

# Atlantic Scientific Review Group

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28 February 2012

At its Annual Meeting earlier this year, the Atlantic Scientific Review Group (ASRG) spent a day reviewing the science underpinning conservation and management efforts directed at North Atlantic right whales. The ASRG appreciates the efforts of staff members from the Northeast and Southeast Fisheries Science Centers and Northeast and Southeast Regional Offices who provided presentations at this meeting. After considering these presentations and subsequent discussion, the ASRG makes the following comments and recommendations.

### *1. SPUE Analysis in Co-occurrence Model*

Industrial Economics, Inc. developed a risk-assessment model to estimate the potential risk of entanglement of right and other endangered whales in vertical lines of gillnet and trap fishing gear along the U.S. Atlantic coast. The model includes estimates of the numbers of vertical lines and sightings per unit effort (SPUE) of right and other whales. The sampling units are monthly blocks measuring 10 minutes of latitude and longitude. Other scientists have expressed concern that zero values of SPUE in cells with low survey coverage could imply the absence of whales in areas where they were, in fact, present but not detected. The ASRG **recommends**, therefore, that the National Marine Fisheries Service and Industrial Economics, Inc. investigate the use of minimum values for cells where SPUE values are currently estimated at zero (as a result of limited survey effort) to provide a more accurate reflection of the risk of entanglement for right whales which, based on other types of data, likely occur in such areas.

### *2. Ship Speed Rule*

The ASRG commends the National Marine Fisheries Service for conservation actions taken to reduce ship speed to protect North Atlantic right whales. The ASRG is concerned, however, about the sunset provision (currently scheduled for December 2013) contained in these regulations and the possibility that these conservation measures will lapse in 2013 before new and, hopefully, more effective measures are put into place. We urge the National Marine Fisheries Service, therefore, to expedite rulemaking so that there will be no lapse in these protective measures. Too little time has passed since passage of these regulations to measure their biological effectiveness in a meaningful manner, although initial signs are encouraging. For example, there appears to be a positive trend in vessel compliance with the ship speed regulations. The ASRG **recommends** that the National Marine Fisheries Service continue its current monitoring program to evaluate the efficacy of these regulations and expand this program to evaluate site-specific measures. Furthermore, we **recommend** that the National Marine Fisheries Service consider expanding the current Seasonal Management Areas in spatial extent, so that vessels will be required to reduce speed at a greater distance from the coast.

### *3. Entanglement*

There is very little concrete evidence that required modifications to fishing gear, such as the mandate to use weak links and sinking ground line, have resulted in a positive conservation benefit to North Atlantic right whales. The ASRG suggests, therefore, that the National Marine Fisheries Service consider a fundamentally different approach as it moves forward to reduce the risk of entanglement to right whales. In particular, the ASRG **recommends** that the National Marine Fisheries Service explore the potential for allowing pot and trap fishing gear to be fished in an experimental fashion *without* vertical lines in areas currently closed to such fisheries, or consider closing specific areas so that such experimental fisheries could occur. Such an experimental approach would provide a strong incentive for fishermen to develop safe and effective means of using pot gear without any risk to whales and, at the same time, develop mechanisms to avoid problems associated with conflicts with other fixed or mobile fishing gear. This could involve some degree of marine spatial planning, which appears increasingly necessary as development of offshore renewable energy becomes a reality.

### *4. Aerial Surveys*

Given the current funding climate and the anticipation that fewer resources will be available for future aerial surveys, the ASRG **recommends** that the National Marine Fisheries Service reduce or eliminate aerial survey effort for right whales undertaken for management and risk-mitigation objectives in both the southeastern and northeastern U.S. and, instead, focus this effort on the collection of demographic data. These demographic data are critical to the evaluation of many conservation measures. To this end, the ASRG **recommends** the Service and its partners conduct a quantitative evaluation of the optimal number of surveys required to collect the necessary resolution of demographic data and the spatial allocation of this survey effort.

### *5. Mid-Atlantic Migratory Corridor*

The ASRG **recommends** that the National Marine Fisheries Service employ passive acoustic monitoring with archival recorders to describe the migratory corridor used by North Atlantic right whales to and from their calving grounds in the southeastern United States. This approach would help to direct future dedicated aerial survey efforts to times and areas where whales may be present in the Mid-Atlantic region and also help refine management measures used to mitigate the risk of entanglement and ship strikes in this area.

### *6. Estimation of Serious Injury and Mortality*

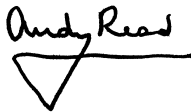
The ASRG supports the concept of estimating the number of right whales killed or seriously injured each year as a result of entanglement and ship strikes using the products of: the minimum number known to be alive; the annual mortality rate derived from demographic models; and the proportion of mortality from each cause (as determined from necropsy). This approach will require a continued commitment to support necropsies of right whales and determination of cause of death. The ASRG **requests** that the National Marine Fisheries Service provide a report of progress made to implement this approach at its 2013 meeting.

## *7. Research Priorities*

The ASRG **recommends** that the National Marine Fisheries Service consider the following research activities to be of the highest priority: (1) maintenance of the photo-identification catalog and associated database; (2) investigations of cause of death through detailed necropsy; (3) dedicated surveys to collect demographic data on survival and fecundity. In addition, as noted above, the ASRG recommends the use of passive acoustic monitoring techniques to describe the migratory corridor used by North Atlantic right whales in the Mid-Atlantic.

Once again, we appreciate the efforts of the staff of the National Marine Fisheries Service who participated in this review. Furthermore, we appreciate the opportunity to provide these comments to the agency.

Sincerely,

A handwritten signature in black ink that reads "Andrew J. Read". The signature is written in a cursive style and is positioned above a horizontal line that extends to the right. Below the horizontal line, there is a small, downward-pointing triangle.

Andrew J. Read  
Chair, Atlantic Scientific Review Group