

**Minutes of the
Atlantic Scientific Review Group Meeting**

Isles of Shoals, Appledore Island, Maine
13-15 May 2003

The spring 2003 meeting of the Atlantic Scientific Review Group (ASRG) was convened at 8:30 AM on May 13, 2003, at the Shoal Marine Laboratory, Appledore Island, Isles of Shoals, Maine. The agenda is in Appendix I, participants are listed in Appendix II, and SRG letters of recommendation to National Marine Fisheries Service, Florida Fish and Wildlife Conservation Commission, and U.S. Navy Director, Environmental Readiness Division (CNO N45).

Day 1: 13 May 2003

1. Introduction

Welcome

Robert Kenney (Chair, ASRG) welcomed members and participants and placed the culinary subcommittee on stand-down for this meeting. The agenda was reviewed and one minor addition was made.

Responses to ASRG November recommendations

To date, the ASRG had not received responses from the November 2002 recommendations contained in the March 2003 letter to NMFS, Assistant Administrator for Fisheries. Similarly, there was no response to the January 2003 letter to the Florida Fish and Wildlife Conservation Commission regarding changes in management of the endangered Florida manatee population. The ASRG did receive a response to the February 2003 letter sent to the Department of the Navy regarding 2002 live fire activities in the Gulf of Maine. The ASRG letter noted a right whale mortality that occurred at about the same and in the same vicinity of the firing exercises. The cause of the mortality is undetermined. The Department of The Navy response was received by the Chair on 10 April 2003. They noted that the last ordnance training in the Gulf of Maine occurred nearly one month prior to the discovery of the carcass. Further, tissue samples collected by NMFS and examined by New England Aquarium scientists contained no evidence of ordnance. Therefore, there is no reason to believe that Navy operations contributed to the mortality. The letter also outlined the comprehensive mitigation procedures used prior and following training exercises to ensure no right whales are harmed. In response to the ASRG's recommendation that the Navy coordinate and consult with NMFS, they summarized Navy actions to work with NMFS. The Navy emphasized their commitment to protecting the environment while carrying out their primary mission of national defense.

Recommendations to Centers/Regions – [Northeast]:

#1 - Richard Merrick stated that PSB staff was preparing a Laboratory Reference Document that would provide written guidelines used to make large whale serious injury determinations.

2 &3 - Richard Merrick and Gordon Waring reviewed the status of observer coverage for New England trawl fisheries and the process used to better define fishery components (i.e., *Illex* squid, *Loligo* squid, Atlantic mackerel, Atlantic herring pair-trawl). It was also noted that PSB staff were examining different observer allocation schemes and interacting more with Sea Sampling staff regarding observer coverage. Based on a NMFS settlement on a recent lawsuit on groundfish more funds will become available for trawl coverage.

Southeast:

#1 - Lance Garrison reviewed updated material on SAR for bottlenose dolphin -coastal migratory stock. He noted that the 'coastal migratory stock' has been replaced by seven management units. Finalizing the new stock IDs is still underway, including additional genetic analyses and tagging studies. However, genetic samples are not available from all management units. He proposed to keep the SAR as a single chapter, but include PBRs, bycatch estimates, etc. for each management unit as was done in the 2002 revision. New abundance and stock structure information was presented at the April 2003 meeting of the Bottlenose Dolphin Take Reduction Team, however these updates were not available in time for inclusion in a revised 2003 SAR. In summary, the next iteration of the assessment will be in 2004 including a stock name change (i.e., not coastal migratory stock) and updated abundance and stock structure information.

#2 - The SEFSC is seeking additional funds to move forward on addressing stock definitions for Gulf of Mexico bottlenose dolphins. More details on the genetic work are reviewed in the bottlenose dolphin section, below.

#3 - There was no information to present on this recommendation.

#4 - SERO staff has worked with the states in the GOM region and the blue crab pot fishery will be designated as Category II fishery in January 2004. It was also noted that NMFS HQ was coordinating SE and NE regional office work with states to categorize and describe all fisheries. HQ has funding for this project.

Recommendations to HQ:

NEFSC and SEFSC staff provided some responses to ASRG recommendations to HQ. Richard Merrick provided a brief review of the stock assessment improvement plan (SAIP), which address recommendation #1 to improve stock assessments. He noted that SAIP is modeled after the NOAA Fisheries fish SAIP, and a major issue is stock ID. In the northeast there is a focus on pilot whales and beaked whales. Lance Garrison noted that the joint NEFSC/SEFSC 2004 survey should provide more stock information on pilot whales, including acoustics to help improve survey species identification. He also stated that dive time correction data will be collected in the Gulf of Mexico in 2003 during acoustic studies on sperm whales. Gordon Waring reported that there will be opportunity to obtain pilot whale, beaked whale and other species biopsy samples during the July 2003 *R/V Delaware II* sperm whale tagging survey. These comments also address recommendation #5.

The ASRG asked if the dive time work would also involve Kogia? The SEFSC is planning to collect data on more species using tandem observer teams and develop dive models. However, it was noted that Kogia are difficult to sight in Beaufort sea states exceeding 1. Although Kogia data are available from aquarium studies, they are likely not applicable to wild animals.

