ATLANTIC SCIENTIFIC REVIEW GROUP

23-24 October 1996
Gloucester, MA

Meeting Summary

The Atlantic SRG Meeting convened on 23 October 1996 at the NMFS Northeast Regional Office in Gloucester, MA. Gordon Waring of the NEFSC served as NMFS liaison to the SRG. SRG members attending were: Donald Baltz, Solange Brault, Joe DeAlteris, James Gilbert, Mike Harris, Bob Kenney, Bob McKinnon, Jim Mead, Dan Odell, Andy Read, Randall Wells and Graham Worthy. In addition, Robyn Angliss (NMFS/FPR), Kevin Chu (NMFS/FPR), Debbie Palka (NMFS/NEFSC), Doug Beach (NMFS/NER), Kathy Wang (NMFS/SER), Keith Mullin (NMFS/SEFSC), and Sharon Young (HSUS) attended the meeting. Andy Read served as chair and Jim Gilbert, Randy Wells, and Robyn Angliss served as rapporteurs.

1. **Introductions and Adoption of Agenda**

Andy Read welcomed Dr. Donald Baltz, the newest member of the ASRG to his first meeting. The draft agenda was adopted with only minor revisions.

2. **Review of Draft Revised Stock Assessments**

The ASRG reviewed draft revised assessments of NE strategic stocks. There were no new assessment data for stocks in the SE, except for new survey data for Atlantic coastal stocks of bottlenose dolphins, so the ASRG did not review the status of these stocks. Reviews of non-strategic stocks were assigned to individual SRG members. Bob Kenney will review the fin whale, sei whale, minke whale, and blue whale SARs. Dan Odell will review the dwarf sperm whale and pygmy sperm whale SARs. Jim Mead will review the killer whale, pygmy killer whale, and the bottlenose whale SARs. Solange Brault will review the Risso's dolphin and white-beaked dolphin SARs. Randy Wells will review the Atlantic spotted dolphin, the pantropoical spotted dolphin, the striped dolphin, and the spinner dolphin SARs. Jim Gilbert will review the harbor seal, gray seal, harp seal, and hooded seal SARs.

2.1 Revised Stock Assessment Reports

Two species of Atlantic cetaceans changed status from strategic to non-strategic -- whitesided dolphins, and offshore bottlenose dolphins.

The revised assessments incorporated abundance data from shipboard and

aerial surveys conducted in 1995. In general, shipboard surveys used a two-team approach to allow estimation of g(0). In aerial surveys this approach is not feasible, but NEFSC plans to conduct further experiments to estimate g(0) from these platforms. The ASRG recommends that in future stock assessment reports an appendix be included describing how estimates of abundance and mortality are determined.

In some cases, expanded surveys resulted in increases in the estimated abundance of stocks, improving the utility of the assessments. Less reliable mortality data from 1989-90 data are now being dropped from the assessments and replaced by more recent data, which generally has improved levels of observer coverage. For example, in the pelagic drift net fishery there is now more than 90% observer coverage. As a result, improved estimates of mortality were obtained for several species.

The ASRG noted a serious problem with mortality estimates from the pelagic longline fishery in the revised SARs. The SEFSC collects effort data from this fishery from logbooks following procedures set out by ICCAT. Recent data from the SEFSC have not been forthcoming, preventing estimation of mortality in this fishery. These data are critical to the stock assessment and take reduction processes for pilot whales and the ASRG recommends that the SEFSC expedite analyses and provide updated assessments for these stocks.

In the revised SARs mortality and serious injury data are presented in separate tables, as recommended by the GAMMS workshop. The current SAR presents two estimates of mortality, one including injured animals as mortalities, and the other excluding these injuries as mortalities. In most cases, mortality estimates based on actual kills exceeded PBR, so estimates from serious injuries did not influence the classification of stocks. The issue of serious injury will be resolved at a forthcoming workshop. In the past, the ASRG has recommended a risk-averse strategy, including all injuries as mortalities. The ASRG recommends that SAR tables provide more detail on the definition of mortality and serious injury, to explain the meaning of these numbers. The SARs should present the number of marine mammals observed injured, seriously injured, and killed and also include extrapolated estimates.

