

Minutes of the Atlantic Scientific Review Group Meeting Agenda

**Ocean Technology Center, University of Rhode Island, Narragansett, RI
14-15 November 2001**

The fall 2001 meeting of the Atlantic Scientific Review Group (ASRG) was convened at 8:30 AM on Wednesday November 14, 2001 at the Ocean Technology Center, University of Rhode Island in Narragansett, RI. The agenda for the meeting is shown in Appendix I, participants in the meeting are listed in Appendix II, and working papers are listed in Appendix III.

Day 1 - Wednesday, 14 November 2001, 8:30 AM

Welcome

Opening remarks were presented by Randy Wells (Chair, ASRG), Richard Merrick (Chief, Protected Species Branch, NEFSC) and Robert Kenney (Graduate School of Oceanography, URI). It was announced that Solange Brault would review seal assessments, as Jim Gilbert who could not attend.

Introduction of new members

Two new members, Bill Lang (Minerals Management Service) and Rich Seagraves (Mid-Atlantic Fisheries Management Council) were introduced. Robert Kenney was recognized as the new ASRG Chairman for 2002.

Summary of previous recommendations, responses

A summary of the recommendations/responses from November 2001 ASRG meeting were circulated. The coastal bottlenose dolphin draft 2002 stock assessment report (Working Paper -1 [WP-1]) was also distributed. Comments from the ASRG about the Bottlenose Dolphin Take Reduction Team were distributed. Discussion of bottlenose dolphins was deferred to later in the meeting.

GENERAL ASSESSMENT ISSUES

Survey results

MMS-sponsored Sperm Whale Behavior Response and Assessment Program (SWAMP)(Swartz) (WP-2, WP-3)

The main objective of SWAMP was to address interaction of energy resource development (oil rigs) and resident sperm whales in Gulf of Mexico. The program was sponsored by the Minerals Management Service under an inter-agency agreement between the Service and SEFSC to develop passive acoustic methods to detect and track the movements of sperm whales, and to obtain recordings of ambient noise in areas utilized by sperm whales. Assessment surveys for sperm whales were to begin during the second year of the program, but were not implemented. The program was to establish a baseline of interactions and to develop new technology, i.e, tagging, passive acoustic detection, survey techniques to study effect of anthropogenic noise on sperm whales and other marine mammals. The platform used was the NOAA ship *Gordon Gunter*. Research activities involved collaboration with other institutions and

agencies and included: detecting and tracking sperm whales with a hydrophone array and sonobuoys (SEFSC), satellite tagging (Oregon State University) and time/depth/movement/acoustic tagging (Woods Hole Oceanographic Institution), biopsy sampling, and photo-id work (SEFSC). ASRG asked about results of the survey program and also about $g(0)$ in the studies. SEFSC stated that the first year of the program was not designed to estimate abundance of sperm whales and there were no new results of the Gulf of Mexico acoustic/observer survey to report in the stock assessment report because initial work consisted mostly of research and development of equipment and techniques. Further work by the SEFSC of $g(0)$ will be addressed by Lance Garrison later in the meeting.

The interagency agreement between the Service and SEFSC was terminated in October 2001 and the SWAMP program ceased. The SEFSC is seeking alternate sources of support to continue with the assessment surveys for sperm whales in the Gulf of Mexico. A report of preliminary results is to be presented at the Biennial conference and at other information transfer meetings. NMFS reports to MMS are due out in 9-10 months.

Navy-sponsored acoustic/visual surveys for cetaceans in Puerto Rico (Swartz) (wp-2, wp-3)

Under an interagency agreement between the Office of the Chief of Naval Operations and the SEFSC the Navy provided SEFSC with resources to do systematic surveys for marine mammals in Puerto Rico and Virgin Islands. Objectives were to test acoustic ranges, conduct visual and passive acoustics surveys for humpback whales and other cetaceans, collect recordings of species-specific vocalizations using the NOAA ship *Gordon Gunter* as a platform. Calibrations were done off Andros Is., Bahamas. Some transect lines to the north, east, and south of Puerto Rico were re-routed to avoid active military operation in those areas. As a result, the original survey design could not be completed in its entirety. DIFAR sonobuoys and towed hydrophone arrays were used to collect data simultaneously with visual line transect surveys. Pop-up bottom recorder devices (no directional capability) were also deployed for long-term recording of sound and collected ships sounds with biological sounds imbedded in data. All data were fed into a lab on board the *Gordon Gunter*. Acoustic monitoring of 135 sonobuoys along 6,044 km of trackline produced mostly detections of singing humpbacks. Many Atlantic "thump trains", presumed to be minke whales, were heard. However, no minke whales were visually sighted. There were a few sperm whales heard. Multiple humpback whale acoustic detections indicative of dense concentrations of whales were noted in areas not previously described in the literature. These new areas of humpback concentration included the north and east of the virgin islands in deep waters, off the south and south east coast of St. Croix, off the south west corner of Puerto Rico (i.e. Cabo Rojo), off the eastern tip of the Dominican Republic at Cabo Engano in the Mona Channel. Discussion ensued about correlating acoustic and visual data (i.e., a $g(0)$ for acoustic detections) and also about abundance estimation of females vs. males.

Percussive, explosion-like sounds were also recorded and believed to be related to the ongoing military exercises in the area at the time of the survey. Commercial shipping noise was also recorded in most of the areas surveyed. Species-specific acoustic signatures are being archived in an acoustic signal catalogue for site specific species identification of sounds. This work is being conducted in collaboration with Dr. William Watkins (WHOI). Limited resources and personnel are available for post cruise analysis of acoustic and visual data and SEFSC hopes to hire full time personnel to analyze these and other survey data in the future. The ASRG asked if the USN would provide support for these analysis. The joint program is with the operational USN and not with the Office of Naval Research, and as such, they do not have the expertise to assist in the analyses. Some of the ASRG was concerned that the use of NMFS funds was appropriate to support analyses of data for the USN.

