

Minutes of the Atlantic Scientific Review Group Meeting Monterey, California

The 2008 meeting of the Atlantic Scientific Review Group (SRG) commenced at 1330 on 9 January 2008, at the Embassy Suites, Monterey, California. The SRG meeting was preceded by a 1.5 day national joint SRG meeting. The agenda for the Atlantic Group is in Appendix I and participants are listed in Appendix II.

Day 1: 09 January 2008

1. Introduction

Don Baltz (Chair, SRG) thanked NMFS for convening the joint and regional SRG meetings. Introductions were made, the agenda and list of meeting materials were discussed and general housekeeping issues were brought up.

The SRG also thanked the SEC and NEC for posting the 2008 draft SARs and background documents with sufficient lead time for review.

Baltz reviewed NMFS responses to 2007 SRG letter of recommendations. He noted that the recommendation to reconvene the Harbor Porpoise TRT was met. The letter to USFWS, unfortunately, was not submitted. But, the request was for FWS to send a representative to annual meeting and update the SAR. Baltz thanked the FWS for hosting the 2007 meeting, noted that a FWS scientist (Dr. James Valade) was in attendance, and that FWS has committed to producing a revised manatee SAR for the 2009 meeting.

2. Take Reduction Plan Updates

Stacey Carlson (SERO) provided an overview of the Bottlenose Dolphin Take Reduction Plan (BDTRP) - www.nmfs.noaa.gov/pr/interactions/trt/bdtrp_meetings.htm.

The team met 19-20 June 2007, which was a year after the plan's effective date. The purpose was to monitor the effectiveness of the plan, based on four goals:

- 1- evaluate the short-term goal for all management units, and identify conservation measures for reducing bycatch in the Summer Northern North Carolina Management Unit (MU) below PBR;
- 2- determine if the long-term goal of reducing estimated serious injury and mortalities for each management unit to a zero mortality rate goal (ZMRG) is being achieved;
- 3- identify changes to Plan to meet mandated goals, and;
- 4- identify mechanisms for continuing to monitor effectiveness of the Plan.

The TRT was provided with updated information on abundance, stock structure, mortality, fishery/gear, and held discussions on ways to continue monitoring the plan. Mortality estimates in the Summer Northern North Carolina MU were discussed, as were potential mitigation measures to reduce mortalities in this MU. New genetics and

telemetry data suggest revisions are required to the putative stock structure of the coastal management units (i.e., data suggest the potential for a new southern migratory stock). The team was also informed that bycatch for some MUs may exceed PBR. Simulations were performed to investigate what effect, if any, mitigation measures would have on reducing PBR. Carlson noted that the team came up with two suggestions on estimating mortality, in addition to reaching consensus on nine tasks, which were to estimate bycatch mortality using only the 2001-2006 data, and report mortality estimates since implementation of the plan. The consensus recommendations included: 1) Summer Northern North Carolina MU activities pertaining to gear research (i.e., pingers and depth/height of gear) and increased observer coverage; 2) research to clarify stock structure, revise PBR, and update the Team via conference calls; 3) implementation of the Plan; 4) education and outreach; 5) continuation of Virginia pound net leader research; 6) support proposed regulations for NC Beach Seine fishery and enhance observer coverage; 7) extend current sunset clause for medium mesh restrictions for Winter Mixed MU, and provide spiny dogfish updates in two years; 8) improve fisheries information data collection; and 9) obtain updated information on the Virginia black drum fishery to reconsider proximity requirements for this fishery. The next steps for NMFS are: refining stock structure, exploring new measures for the unit of effort used in the analyses, improving mortality estimate modeling, convening a conference call and full team meeting, and implementing consensus recommendations.

Lance Garrison (SEFSC) noted that the new stock information is presented as a hypothesis based on reanalysis of existing data, but NMFS is not ready to make new definitions pending additional analyses.

Baltz noted that landings are not equivalent to effort data. In response, Debra Palka (NEFSC) stated that in regards to a bycatch rate, effort is defined as a measure that increases as the number of observed takes increase (a statistical requirement) and it has to be available from the entire fishery in order to expand an observed bycatch rate to a total bycatch estimate (a practical requirement). Unfortunately, at this time, the only variable that is available for the entire fishery is landings. It happens that landings is a good metric (statistical requirement met) for examining bycatch of harbor porpoises. However, for coastal bottlenose dolphins there are other metrics that better satisfy the statistical requirement. There was some discussion on availability of soak time or other effort metrics. Palka noted that these data are not collected by all states in all gillnet fisheries.

Laura Engleby (SERO) provided an update on the Atlantic Pelagic Longline Take Reduction Team (PLTRT) - <http://www.nmfs.noaa.gov/pr/interactions/trt/pl-trt.htm> . She noted that the team was established in June 2005, is composed of a balance of stakeholders, and has met four times. A draft consensus plan was submitted to NMFS in June 2006. NMFS provides the team with quarterly Pelagic Longline bycatch reports and keeps the team informed of any other ongoing activities relative to issues of importance to the PLTRT.

