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Follow-up to ALWTRT 4/11 Conference Call

David Laist <DLaist@mmc.gov>

Thu, Apr 26, 2012 at 1:28 PM

To: Kate Swails <kate.swails@noaa.gov>

Kate:

This is in response to your request for comments on proposals submitted to address entanglement of large whales in vertical lines of gillnets and traps. The following comments are submitted in my capacity as the Marine Mammal Commission's representative on the team and reflect what I believe will likely be their views given that the Commission has not had an opportunity to review any coherent background analyses. These comments are based on information discussed in the 11 April 2012 Atlantic Large Whale Take Reduction Team conference calls.

SUMMARY

To develop a proposed rule and the accompanying draft environmental impact statement on added measures to reduce the risk of entangling whales, particularly North Atlantic right whales, in the vertical lines of traps and gillnets along the Atlantic Coast, the National Marine Fisheries Service should:

1. include as part of its proposed action the seasonal closure proposals for Jeffries Ledge, Cape Cod Bay, and the "Sliver" area of the Great South Channel submitted by Sharon Young on behalf of conservation representatives on the team, as well as the seasonal closure for the Jordan Basin proposed by Scott Kraus and others;
2. revise the co-occurrence model in accordance with the proposal submitted by Dr. Robert Kenny and most scientists and conservation representatives on the team to reflect the fact that right whales may occur in virtually all waters of the Gulf of Maine – particularly waters off the coast of Maine where numbers of vertical lines are especially high – by developing minimal non-zero values for whale occurrence in all coastal waters of the Gulf of Maine;
3. conduct an independent peer review of the model after that change has been made to ensure that model results reflect the best possible understanding of the risk of whales encountering vertical lines;
4. recalculate co-occurrence scores based on revisions to the model developed pursuant to the approach recommended by Dr. Kenney et al. and comments by the peer review; and
5. provide co-occurrence model results based on the boundaries of management areas used in the proposals rather than just region-wide or other management boundaries that are not being used in the proposed actions (e.g., LMA 1, 2 etc.).

RATIONALE

Closures: Following the last full meeting of the take reduction team in January 2012, five proposals were submitted to establish seasonal closures in high-use right whale habitats in the Gulf of Maine. Two were submitted by Scott Kraus and others (i.e., the Jordan Basin and waters around Cape Cod) and three by Sharon Young on behalf of conservation community representatives on the team (i.e., waters around Cape Cod, Jeffrey's Ledge, and a portion of the Great South Channel called the Sliver). The two proposals for waters around Cape Cod overlap, but the proposal by the conservation community includes almost all of the area proposed by Kraus et al. plus additional waters in Cape Cod Bay and areas north of the Bay over parts of Stellwagen Bank. Of these two proposals, that put forward by Sharon Young is preferable.

All of these seasonal closure proposals focus on times and areas where co-occurrence between whales and gear is high. They also are consistent with Commission recommendations over the past 15 years for seasonal closures of high-use right whale habitats (i.e., designated critical habitat for right whales) to any gear likely to entangle. Time-area fishing closures are an accepted strategy for managing fisheries as well as other living marine resources and are long overdue and should be included as part of any proposed action put forward by the Service to reduce entanglement risks in vertical lines.

Co-occurrence model: As indicated above, at the 2010 team meetings a large portion of the team, including fishery representatives, conservationists, scientists, and agency representatives endorsed the use of a co-occurrence model as the primary means for developing a vertical line management strategy rather than relying on either whale distribution or vertical line data separately. Although the Service contracted with Industrial Economics Inc. to develop that model and populate it with relevant data based on the team's advice, the Service has not adequately addressed data concerns raised by scientists and conservation representatives on the team. As it now stands, the model needs to be revised because it does not provide an adequate basis for assessing entanglement risks associated with the management proposals now under review.

The contractor, under the Service's supervision, has made extensive and appropriate efforts to estimate the number and geographic distribution of vertical lines. That effort has required extrapolating and interpolating incomplete data sets on vertical line numbers; in some areas estimates are based on little more than the opinion of state managers. The Service however, has not directed the contractor to make similar efforts to address repeated concerns raised about deficiencies in the whale sighting data. At every subsequent team meeting the team's scientific and/or conservation representatives have raised concern about the model's assumption that whales absolutely never occur across large areas of the Gulf of Maine. This is clearly inaccurate. Because co-occurrence scores are derived for each 10 minute by 10 minute block for all U.S. waters in the Gulf of Maine by multiplying estimated densities of vertical lines and whales, the assignment of zeros for whale occurrence values for much of the Gulf of Maine ignores significant risks in areas where whale presence may be low, but numbers of vertical lines are exceptionally high. It thereby underestimates total risk by potentially significant levels.