Mortality estimation

New bycatch estimation protocol (Palka) (WP-4)

The general methodology used in these analyses can be used for all cetacean species and is especially useful for those species with small data sets. The method is also useful for dealing with sub-fisheries. The ASRG asked about stability of estimates for future analyses and a discussion followed about sensitivity analysis, unobserved mortality, how often to re-parameterize catch rate, etc. Concern was expressed that for some fisheries, just one mortality could make a large difference in the bycatch estimate. This makes the method quite volatile. D. Palka will write a short memo to outline the estimation model and send it to ASRG members.

Report on analyses of logbook and other data used to estimate mortality (Garrison) (WP- 5)

The Florida shark gillnet fishery was analyzed in response to ASRG concerns about effort estimation and scaling of bycatch rates by fishery effort. All the data information comes from two sources; dealer/port landings and vessel log books. Log books are self-reported and are therefore more variable and subject to bias. Landings data is more accurate than logbooks, but contain little information about effort. It was noted that Palka and Rossman (NEFSC) use logbook and observer data to spatially prorate the landings data to calculate bycatch in Northeast sink gillnet fisheries. Yeung (SEFSC) uses only logbook data to calculate the Atlantic pelagic longline fisheries bycatch. Garrison characterized the Southeast shark gillnet fishery, which uses long driftnets with large mesh, as having a small number of active participants and a limited amount of observer coverage during Jan - Mar . During periods where observer coverage approached 90%, the number of trips observed exceeded the number reported to the logbook program indicating significant under-reporting of effort in the logbooks. The total number of trips reported to the logbook program is generally lower than that recorded in the landings data, however the total amount of sharks landed is similar between the two datasets. Logbook data is the only source of spatial information, however the magnitude of effort reported is questionable, and recording of gear characteristics is spotty. A representative observer program is needed to test the utility of logbook information and some oversight of logbook reporting would be helpful. Rich Seagraves (MAFMC) commented that the Loligo fishery experiences the same difficulty of incomplete data with insufficient funding and support to analyze it all. Perhaps it would be useful to revisit the logbook requirement and make it simpler to fill out. The ASRG suggested that data on the VTR logs should be compared to the same trips that were sampled by the NEFSC fishery sampling program. NEFSC staff stated that this is difficult to do because the VTR logs are not easily identifiable for each observed trip. The NMFS database should be required to supply a common identifier for all elements of the commercial fishing effort database. It was stated that fishery management councils might help push this issue. A discussion began about the use of more advanced reporting techniques (e.g., vessel monitoring systems, handheld PCs) as a possible solution. This is already common with some fishers (e.g., Northeast scallop boats are required to carry VMS) , however, it's the smaller vessels that are the problem. A recommendation was written to suggest changes in reporting procedures.

LUNCH BREAK - 12:30 to 2:00 PM (ASRG Committee members conducted a closed meeting)

Update to List of Fisheries (LOF) (Thounhurst)

LOF is an annual inventory and cataloguing of fisheries. Main NE changes that are:

1. The Squid, Mackerel, Butterfish (SMB) fishery was moved to Category 1;
2. Category 2 now covers all the trap pot, weirs, red crab pot, and pound net fisheries.

3. Any direct net fishery is now listed as Category 2.

The pelagic drift net fishery has been removed from the list. NEFSC staff were concerned that it should remain listed as some remnants still are active and it might be important to place observers aboard.

The SEFSC list for 2002 would like to bring all pot fisheries into Category 2. There was concern expressed about the introduction of new fisheries and basing them on analogy. This seems dangerous and ASRG should re-iterate policy in the regulations stating that any new fishery should come in initially as Category 2 and then reviewed after it has been established. It was noted that the blue crab fishery has not been re-categorized, which is a concern because of manatee and bottlenose dolphin takes in the fishery. NEFSC staff stated that gillnet fisheries are divided into 4 categories (by gear type) and this may be difficult to match to effort.

Take Reduction Team (TRT) activities and plans

Bottlenose dolphin (Wang)

The Bottlenose Dolphin Take Reduction Team meeting included mostly ground rules and meeting structure. Major topics of discussion included: Who reviews the stock assessments and what are their qualifications? What is the explanation for 2 different PBRs (North and South areas)? The ASRG agreed to conduct a side meeting to address questions by TRT before the next meeting in January 23-25, 2002.

Harbor porpoise (Thounhurst)

The initial 1998 Harbor Porpoise Take Reduction plan is still in place with the addition of a line in Delaware Bay. The team is working on a definition of the long-term goal of the plan. There was much discussion about gear modifications- reflective nets to be field tested in North Carolina.(under contract) and also about the need for enforcement in the Northeast. NEFSC stated that there are currently 3 proposals for tests of gear modifications but all are inadequately prepared and collaboration with experienced scientists is needed. Various solutions were discussed including more feedback through pre-proposals or better defined RFPs. NEFSC staff suggested that TRT should form a subgroup to help craft proposals and therefore avoid the conflict of interest that would arise out of NMFS providing this support. There is concern that fishermen will exert political pressure and do the experimental fishery anyway. Discussion arose about Magnuson closures vs. MMPA (harbor porpoise TRP) closures and the difficulty of conducting a reflective net experiment or any experiment under current TRP.