Engleby stated that the SERO has partnered with North Carolina Sea Grant to fund two projects. Andy Read at Duke University is conducting visual and acoustic monitoring of pilot whale interactions during pelagic longline fishing operations. Preliminary findings indicate that though pilot whales are common in the study area fishermen are not always aware of their presence while fishing. Observations suggest that pilot whales clue in on the sets, and acoustic data loggers can be deployed on fishing gear, though refinement is needed in detecting the specific pilot whale acoustics. Additional research will be conducted next year by Duke. The second study is being conducted by D. Kerstetter at NOVA Southeastern University to evaluate hooks used in the fishery.

In addition, NMFS has drafted a proposed rule and associated Environmental Assessment (EA), which are in review at the SERO. The proposal recommends a mainline length of less than 20 n. mi., establishes a special research area off Cape Hatteras where fishers must be able to carry an observer upon NMFS' request to fish in this area, requires mandatory participation by fishers in a certification program that will train them on how to handle and release bycaught marine mammals and turtles, and requires mandatory placement of placards in the wheelhouse and deck of fishing vessels containing species identification and guidelines for handling/releasing hooked or entangled small cetaceans and turtles. NMFS will convene another PLTRT during the public comment period of this proposed rule.

In November 2007, the NMFS Highly Migratory Species (HMS) group proposed conducting research on swordfish recovery in the closed East Florida Coast and Charleston Bump areas. This will be conducted on a limited number of fishing vessels, but will be in an area where pilot whale/fishery interactions are not expected to occur, and thus may have limited benefit to pilot whale issues.

NMFS staff stated that the Government Accountability Office (GAO) is undertaking a review of national TRTs to determine their effectiveness and whether they are meeting statutory requirements. Sharon Young noted that the Pelagic Longline Take Reduction Plan (PLTRP) is still in internal review though it was drafted over a year ago, and expressed her concern over this long lag time and indicated this may be one of the reasons for the GAO review. Engleby stated that inadequate staffing and other priorities (right whale issues) have contributed to the delay, but new staff hires will move the plan along. The new hiring of Erin Fougères as the PLTRT Coordinator and Administrator of the Marine Mammal Health and Stranding Program, was announced. Engleby also noted that some of the recommendations have been implemented (i.e. the two research projects mentioned above as well as over 30 HMS workshops), despite the plan not being finalized. It is anticipated that the PLTRP will be moved to out of the region for review in several weeks. Young stated that litigation over the TRT plans has largely been due to delays in implementation. In this case, where the PLTRT seems to have reached consensus on the Plan, she hopes it is not NMFS that is holding up the Plan's progress.

Palka (NEFSC) provided an overview of the 17-19 December 07 Harbor Porpoise TRT - http://www.nero.noaa.gov/prot_res/porptrp/. The team was reconvened because bycatch levels during the last several years (2004-2006) exceeded PBR. This was in general due

to low compliance to the Take Reduction Plan and to increased fishing effort (and harbor porpoise bycatch) in areas not managed in the Take Reduction Plan. NMFS staff presented the TRT with information pertaining to: abundance and population changes, observer program, bycatch patterns, rates and effectiveness of pingers, and enforcement activities. The TRT discussed a combination of closures/pingers management options as incentives to improve the compliance and thus reduce the total bycatch estimate. Also that was consensus for more flexibility in the physical requirements of a pinger and allowing for experimental fishing to occur in time/areas that require pingers. These recommendations will be discussed further and refined, if needed, in a conference call that has been scheduled in late January 2008. .

Mike Simpkins (MMC) asked why it took so long to reconvene the team. Palka responded that the timing was not right (team composition, date conflicts, and data analysis). Also, in 2006 and 2007 there was outreach to the industry to remind the fishers that they needed to comply with the Take Reduction Plan. Waiting a short time after the outreach allowed the results of this outreach to be documented.

Palka also updated the SRG on the Atlantic trawl TRT- http://www.nero.noaa.gov/prot_res/atgtrp/. The team first met in September 2006 and held its final meeting in April 2007. She stated that TRT development was pushed back a few years until higher observer coverage was obtained and analyzed. Higher observer coverage demonstrated that the takes were below PBR. NMFS staff evaluated bycatch to determine if some gear characteristics or fishing practices were correlated with hauls with high bycatch. Unfortunately, the only correlations that were found related to the time and area of a take. Because the bycatch is already below PBR the team agreed that the best way to reduce the bycatch even further was to conduct experimental fishing to evaluate gear modifications. All the recommendations are non-regulatory, and fishermen encouraged NMFS to make additional progress on pilot whale stock id. Simpkins asked about the status of stock id work. Garrison responded that work was underway, but there were an insufficient number of samples during autumn/winter months when most of the bycatch occurs. He stated that SEFSC needs 45-50 ship survey days in autumn/winter to sample pilot whales in the problem areas. Palka noted the lack of funding for the research, but industry will self-fund video work (i.e., behavior of animals around gear). Simpkins also noted that if the low 2006 white-sided dolphin abundance estimate was used to obtain PBR, then the bycatch would exceed it.

