evaluate a co-occurrence risk score for all areas, even those currently exempted under the groundline rule. This would better elucidate where risk occurs and better inform management choices. It would be inappropriate to exempt a priori any area simply because it was previously exempted, particularly since females with calves (arguably the most vulnerable demographic) are more likely at risk from vertical lines.

As a result of the uncertainties regarding temporal and spatial distribution of whales, we favor managing risk in large areas and for longer periods rather than smaller temporally and spatially rolling boxes.

During its November 2010 meeting, the northeast portion of the ALWTRT heard a presentation by Industrial Economics and NMFS entitled "Vertical Line Management Options Discussion." This presentation provided variations on four main scenarios for risk management. These scenarios in which risk was evaluated included: line reduction throughout the range of large whales in the northeast; selected areas based on the number of vertical lines (e.g., LMA 1, LMA 2 and Outer Cape); management either year round or March through June and October through January in Areas selected based largely on SPUE for right whales in the SAM East/West areas; and LMA 1 and Outer Cape Areas either year round or April through June and September through December based on Co-Occurrence. The NMFS also presented several management options in each of these scenarios along with the projected reduction in risk for the time/area covered by that scenario and the percentage of total risk represented in that options for that scenario. The options included increasing the number of traps in a trawl to 3, 5 or 10 traps per trawl and having either one or two endlines in trawls with 10 or more traps. For some scenarios, the risk reduction gained by a closure of the time/area was also evaluated. Outside of absolute closures, only scenarios with large management areas generated risk reductions that exceeded 50 percent of the total risk (e.g., lobster management area 1 and the outer Cape as presented in Scenario 4 for year round management). This illustrates the need to manage large areas over longer periods of time rather than small areas and/or shorter periods of time.

For the Northeast, we favor managing risk in the large lobster management areas 1 and 2 and areas where there is obvious risk, such as the waters of the outer Cape. We also believe that the NMFS needs to revisit its exemption lines which include, or are adjacent to, areas with high co-occurrence scores.

Although risk reduction may be minimal, it may also make sense to close any remaining areas of critical habitat to fishing in expected high use times for right whales. This includes the Cape Cod Bay Critical Habitat as well as what is called "the sliver" in the Great South Channel off Chatham in which gillnetting is still allowed.

Mid-Atlantic and Southeast

As we have noted above, there is a critical lack of information regarding the use of the mid-Atlantic by right whales. However, the NMFS has clearly acknowledged the risk to migrating mothers and calves from November to April by virtue of its ship strike risk reduction measures in the mid-Atlantic during that time [73 FR 60173]. Thus, although more information is necessary, we have enough knowledge to recognize that protections are warranted during this time of year for these vulnerable members of the species.

Risk models for this area should largely focus on distributional information during the November through April time period rather than diluting our understanding of risk by incorporating right whale data from other seasons, thereby reducing the average sightings per unit of effort. Duke University and University of North Carolina fly surveys are funded, at least in part, as a result of the U.S. Navy's desire to evaluate risk in possible offshore training areas; this is not the same purpose as is needed for evaluating fishery-related risk. In 2008 these surveys incorporated 197 hours of flight time between January and June 8th and not at all during the fall. This limited amount of survey effort will likely miss transiting whales even in the spring when survey effort took place. (see: <http://seamap.env.duke.edu/dataset/464>)

With regard to the management area for the Southeast, the Southeast Restricted Area is the management area in which gear restrictions should be in place (or in which additional restrictions should be instituted), at the minimum.[see 73 FR 34632 (June 25, 2007)]. Any smaller area or time would be inappropriate.

During the meeting of the mid-Atlantic and Southeast portion of the ALWTRT in April 2011, NMFS provided maps showing co-occurrence scores that were substantially lower for the mid-Atlantic and Southeast than was evident from New York northward. Although we believe that this is likely an accurate depiction of the greater risk due to greater fishing effort in the northeast, we encourage greater effort to better understand habitat use of the mid-Atlantic.