North Atlantic Right Whale Issues

Entanglement update - Dana Hartley provide an overview of the entanglement program including criteria for categorization. Histograms of 2001 and 2002 mortalities by region (i.e., state, NER EEZ, and Canada), and season. There were 58 and 48 large whale mortalities, respectively in 2001 and 2002, including 6 right whales in each year. Information was presented on three live right whale entanglements. Whale #2427 was disentangled in summer 2002 in the BOF and was deemed a minor entanglement. Right whale #3107 was disentangled in summer 2002, but later found dead on Nantucket. In January 2003 a juvenile right whale #2240 was sighted entangled; and the entanglement was deemed to be minor.

The ASRG asked which ones were also ship strikes. These data were not available for this meeting, but Dana noted that updated information will be provided to the SRG at the autumn 2003 meeting, when the draft 2004 SARs are reviewed. Robert Kenney noted that a 2003 right whale calf was sighted and photographed with prop marks off Florida. It was uncertain if this photograph has been sent to NMFS, and

Dana Hartley will contact Jim Hain to obtain a copy. Richard Merrick noted that offshore aerial effort has been increasing in recent years, therefore increases in large whale entanglements need to be viewed with caution.

Richard Merrick provided an overview of the New England Aquarium's right whale scarification study. He noted that this may provide a mechanism for the TRT to monitor effectiveness of gear modifications and changes in fishing practices. In recent years, the majority of entanglements have been detected within 2 years of occurrence. At this time it is unclear if entanglement rates are increasing or decreasing as effort has changed.

Richard Merrick presented a request from Mary Colligan, Chief, Protected Resources Division for ASRG assistance on determination of cause of death of right whale #3107. This determination is needed for consideration of appropriate action under the ESA. The reasonable and prudent alternative (RPA) in the Biological Opinion on the Federal Lobster Pot/Trap Fishery and the Multispecies, Monkfish and Spiny Dogfish gillnet fisheries considers a serious injury or death of a right whale in this gear used in these fisheries as a failure of the RPA. The objective is to have NEFSC make its evaluation and send this to SRG for review & comment. Another alternative is to have it reviewed by the NMFS serious injury review group. The necropsy indicated that the animal was compromised by the gear. The animal was disentangled and had a buoy line attached for telemetry. The NERO can also provide the gear analysis/investigation and necropsy report to the SRG. The SRG has agreed to review the material.

Large Whale TRT Plan activities - David Gouveia reported on the April TRT meeting, held in Providence, RI. Dave noted that despite many regulatory changes that were implemented throughout 2002, there were still 9 known entangled right whales (8 in 2002 and 1 to date in 2003). Based on the Biological Opinion issued for the Federal lobster regulations and northeast multispecies, spiny dogfish, and monkfish FMPs the entanglements in 2002 triggered a re-initiation of ESA Section 7 consultation for the lobster fishery. Dave stated that, of the gear recovered from the 9 known entangled right whales, only 2 could be linked to lobster trap pot gear. The remaining gear could not conclusively be linked to any particular fishery (hence the re-initiation of the lobster BO). Dave further noted that NMFS added several new fisheries to the TRT because they fish with gear similar to that used in the lobster trap/- pot fishery (i.e., hagfish, red crab, Jonah crab, and black sea bass pot gear). NER worked with the TRT members to address TRT concerns raised by TRT members concerning the TRT process. NER developed a new strategy for the TRT meeting by developing breakout groups for the meeting that allowed user groups to work together to develop improved management alternatives. The breakout groups were divided by gear, fisheries, and sectors (i.e., inshore lobster, offshore lobster, hagfish, Jonah crab, gillnet, and mid-Atlantic).

Progress was made on consensus for two key areas of focus (or principles). The first was a commitment to reduce the risks associated with the vertical lines (endlines) of the respective gears. The second was a commitment to reduce the profile of the groundlines associated with the respective gears. More work is needed in terms of addressing the vertical lines, but industry universally agreed to a phase-in approach to reducing the profile of groundlines by committing to sinking or neutrally buoyant line (or possibly some other technique to reduce the groundline profile) by 2008 (maybe by 2006 if Federal funding is developed to assist conversion). In addition to the proposals to reduce the profile for the groundline, the TRT also proposed that SAM and DAM be phased out to coincide with the implementation of the sinking or neutrally buoyant line conversion for the groundlines (2008, possibly 2006 if funding assistance provided). The NER is implementing a series of outreach meetings with fishery sectors regarding gear modifications. Once completed, NER plans to conduct scoping meetings to provide industry further opportunity to comment/develop new management options. NER plans to complete the scoping phase in July of this year. After scoping is completed NER will finalize alternatives that will be folded into the RPA for the re-initiated consultation for the lobster regulations and also into the EIS. NMFS plans to publish the draft EIS in late 2003 or early 2004. The comment period for the draft EIS is planned to coincide with the next TRT meeting (tentatively scheduled for February 2004).

NER identified enforcement as a key area for improvement for the TRP. NER is in the process of developing a TRT working group to help develop an enforcement strategy to address this issue. NER is

also working with the TRT to develop a gear marking working group to investigate the need for gear marking and new techniques/strategies for marking gear.