Doug Nowacek asked if observers were collecting tissues from hooked/released animals in the pelagic longline fishery for genetic analyses. Garrison responded that though the observers are trained to do so and have the necessary equipment, it is usually not safe to bring the marine mammals close enough to the vessel during fishing operations, and thus attempts have not been successful to date.

Richard Pace (NEFSC) provided an update on the large whale TRT – <http://www.nero.noaa.gov/whaletrp/>. He noted that the different team components (i.e. fishermen, NGO's) are developing separate strategies for vertical gear. Fishermen want

low profile line and NMFS wants sinking line. NGO's are opposed to the use of low profile gear, because it is not risk adverse. A broad-based sinking ground line requirement will be implemented in October 2008. DAM zones will no longer be declared after April 2008, seasonal area management zones expand in April 2008 and then go away starting October 2008. Young noted that Maine/NH fishermen have lobbied Congress to take funding from NMFS to cover the cost of the sinking gear. The team is scheduled to meet in May 08.

3. Proposed List of Fisheries

Engleby (SERO) provided information on the proposed 2008 List of Fisheries (LOF), which was announced in a Federal Register Notice in November 2007. The Georgia cannonball jellyfish trawl was included as a Category III fishery. This experimental fishery, comprised of 1-8 vessels, operates off Georgia in February-April, and requires a permit and use of a Turtle Excluder Device (TED). The new market for this species is in Asia as protein wafers. There may be an issue with leatherback turtle interactions, which also feed on jellyfish. The comment was made that there is also a jellyfish trawl fishery operating in the Gulf of Mexico fishing in very shallow water, but this fishery has not been included in the LOF to date.

Shad was removed from the list of target species associated with the SE Atlantic gillnet fishery, due to a total closure in January 2005 for shad and river herring. The remaining gillnet effort which targets shad and river herring in rivers and bays remains included in the Category II Southeast Atlantic Inshore Gillnet fishery.

For the Southeast US Atlantic, Gulf of Mexico shark bottom longline/hook and line fishery, both the Northern Gulf of Mexico Continental Shelf bottlenose dolphin stock and the Eastern Gulf of Mexico Coastal bottlenose dolphin stocks were added to the list of marine mammals incidentally injured or killed in this category II fishery. Three interactions with bottlenose dolphins (including one mortality) were recorded by the Commercial Shark Fishery Observer Program between 1994-2003. The Shark Bottom Longline Observer Program has 3.9% observer coverage, with no bottlenose dolphin takes observed in the past five years. Given that the fishery still operates in the same general areas using the same type of gear, NMFS believe there may still be a level of low risk to these stocks.

In addition, some oversights were modified in the LOF for consistency with the SARs, namely in the Atlantic Ocean, Caribbean, and Gulf of Mexico large pelagic longline, and in the Gulf of Mexico butterfish trawl fisheries sections. This included changing the Bottlenose Dolphin Northern Gulf of Mexico Outer Continental Shelf, to the Bottlenose Dolphin Northern Gulf of Mexico Continental Shelf stock. The Bottlenose Dolphin Northern Gulf of Mexico Continental Shelf Edge and Slope was changed to the Bottlenose Dolphin Northern Gulf of Mexico Oceanic stock.

Three public comments were received on the proposed LOF. The majority of the comments were aimed at enhancing the stock assessments in the Gulf of Mexico. In addition, there was a request to elevate the purse seine menhaden and blue crab fishery to a category I fishery. NMFS does not currently have any data to document interactions with marine mammals in these fisheries, but will investigate this further as limited funding permits. An annual timeline for a more consistent LOF publication process was developed where the proposed LOF would be published around July 1 of each year, with the final LOF published in November. The SERO also indicated NMFS is working to enhance communication and coordination with the Councils in the LOF process, and has extended the comment period to this end. There have also been changes to implementation of the MMPA to streamline and target those fishers who need to register their vessels, which is summarized in the final LOF. The MMPA mandates that even though a fisher is registered, he/she still needs a certification to participate in category I and II fisheries to avoid a fine if a marine mammal is incidentally taken during the fishing operations. An online registration was established to supplement the traditional method of mailing in the registration material. Palka asked why this certification was done on an annual basis, to which the SERO responded that it was mandated under the MMPA. Young expressed her concern that fishers are not required to be certified other than to avoid a violation if a marine mammal is caught—there is not a mandatory requirement to apply for certification.

Changes for the NE region included clarification of the mid-Atlantic gillnet fishery.

The SERO funded some work in the GOM. The SERO is partnering with the Alabama/Mississippi Sea Grant to put out a RFP for research on bottlenose depredation and tourism impacts. The RFP closes February 9. Information on this RFP can be found at <http://www.masgc.org/funding/dolphinRFP.pdf>.

The SERO and SER held two workshops in LA/MS and one in Alabama to work with stakeholders to build marine mammal stranding response in these areas and to provide education on what the marine mammal issues are in these areas. The Region is also conducting human interaction training to improve determination of human interactions with stranding network participants. A stranding coordinator was also funded in the Florida panhandle, and there was an increase in dissemination of outreach materials.