The Zero Mortality Rate Goal (ZMRG) was briefly discussed and NMFS staff stated that it is still being considered just a working definition. Young stated that fishermen are looking to eliminate ZMRG and use PBR instead. Merrick noted that discussions had begun about the future role of the Harbor Porpoise Take Reduction Team should the present low level of bycatch remain stable.

NEFSC raised concern about observing the Squid-Mackerel-Butterfish trawl fishery. Funds from FY01 were re-directed to the longline fishery. Attempts will be made to secure funding in FY02 to observe this fishery.

The ASRG asked whether it would be more efficient to focused the bottlenose dolphin TRT just on "trouble spots"(e.g., Carolinas and Virginia)? NMFS had considered this approach but decided it best to include the entire region and then give power to the Team itself to focus the studies.

Report on developing a science plan for Puerto Rico and the Virgin Islands (Swartz)

SEFSC is still seeking support to implement a regular program to assess the status of marine mammals in Puerto Rico and adjacent waters. Until such program support is available, the SEFSC staff continues a dialogue with researchers and marine resource managers in Puerto Rico on development of such a plan for the future. SEFSC continues to participate in numerous protected species activities and programs in Puerto Rico including a coral reef initiative, sea turtle conservation and management. The SEFSC may be able to incorporate marine mammal studies into these programs. The USN recently requested proposals for research in Puerto Rico to establish a "baseline" database on the status of all living marine resources in Puerto Rico before U.S. military withdrawal which is scheduled for 2003.

Plans for NMFS SE and NE marine mammal activities in 2002 (Merrick/Swartz/Garrison)

NEFSC - Funding for a harbor porpoise survey by NMFS is undetermined. Palka has been invited to meet with Canadians to discuss possible participation in their survey of the Gulf of Maine/Bay of Fundy. A Scotian Shelf survey for humpback and right whales is planned. Planned aerial surveys include right whale photogrammetry, continuation of Northeast right whale distribution surveys and Sighting Advisory System (SAS) flights. Seal surveys will continue and gray seal genetics work is scheduled this coming year by a PhD student. NEFSC will begin a sperm whale tagging project but most of the major effort will be in the right whale program. Economics studies are also now being done. The ASRG asked about "holes" in information about migration movement and a possible survey during fall/winter in Jeffery's Ledge area to see what, if any, right whales remain. NMFS stated that a NOAA twin otter has been assigned permanently to the east coast which will make this fall/winter work much more likely in 2002.

SEFSC (WP- 6) - Critical survey needs for the Mid-Atlantic bottlenose dolphin stock identification and mortality estimation program which the SEFSC hopes to address in FY02 include: 1) Mid-Atlantic bottlenose dolphin aerial surveys in the winter on the continental shelf from Florida north to the Chesapeake Bay, 2) summer survey for Mid-Atlantic bottlenose dolphin from Florida north to New Jersey, 3) update Mid-Atlantic bottlenose dolphin abundance estimates based on the results of the winter and summer aerial survey to replace the existing estimates which are based on incomplete surveys and are 8 years old, 4) development of g(0) correction factors for all SEFSC aerial and vessel surveys, and 5) develop a better definition of the habitat boundary between coastal and offshore types of bottlenose dolphin.

A vessel survey of the Mid-Atlantic will be supported under an interagency agreement with the chief of naval operations and the SEFSC. This survey will be conducted in February and March 2002 with primary goals of: 1) conducting Mid-Atlantic visual line transect survey for marine mammals to obtain abundance estimates, 2) development of passive acoustic methods to detect marine mammals that are not seen by visual observers, and 3) collection of biopsy samples.

The group then discussed proposed approaches to these surveys. Discussion arose whether it was appropriate to do a dedicated but separate survey to obtain a g(0). Palka strongly recommended against it stating that it must be specific to each survey. The use of 2 separate teams on one plane was discussed and SEFSC staff were concerned that observers cannot observe from the plane's belly window but plan to use a camera. NEFSC staff stated they often place visual observers in the belly window and have successfully conducted 2-team aerial surveys. They found use of a camera in the belly to be ineffective. NEFSC staff then suggested SEFSC consider a survey design involving 2 independent teams on a single platform with

a belly observer. Discussion then arose about location and stratification based on habitats of bottlenose dolphins. Strip transect design along the coastal area is most likely to be used with an attempt to determine edge of inshore/offshore bottlenose dolphins habitat. SEFSC has also proposed the survey of oceanic waters summer survey in June-August 2002, with support from the USN, to get increased coverage of sperm whale habitat with passive hydroacoustic testing, biopsy and photo-id work.

SEFSC will also conduct a January-February right whale survey in the Mid-Atlantic

Stock-specific issues and assessment reports

Mechanism for MMPA-required annual review of strategic stocks (not necessarily update), and acknowledgment that this has occurred (Wells/Young)

The ASRG asked about the delay in updates of Gulf of Mexico stocks. The SEFSC replied that there have been no recent dedicated surveys for marine mammals owing to a lack of support for such surveys. Last year the SEFSC hired two senior staff (one in Pascagoula and one in Miami) who will be working on developing revised population estimates for Gulf of Mexico marine mammal species based on existing information from non-directed surveys (i.e., ichthyoplankton surveys) that carried marine mammal observers. The SEFSC expects to have new information for the SARS in late 2002. The ASRG stated that there should be some indication in the SAR, if only a few lines, to show that there is work in progress. A discussion then ensued about types of documentation considered legitimate for use in the SAR. In addition to major publications in scientific journals and magazines, NOAA-NMFS laboratory reference documents, Tech. Memos, reports of workshop proceedings, papers and abstracts (e.g., IWC, ICES), contract reports, etc. are all considered acceptable for use in the SARs. The ASRG will make a recommendation that strategic stocks (e.g., Gulf of Mexico stocks) are not being updated in a timely fashion and new assessment data should be made available and shown in updated SARS.