The ASRG also recommends that a template be created for SARs to identify situations in which serious injury and mortality data are not available or are incomplete from certain fisheries. This should identify areas where data are missing, and put the focus back on NMFS to fill in gaps and omissions.

Stranding data have been included in SARs, where possible, from 1992-95. The

important. More data in tabular form are desired, including evidence for fisheries interactions and indications of entanglement vs. other types of interactions. As some stranding data are anecdotal, and effort differences exist from region to region, language will be required to explain uncertainties in these data.

2.1.1 Right Whale Stock Assessment

The ASRG provided a large number of detailed editorial comments to Gordon Waring regarding this SAR. Some important revisions need to be made to this report. In particular, observed mortalities of right whales were assigned to various probable causes after consultation with scientists from NEA and NMFS. These assignations were made on a percentage basis (e.g. 50% likelihood of entanglement and 50% likelihood of ship strike). The ASRG recognizes the difficulties of assigning cause of mortality in such cases and further recognizes that mortality of right whales may often have multiple contributing factors. Such a subjective numerical system, however, is unlikely to withstand close legal or scientific scrutiny. The ASRG recommends that NMFS not attempt to assign cause of death to probabilistic values and instead recommends that NMFS describe cause of mortality and serious injury as primary and contributing factors without giving a numerical percentage.

The ASRG considered how the SAR should deal with cases where fisheries are known to have caused right whale mortalities but for which no data are available from observer programs (such as the New England lobster fishery). The ASRG recommends that such information be added as a footnote in the SAR.

2.1.2 Beaked whale stock assessments

Questions remain regarding the specific identification of observed beaked whale mortalities in the pelagic drift net fishery. The ASRG requested that the NEFSC bring a summary of observed beaked whale takes to its next meeting and itemize which takes are known to species or genus. The ASRG also requested a summary of samples obtained from these observed takes and the current locations of these samples. The ASRG suggests that the revised stock assessments include a general introduction (including a figure) to the beaked whale section that summarizes information common to all species.

There was discussion regarding estimation of combined PBR for the beaked whale complex. The ASRG agreed that this approach is not appropriate when it is not possible to separate sighting and mortality data at the specific level. If all species are to be included in the bycatch estimate, a similar

procedure should be used for sighting data, and thus data for *Ziphius cavirostris* should be included in the pooled abundance estimate.

In general, the ASRG welcomed any initiatives to improve the species identification of beaked whales both at sea during surveys and by observers aboard commercial fishing vessels. The ASRG noted that these species should be separated wherever possible in the stock assessment process to provide better information on the effects of removals on particular stocks of beaked whales.

2.1.3 Pilot whale stock assessments

The recovery factor for long-finned pilot whales was changed from 0.4 to 0.5 to reflect an improvement in the CV of the mortality estimate. The ASRG expressed concern that mortality data for the pelagic longline fishery is still not available for 1994 and 1995. Confusion still exists regarding the specific identity of pilot whales observed in marine mammal surveys and involved in fisheries interactions. Pilot whales north and east of Block Island are likely to be long-finned animals. Both species are found south of Block Island to Cape Hatteras depending on the season. South of Cape Hatteras, most pilot whales are likely to be short-finned animals. The ASRG suggested that if takes occur between Cape Hatteras and Block Island, the NMFS estimate a value for Nmin for both species as a complex until better distributional data are obtained for the two species. The ASRG noted that no estimate of g(0) was available for these or many other species, and that this should be recognized in the text of the SAR. The ASRG recommends that data on the numbers of pilot whales injured but released alive in the longline fishery be included in a table in the report.

2.1.4 Sperm whale stock assessment

The population estimate for this stock is not corrected for dive times, so the population estimate is negatively biased. SWFSC has estimated a correction factor for dive times for beaked whales but not for sperm whales, as the surfacing patterns made it difficult to estimate the dive time for an individual sperm whale (dive times could be obtained for groups). The ASRG recommends that NEFSC ask experts on sperm whale behavior, such as Hal Whitehead, Jonathan Gordon or Bill Watkins for data on sperm whale dive times so that a correction factor can be incorporated in the abundance estimation model.