4. Stranding Program / Events

Garrison (SEFSC) reported that there were two multi-species UMEs in the Gulf of Mexico—one in the central western Florida and one in the Florida panhandle. Both are now closed. There was a short-lived UME off Texas and Louisiana involving coastal bottlenose dolphins. Sixty animals stranded over a couple of weeks in February-March, including many neonates.

The strandings database had not been well audited, so a temporary employee was hired to audit the past five years of data. Dan Odell is auditing his stranding database from 1977 on, so all level A stranding data will be finalized.

There was only one right whale calf stranding in 2007, which was a calf with a congenital abnormality that stranded off North Carolina. No ship strikes were reported for this species this year.

Terry Rowles discussed the Gulf of Maine seal morbillivirus UME of 2006-2007. It appeared to increase in 2007. Initial findings have been phocine distemper virus and brain infections. Samples are still being analysed. The virus in the US is different from that in Europe in that there are neurological signs, not respiratory illnesses. The UME is still open. A large proportion of stranded animals have been sampled but US processing labs (e.g., USDA and Plum Is) will no longer process marine mammal samples. Samples were sent to an Oklahoma lab, but the principal investigator there left, thus foreign labs are the only option until new US labs can be identified. Presently, there are no US facilities that can handle a large morbillivirus outbreak. There is an immediate need. The stranding program is in the process of working with new labs to develop testing protocols. The time for processing the samples is a significant impediment to rehab facilities and to control of the disease.

NER has closed one of the 'rehab' facilities due to improper pick-up of animals, as well sub-standard record keeping.

The prior UME off Maine was asked about, and Rowles replied that animals were collected at stages that were too late to obtain definitive causes of deaths.

Rowles noted that there are over 100 known pathogens in marine mammals, and the list is likely to grow. They are working to identify which may be zootic (to responders) or epizootic.

The Marine Mammal Health and Stranding Response Program (MMHSRP) is currently undergoing a programmatic National Environmental Policy Act review, which includes the finalization and issuance of the Policies and Best Practices. The notice of availability for the Draft Programmatic Environmental Impact Statement (PEIS) was published in the Federal Register on March 16, 2007 (72 FR 12610). The Draft PEIS, Policies and Best Practices, and other supporting documents are available on the MMHSRP website: <http://www.nmfs.noaa.gov/pr/health/eis.htm>. The Final PEIS is anticipated in early 2008.

NMFS has published an Advanced Notice of Proposed Rulemaking (ANPR) in the Federal Register (73 FR 5786; January 31, 2008) and is soliciting public review and comments to better inform the regulatory process. The comment period on the ANPR ends on March 31, 2008. http://www.nmfs.noaa.gov/pr/health/mmpa_anpr.htm

Baltz asked if there is a tissue bank for observer samples. Rowles replied that the National Institute for Standards and Technology (NIST) has established a bank for tissue

samples from bycaught animals – with a focus on samples to be analyzed for heavy metals and organics. However, the collection/storage criteria were not adequate for samples to be analyzed for diseases or biotoxins. Michael Moore, with funding from the Oceans and Human Health Program, is processing and archiving NER bycaught samples (whole animal). The SE is also working to obtain tissue samples.

Rowles also overviewed national programs that are underway to handle samples.

5. NEC Updates

Palka made a presentation on the August 2007 abundance surveys in the North Atlantic, which were north of Cape Hatteras. This survey used a plane and a ship. The aerial portion was conducted using previously developed methods (the circle-back method) that were discussed at previous SRG meetings. The shipboard survey was conducted on NOAA's new ship, the R/V Henry Bigelow, using the Buckland-Turnock tracking method (new for the NEFSC, but a globally well accepted method). In addition, the shipboard survey had a seabird observer team, a passive acoustic team listening for marine mammals, and scientists also conducted bongo and CTD sampling. Part of the area that the NEFSC had previously surveyed was in Canadian waters. This year was the first time the Canadians also had funds to conduct their own abundance surveys. Thus, the abundance estimates from the US and Canadian surveys will have to be combined to obtain the best population abundance estimates. It is expected the abundance estimates will be completed by the summer of 2008.

Nowacek asked when estimates are combined, if short term movements between areas will become an issue. The response was that it is not an issue since US and Canadian surveys were conducted during the same time period. Bill Lang asked if the sound level of the Bigelow has been evaluated. Response was affirmative; this was conducted in the spring and is available. Simpkins asked if NEFSC is working with the Canadians to ensure that data analyses will use similar methods. Response was affirmative; also, there will be a meeting in April in Copenhagen among principal investigators from both sides of the Atlantic to review the 2007 surveys.

The Bigelow is scheduled for 60 days in 2008, but the survey region/protocol is still under review. An abundance survey in only the northern portion of the US Atlantic will be insufficient.

Pace presented his 2008 plans, which include Delaware cruises in Feb/March & May (one month each) dedicated to right whale work. The February/March cruise will focus on oceanographic research on critical habitat and the Calanus resource. The May cruise will enhance right whale photo-ID work in the Great South Channel. He also summarized the collaborative studies with SE groups to biopsy calves in order to improve estimates of calf (<6 mo) survival and to identify animals that do not use habitats in the northeast region.