At the April 2011 ALWTRT meeting, NMFS did not present a range of possible options for management measures in the mid-Atlantic and Southeast as was presented for the Northeast portion of the ALWTRT. Instead, the agency focused on a "trigger/consequence" approach in which there would be no restriction unless an event such as a documented serious injury or

mortality originated in the region. The problem inherent in this approach is that we don't know where most entanglements originate. Both a 2005 study by Johnson and colleagues and the spreadsheet provided to the ALWTRT entitled "Preliminary Summary of NMFS Gear Analysis for Entangled Large Whales for the Years 1997-2007" show that we do not know the geographic origin of the gear involved in the majority of entanglements. Without better information on the origin of entanglements, it is difficult to conclude that entanglements are not occurring in this region. We believe that management measures need to be considered for these regions. We will discuss the "trigger/consequence" approach further in the section, "How to manage."

IV. When to manage

As noted above, we believe that risk does not conveniently confine itself to small times and areas. There are numerous examples of the fallacy of assuming right whales are confined to limited areas during specified times. For example, the right whale Kingfisher was entangled in gear from inshore Maine during the winter when right whales were not thought to be in that area. Satellite telemetry work by Baumgartner and Mate has shown that right whales wander widely during the summer rather than remaining in the Bay of Fundy. The NMFS program of DMAs and DAMs has shown whales aggregating consistently outside of seasonal management areas that were established based on data depicting where the majority of right whales aggregate seasonally. . The acoustic buoys monitored by Cornell University detect right whales off Massachusetts virtually year round. All of these examples and others as well, indicate that risk management, particularly in the Northeast, must take place either year round or in the longest possible seasons.

For the mid-Atlantic and Southeast, the NMFS should manage risk at the minimum in the times and areas delineated in its final rule implementing ship strike risk reduction; that is, from November 1 through April 30 in the mid-Atlantic and from November 15-April 15 in the Southeast [73 FR 60173]. The management time and area for this southeastern area should remain consistent with the Southeast Restricted Area published in the June 25, 2007 Federal Register [72 FR 34632].

V. How to manage

The limited scenarios provided to both the ALWTRT and in scoping meetings show options for managing trap/pot gear including increasing the number of traps per trawl and using a single end line in longer trawls rather than two endlines. The NMFS heard from fishermen in the northeast during its scoping hearings that many already fish with 10 or more traps per trawl, leaving them with few options outlined in the materials provided during the hearings other than reducing the number of endlines from two to one. This was something that most felt was not feasible for them. There are other options for the northeast that do not appear to have been considered.

One option is to identify areas where line-free fishing may be appropriate (i.e., no vertical lines and/or no groundline) and allow only line-free fishing to occur. This may be done via grappling for gear or using "pop up buoys" to retrieve the gear. This will likely require coordination with fishery management plans to avoid gear conflicts.

Another option that may provide significant risk reduction, and that also requires coordination with fishery management personnel, is reducing the amount of gear that can be used and the seasons in which it is fished. Research examining the catch of lobsters in Maine and Canada concluded that there is far more effort in the U.S. than is needed to obtain the same level of catch and that seasonal closures and trap reductions could provide substantial benefit to endangered whales while having little economic impact on fishermen (Myers *et al.*, 2007). The authors stated that if Maine restricted its fishing season to 6 months and reduced the number of traps by a factor of 10, the same amount of lobster could be landed with greatly reduced risk to right whales and other species. (*ibid.*) We understand that this may, as the authors themselves acknowledge, be controversial; however, this appears to be a strategy for management that would substantially reduce risk while having comparatively little economic impact. This option may be considered for other areas in the northeast as well.

With regard to managing risk in the mid-Atlantic and Southeast, the April 2011 meeting of the ALWTRT subgroup was provided only with scenarios for "trigger/consequence" management. That is, as noted above, only instituting additional restrictive management in the event of a documented serious injury or mortality originating in that management area. While some in the industry felt that the consequence of such a triggering event should be re-convening the team to discuss options for amending the take reduction plan, we disagree. Other take reduction teams that consider "trigger/consequence" management recommend and NMFS has proposed and/or adopted mandatory restrictive measures that can be immediately put in place as a result of a triggering event. As examples, both the Gulf of Maine harbor porpoise take reduction plan and the take reduction plan for false killer whales in Hawaii have restrictions that can be readily instituted if a "trigger" is met (*see* 75 FR 7383 and 76 FR 42082).