TRT strategy - Dave reported that the longer-term plan (East Coast national project) is to move take reduction planning out of a species-specific orientation to a gear-type orientation. This may provide more focus on gear modification and allow specific team to focus on all protected species concerning that particular gear type (i.e., a gillnet TRT would address all species including bottlenose dolphin, harbor porpoise, sea turtles, and large whales). It was noted that a gear focus will permit broader issues to be discussed (i.e., habitat impact and all bycatch issues). Until the longer-term strategy is implemented NER also solicited the help of the TRT to develop a short-term strategy for addressing the size of the current Large Whale TRT. Specifically, NER has asked the TRT to form a sub-group to work with NMFS on a short term strategy to break the 60 member team into smaller groups (i.e., mid- Atlantic and New England, similar to harbor porpoise.) Also, NMFS was recently served a complaint against the DAM Rule. The complaint alleges that the DAM regulation: (1) is arbitrary and capricious, thereby violating the APA; (2) is not "necessary and appropriate" to accomplish the goals of the ALWTRP and MMPA; and (3) imposes requirements that fail to satisfy the "economic and technological feasibility and impact criterion" of the MMPA, Regulatory Flexibility Act, and other laws. NMFS needs to respond by early June. If suit does go forward then an Administrative Record will need to be compiled, which will impact staff time.

Ship strike - Dave stated that NERO recently reviewed the proposed ship-strike mitigation strategy, and is awaiting sign-off at the Assistant Administrator level. Once ready for implementation the lead agency still needs to be determined. The next SRG meeting will have a ship-strike presentation. Briefly, the major recommended changes to current shipping procedure will be some lane changes in the SE region, speed changes in mid-Atlantic region, and areas to be avoided and mandatory lanes in the NE region. The Coast Guard has a lead because of the International Maritime Organization's role in shipping. In the near term, public education is ongoing.

Disentanglement workshop - NERO sponsored a closed meeting in late March in Boston for individuals involved in large whale disentanglements. The meeting was very positive and the final report will be available soon from the NERO (Dave Gouveia) or NEFSC (Phil Clapham). It was noted that disentanglement should not be viewed as a mitigation measure. NERO concurred and indicated that the program is designed for a specific task. It was noted that Congress has earmarked \$1.4M for disentanglements without consultation with the Regional Offices or Science Centers. Buyback of current gear is an issue that has not received sufficient funding. Industry does not have funds to self-implement this program in order to change to "whale safe" gear.

Critical habitat - In July 2002 NMFS was petitioned to revise the critical habitat designation in NE & SE regions. Subsequently NMFS published a notice of findings in November 2002, indicating that sufficient data were available to reexamine current designations. NMFS will publish a FR notice in July 2003 indicating the agency's strategy for the proposed changes. It was noted that critical habitat is more difficult to define in the marine as compared to the terrestrial environment. The ESA requires designation of current and potential to allow for expanding populations. A petition to define critical habitat for North Pacific right whales was denied based on insufficient information, to be re-visited in a year.

Gear research - NERO has a three-phased program: 1) some funds were put aside for "quick hitters" or projects that are proposed between funding cycles. These projects are maintained and funded directly from the NERO. 2) NMFS also teamed up with the National Fish and Wildlife Foundation (NFWF) to distribute funds targeted for fishermen and the general public. The program is named the "mini-grant program". 3) NERO also developed a challenge grant program and will likely partner with NFWF again to distribute the funds. The challenge grant is aimed at reaching a new audience of potential researchers by focusing on educational institutions outside the usual Sea Grant institutions in hopes of soliciting new fresh ideas on gear resolutions. In addition to those three programs, the right whale budget provided \$1.5M for cooperative state projects (Section 6). States apply for funds under their management plans, and round one was completed last year. Several Mid-Atlantic States have applied for funds to conduct aerial surveys. There was some discussion on the utility of collecting gear location data during aerial surveys. It was

pointed out that it would compromise observers ability to locate animals (primary mission), and gear cannot be identified.

NE & SE Implementation Teams - Most effort recently has been on out-reach meetings with components of the shipping industry, and plans are underway to revise the teams. NER staff will unveil its new NEIT restructuring at the NEIT's June meeting.

Recovery plan - It is still in review at NMFS headquarters, being held up by the issue of establishing recovery criteria.

Information updates - NOAA competitive grants office will require a NEPA analysis (i.e., EA or EIS), particularly for any project that will require a scientific permit (i.e., acoustics, tagging). Also, all right whale permit applications are still at NMFS headquarters. The Agency has bundled all applications and has prepared an EA on the proposed activity. The EA will be available for public comment in the near future.

NEFSC staff is working on further analyses of population demographics and status. Aerial surveys are continuing in both NE and SE, although the SE effort was curtailed somewhat in 2003 as a result of the crash. Passive acoustic sampling effort in the NE and Mid-Atlantic is being expanded. Additional photogrammetry work will be conducted.

An RFP for right whale competitive research grants was issued, with \$2M available. The application deadline is 16 June. ASRG members agreed to help review proposals, except for those expecting to submit their own proposals.

NOAA is conducting an aircraft safety workshop in Kansas City in mid- May. The focus is on non NOAA aircraft because of the January 2003 crash of a right whale survey aircraft. NOAA is proposing that the charter aircraft meet FAA Part 135 certification, and NOAA will only allow charter of certified aircraft in the near future. NOAA also has a contract with Office of Aircraft Services to provide documentation of pilot certification. This vehicle can be used to certify pilots. NEFSC, PSB aerial survey staff has undergone "dunk training" and have purchased additional safety equipment for observers. SEFSC, PSB is also taking these actions. It was noted that Part 135 rules will increase aerial survey costs.

Bottlenose Dolphin Issues

Lance Garrison summarized the 2002 aerial surveys in southeast portion of mid-Atlantic. The survey utilized two teams to obtain an abundance correction factor. Survey data were used to examine spatial models of distribution of the coastal and offshore ecotypes. Based on the revised abundance estimate for the northern migratory management unit, the take in mid-Atlantic fisheries is now 50% of the updated PBR.