North Atlantic right whales

Status of the ALWTRP and associated rule making (Borggaard)

The Atlantic Large Whale Take Reduction Plan was last updated in 2000 and addressed gillnet and lobster gear restrictions to reduce right whale entanglements. During the past year, NERO has prepared Biological Opinions for 4 FMPs (multispecies, dogfish, monkfish, and American lobster). All concluded with a jeopardy opinion under the ESA, and as a result a number of Reasonable and Prudent Alternatives were proposed to remove jeopardy. Crucial to these were additional modifications to the ALWTRP. This included additional gear modifications as well as Seasonal and Dynamic Area Management. Final rules (3) to implement these actions will be published ca. 31 Dec 2001.

Rationale behind design of SAM zones (and DAM) (Clapham)(WP-7)

(MS available on internet at: <http://www.nefsc.nmfs.gov/nefsc/publications/crd/crd0114/0114.htm>)

The point of the Dynamic Area Management (DAM) analysis conducted by the Center was to determine what sighting trigger should be used to invoke area closures to fisheries. The rationale is to look for concentrations of animals that are present for an extended amount of time (foraging) and determine how much of a buffer would have to be placed around aggregation to be robust. The analysis found that when 3 or more right whales are found aggregated at a density of 0.04 whales/nm², it will “trigger” a closure

(all gear pulled) for 2 weeks and be extended, as needed, in 2-week intervals (see Clapham and Pace 2001 for details).

DAM is to be used in areas or times in which right whale concentrations cannot be predicted. Seasonal Area Management (SAM) deals with areas where right whales are known to concentrate. It is proposed that SAM will be used in the area from Cape Cod east to Hague line from March through July.

The ASRG asked about animals in the SAM area before March. NEFSC replied that SAM was designed with the idea that foraging whales are at a greater risk of entanglement than those in transit and, most likely, animals sighted in March would be in transit. While conducting its aerial survey work, NEFSC will try to better evaluate inter-annual occurrence of animals for determination of SAM.

Progress on new abundance estimates (through 1999-2000) (Clapham)

Based on the recommendations from the IWC North Atlantic right whale status and trends workshop, the NEFSC concluded that it would be more useful to monitor population survival rather than trying to determine an exact population count. A new survival estimate is expected by the end of the year.

There was discussion of this summer's digital tagging work on right whales by WHOI (Tyack and Nowacek). Clapham briefly described the various types of data that collected using the DTAG.

New aerial survey design (Merrick)

The NEFSC will assume duties for all the NMFS right whale aerial survey effort beginning in January 2002.

Ship Strike report recommendations and discussions (Merrick)

A report was submitted to NMFS by the NEIT/SEIT (Russell and Knowlton coauthors) which details their recommendations on how best to reduce ship strikes of right whales along the east coast. The recommendations generally focused on ship speed restriction and re-routing of traffic. The ASRG discussed the implications of a multi-agency approach to dealing with ship strike. Valade praised USCG's role in the manatee protection program.

Ship reporting system data, implications for critical habitat re-evaluation (Wang)

A report of the first year + of the Mandatory Ship Reporting System should be available shortly from F/PR. One important finding is that there has been low compliance in the Southeast, but better in Northeast.

Results of mid-Carolina aerial surveys, EWS surveys in Florida and Georgia (Swartz/Wang)

The 2000-2001 survey work (conducted in December through March) was completed by the States of Georgia and Florida, NE Aquarium, and UNC Wilmington. The UNC survey covered the Mid-Atlantic region from Georgia north to Cape Hatteras area twice in a 25-day time span. A table was shown of sightings data and a question arose about 2 separate sightings of same mother/calf pair on the same day on same track. Swartz will check on this. The final contract report of these surveys states that "four mother/calf pairs were observed" and photographic data indicated that these were four distinct females each with a calf of the year.

Preliminary results of FMRI analysis of winter right whale distribution and ship traffic patterns in the SE Critical Habitat (Swartz)

Leslie Ward (FMRI) did a GIS analysis based on the right whale aerial survey and the ship reporting system. One particular area located southeast of Jacksonville, FL was described as a “hotspot” showing a heavy concentration of ship traffic and right whale sightings in the area. The PowerPoint presentation (which was given in Ward’s absence), showed vessel traffic, speeds, hot spots, points of entry into shipping lanes etc. A complete report of this research will be provided to the southeast right whale recover implementation team and also at a future ASRG meeting.

North Atlantic right whales SAR chapter (Kenney/Brault)

1. ASRG commented that maps in SAR are not very useful. They are too small, and show only a few sightings. A full page map for critical animals with other data in addition to abundance would be useful. ASRG and Center staffs need to discuss this further.

Humpback whales

Continued high levels of mortalities in the Mid-Atlantic (Clapham)

Clapham circulated paper submitted to IWC about this (Barlow et al.). There have been 54 humpback whale deaths in the Mid-Atlantic in the past 10 years. Many resulted from human interactions and notably, ship strikes (39 cases were CBD). Limited data available on stock ID of the takes suggests most in takes in the Mid-Atlantic were Gulf of Maine animals though a number could have been from other Canadian stocks . Many of these animals were likely juveniles, but could have been small adults. ASRG suggested more genetic data were needed to separate the stocks (assuming there are sufficient markers to uniquely identify stocks and not a difference in the allele frequency). ASRG asked whether it would be useful to continue or expand the photo-id efforts? Staff responded that most of the photos came from close to shore. So there is a need for vessels to get IDS of animals that are farther offshore. SEFSC noted they may be able to do some photo-IDS of humpbacks during their summer offshore ship survey. ASRG will draft recommendation about dead animals should be ID’d and should continue photo-id efforts.