Right whales have a very low abundance estimate. Though the NMFS has not and may not legally authorize take of this species by commercial fisheries, the NMFS has admitted both in its scoping document and in information provided to the NMFS Southeast Implementation Team that deaths and serious injuries continue to occur, underscoring the need for more protective, conservation-oriented regulations. The last rulemaking to institute amended risk reduction measures took place in 2007. The NMFS projects that the current rulemaking to amend the risk reduction measures in the 2007 plan (which have failed to reduce mortality to below PBR) will not be completed until 2014. The pace of rulemaking is approximately 7 years from one amendment to the next (or, at a minimum, almost 5 years if one accepts the timetable as starting in 2010 as NMFS asserts in its scoping document). It is unacceptable to adopt a "trigger/consequence" model for the mid-Atlantic and Southeast that would simply result in re-convening the ALWTRT in the event of a triggering event. Reconvening the ALWTRT would simply result in a protracted rulemaking process to address what is an immediate threat to the species. The Southeast (from South Carolina through Florida) is the only documented calving ground for this critically endangered species. Consequences should be instituted in a timely manner. The only means of so doing is to have the pre-determined consequences of a triggering event evaluated as part of the Environmental Impact Statement in the rulemaking process and then instituted when the triggering event occurs. This is what NMFS did for both false killer

whales and Gulf of Maine harbor porpoise, neither of which has the same degree of conservation concern as do North Atlantic right whales given their highly imperiled status.

In a 2006 program review, an independent scientific body convened by the Marine Mammal Commission at the behest of Congress provided insight into the problem with simply re-convening a take reduction team to discuss possible modifications to a plan as a result of a triggering event. The independent review found that: “[t]he take reduction process has been ineffective at providing solutions to the entanglement problem. The process is slow, cumbersome, and often divisive. Even when incremental steps have been agreed to by the ALWTRT, very long delays have ensued in the rulemaking process required for implementation” (Reeves, *et. al*, 2006). It is for exactly this reason that we recommend that if the NMFS is considering any “trigger/consequence” scenario for the mid-Atlantic and/or Southeast, the consequences must be clearly spelled out in advance of rulemaking and analyzed as part of the EIS process in order to insure timely implementation and risk reduction.

VI. How the current gear marking strategy can improve as well as gear characterization

Because we have less expertise in pinpointing technology that can readily identify gear and still remain practical for everyday use, we have no particular suggestion regarding the type of marking that should be adopted. We will, however, comment on the information that such marking should yield.

Marking should be frequent enough that line removed from whales is highly likely to be able to be identified to fishery and/or geographic area. This is important to targeting future management measures without unnecessarily penalizing larger areas or fisheries. Ideally, the marking could be identified at a distance if gear is on the whale at the surface and might be photographed. Gear marking must be practical for industry to use and, ideally, provide the ability to identify the gear type and general location of use even if not all gear can be retrieved from the whale.

There is far too little being done to identify the gear involved in entanglements. For example, though gear is often said to be of unknown origin or from an unknown fishery, there are countless photos of animals subject to disentanglement that are towing lines and buoys that are clearly of the type used in trap/pot gear. As we understand it, these buoys are supposed to be marked with the owner’s identity yet reports from NMFS continue to leave the identity of the gear type or the location in which it was originally set as unknown. It is important to management for this information to be available. Perhaps the NMFS should work with state and federal fishery managers to assure a clearer marking of buoys to enable identification in the field.

We also believe that the NMFS should have regular “gear identification” gatherings that would bring together fishermen and scientists to attempt to determine the origin or type of gear found on whales. These “gear identification workshops” should be announced to, and open to, any ALWTRT member or invited individuals with gear expertise to allow a better understanding of what can be learned and to better inform TRT discussions.

VII. Improving gear characterization reporting

The NMFS should evaluate whether there is a reporting system in one or more states and from federal license holders to determine whether there is a data set that is most informative, comprehensive and reliable (e.g., larger sampling up to 100 percent is more reliable than a smaller sampling of as low as 10 percent). If there is a system of reporting from a state or federal source that could serve as a model, the NMFS should consider requiring it of all states. This improves the consistency and quality of data to inform our understanding of patterns of fishing effort.