The ASRG noted that one of the critiques in the Center for Independent Experts review of the SEFSC bottlenose report describing the revised abundance estimates was to improve abundance estimates and distribution information on the southern component of the Atlantic coastal animals. Garrison stated that SEFSC is examining options available for future surveys in Florida and Georgia. More and better distributed biopsy samples are required to both improve latitudinal stock boundaries and describe the spatial distribution of the coastal and offshore ecotypes. Winter biopsy surveys are problematic due to weather constraints, particularly working from small boats. The biggest gaps are in coastal waters of South Carolina and Georgia. Robert Kenney stated that the ASRG would be interested in reviewing future winter abundance and biopsy survey plans — a review of the overall strategy for proceeding with bottlenose dolphin research will be on the fall ASRG meeting agenda.

Revised SAR - SEFSC proposes one chapter for Atlantic bottlenose dolphin coastal ecotype with specific information on each management unit.

Delisting process - No representative from F/PR was available to discuss the procedures for changing the depleted status for the Atlantic coastal stock.

Bottlenose dolphin TRT – April 1-4 2003 meeting produced a proposed plan. F/PR will have a contractor prepare the EA and hope to have the rule out within 60 days from early May.

Update on Gulf of Mexico (GOM) research - Keith Mullin reported that the SEFSC is changing bottlenose dolphin stock definitions for clarification. The Oceanic Stock (200 m to EEZ) will replace the Continental Shelf Edge and Continental Slope Stock. The outer Continental Shelf stock will be renamed the Continental Shelf Stock (20 to 200 m). The ASRG concurred with these changes.

Stock structure - The ASRG noted that NMFS was requested to analyze all Gulf of Mexico samples. Patty Rosel stated that the Gulf genetics work has been underway for two years. Genetics lab work in Charleston Laboratory is focusing on mtDNA and 5 microsatellite markers to compare 1) Sarasota Bay to adjacent coastal GOM waters and 2) compare Charlotte Harbor, Tampa Bay, Sarasota Bay and adjacent coastal waters, and Matagorda Bay.

The Matagorda Bay population was the most differentiated, containing sequences not found in the eastern Gulf. There was significant differentiation among populations within eastern Gulf as well. However, Sarasota Bay and Tampa Bay were not significantly different from Charlotte Harbor in the mtDNA analysis, but most samples were from males. The microsatellite comparisons were significantly different. Rosel noted the need to acquire more female samples, since males may roam more. More sampling of the bottlenose dolphin ecological communities delineated in Tampa Bay is planned.

Gulf of Mexico coastal stock - Samples taken from several animals off the mouth of Tampa Bay contained offshore markers. These animals are not noticeably larger than animals in Tampa Bay. So, eastern Gulf is very different from the Atlantic where the offshore ecotype is not seen in coastal waters. An alternative explanation for the presence of offshore markers in Tursiops sampled at the mouth of Tampa Bay is that these animals are hybrids. Further genetics work will be done to examine this possibility. The ASRG asked if the offshore Gulf and offshore Atlantic animals are different? Patty Rosel, stated that in previous studies that made this comparison, no differences were found, but sample sizes were very small. Also, all bay, sound, estuarine and coastal samples have been processed. Processing of offshore samples is underway, but it is not a high priority at this time.

Atlantic stocks - Forty-two samples from the south-central Georgia have been collected and analyzed. They are significantly different from the Charleston and Jacksonville management units. Therefore, they support the Georgia management unit designation. All samples were collected in winter, therefore and summer samples need to be collected.

Development is underway for new microsatellite markers for analysis of winter mixed stock in North Carolina (NC) for use in identifying bycaught animals. More markers are needed to increase the statistical power of the analysis. Presently, seven markers are available and the hope is to identify 15 markers. This will be accomplished by reviewing the literature and by new laboratory analysis. This would also be useful for reanalysis of the late 1980's die-off animals. However, good quality tissue samples from the die-off are scarce. More summer samples are needed from the northern end of the summer range (north of Chesapeake Bay).

Stock structure of estuarine systems is unknown. The Charleston estuarine system is serving as a test case because there is a good photo-identification catalog for this area and a total of one hundred and fifty biopsy samples are available from three core use areas. Also, there are no matches between the Charleston catalog and other regions, suggesting a separate stock.

Winter 2003 biopsy effort was reviewed. Weather and funding constraints limited sampling efforts to central North Carolina coast. Biopsy samples were collected from most of the groups (68 biopsies from 83 sightings) sighted, and the sampling range matches well with 2002 aerial survey sightings.

Harbor Porpoise Issues

TRT update – It was noted that there has been little action with the HPTRP since the TRTs last met in late 2000. Dave Gouveia noted that the NER is working on follow up responses to the Gulf of Maine and Mid-Atlantic TRT recommendations and expects to respond to the TRTs reconditions during 2003. It was noted that better communication with the TRTs is needed by NMFS as the TRTs have not heard anything from NMFS since the last TRT meetings in late 2000. Dave also noted that NMFS wrestled with a recent law suit concerning the implementation of two new TRTs and a definition for addressing zero mortality rate goal (ZMRG). However, the TRP appears to be working well and NMFS is considering options for the team. It is likely that harbor porpoise TRT funds will be used for the development of the new offshore TRT. The harbor porpoise plan will be put into a monitoring mode. The ASRG noted that many of the actions that have reduced harbor porpoise take resulted from ground fish management actions.