Pace said the large whale distribution surveys have been sampling randomized blocks for the past 4 to 5 years. NEFSC now believes they have sufficient data to map seasonal habitat use – density maps can be used to obtain probabilities/relative risk of right whale interaction with fishing gear. Blocks of habitat have been identified that are important to right whales over multiple years. This will allow NEFSC to optimize flight time for photo-ID. Fewer broad scale surveys will be flown, but they will be more focused.

Young pointed out that in 2007 there were a fair number of sightings off Maine in summer. Pace agreed, but said that that area (Jordan Basin & Jeffreys Bank) has been sampled over the period. Young also asked about the mid-Atlantic area.

Gordon Waring presented NEFSC's passive acoustic work with the help of a powerpoint presentation prepared by SofieVan Parijs (NEFSC). The passive acoustics program at NEFSC started in late 2005. Currently there are 3 main research areas: 1) the Stellwagen Sanctuary Ocean Noise Project; 2) abundance estimation of marine mammals; and 3) acoustic behavior of marine mammals. The Stellwagen Project started in January 2006 and ran for a total of 14 months. Its aim was to carry out broad scale passive acoustic monitoring of biological and anthropogenic noise within the sanctuary. This project led to a 3 year National Oceanographic Partnership Program grant being awarded involving collaborations between Cornell University, NOAA Sanctuaries and NEFSC for 'developing an ocean observing system for large scale monitoring and mapping of ocean noise throughout the Stellwagen Sanctuary'. This project started in October of 2007 and will continue into 2010.

In 2007 acoustic data was collected on the abundance estimation of marine mammals cruise in the Gulf of Maine. This will be followed by further data collection during the 2008 offshore survey. The work on acoustic behavior of marine mammals focuses on developing an increased understanding as to how individual animals and different species use calls during different social events, aggregations and seasons.

Day 2: Thursday, 10 January 2008

6. SEC Updates

Garrison reported that the University of North Carolina flew surveys from February to March, instead of December – March as was done last year, due to lower funding. A Surface Active Group (SAG) was found in the Gulf Stream during these surveys. Budget issues are restricting aerial survey time.

In 2007, the SEFSC completed an aerial Eastern Gulf of Mexico survey in waters from the shore to the shelf break, with most of the effort concentrated in 0-20 m depths. The winter survey took place from 17 January – 28 February covering 8,911 km of trackline, with 236 sightings of 1251 animals reported. A summer survey also took place in this area, from 21 July to 8 August. During this survey, 7711 km of trackline were flown, resulting in 162 sightings of 962 animals. Some extra lines were flown in summer along

the 200 m isobath to look for Bryde's whales. Two sightings of a total of 3 whales were seen in the same region where they have previously been seen.

Broad scale winter 2007 abundance estimates were summarized, while the summer analyses are still ongoing. Overall, the precision (CV 33%) was good, with much more precision in nearshore waters in comparison to offshore waters. This variation was due to both the encounter rate as well as group size.

Habitat modeling work is being conducted in cooperation with DOD. Spatial grids of 5x5 km cells encompassed the survey area in the Gulf of Mexico. General Additive Modeling was used to investigate correlation of cetacean distribution with sea surface temperature, chlorophyll a, depth and distance from shore. Sightings factors (i.e., glare and sea state) will be factored into the model. At first glance, it appears that there is a good model fit. Ultimately, the model will be used to generate spatially explicit density maps to predict seasonal encounter rates.

Garrison was asked if he will look at historical data, and he indicated he did plan to, but there were some problems with the sighting functions and some of the environmental data may not be available.

It was also asked if any manatees were seen. There were some manatee sightings, and Jim Valade asked that these sightings be shared with FWS, which they will.

Keith Mullin (SEFSC) described the 2007 shipboard surveys in the continental shelf region of the Gulf of Mexico from Brownsville, Texas to Key West, Florida covering 8,000 km of transects. Three 20-day surveys were conducted from mid-June to mid-August to gather abundance information and biopsies primarily of bottlenose dolphins and Atlantic spotted dolphins. Only one observation team was used, so no $g(0)$ will be possible. Mechanical problems on the first leg precluded completing all of the transects off Florida. The goal is to distinguish the offshore from the coastal ecotypes to allocate abundance estimates and PBR for each ecotype and for contaminant analyses. There were a lot of spotted dolphins off Florida and off Brownsville, with very few off the Mississippi delta, and it is hoped that the biopsy samples will determine if these are different stocks.

Fifteen to forty Bryde's whales were seen along the 200m isobath off the Florida panhandle where they have previously been seen. Biopsies were taken of 7 Bryde's whales.

There were 247 groups of *Tursiops truncatus* recorded, 64 groups of *Stenella frontalis*, 9 groups of sperm whales, 3 groups of Bryde's whales, 2 groups of Risso's dolphins, and 2 groups of rough-toothed dolphins. Biopsy samples were taken from *Tursiops truncatus* (253 samples), *Stenella frontalis* (58 samples), Bryde's whale (7 samples), 5 rough-toothed dolphin (5 samples), pilot whale (2 samples), and *Stenella longirostris* (2 samples).