Repeated discussions both in ALWTRT meetings and the scoping meetings have made it clear that the pattern of reporting on fishing effort and gear characterization differs wildly from state to state. As examples, Massachusetts requires 100% reporting of lobster effort and requires information, whereas Maine has only a 10% reporting system. Data collected on gear characteristics and fishery effort is more comprehensive and reliable in some states than others.

Once NMFS can identify the type of systematic reporting that is the most useful for management (ideally choosing a system that is already in use in one or more states) then it should attempt to have this sort of reporting standardized for all. This will greatly enhance our understanding of risk and the places and manner in which it may be most practical to reduce that risk. It will also facilitate our ability to evaluate the degree to which effort has changed and risk may or may not have been reduced as a result of changes to requirements in the take reduction plans.

Conclusions

A plan to address the risk from vertical lines is long overdue. The NMFS admits that it has not and cannot legally authorize takes of right whales in any Atlantic fisheries, yet entanglement-related mortalities and serious injuries continue and photographs of entangled whales not infrequently show them snared by vertical buoy lines.

We question the sufficiency of the data underlying the risk assessment inherent in the co-occurrence model. The NMFS needs to incorporate more information from non-standardized information sources into its models (e.g., data from acoustic monitoring, telemetry, opportunistic platforms, knowledge of the location of entanglements, and including areas deemed risk prone in prior multiple DMA and DAM are management actions). It is likely that significant risk exists in some of the currently exempted waters and NMFS should not a priori exempt them from consideration under this rulemaking.

With regard to recommendations for focus on the take reduction plan amendments, the more precarious status of right whales has led us to prefer that this species be given management priority with the assumption that other species will receive ancillary benefit. We favor managing in large seasonal and temporal areas (e.g., in the northeast, in LMA 1 for much of the year rather than smaller sub-area blocks). For the mid-Atlantic and southeast, any plan that uses a "trigger/consequence" approach must have mandated consequences if a serious injury or mortality triggers the need for management. The NMFS should also explore alternate means of risk reduction, including recommendations for reducing the amount of gear in the water while

leaving overall catch rates largely unaffected. Gear marking should attempt to allow ready identification of the gear type/origin entangling a whale at sea even if all gear cannot be removed from the whale for hands-on examination.

The closing paragraph in the NMFS scoping document states on page 4 that in its 2010 Biological Opinions, NMFS had concluded that the fisheries are not likely to jeopardize the continued existence of the western north Atlantic right whale, humpback whale or fin whale if, in part, the proposed action assures a vertical line proposed rule in 2013 and a vertical line final rule in 2014. Not only do we find this timeline to be glacially slow and risk prone, but we question the legality of finding no jeopardy from a fishery pending some unspecified future rulemaking. In addition, we note that new information in the form of additional and unexpected right whale deaths and serious injuries further undermine the 2010 Biological Opinions and their no jeopardy conclusions.

The NMFS must take timely and appropriately conservative action to protect endangered large whales. Its progress in complying with its legal mandates is painfully slow. In its 2006 report to Congress, the Marine Mammal Commission's independent panel castigated the NMFS for not addressing risk from vertical line (Reeves, *et al.*, 2006). At that time the panel recommended prohibiting vertical lines in areas where right whales congregate, putting the burden on the industry to develop means of fishing in a manner that is safe for whales in order to return to fishing in these areas.

The panel provided advice to the NMFS with regard to the problem with its current approach to rulemaking and finding the best way forward. The panel stated that "[t]he Secretary of Commerce has ultimate responsibility to ensure that the goals of the Recovery Plan for the North Atlantic Right Whale are met. Pursuit of those goals can be driven by one of three approaches: (1) develop and implement ineffective measures that will likely result in lawsuits and judicial decisions to direct actions by federal agencies; (2) rely on public awareness and education efforts to motivate and guide voluntary actions by fishermen, vessel operators, etc.; or (3) take the initiative to restrict activities known to be harmful to right whales and cope with the negative response from some stakeholders. All three options promise to be costly. However, from the standpoint of meeting recovery plan goals, the third is most likely to be effective on an acceptable time scale" (*ibid.*). It is to our chagrin, and to the detriment of endangered whales, that we find that NMFS has to date chosen to pursue the first of these approaches in its rulemaking rather than the last. We strongly urge the NMFS to re-consider its approach in this current rulemaking process and take meaningful action to address risk in a timely manner.