In response to the recent settlement of a lawsuit against NMFS regarding ZMRG the Agency has 60 days from the date of the court approved settlement agreement (which was late April 2003) to publish an advanced notice of proposed rulemaking (ANPR) on a regulation to define ZMRG. The ANPR is expected to be published by late June 2003. In addition, the final rule to define ZMRG must be completed in fourteen months following the settlement. The Advanced Notice of Proposed Rule-making is required by July 2003, and the Final Rule by June 2004.

Day 2: 14 May 2003

Manatee issues

There was no Fish and Wildlife Service representative at the meeting. However, Robert Kenney distributed four handouts including: 1) 23 January 2003 letter from the Marine Mammal Commission to U.S. Fish and Wildlife Service regarding “proposed rule (67 Fed. Reg. 69078-69104) to authorize the taking of Florida manatees incidental to government programs related to watercraft operations and watercraft access facilities in Florida.” The Commission listed four basic concerns regarding the proposed rule and stated that the Draft Environmental Impact Statement was inadequate. The other three handouts were news releases from U.S. Fish & Wildlife Service, North Florida Field Office regarding the decision to withdraw the proposed incidental take regulations. The ASRG had delayed drafting any recommendations on the proposed rule until the MMC comments were available, however the issue is now moot.

The Florida Fish and Wildlife Conservation has proposed to down-list manatees from endangered to threatened or further to “species of special concern,” in accordance with revised endangered species criteria adopted by the Florida legislature. They put off a vote on the proposal from November 2002 to January 2003, and the ASRG sent a letter recommending against the proposal. The vote was again put off until May 2003, and the ASRG decided there was little point in sending another letter repeating the same recommendation

Other species

Humpback whale - Richard Merrick reviewed the NOAA Fisheries budget initiative to improve large whale assessments. Status reviews under ESA are required for several species, and humpback whale is the first. NOAA Fisheries is moving forward on a comprehensive assessment of humpback whales. The \$1.0M funding was split between east and west coasts. An NEFSC and SEFSC collaborative project on humpback whales titled “More North Atlantic Humpback (MoNAH) Project” was implemented with a planning meeting held 16-18 April 2003 in Woods Hole. Work will involve abundance estimation, stock structure, population structure and distribution on a number of feeding and breeding stocks (Clapham *et al.* 2003). Short-term funding will remain at \$1.0M. Most of the funding is going towards field work and analysis. Richard Merrick also noted that the International Whaling Commission’s (IWC) revised stock assessment is not completed, and that the new work will contribute to the IWC efforts.

Clymene dolphin - Keith Mullin presented the first assessment for the Southwestern North Atlantic Offshore Stock. The best estimate of abundance was 6,086 (CV =0.93) was derived from summer 1998 survey (Mullin and Fulling, 2003). He stated that Clymene dolphins are routinely seen off Cape Hatteras in

Reports that are available for public review. The ASRG commended the SEFSC for producing the assessment and only had a few minor editorial comments on the report.

Atlantic pelagic longline fishery - Lance Garrison reviewed plans to reanalyze pelagic longline takes of pilot whales and Risso's dolphins. Mortality estimates for 2001 were not completed because of Cynthia Yeung's leaving SEFSC. Prior assessments used the delta estimator to calculate mortality and serious injury rates. This method results in high variance because of the large number of zeros. The new approach will apply a log-linear regression model (Generalized Additive Models) to examine factors that affect bycatch. This will be used to generate a model of predicted takes. About 50% of pilot whale and Risso's dolphins are serious injuries based on observer data. Most of observed takes occurred in later part of year in mid-Atlantic Bight. Few takes occur south of the mid-Atlantic Bight and the Florida coast. Hooked animals do not get close enough to the boat for sampling, so pilot whales are generally reported as *Globicephala* spp. The new analysis will require that the assessments involving pilot whales and Risso's dolphin interactions will need to be updated for the most recent 5-yr period.

There was some discussion on serious injury guidelines regarding hooked animals, and it was noted that the ASRG held lengthy discussions on this issue at its November 1998 meeting in Portland, Maine.

SEFSC will provide results of the new method to ASRG for review by late summer. This review will be needed prior to preparation of the 2004 draft assessments which the ASRG will review at its autumn 2003 meeting. The unit of effort proposed to be used is the set rather than the number of hooks. The important factors seem to be season and area. The ASRG members suggested that pilot whales appear to be attracted to the vessel noise, uncertain if it is the hauling and setting of the gear. Positions of longline sets will need to be reviewed since data for unobserved trips may not always be complete.

***Stenella frontalis* stock structure** - SEFSC has examined 200 samples, 76 Gulf of Mexico & 124 Atlantic. Using mtDNA and microsatellites; the two regions were significantly different. However, the Atlantic samples were more confounding. Samples were split at every latitude between Florida and NJ, and the problem appears to be around 35° -36° N. The differences were very significant, suggesting two stocks – one north of Cape Hatteras and one south of Cape Hatteras. Whether one represents the (offshore form and the other the coastal form requires further study). It was also noted that mtDNA analysis for a few samples taken during NEFSC and SEFSC offshore surveys suggested that field IDs may not be correct (apparent *S. attenuata* biopsies from herds identified as *S. frontalis* and including some *S. frontalis* biopsies). However, the microsatellite data confirmed that the field IDs were correct, suggesting that there are hybrids.