SAR chapter (Kenney)

1. Table 2 and text do not correspond. (WP-8)
2. Abundance estimate method changed from whole ocean to Gulf of Maine. Should describe it.
3. Add map with sightings from recent abundance survey
4. In fishery section, 2 mortalities in SE are noted, but they are not added into the SE total mortality estimate. Why? .
5. Dropped out impact due to mid-Atlantic strandings in mortality estimate because they could be takes from several possible stocks, but in harbor porpoises the mid-Atlantic takes are added to mortality to Gulf of Maine HP stock. So, suggest say there are mortalities in mid-Atlantic and some are not of the Gulf of Maine humpback whale stock. Maybe combine columns in table 3 and just say takes from multiple stocks.

Blue whales

SAR chapter (Kenney)

1. In Table 1 summary of whole report, under blue whales, there was a revision, which is changes in text. Check summary table so it is correct in all columns.

2. Change date of revision, since there were some changes.
3. Do not put in abundance estimates that are unreliable (e.g., Sear's new number), just add the comment in the text.

Fin whales

SAR chapter (Kenney)

1. Nothing

Sei whales

SAR chapter (Kenney)

1. Nothing

Minke whales

SAR chapter (Kenney)

1. Table 2 the term observed needs to be modified.

Sperm whales

SAR chapter (Mead)

1. Table 1, check sums are correct.

SAR - in general

1. The new summary table of strandings with entanglements and ship strikes should be added as an appendix to the SAR, when all the numbers correspond to the numbers in the chapters (WP-8)
2. Table 1, summary check sperm whales, check all species.

DAY 2 - Thursday, 15 November 2001, 8:30 AM

Status of budgets (Merrick/Swartz/Menashes/Wells)

Congressional budget includes \$2.00kk for bottlenose dolphin work with \$750k for study of the Gulf of Mexico stocks, however these funds will not come to NMFS but go to the Gulfarium Aquarium in Mississippi (M. Solangi) and to the Chicago Zoological Society/Mote Marine Laboratory (R. Wells). The SEFSC hopes that these organizations will undertake research on bottlenose dolphin that is directed at information needs identified at the 2000 workshop on research needs for Gulf of Mexico bottlenose dolphin. An additional \$1.25kk will be available for NW Atlantic research surveys, staff, etc. \$4.35kk in right whale funding comes to NMFS to divide between the 2 regional offices, the 2 science centers, and HQ. The NE and SE will receive \$500k each to be divided between their region and science center. NEFSC hopes to secure additional money for porpoise and pelagic delphinid assessments, to hire an additional bycatch analyst, for sperm whale tagging, for harbor porpoise analyses, and for seal studies. Additional funding for observer coverage, especially for squid-mackerel-butterfish trawl fishery and for the Mid-Atlantic gillnet/trawl fisheries, is possible.

SEFSC will continue their stranding program, genetics work, which are base funded. The SERO and SEFSC agree to spend \$180k of their \$500k to support the winter aerial survey for Mid-Atlantic bottlenose dolphin and will request additional funds to support the complementary summer aerial survey. This second aerial survey and additional the collection and analysis of additional genetic material for bottlenose dolphin will exceed \$750k in FY 2002, thus, the SEFSC and SERO will request additional funds from F/PR to support these activities needed for the take reduction team process in the Mid-Atlantic. There currently exist no funds for survey work in the Gulf of Mexico in FY 2002.

ASRG asked about base funding and priority given to SAR preparations? Travel costs for ASRG meetings are the main budget issue. The time frame for annual SAR preparation and publication was also discussed.

Suggested improvements to SARs (letter from Dr. James Hain)

The ASRG briefly discussed a letter from Dr. James Hain requesting that additional information (e.g., density estimates from surveys) be included in the SARs. The ASRG concluded that SARs were not the appropriate repository for such information.

Florida Manatee Recovery Plan and manatee status (Valade) (WP 9, WP-10)

Copies of the Florida Manatee Recovery Plan were handed out. (Also available on FWS web-site). The objective of this (and all other Recovery Plans) is to de-list the species. However, there has been much controversy over population bench marks used in the listing criteria (ASRG for one disagrees with final approach and values).

A manatee workshop is scheduled in April to discuss assessment of and status of the population (4 sub-groups). The Atlantic coast population may be stable or possibly declining. Public interest is at all time high. The Florida Coastal Conservation Association has requested the Florida Fish and Wildlife Commission to reevaluate the status of manatees as a protected species, and the State has agreed to do so. ASRG will draft a letter to FWS expressing concern.

The FWS budget was then described. Dept. of Interior has gotten their budget and there is a \$1.0KK add-on for manatees. Last year's add-on was used mostly for law enforcement. Proposals included: Provide support to Sirenia project, population workshop, address warm water issues (power plants), rescue/rehabilitation program, fishing gear interactions. FWS is expecting their own Stock assessments to be coming out soon and would like SRG review comments. If possible, it could be included in the draft 2002 SAR when it goes out for public comment.

Atlantic coastal bottlenose dolphins

Research and analysis plans, including review of recent biopsy effort (Hohn) (WP -11)

Wang stated that the Conservation Plan is on hold in HQ until the stock assessment is completed. However, the TRT is pushing to get the plan finalized.