2.1.5 Atlantic white-sided dolphin stock assessment

An increase in estimated abundance resulted from improved survey coverage in the Gulf of Maine. The revised assessment changes the status of this stock from strategic to non-strategic. The ASRG recommends that the status of this stock change, but also recommends that the NEFSC continue to monitor the abundance and estimated mortality of this stock and provide a revised assessment report next year. There are unresolved questions concerning the stock structure of this species, as there may be up to 4 stocks of white-sided dolphins in the NW Atlantic.

2.1.6 Common dolphin stock assessment

An increase in the abundance estimate for common dolphins resulted from improved survey coverage and the use of a g(0) correction. Surveys for common dolphins do not include the entire range of the species in the NW Atlantic. The AOCTRT has expressed concern that surveys have only been conducted during the summer (see below). Because some mortality occurs during the winter, it would be useful to conduct surveys during other seasons. It is possible that winter fisheries may impact a different stock than the summer fishery, so information on stock structure is required urgently.

The ASRG noted that in 1996 observers were not placed aboard three driftnet vessels, of a total of 15 participating vessels in the fishery. This is an issue that needs to be corrected in the future, so that there is 100% observer coverage in this fishery.

Additional information needs to be provided regarding mortalities of common dolphins in the groundfish otter trawl fishery. The SAR should specifically note how the estimated mortality was calculated for this fishery. The NEFSC will add language indicating that as NMFS finds out additional information on the level of take and the locations and prosecution of the fishery, this mortality estimate may change.

2.1.7 Bottlenose dolphin - western North Atlantic offshore stock assessment

Based on the revised assessment, this stock also changes status from strategic to non-strategic. Jim Mead noted that, based on morphometry, there may be two stocks of offshore bottlenose dolphins. The ASRG recommends that the SAR reference the recent LeDuc & Curry paper on this issue presented to the Scientific Committee of the IWC, and that this and other relevant papers be circulated to the SRG. The ASRG recommends that

this stock change in status from strategic to non-strategic, but also recommends that a new assessment be prepared next year.

2.1.8 Bottlenose dolphin - Atlantic coastal stock assessment

The SEFSC conducted an abundance estimate of bottlenose in 1995 from an aerial survey platform. The new estimate is considerably higher than previous estimates but the PBR remains unchanged due to uncertainties regarding stock structure and potential overlap in the distribution of coastal and offshore forms. The ASRG reiterated that aerial surveys are a very poor way to assess the abundance of this stock. The SEFSC indicated that the 1998 vessel survey is designed to run transects perpendicular to the shore and that planned biopsy work would be conducted as part of this program to address the issue of potential distributional overlap between coastal and offshore bottlenose dolphins.

The ASRG strongly recommends that the stock issues surrounding bottlenose dolphins be addressed by the agency. Both the coastal/offshore stock question, and the longshore coastal stock question need to be addressed as a matter of high priority.

The ASRG recommends that this SAR needs to include a Table 1 as required by the revised guidelines. Furthermore, the ASRG recommends that the mortality information in the SAR be consistent with other NMFS sources of information (SER stranding information, F/PR logbook information). The SRG recommends that NMFS obtain observer data on takes of bottlenose dolphins from state fisheries agencies in Virginia and North Carolina. Futhermore, the SER/SEFSC should coordinate with LSU to obtain information on takes observed in the Louisiana menhaden purse seine fishery.

2.1.9 Harbor porpoise stock assessment

The ASRG noted that language regarding experiments and experimental fisheries using acoustic alarms needs to be consistent within the SAR. In 1995, there was no scientific experiment investigating pingers, but rather an experimental fishery using these devices was conducted. A continuing problem is that we do not understand why pingers work at some times and in some areas but not others.

The ASRG noted that the four decomposed harbor porpoises observed in the coastal gillnet fishery could have been dead prior to entanglement. The ASRG again drew attention to the large inter-annual variance in abundance estimates in the Gulf of Maine. Debbie Palka noted that harbor porpoise

abundance seems to be correlated to the seasonal/annual abundance and distribution of herring in the Gulf of Maine.