Seals - Gordon Waring reviewed winter 2003 seal research projects. He noted that the gray seal research being conducted with NOAA Sea Grant Fellow, Stephanie Wood, University of Massachusetts, Boston, was severely impacted by the "unusual winter" in the northeast. Only two days of field work were conducted on the most western breeding colony on Muskeget Island in Nantucket Sound. Similarly, harbor seal and gray seal winter monitoring surveys in southern New England were impacted by both the weather and the crash of one of the right whale aerial survey aircraft off Florida. Weather conditions also resulted in the cancellation of a coast-wide (Maine to New Jersey) Valentine's Day weekend seal count.

Richard Merrick provide a overview of the Joint NAFO/ICES Harp and Hooded Seal Working Group (WGHARP) population modeling workshop held in Woods Hole in January 2003. He reported that the population model used in the northeast Atlantic is more precautionary than the northwest Atlantic model. Department of Fisheries and Oceans scientists are examining biological reference points that may be applied in evaluating the Canadian harp seal harvest. The workshop report will be reviewed at the September 2003 meeting of WGHARP, and the findings will be provided to ASRG. Richard also noted that NAMMCO held a international workshop on Atlantic grey seal populations, but NEFSC staff did not participate.

Stock assessment issues

2002 draft stock assessments - NMFS responses to Marine Mammal Commission comments on the Draft 2002 Atlantic and Gulf of Mexico Stock Assessment Reports were distributed, and there were no substantive comments.

Stock Assessment Improvement Plan (SAIP) - Richard Merrick reported that NOAA Fisheries prepared a report in calendar year 2002 for fish assessments, which was used to obtain increased funding for improved assessments. In October 2001, a decision was made to apply this model to protected species (i.e., marine mammals and sea turtles). A working group was established after the October 01 meeting. The WG developed a questionnaire for data users (i.e., Minerals Management Service (MMS), Navy, Regional offices) to determine their data/information needs. A September 2002 workshop was held in Woods Hole to determine what levels of data are required / desired for different levels of assessments. Four levels were developed and fifteen different data types were identified. The plan was designed to look like the fish version for programmatic reasons. This was further reviewed at the Center/Region workshop held November 18-22 2003 in Charleston, SC. The plan has three Tiers; Tier I - the status quo, Tier II - elevate stock assessments to new national standards of excellence and Tier III - next generation of assessments, which requires finer scale abundance estimate (spatial/temporal), and better health assessments.

Each Center is providing input on what is required for Tier I & II level assessments. This will be used as part of a funding initiative (work plan) to get all stocks at Tier II. These will now be measurable and serve as a performance metric for NOAA. A draft plan should be available in autumn 2003, and will be presented at an open meeting.

It was noted that Navy, MMS and other agencies have to deal with marine mammal issues, but NOAA fisheries is responsible for most of the species. MMS and Navy funding to support NOAA research was identified as one mechanism to improve stock assessments. Preliminary discussions suggest that Navy and MMS are receptive to allocating some of their protected species funds to NOAA at the Congressional budgeting level. Research designed to obtain more precise abundance estimates is clearly a NOAA function, but providing fine scale density estimates may require modeling efforts by non-NOAA staff.

SAR changes - Gordon Waring distributed material prepared by Marjorie Rossman (NEFSC bycatch analyst) and reviewed the NEFSC proposal to improve the structure of the stock assessment reports. The revision will involve moving the fishery information (i.e., number of vessels, fishing area, etc) to an Appendix. Appendix I from the Pacific SAR was presented as an example. The ASRG also suggested moving some of the historical material and methodological detail on abundance surveys to an Appendix. However, based on the amount of work required for the fishery component, the ASRG supported moving forward on the fishery Appendix for the draft 2004 SARs, and revising the survey material in the draft 2005 SARs.

Data Quality Act - will require the Agency to have peer review of assessments. This may slow the SAR and TRT processes. To address time constraints on approving the SARs, the utility of biennial as compared to annual SARs was reviewed, as was the feasibility of publishing on CD with fewer paper copies. The biennial cycle will simplify the publishing process, in addition to saving resources. The ASRG noted that these issues need to be reviewed at the next joint SRG meeting or GAMMS II workshop. Kenney will contact the other SRG Chairs.

Stranding/fishery interactions - There was some discussions regarding the suitability of using Prescott funding for developing guidelines to standardize fishery interaction designations, since the development of a manual and training protocols has been identified as a Prescott priority. One or more Prescott proposals on this topic are expected

Other issues

Recent surveys - Results of recent surveys were reviewed in previous sections.

Upcoming survey/plans - NEFSC: Gordon Waring reported that one NEFSC/PSB staff member has been placed on *R/V Delaware II* from 13-28 May to collect marine mammal sightings during a deepwater trawl survey in the vicinity of Bear Seamount. The observer will also be on the Russian *R/V Keldysh* 2-18 June during transit from Denmark to the mid-Atlantic Ridge where a deep-sea submersible will be deployed along Charlie Gibbs Fault. International scientists aboard the submersible will be studying marine life as part of the MAR-ECO Project (www.efan.no/midatlccensus/). Following completion of the submersible work, the vessel will proceed to St. John's, Newfoundland where the observer will disembark. As feasible, the observer will attempt to obtain biopsy samples and photographs, particularly of humpback whales.