Larry Hansen (SEFSC) described the bottlenose dolphin biopsy sampling program in the Choctawhatchee Bay, Florida in July and August. There was a photo-identification team as well as a biopsy team. The survey covered the bay perimeter and included north-south transects across the bay, and extended into the small inlets. 7000-10,000 photos were taken for photo-identification, which are currently being sorted and matched. They are anticipating there to be 150-200 individuals in this bay. Previously existing information had indicated bottlenose dolphins were only using the western portion of the bay, but this survey has shown this species to be distributed throughout the entire bay. Mark-recapture analyses were planned, based on results of a proposed winter survey in this bay. Budget reductions, however, may prevent this from taking place. L. Schwacke will be doing contaminant analyses on the biopsy samples for health assessment analyses, as this bay was part of a previous UME.

Valade (FWS) inquired whether any manatees were seen. Hansen indicated he would check the data since he was not part of the field team, but normally the team collects sightings of other species. Valade indicated this is an area of limited information on manatees, and the FWS would be interested in any sightings.

Nowacek indicated he has some students collecting photo-ID samples in the region, which may augment the SEFSC data. His students are getting good coverage of the area, which could potentially be used for abundance estimation.

Mullin indicated that in 2008 the SEFSC planned to do a winter western Gulf of Mexico coastal aerial survey, which was cancelled due to budget limitations. Hansen's winter Choctawhatchee Bay work will also likely be cancelled. The SEFSC plans to conduct a summer shipboard survey in the Gulf of Mexico in waters > 200m to fill in biopsy sampling gaps. Likewise, the summer western Gulf of Mexico aerial survey is still scheduled, though it may not occur due to the limited budget. One to two bays, sounds and estuary research projects are planned, though the exact location(s) have yet to be determined, and budgetary constraints may impact this research. Given the bleak budget outlook (50% of the proposed budget was cut), the summer shipboard survey may be the only research to be conducted.

7. FY08 Budget Status

Garrison (SEFSC) reviewed the budget concerns, indicating that \$4 million were lost when the marine mammal initiative line was cut. Half of the loss was assumed by the SER and SEFSC, which seems to be a disproportionately large cut. He indicated these reductions are actually cutting into the muscle of the region, as they have lost one-third of their budget this year and will have to downsize their program to meet the current fiscal limitations. The budget cut will severely impact the bottlenose dolphin work, as well as the strandings response. They may have to lose long-term contractors (who have been with the program 8-10 years) from Pascagoula, Beaufort and Miami. The long term severity of these budget cuts was emphasized. This region has ramped up their capabilities over the past few years, and will now have to go back to extremely limited capabilities if the present budget constraints continue.

Engleby (SERO) explained they will also be impacted by the cuts. There will be a reduction in observer programs, gear research, TRTs, and other cooperative programs. Thus, many successful outreach programs, etc. will be impacted. There is some money to continue the TRTs from 2007, but won't be able to do so beyond that. This is going to be a severe set back, not just for this year, but for the long term.

The ASRG asked why the SE is taking the biggest financial hit. Tom Eagle (PR) indicated the budget office laid out a budget scenario based on the cuts to the marine mammal programs. A \$7 M reduction was offset by a \$3M increase, so overall it is a \$4M reduction. The bottlenose dolphin program was zeroed out, and the Marine Mammal Initiative was reduced, though these were two of the largest budgets in NMFS. The agency will be able to make some adjustments, but is not likely to be able to make up the entire cut. Garrison reiterated that we are looking at long-term impacts, and he is not optimistic that the disproportionate SE cuts will be rectified.

David Cottingham (PR) explained that many NMFS programs have relied on congressional markups to maintain programs. The politics of 2007 resulted in few markups, thus programs have been severely impacted.

Young stated that the NGO community has complained to NMFS for years that the agency is not requesting enough money to support the research it needs to conduct, and reiterated that NMFS needs to make more reasonable budget requests. She indicated that the NGOs can't pressure Congress for more funds than what we request. She suggested the ASRG should draft two letters. The first should describe some things that the Agency should do in terms of their budget requests. The second letter should indicate that there is a potential crisis for bottlenose dolphins under the present budget scenario, and should discuss the management ramifications of this.

It was suggested that these letters go to John Oliver, as his role is Acting Director of the agency, and to the Secretary of Commerce. Eagle cautioned that NMFS has to work under specific guidelines in submitting budget requests as part of the overall federal budget. NMFS request must fit overall administration priorities and, often, if an increase is requested for X, then a decrease for Y is mandated.

Eagle noted that the cuts were not directed only at the SEFSC/SERO. The health and strandings program also received a significant cut. Cottingham also commented that NMFS will not be able to conduct the level of investigation into UMEs that is necessary.

The MMC has also held discussions with congressional staff on the impact of the budget cuts for years. It was suggested that perhaps the federal funding survey should be re-initiated to be able to quantify the decrease in funding over the past few years. The MMC is open to any suggestions on how they can help out. Randy Wells indicated that much of what the marine mammal research community has learned has come from the integration of various components (strandings, aerial surveys, etc.) so it is important to stress that budget cuts won't only impact each individual component, but will also impact

the information we will lose through integration of this collective data. Lang cautioned that some of the research underway is strongly influenced by NGOs (i.e., acoustic research) whereby budgets are taken away from other components of a program. He reiterated that for years we have asked the Navy to be more transparent, and now that they are more transparent, we seem to be dealing with many of their issues.