2.1.10 Minke whale stock assessment

The SAR should include a Table 1.

3. **Harbor Porpoise Take Reduction Plan**

Kevin Chu briefly summarized the Take Reduction Plan (TRP) developed by the Gulf of Maine/Bay of Fundy Harbor Porpoise Take Reduction Team (TRT). The plan uses a combination of seasonal time-area closures and acoustic deterrents (pingers) to reduce mortality to levels predicted to be below PBR. The consensus plan also includes recommendations for research and outreach to the sink gill net industry.

Since the plan was adopted, the New England Fishery Management Council (NEFMC) has proposed a change to the system of closures agreed to by the TRT, so that the closure to the sink gill net fishery in the mid-coast area recommended for the fall has been moved to May. The mid-coast area is now open to sink gillnet fishing all fall (September through December), provided that pingers are used on all nets. In addition, an experiment will be conducted in spring 1997 to examine the effectiveness of pingers, with a mortality cap of 50 animals.

The ASRG expressed particular concern that not all components of the TRP research recommendations outlined in the consensus plan are slated to be funded in FY 97 by the NMFS. In particular, research components on the potentially adverse effects of acoustic deterrents on other marine species and on the potential for habituation to deterrents by harbor porpoises are not currently proposed to be funded. The ASRG noted that the value of the consensus plan produced by the TRT is severely compromised if all research recommendations are not given equal weight.

The ASRG further noted that the executive summary of the TRP states that consensus on the plan is only valid if the following occurs:

"1) that this regime is recommended only for year one; 2) that an experiment be conducted on pinger effectiveness in the mid-Coast area to reduce harbor porpoise bycatch in the spring and that the experiment be conducted based on another similar experiment conducted in 1994; and 3) that research on the effects of pingers on harbor porpoises, and other marine life, be conducted at the same time, and that research on potential harbor porpoise habituation

be initiated."

It is the opinion of the ASRG that if the research recommended in the TRT is not conducted, the consensus agreed to by the TRT is voided. Overall, there was considerable discontent that recommendations or requirements developed by this Take Reduction Team was not addressed at the MMPA review panel meeting. The ASRG strongly recommends that, in future, funds be allocated "off the top" to support research required by Take Reduction Plans. A letter to this effect will be sent to relevant agency leaders.

4. **Survey & Mortality Estimation Plans For FY97 and Beyond**

4.1 NEFSC

Gordon Waring reported that the major offshore abundance survey has been postponed to FY98 to coordinate with SEFSC. There may be up to 45 days of ship time available in FY97 - to conduct surveys of seamounts for humpback whales, beaked whales, and sperm whales and to collect biopsies. Whether a necropsy cruise is worthwhile will depend on the results of the AOCTRT. The ASRG recommends that any surveys planned for the summer of FY97 focus on biopsy collections from common dolphins, pilot whales, and bottlenose dolphins. The necropsy cruise should also enable researchers to obtain biopsy samples from animals and apply satellite tags to animals (such as those entangled and released in pelagic longlines) should the opportunity arise. The ASRG welcomed the news that NEFSC will be funding harbor seal and gray seal aerial surveys in FY97.

4.2 SEFSC

SEFSC will perform aerial and shipboard surveys in the Gulf of Mexico funded by Minerals Management Service. SEFSC will also be conducting regional aerial surveys in Gulf of Mexico offshore, shelf and coastal waters. Site-specific bottlenose dolphin photo-id monitoring was not recommended for funding by the MMPA review panel. The SEFSC proposal to address Atlantic coastal bottlenose stock structure was funded. The ASRG observed that information on interactions between marine mammals and the complex of mid-Atlantic coastal gillnet fisheries is currently insufficient to develop meaningful plans for reducing bycatch in this fishery and that NMFS is currently not collecting information that will allow the Take Reduction Team to address this issue. The SRG will outline its concern in a letter to Andrew Rosenberg, Andrew Kimmerer, Bradford Brown, Michael Sissenwine, and Rollie Schmitten.