The Service and its contractor must address this concern. Although the Service convened two working group meetings of team members to resolve this and other data deficiencies, the contractor provided neither suggestions nor analyses of how the issue might be resolved. Moreover, it offered no analyses of the potential effect of assigning minimal whale occurrence values on model results, which could have been done through a simple exercise of plugging in a range of low values to the model to evaluate its effect on co-occurrence scores. The Service provided no travel support to get scientists to the working group meetings and key team members who had raised the issue were absent at the first working group meeting in January 2011. The meeting summary therefore recommended that the Service or the contractor contact two of the team scientists who had raised the issue to discuss an appropriate way forward. This was not done. The lack of Service and contractor effort on this matter stands in sharp contrast to the extensive efforts made to contact people to develop estimates of vertical line numbers. When the working group was reconvened, the Service did not address this issue and instead asked participants to identify management areas based on model results that continued to assign zero whale occurrence values for much of the Gulf of Maine.

Following the most recent team meeting one of the team scientists, Dr. Robert Kenny, invested considerable effort to do what the contractor should have done months earlier—that is, to design a scientifically-based approach to resolve the issue. That approach was endorsed by almost all the team's scientists and conservation representatives and it provides a logical, well-conceived approach to develop more realistic values reflecting whale occurrence in waters off New England where the model now incorrectly assumes whales never occur. During the conference call the Service announced a decision not to address Dr. Kenney's proposal because it would delay the rule development process by some unidentified amount of time. This decision, like the Service's past failure to direct the contractor to work with team scientists on this issue, is inconsistent with the Service's obligation to address legitimate concerns repeatedly raised by whale biologists and conservation representatives in an even-handed manner.

My understanding is that it would take no more than a month or two to evaluate Dr. Kenney's proposal. If acting on his proposal now results in such a delay, responsibility for the delay rests with the Service because it did not direct its contractor to contact and work directly with the team members raising issue more than a year ago to figure out an appropriate resolution. Although the Service did convene two working group meetings, more should have been done when the issue was still not resolved to work directly with those familiar with the whale data, as the contractor apparently has done to contact those familiar with vertical line data. Moreover, the excuse about effects on the rulemaking schedule is unconvincing. The Service routinely fails to meet its initial rulemaking schedules, as was the case when it last amended the Atlantic Large Whale Take Reduction Plan and deferred final rules for nearly two years to address concerns raised by fishery representatives over proposed groundline requirements. In any case, given that any new rule is to be in place for more than five years, it is even more important to ensure that risks are assessed as accurately as possible. Since the Service began implementing take reduction measures for right whales it has consistently overestimated the benefits and effectiveness of its conservation measures. By underestimating entanglement risks now, it is likely to do so again. As now used, the decision-making model to assess risks is fundamentally flawed and negatively biased relative to the true overall entanglement risk. It almost certainly underestimates these risks and consequently overestimates—perhaps by a significant degree—the conservation benefit of the proposed rules.

To correct this fundamental deficiency, the Service should revise the co-occurrence model in consultation with team scientists following the approach developed by Dr. Kenny and endorsed by most team scientists and conservation representatives. The revised version should reflect the fact that right whales occur to at least some degree in virtually all waters of the Gulf of Maine—particularly in waters off the coast of Maine where numbers of vertical lines are exceptionally high. It should do so by developing minimal non-zero values for whale occurrence throughout the northeast region. In addition, given the importance of the co-occurrence model for quantifying entanglement risk and evaluating proposed management measures, the Service should have the revised co-occurrence model peer reviewed by an independent panel of whale biologists familiar with right whale distribution and movements and model experts to ensure that the model provides the best possible assessment of entanglement risks, particularly for North Atlantic right whales.

Management areas: Once the model has been revised and peer reviewed, the Service should recalculate co-occurrence scores based on revisions to the model developed in accordance with the approach recommended by Dr. Kenney et al. and comments by the peer review. In this regard, the Service needs to provide results in far greater detail than that provided on the conference call. As noted by many team members at the last full team meeting, it is not possible to make informed judgments on proposals without a co-occurrence analysis. The scope of the co-occurrence information provided during the 11 April conference call was not adequate to make informed judgments on any of the proposals. The contractor focused almost entirely on analyses of vertical line data and almost no information on co-occurrence. Whereas information on reductions in vertical line numbers was provided area by area for each proposal (i.e. by Lobster Management Areas that generally did not match management boundaries in any of the state proposals which tended include measures based on distance from shore), the contractor provided co-occurrence scores reflecting a region-wide and coast-wide average yearly

reductions in co-occurrence risk. From the information provided it was impossible to assess what portion of the overall co-occurrence risk is being addressed by management actions within any of the actual proposed management boundaries other than the complete closures. That is, there is no way to determine what proportion of risk occurs within any of the state's proposed management areas (i.e., "exempted waters," within 3-6 or 6-12 miles of the coast, etc.) or where measures are likely to be most effective. The Service should provide co-occurrence model results based on the boundaries of proposed management areas rather than simply a single region-wide score or its affect on risk levels in some other management areas that are not being used to delineate the boundaries of proposed actions.

These matters concerning the co-occurrence model are particularly important. If the Service does not take steps to address them, it will open to question the integrity of this rulemaking process and undermine the validity of the analyses being used to evaluate proposed management measures.

If you have any questions about these comments, please let me know.

David

From: Kate Swails [mailto:kate.swails@noaa.gov]
Sent: Friday, April 20, 2012 7:55 AM
To: Kate Swails
Subject: Follow-up to ALWTRT 4/11 Conference Call

All,

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