NEFSC/PSB staff and Woods Hole Oceanographic Institution staff will conduct a sperm whale DTAG survey aboard the *R/V Delaware II* in shelf-break and oceanic waters from southern New England to Virginia, from 7 July to 1 August. The primary focus is to obtain behavioral data on sperm whales in an acoustically quiet region (e.g., no seismic activity) for comparison to Gulf of Mexico sperm whales. Secondary goals are to obtain dive-time data on sperm whales, beaked whales and other large whales for estimating $g(0)$, and to opportunistically collect biopsy samples.

In August the vessel will be conducting humpback whale surveys on the Scotian Shelf. This field work is a component of the MoNAH Project.

Right whale photogrammetry work will be conducted with the NOAA Twin Otter in the Bay of Fundy. Right whale aerial surveys in the Gulf of Maine will continue through autumn, and may be extended into winter if a platform is available.

SEFSC - Keith Mullin, reviewed the summer Gulf of Mexico survey plans. The *R/V Gordon Gunther* will be conducting a deep water stratified survey in sperm whale high-density areas. Goals are to collect improved dive time data, photo-id, and biopsy samples. Current photo-id data indicates that there may be some site fidelity in central portion of the Gulf.

Passive hydroacoustic operations will be conducted both simultaneously with visual survey effort during the day and independently at night during the survey. Each evening, relatively small areas will be intensively surveyed along predefined tracklines. Hydroacoustic detections of sperm whales and other marine mammals will be recorded during these night time surveys. The goal of this effort is to provide additional information on the spatial distribution of marine mammals in the Gulf of Mexico at finer scales than is possible during visual surveys. The rate of acoustic detections at night can also be directly compared to day time visual and acoustic survey effort in the same areas.

The SEFSC will also be involved in the MoNAH survey work in the Caribbean in winter 2004.

Lance Garrison reviewed results from the winter and summer 2002 coastal morphotype bottlenose abundance dolphin aerial surveys in Atlantic coastal waters (0-40 m depth). The winter survey was designed using two sets of replicate lines between Cape Canaveral, Florida to the southern edge of Delaware Bay. A complimentary survey was conducted between 15 July to 31 August. The survey region was between Sandy Hook, NJ and Ft. Pierce, FL.

An analysis of spatial pattern and information from genetic analysis of tissue biopsy samples was used to evaluate the relative spatial distribution of the offshore and coastal morphotypes as a function of habitat variables and spatial location across the latitudinal range. These models of relative distribution were combined with abundance survey data to develop an abundance estimate for the coastal morphotype alone.

There are seven identified seasonal management units for the coastal morphotype of bottlenose dolphins from New Jersey to central Florida. The current analysis focuses only on the abundance of animals in coastal waters between depths of 0-40m, and excludes estuarine areas where there may be either distinct estuarine stocks or where animals belonging to the coastal stocks may occur. Separate abundance estimates for each of the seven coastal management units were derived for summer and winter.

Table 1: Mean total estimated abundance of the coastal morphotype of bottlenose dolphins between 0-40 m depth by management unit during summer 2002. Estimates are for 0-20 m depth in the central and northern Florida units.

Management Unit	Mean Abundance	SE Abundance	% CV	95 % Confidence Interval	Lower Limit 60% CI (Nmin)
Northern Migratory	17466.1	3334.3	19.1	11497.7 – 24956.5	14620.9
N. North Carolina	6160.2	3197.9	51.9	1484.9 – 13399.0	3254.7
S. North Carolina	3645.8	4048.0	111.0	1084.1 – 13135.6	1863.2
South Carolina	2283.5	627.2	27.5	1160.1 – 3701.0	1776.4
Georgia	6234.8	3151.4	50.5	2089.8 – 13388.7	3335.4
Northern Florida	736.6	346.3	47.0	345.1 – 1585.3	454.9
Central Florida	718.4	365.3	50.9	148.7 – 1561.9	402.9

These estimates account for several sources of bias and include a correction for perception bias. However, they do not account for availability bias during the survey. Since group sizes were large during both surveys and bottlenose dolphins have relatively short dive intervals, it is expected that the magnitude of this negative bias is relatively small.

The greatest source of potential bias (positive or negative) in these estimates is the models describing the distribution of the coastal morphotype. Sample sizes were generally small, particularly during winter months and may not be representative of the entire survey range due to limits on the geographic range of collected biopsy samples. Additional biopsy sampling and genetic analysis are required to improve the robustness of these models and reduce both uncertainty and bias in the resulting abundance estimates.

The SEFSC will be conducting a photo-ID mark-recapture study to estimate abundance of bottlenose dolphins in estuarine waters between Cape Lookout, NC and Cape Romaine, SC. Four small boats will be operating simultaneously within the estuaries and in coastal waters out to approximately 1 mile for 4 weeks this summer. During the 5th week, biopsy sampling will take place.

List of Fisheries - The 2003 list should be out shortly, some coastal gillnet fisheries have been elevated from III to II. Close to 25,000 vessels enrolled in the program, from Virginia to Maine.

Observer coverage – The settlement of the groundfish court case, requires 5% coverage of vessels in northeast. This will greatly improve trawl coverage and expand gillnet coverage. All NEFSC/PSB gillnet coverage funds have been shifted to mid-Atlantic region. *Illex* fishery coverage will be higher,

approximately 135 days of coverage is expected. These changes will improve bycatch data for most trawl interactions with marine mammals and sea turtles. NEFSC staff are examining allocation scheme for these new funds. New allocation schemes may result in higher CVs for some species (i.e., harbor seals), primarily bycaught in sink gillnets.