8. Manatee Issues

Valade (FWS) reviewed the FWS manatee program. In October, the Center for Biological Diversity and the Turtle Island Restoration Network filed a lawsuit charging that the Department of the Interior failed to take global warming into account when managing sea otters, manatees, and other species. The complaint was made that there was not a current SAR in hand. The two positive outcomes from this are that the FWS will be drafting a separate SAR for both the Florida and Antillian manatee. These draft SARs are expected to be completed in September 2008, as they have to go through four layers of review. These SARs will go before the ASRG before they go out for public review.

The FWS has disbanded its manatee recovery team, as good progress has been made, a new recovery plan is being drafted, and the need for a new more streamlined team was implemented. The old team was composed of 130 members, whereas the new team will be smaller (about 10 members), but include broad stakeholder representation. The manatee stakeholder forum, which is a conflict resolution process, will be initiated.

The FWS concluded its 5-year status review for the West Indian manatee (including the Florida and Antillian stocks) and concluded that both stocks look like they were threatened vs. endangered, but the Agency did not move forward on the change at this date.

The Florida Fish & Wildlife Conservation Commission adopted a state management plan, but deferred the vote on reclassification. There is not a secure warm water environment for manatees, so this must be addressed before reclassification of the species. The management plan is similar to the FWS recovery plan, but more current.

The ASRG asked for confirmation that a Florida manatee was sighted in Puerto Rico. Valade confirmed this, indicating that it will be included in the SAR and noted that movement of animals through the Caribbean has been noted in prior years. A Crystal River manatee was recently seen in Cuba. Valade also noted that significant storm events may be a factor in movement of animals into the Caribbean. A genetics workshop held last year is suggesting some well defined lines of demarcation, so it may be possible to determine some population distinctions. Another manatee workshop will be coming up in April 2008.

A manatee program under the auspices of the Puerto Rico Natural and Environmental Resources Department is just beginning in Puerto Rico, where the focus is on gaining a

better idea of numbers and locations of manatee habitats, to develop appropriate protection for these areas.

The FWS conducted a synoptic aerial survey in Florida from 31 January – 1 February 2007. Survey conditions were good and 2,817 manatees were counted. A subsequent aerial survey workshop was held in spring 2007 to develop a new survey methodology to help capture confidence intervals, which are lacking from the aerial surveys. For years the public has used these as absolute counts, but they in fact should be taken as estimates.

Florida recently released the 2007 report on manatee deaths, announcing 317 carcasses were recorded and separated by cause of death as follows: 73 were killed by water craft, 2 in flood control structures, 5 through other human-related causes (none fishery related, 1 animal was shot and butchered), 59 were perinatal, 18 died from cold stress, 81 died from natural causes, 67 could not be determined, and 12 were unrecovered. Included in the number of natural causes are 52 attributable to the red tide, 9 of which were on the east coast of Florida, which is extremely rare.

The ASRG asked if there was any indication what the state policy will be on reclassification. The state delayed this determination because there was a problem with the definition. The state adopted the ICUN criteria, with some modifications- so many species (e.g., panther, right whales, etc.) will not meet the new criteria. The commission is rewriting the criteria.

Captive animal “Snooty” will celebrate his 60th birthday in 2008.

There was a question posed regarding N_{min} used in the SARs. In the past, they have used the minimum population estimate from aerials surveys as N_{min} , but recent analyses are going to use the “best number” approach if the sightings conditions are very good. Valade asked the ASRG for advice on which approach they should use. The GAMM guidance says use the best number, as opposed to the most recent number, if the environmental parameters were not good in the most recent number.

Valade provided an overview of the number of manatees that are found with gear, which included crab pots and entanglement in monofilament line. Disentanglement efforts have been very successful, so the FWS is cautious about using the Serious Injury (SI) designation. The FWS does not have a good feeling for how many of the manatees do not survive these events, since they see animals with missing appendages that seem to be doing well. Eagle explained this is also an issue for the species under NMFS jurisdiction, as it is not addressed in MMPA language, but rather is in NMFS regulations. Eagle briefly reviewed the NMFS protocol, new workshop recommendations, etc. The SI working group was interested in including manatee info into their review because of the good re-sighting history for entangled/released animals. Valade indicated he will be in further contact with the ASRG as his agency continues to ponder this question.

8. Right whale issues

Cottingham (F/PR) provided an update on the proposed ship-strike rule. Comments were incorporated and final rule was prepared, but the rule is 'stuck' in OMB—normally a 90 day process which is now approaching its one year anniversary. OMB has been recommending changes, NMFS generally has not incorporated them, and thus the rule is still in 'review'. NMFS is using education outreach to warn mariners of concentrations of right whales and recommending that speed be reduced—but they are restricted to recommendations until the rule is passed.