Proceedings from the Bottlenose dolphin TRT were then reviewed. Dr. Hogarth has requested a review of the assessment by CIE in response to letter (from Mr. Rick Marks) from the Bottlenose Dolphin TRT questioning SAR review process and members. It was agreed that CIE comments will be incorporated into

final draft of 2002 SAR before public review. DeAlteris commented it is worth the small investment now to address these questions and get them out of the way. ASRG members noted that the SARs are public documents and could be reviewed and comments presented to them by any outside source.

Garrison spoke about summer bottlenose dolphin biopsy sampling. Summer shipboard surveys (1997-1999) of the continental shelf and inner slope between Florida and New Jersey have collected approximately 200 bottlenose dolphin biopsy samples. Genetic analysis of these samples indicate that the vast majority of these were from the offshore form and only 9 were from the coastal morphotype. However, these surveys did not include effort close to shore and few samples were from the mixing zone in water depths between 10-40 m. During summer 2001, smaller vessels were used to cover both inshore and mid-shelf habitats from Northern Florida to New Jersey. Sixty-one *Tursiops* samples and approximately 50 *Stenella frontalis* samples were collected and analyzed. The *Tursiops* samples included 40 coastal and 21 offshore animals. A location of 12.14 km offshore was the furthest offshore distance for a coastal animal and 18.47 to 25.34 km was the closest to shore for offshore stock samples. Additional samples are required in South Carolina, and no samples have been collected during winter. The ASRG questioned the possibility of using *Tursiops* data from right whale and turtle surveys but it was noted that data would have a questionable CI. The difficulty of distinguishing *Tursiops* from spotted dolphins was discussed and a concern of how this will be handled during this year's annual survey. It was agreed that not many spotted dolphins are in Hatteras area. SEFSC routinely circles for species confirmation during aerial surveys.

SAR chapter (Read/Mead/Wells/Odell)

1. ASRG asked SEFSC to remove paragraph 1 from WP 1 and treat offshore dolphins as a separate report. Questions arose concerning the offshore bottlenose dolphin stock SAR updates and authorship. Just abundance will change for offshore stock. SEFSC (C. Fairfield) is responsible for authoring both offshore and coastal bottlenose dolphin stocks.
2. ASRG requested that stable isotope work and stock review be officially documented.
3. It was then recommended that this assessment and supporting documents be used as material sent out for the above proposed outside review by CIE.
4. The mortality table numbers need to be checked against what was presented at the TRT.

Stock ID and PBR for Coastal Bottlenose (WP-12)

The group then discussed (at the TRT's request) various approaches to stock and PBR definition. Hohn began the discussion by pointing out the problematic issue of defining abundance of stocks which are in different regions at different times of years and, with some stocks exhibiting migratory activity. As a result it has been proposed to define the stocks for 2 seasons--Winter (Nov to May) and Summer (June to Oct). ASRG raised the following questions: Since stocks mix in winter and mortalities cannot be assigned to specific putative stock, should no more than 46 takes be allowed in winter stock? And likewise, should summer's minimum PBR (9) be used? An alternative approach, presented by the ASRG, would be to treat northern populations (NC, SC, Northern migratory stocks) as being an interim approach while additional/better data are being collected and analyzed. The question arose of which survey is likely to produce clearest representation of all coastal stocks? Summer stocks have been shown to be substocks through genetics, photo-ID etc. and therefore provide the best representation for now. The ASRG agreed that it is best to take the most precautionary approach. ASRG noted that present calculated mortality estimates are based on gillnet fishery takes only and were reminded that the North Carolina through Delaware Bay region is priority area for conducting future surveys.

Ultimately, the ASRG seemed to agree that the summer population study represents the best estimates for an annual calculation of PBR. There is not enough information to break up PBR over areas. The question from a scientific perspective is how to avoid removals from 1 particular stock while meeting PBR. From a management perspective, the question is how to assign PBR to individual fisheries.

Research needed for support of Bottlenose Dolphin TRT (WP-12)

List of needs and time frames was presented including the need for Chesapeake Bay and Delaware Bay to be made Category 3 fisheries and observed for gillnet interactions. It was noted that the TRT is looking to drop some areas from being included in observed fisheries. There was discussion of a gear study done on dolphin pulling strength which might possibly be applied to the right whale study for gear modification. DeAlteris recalls a proposal that was submitted yrs. ago to Al Blott relating to this subject.

Harbor porpoise

Status review (Palka)

The NMFS has reevaluated the status of harbor porpoise and determined that based on the increased abundance and decreased bycatch, there is no need to list the species under the ESA.

Abundance estimation (the 2000-2001 surveys) (Palka)

The NEFSC conducted a pilot harbor porpoise survey during summer 2001 using the NOAA vessel *Delaware II* as a platform. Results suggest that the Delaware II was not a satisfactory platform for such abundance surveys. The R/V Abel- J, a much quieter vessel that has been used extensively in the past, was sold and is no longer available. However, the aircraft appears now to be a more attractive alternative platform.

NEFSC staff has been invited to work with Canadian harbor porpoise survey study.

SAR Chapter (Read/Brault)

1. TRT continue to be concerned about the use of a default recovery factor and rate of increase in the PBR calculation.

Gray seals

Gray seals are now being sighted in Woods Hole waters and there are increased sightings west of Cape Cod. Discussion gray seals counts ensued. Valerie Rugh's study estimates a larger number (600) of pups on Muskegat Island. Animals were sighted further inland, not just along the coastline. There are surveys planned over Muskegat and Monomoy Islands in 2002. A. Read also noted that harbor seals have been replaced by gray seals at Sable Island.