The NMFS National Observer Program meeting will be held in July 2003 to review allocation and funding schemes. A goal is to improve the precision of the estimates.

Proportional allocation in Atlantic pelagic longline fishery has increased from 5% to 8% in current year. Shark gillnet fishery off Florida had 100% coverage during the 2002-2003 right whale season, coverage is lower the remainder of the year. Bottlenose dolphin bycatch has been recorded in this fishery.

Status of budgets - NEFSC PSB funds were received in late April. The NEFSC will have approximately 5.5 KK, with most going to contracts. Right whale spending plan increased from \$7.0M to \$10.0M; \$3.7M NEFSC, \$3.8M NERO, \$1.3M SEFSC, \$300 K SERO, and \$750 K F/PR. Most of the earmarked funding went to the NEFSC/NERO because of their experience in letting cooperative grants. Given the total federal budget situation it is likely that the \$10M funding will be reduced in FY04.

MMPA/ESA/FCMA Reauthorization - Kenney circulated a piece of Congressional News regarding the scheduled May 6 hearing by the House Resources Committee to review Department of Defense concerns regarding MMPA and ESA requirements. H.R. 1835 (National Security Readiness Act) would:

- amend the ESA to limit designation of critical habitat in DoD owned or controlled areas;
- amend the definition of harassment under the MMPA;
- amend the MMPA to provide exemptions for the DoD in cases where the action is necessary for national defense; and
- amend the MMPA provisions governing the incidental taking of marine mammals to delete the geographic and numerical restrictions and loosen notification requirements or military readiness activities.

On 15 May, the Senate Commerce Subcommittee on Oceans, Fisheries, and Coast Guard will be holding hearing on MMPA re-Authorization.

GAMMS II Workshop - This workshop may be held in autumn 2003, more information will be forwarded to ASRG.

Wind farms - It was noted that several applications for wind farms off Massachusetts have been recently filed. A data collection tower has been installed on Horseshoe Shoals in Nantucket Sound to obtain environmental data for one proposed wind farm. Wind farm proposals are also being developed in other Atlantic coastal areas. One environmental concern pertains to impact on protected species. Similar issues are being debated in northern Europe where a number of wind farms are either in operation or proposed.

Wrap-up

Finalize recommendations - Robert Kenney will draft the list of recommendations and circulate them to the ASRG members for review.

Venue and timing for the autumn meeting - The autumn meeting is scheduled for 6-7 November in Florida, at a site to be determined in the near future, possibly Key West or Fernandia Beach.

Adjourn - Robert Kenney thanked the NMFS participants for their contributions and adjourned the meeting at 1430.

APPENDIX I

Atlantic Scientific Review Group Meeting Agenda — 13-14 May 2003 Shoals Marine Laboratory, Appledore Island, Maine

1. Introductory stuff

- Welcome, housekeeping, temporary stand-down for the culinary subcommittee
- Introductions
- Agenda review
- Responses to our “November” recommendations

2. North Atlantic Right Whale issues

- Mortality/entanglement update
- Update on recent Large Whale Take Reduction Plan Activities
- Update on Potential Strategy Change for TRT/TRP Process
- Update on Ship Strike Strategy
- Update on the Disentanglement Workshop
- Update on Right Whale Critical Habitat Petition
- Update on Recently Funded Gear Research Projects
- Update on Northeast and Southeast recovery implementation teams
- Update on status of revised recovery plan
- Informational updates:
- Calving and distribution
- RFP for right whale research projects
- Bowhead/right whale comparative health and physiology workshop

3. Bottlenose Dolphin issues

- Summary of abundance estimates from 2002 aerial surveys
- Discussion of ASRG recommendation regarding revision of “Western North Atlantic Coastal Stock” SAR
- Process for de-listing Atlantic coastal stock from depleted status under the MMPA
- Gulf of Mexico oceanic stock – revised SAR
- Update on ongoing research on stock structure in the Gulf of Mexico
- Update on ongoing research of stock structure in the Atlantic
- Summary of winter 2003 bottlenose dolphin biopsy effort in NC

4. Harbor Porpoise issues

- Take Reduction Plan update

6. Manatee issues

- Marine Mammal Commission comments to USFWS
- US FWS decision on small-take authorization
- Florida Fish & Wildlife Conservation Commission down-listing vote

5. Other species

- Humpback whale
 - Large-scale humpback whale assessment planned to begin this summer (informational)
- Clymene dolphin (Atlantic offshore stock) – revised SAR
- Summary of approach for pelagic longline take/mortality estimates for pilot whales and Risso's dolphin
- Stock structure of *S. frontalis* in the western Atlantic and Gulf of Mexico
- Pinnipeds?

7. Stock Assessment issues

- NMFS response to Marine Mammal Commission comments
- Update on Stock Assessment Improvement Plan
- Changes to the bycatch section of the SAR
- Update on plans for standardizing fishery interactions from strandings

6. Other issues

- Recent surveys
- Upcoming surveys/plans
- List of Fisheries
- Observer coverage
- Status of budgets
- Status of offshore TRT
- MMPA/ESA/FCMA reauthorization

7. Wrap-up

- Finalize recommendations from this meeting
- Venue and timing for the fall meeting
- Adjourn

APPENXIX II

Atlantic Scientific Review Group (ASRG) Members and Participants
May 13-14, 2003

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