Sincerely,



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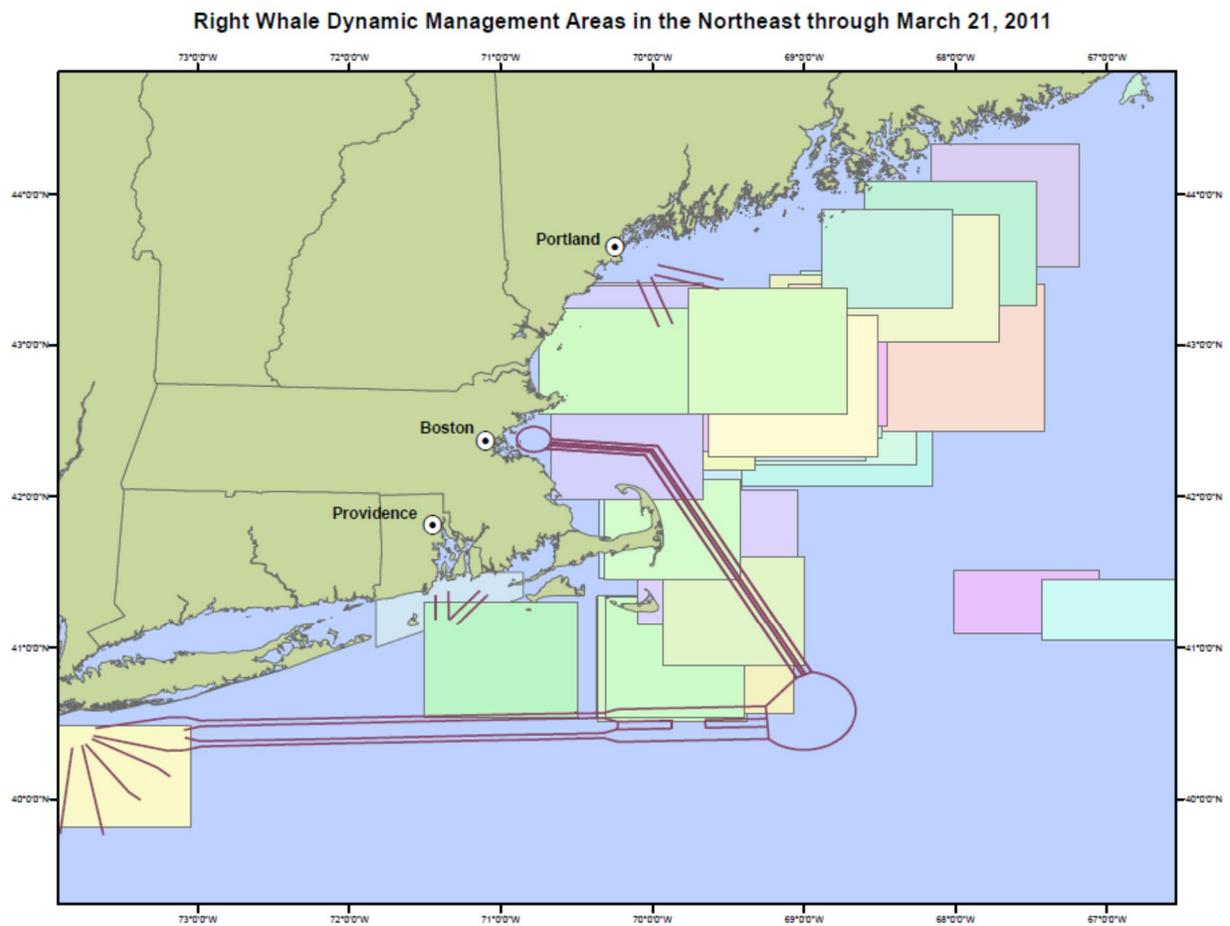
Regina Asmutis-Silvia, Senior Biologist
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Sierra B. Weaver, Senior Staff Attorney
Defenders of Wildlife