5. Concerns Arising From Offshore Cetaceans TRT

The ASRG reviewed a letter from Dr. John Hoey (National Fisheries Institute), a member of the AOCTRT, to Doug Beach (NER). In the letter Dr. Hoey expressed his concern that data limitations could hamper the ability of the AOCTRT to fulfill its mandate. In particular, Dr. Hoey expressed concern about the following items that are relevant to the work of the ASRG: (1) estimation of serious injury and mortality in pelagic longline interactions, (2) the validity of abundance estimates for common dolphins and pilot whales, (3) the potential for abundance surveys sponsored and perhaps funded by the fishing industry, and (4) choice of procedures for estimating mortality in the pelagic longline fishery. The SRG deliberated on these issues, as described below.

5.1 Estimating serious injury and mortality in pelagic longline interactions

The ASRG recommends that working representatives of the pelagic driftnet, lobster, longline, and pair trawl fishery be invited to participate in the serious injury workshop to be convened by NMFS early in 1997. Joe DeAlteris and Bob McKinnon volunteered to attend from the ASRG.

5.2 Abundance estimates for common dolphins and pilot whales

The SRG recommends that the NEFSC and SEFSC undertake abundance surveys for common dolphins and pilot whales during seasons in which fisheries operate but for which we do not currently have abundance estimates (e.g. fall, winter and spring).

5.3 Industry-sponsored abundance surveys

The ASRG discussed the use of video cameras by fishers to document marine mammal abundance or trends. The ASRG noted that commercial fishers could use video cameras to document marine mammal sightings, but does not believe that industry-collected sightings would be useful in computing alternative estimates of Nmin. However, industry-collected sightings may be useful to determine distribution of animals (for survey planning purposes) or for seasonal changes in group sizes.

5.4 Review of mortality estimates in pelagic longline fishery

The ASRG recommends that additional clarification be provided by NMFS regarding the issue of takes of pilot whales outside the US EEZ.

6. Response To ASRG From Dr. Andrew Rosenberg re: NEFSC Staffing Needs

Staffing needs are a concern at both the NEFSC and the SEFSC. Both Larry Hansen's position and Ben Blaylock's positions are currently vacant. The ASRG agreed to send a letter to the SEFSC/SER requesting that these two vacancies be filled.

7. Other Business

7.1 Letter from Humane Society of the U.S.

The ASRG received a letter from HSUS expressing concern about the potential effects of acoustic harassment devices on marine mammals, their prey, and the marine environment. HSUS recently sent a letter to NMFS asking for an EIS on these harassment devices and also requesting that the Service issue incidental take permits for users (primarily aquaculture operations in the Gulf of Maine). The ASRG noted that the Olesiuk et al. study in British Columbia indicates that these devices will exclude harbor porpoises from a radius of 3.5 km from the sound source and that effects on other non-target species should also be expected. The overall effects of acoustic harassment devices on marine mammals and their environment are unknown. The ASRG encourages research to address the impacts of these devices on marine mammals and their environment, and that suggests that these devices not be used widely until such impacts have been assessed.

7.2 Right whales

The ASRG offered to assist with the section 7 consultation process for right whales by reviewing documents or providing information to NMFS.

7.3 MMPA funding review panel process

The ASRG firmly believes that the funding review process would greatly benefit from outside peer review and the participation of external scientists, who do not have a stake in the outcome of the funding process, in the funding allocation process. The ASRG also believes that if available funds are insufficient to support components of a TRP, this fact needs to be made clear during the TRT negotiation. The ASRG further believes that NMFS should be more proactive in designing research proposals that address the needs of the Take Reduction Teams and research recommendations made by the SRGs. Finally, the SRG recommends that NMFS consider funding comprehensive proposals that address a number of inter-related issues critical to the stock assessment and take reduction processes.

7.4 New spokesperson for the ASRG

Andy Read noted that no formal process exists to rotate the position of spokesperson for the ASRG. The ASRG should start considering a process for replacing the current spokesperson in the event that he is no longer able to serve or if the ASRG wishes to replace him.

7.5 Other items

NEFSC/NER and SEFSC/SER should plan to submit a list of proposal titles and a brief description of each proposal to the ASRG meeting in mid-May. New Orleans is the planned site of the next ASRG meeting. Precise dates will be identified via email.