SAR Chapter (Brault) - No comments

Harp seals

There is no evidence of pupping but harp seals continue to be bycaught in the US. The estimated population is 3KK to 7KK animals. There was discussion of the struck and loss data for the seal hunts and its effect on the PBR (50% of mortality not recorded?). Officially, harps are not considered within

OSP. An ICES workshop is to be held in Woods Hole (date undetermined). Brault described the Canadian meeting on advice for management of seal populations and the effect of seals on cod recovery.

SAR Chapter (Brault) - No comments

Harbor seals

Results from 2001 harbor seal surveys (Waring)(WP-13, WP-14)

Main issues discussed were the tides influencing timing of surveys and slide counts strategy. A team of 3 counters was used in 2 separate counts. NEFSC is trying to determine a “g(0)” correction factor for seal population estimates which may be available for 2003 SAR. Almost all seals tagged in Massachusetts were later seen in Maine. Also, stranded seals that were tagged and released from Long Island (Riverhead Foundation) were seen in Maine shortly after their release.

SAR Chapter (Brault)

1. ASRG reviewers commented that population growth rates in the SAR are confusing and figures given in text were confusing.
2. It was recommended that NEFSC consult with pinniped experts on the west coast about handling PBR and population growth rates.
3. Thounhurst asked why ringed seals are not in the SAR (ans: they are extremely rare in this area)

Atlantic white-sided dolphins

SAR Chapter (Wells)

1. Minor edits to be provided directly to the author (Palka).
2. Summary Table 1 should be corrected to show white-sided dolphins as NOT strategic.
3. A comment was made that in Table 3, strandings in Canada were more detailed than USA

Common dolphins

Six common dolphins were taken in Feb. and Mar. in the Loligo fishery and this number is unprecedented. The ASRG requested to see mortality numbers as soon as they are available before the public comment period. Most common dolphin bycatch has been in the Loligo fishery (some pilot whales taken in Illex fishery). Seagraves talked about International Waters (IWP) fisheries or Joint Venture (JV) vessels and asked if there are observers on the IWP vessels. The increased activity in foreign joint ventures (herring fishery) were considered a cause of concern. The issue of observers monitoring the discharge from vessels as a possible attraction to marine mammals was also discussed. Dr. Mead spoke of recent studies that show 2 different species of common dolphin based on morphology with a report coming out soon. ASRG recommends increased observer coverage in SMB fishery.

SAR Chapter (Read) - No comments

Cuvier's beaked whales

SAR Chapter (Mead) - No comments. Discussion involved publication of a paper on the study of the mortalities in the Bahamas. It should be available shortly and should be included in the 2002 SAR.

Mesoplodon beaked whales

SAR Chapter (Mead) - No comment

Long-finned pilot whales

SAR Chapter (Odell)

1. New references were added.
2. Table 2 has mortality numbers still in analysis that will be incorporated shortly.
3. Same data will be used in short-finned pilot whales section for this edition.

Risso's dolphins

SAR Chapter (Wells)

1. Minor editorial corrections to be given directly to author (Waring).

Pygmy sperm whales

SAR Chapter (Odell)

1. Draft 2002 SAR mortality section was handed out showing one serious injury reported in 2000 pelagic longline fishery.

ASRG BUSINESS

Review and approval of recommendations for NMFS and USFWS

Recommendations for this meeting will be cleaned up and distributed.

Future role of the ASRG (Merrick/Swartz/Menashes)

NMFS would like to see ASRG body used as a peer review tool (e.g., program reviews) and not just for assessment reviews. The ASRG was in agreement with this.

Communications: semi-annual meetings vs. annual; communication effectiveness (e-mail/conference calls)

The ASRG comments go to Don Knowles along with recommendations made. The ASRG agreed that two meetings per year are beneficial and preferred rather than one annual meeting. Conference calls, emails etc. should be used as needed between meetings, especially for emergency needs. ASRG will try to contain cost of travel/meetings. Members agreed that an effort should be made to conform back to the regular schedule making review easier with sufficient time for hard copies to be made available to members.

Membership rotation scheme

It was agreed that the present committee is a good mix of members and should continue to depend on natural attrition as a means for member rotation. Long term membership, institutional memory and continuity are benefits because many issues extend over years. This group is basically the same size as

other SRG teams. It was recommended that the ASRG consider addition of statisticians, pinniped and large whale experts into the group and possibly incorporate members from the west coast.

Next meeting

The next ASRG meeting will be in Woods Hole on May 7-8 or May 14-15, 2002.

Adjourn

Meeting adjourned at 3:30 PM

Atlantic Scientific Review Group Meeting Agenda

14-15 November 2001

Ocean Technology Center, University of Rhode Island, Narragansett, RI

Wednesday, 14 November, 08:00 – 17:30

Welcome, housekeeping details (Kenney)

Introduction of new members: Bill Lang, Rich Seagraves (Wells)

Summary of previous recommendations, responses (Wells)

GENERAL ASSESSMENT ISSUES

Survey results

- a. MMS-sponsored sperm whale behavior response and assessment program (Swartz)
- b. Navy-sponsored acoustic/visual surveys for cetaceans in Puerto Rico (Swartz)

Mortality estimation

- a. New bycatch estimation protocol (MS to be available) (Palka)
- b. Report on analyses of logbook and other data used to estimate mortality (Garrison)

Update to List of Fisheries (Wang)

Take Reduction Team activities and plans (Wang)

Report on developing a science plan for Puerto Rico and the Virgin Islands (Swartz)

Plans for NMFS SE and NE marine mammal activities in 2002 (Merrick/Swartz/Garrison)

Status of budgets (Merrick/Swartz/Menashes/Wells)