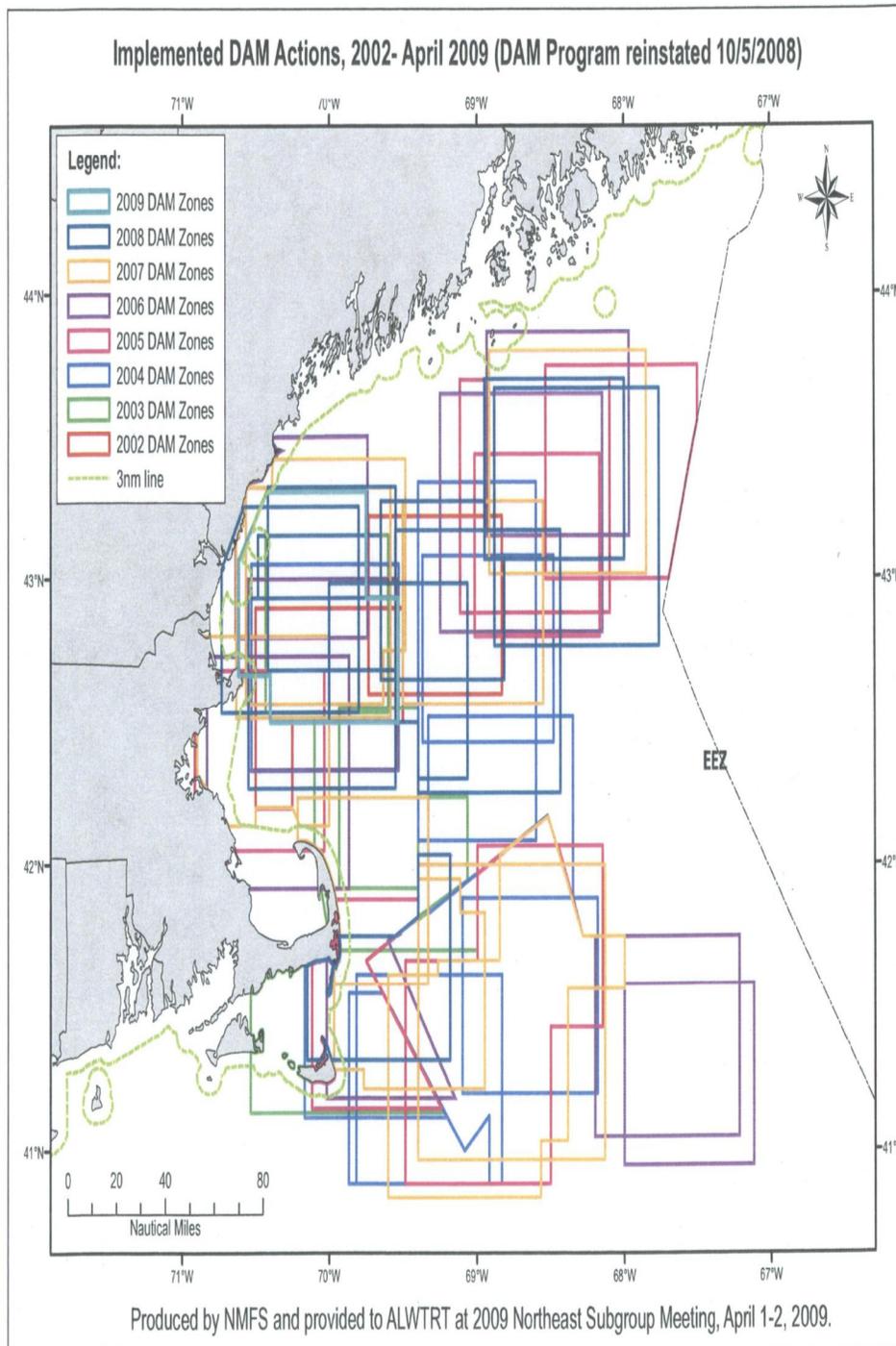
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NMFS March 27, 2009



68 DAMs have been implemented from 2002-April 2009.