STOCK-SPECIFIC ISSUES AND ASSESSMENT REPORTS

Mechanism for MMPA-required annual review of strategic stocks (not necessarily update), and acknowledgment that this has occurred (Wells/Young)

Suggested improvements to SARs (letter from Jim Hain)

12:00-13:30 Lunch

North Atlantic right whales (Kenney/Brault) – listed

- a. Status of the ALWTRP and associated rule making (Clapham)
- b. Rationale behind design Seasonal Area Management zones (and DAM) (Clapham)
(MS available on internet at:
<http://www.nefsc.nmfs.gov/nefsc/publications/crd/crd0114/0114.htm>)
- c. Progress on new abundance estimates (through 1999-2000) (Clapham)
- d. New aerial survey design (Clapham)
- e. Ship Strike report recommendations and discussions (Clapham)
- f. Ship reporting system data, implications for critical habitat re-evaluation (Clapham)
- g. Results of mid-Carolina aerial surveys, EWS surveys in Florida and Georgia (Swartz/Wang)
- h. Preliminary results of FMRI analysis of winter right whale distribution and ship traffic patterns in the SE Critical Habitat (Swartz)

Humpback whales (Kenney) -- listed

Continued high levels of mortalities in the Mid-Atlantic (Clapham)

Blue whales (Kenney) -- listed
Fin whales (Kenney) -- listed
Sei whales (Kenney) -- listed
Minke whales (Kenney)
Sperm whales (Mead) – listed

Thursday, 15 November, 08:00 – 17:30

Florida Manatee Recovery Plan and manatee status (Valade)
Continue with remaining cetacean reviews from yesterday
Atlantic coastal bottlenose dolphins (Read/Mead/Wells/Odell) – strategic
 Research and analysis plans, including review of recent biopsy effort (Hohn)
Harbor porpoise (Read/Brault) – strategic
 a. Status review (Palka)
 b. Abundance estimation (the 2000-2001 surveys) (Palka)
Gray seals (Gilbert) – significant new information
Harp seals (Gilbert) – significant new information
Harbor seals (Gilbert) – significant new information
 Results from 2001 harbor seal surveys (Waring)
Atlantic white-sided dolphins (Wells) – strategic
Common dolphins (Read) -- strategic
Cuvier's beaked whales (Mead) -- strategic
Mesoplodon beaked whales (Mead) -- strategic
Long-finned pilot whales (Odell) – strategic
Risso's dolphins (Wells)
Pygmy sperm whales (Odell) – (WNA) – minor change

ASRG BUSINESS

Review and approval of recommendations for NMFS and USFWS
Future role of the ASRG (Merrick/Swartz/Menashes)
Communications: semi-annual meetings vs. annual; communication effectiveness (e-mail/conference calls)
Revisit member rotation scheme
Schedule next meeting
Adjourn

APPENDIX II

Atlantic Stock Review Group (ASRG) Members and Participants November 14-15, 2001

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APPENDIX III

List of Materials Passed out at the ASRG Meeting, November 2001

- WP 1 - Draft 2002 SAR for Bottlenose Dolphins, Western No. Atlantic Coastal Stock
- WP 2 - Gulf of Mexico Sperm Whale and Acoustic Monitoring Program (SWAMP)
- WP 3 - Cruise Results NOAA Ship Gordon Gunter Cruise GU-01-01(11). Marine Mammal Survey of Puerto Rico and the Virgin Islands and a Study of Sperm Whales in Southeastern Gulf of Mexico
- WP 4 - Palka, D.L. and M.C. Rossman. 2001. Bycatch Estimates of Coastal Bottlenose Dolphin (*Tursiops truncatus*) in U.S. Mid-Atlantic Gillnet Fisheries for 1996 to 2000. NOAA-NMFS. Northeast Fisheries Science Center Reference Document 01-15. 77pp.
- WP 5 - Evaluating Fishery Effort Using Landings and Log Book Databases: Applications for Marine Mammal Mortality Estimates - Lance Garrison (SEFSC)
- WP 6 - SEFSC Data Needs and 2002 Survey Plans - Lance Garrison (SEFSC)
- WP 7 - Merrick, R.L., P.J. Clapham, T.V.N. Cole, P. Gerrior and R.M. Pace III. 2001. Identification of Seasonal Area Management Zones for North Atlantic Right Whale Conservation. NOAA-NMFS. Northeast Fisheries Science Center Reference Document 01-14. 18pp.
- WP 8 - Additional updates (mortality) to the 2002 Draft SAR for No. Atlantic Humpback Whales.
- Wp 9 - Florida Manatee Recovery Plan, 3rd Rev. U.S. Fish and Wildlife Service. News Release. Jacksonville Field Office - Public Affairs Office. Release #013-01, Oct. 31, 2001.
- WP 10 - Florida Manatee Recovery Plan (*Trichechus manatus latirostris*). Third Revision. 48pp
- WP 11 - Mid-Atlantic Bottlenose Dolphin Biopsy Survey: Summary of Preliminary Results. SEFSC
- WP 12 - Research Needed in Support of the Bottlenose Dolphin Take Reduction Team.
- WP 13 - Relocation of tagged seals in Spring 2001. (Table sorted by Seal ID)
- WP 14 - Table of 2001 Seal Count Comparisons
- WP 15 - Proposal (to U.S. Navy) for a Gulf of Mexico Marine Mammal Abundance and Distribution Survey in the Gulf of Mexico during July and August 2002.
- WP 16 - Estimates of Marine Mammal and Marine Turtle Bycatch by the U.S. Atlantic Pelagic Longline Fleet in 1999-2000. Cynthia Yeung, SEFSC.