Nowacek asked what happens when the one year anniversary passes. The response was that it is possible that some compromise may be reached, but OMB may just send it back without approval and the process would have to start over. Garrison and others briefly reviewed the various conference calls between NMFS and the OMB analysts who had conducted statistical analysis. Young said some litigation was filed to move the rule forward, but a judge dismissed the suit. The NGOs are examining other litigation options if the rule continues to languish. She also noted that industry has been fighting the rule and data analyses. The whole thing is likely to be a slow process.

9. Stock Assessments

Waring (NEFSC) informed the ASRG that the 2007 final SARs have been completed, but that they are waiting for the other regional SARs to be finalized so that all can be released in one Federal Registrar notice. There will be limited hard copies, but the ASRG members will each be given a hard copy.

Atlantic Bottlenose Dolphin Coastal stock:

Rosel (SEFSC) and Garrison (SEFSC) described the recent analyses underway to update this SAR. In summary, this research will be used to: 1) verify the original stock definitions; 2) using new biopsy samples and genetic analyses, suggest the possibility of a second offshore stock and support the distinction between the estuarine and coastal stocks at the same latitude; 3) using new tagging data, support the addition of a coastal migratory stock; 4) using habitat analyses, describe variable stock boundaries and estimate abundance and PBR; 5) suggest changes in the management unit.

Rosel explained that research is ongoing to verify the current stock structure by increasing biopsy sample sizes to cover poorly sampled regions and through use of alternative genetic analyses. Additional samples have been obtained from New Jersey and Virginia, and samples from the Gulf of Mexico were used as a yardstick for comparisons between ocean basins. All analyses are still supporting the multiple stock hypothesis.

Rosel explained that very preliminary data suggest existence of a 2nd offshore stock south of Cape Hatteras. Historically mtDNA has been the standard for comparison of offshore versus coastal morphotypes, with the latter being sampled from strandings. There had

never been an offshore morphotype carcass with coastal mtDNA. However, when microsatellite nuclear analysis is also performed, there is a potential for a 2nd stock offshore. The coastal dolphins sampled have coastal mtDNA types, coastal microsatellite types, and coastal morphology. The dolphins sampled offshore have the offshore mtDNA types and offshore microsatellite types. What was surprising is that there is a group of sampled animals geographically in the middle of the coastal and offshore samples that have their own microsatellite signature and predominately offshore mtDNA types, though less than 10% of the animals have a coastal mtDNA sequence. If this was a hybrid zone, one would expect to see the microsatellite signature to be a mixture of the coastal and offshore signatures but they are unique and so it appears unlikely that these are hybrid animals. Duffield had also suggested an intermediate hemoglobin type, and there has been discussion that perhaps a distinction can be seen in the body morphotype, so a review of photographs may reveal something. Rosel plans to send Mullin a list of biopsy samples analyzed to see if the photographs depict any differences. Many of the samples are taken off the bow of the R/V Gunter, however, so photographic documentation may not be available for this analysis. Further examination of the data is planned.

There was a discussion on photogrammetry work in association with biopsy sampling, and Nowacek suggested that new photographic software, called PhotoModeler, may help to estimate animal size. The SEFSC will investigate this as a way to use photogrammetry to get a better record of morphometric size comparisons.

The issue of differentiation between estuarine and nearshore populations was discussed by Rosel. Earlier genetic and photo-identification studies suggest a resident estuarine populations in some areas along the Atlantic coast. The question remains as to the relationship between these estuarine animals to nearshore (>2 km from the beach) animals found at the same latitude. For example, what, if any, degree of mixing is there between estuarine and nearshore animals at the same location, and is there a seasonal component to any mixing? This is being addressed through concerted biopsy sampling which began in 2002 during winter and summer at three locations: Charleston, South Carolina; the South Carolina/Georgia border; and southern Georgia in both estuarine and coastal waters at all three localities. Analyses to date support a distinction between estuarine and coastal animals at the same latitude, as well as a distinction between estuarine stocks. Tests for differentiation across seasons at each site were insignificant. Comparisons of the 3 nearshore sample sites showed mixed levels of differentiation. Using mtDNA, the comparison of southern Georgia nearshore to southern South Carolina nearshore was not significant but both compared to nearshore Charleston, SC were significant. Analysis of microsatellites revealed no significant differentiation among the three nearshore sampling locales. Overall, these analyses provide support significant differentiation among the estuarine populations but less differentiation among the nearshore locales.

Garrison described the coastal bottlenose dolphin telemetry tagging studies that have been conducted through the Beaufort lab to identify migratory movements using long-term tag deployments. Four animals were tagged off Cape May, New Jersey in

September 2002 and 2003, with tags lasting up to 1 year. All four moved from New Jersey to Cape Hatteras, remained there for the winter, then moved northward again to New Jersey. This confirmed an earlier hypothesis that at least some of the animals from Cape May winter off Cape Hatteras. The four animals were in groups of other animals, so this migratory pattern is likely representative of more than just these four tagged animals.

Two animals were captured and tagged off Holden Beach, North Carolina in November 2004, with tag durations up to 8 months. One animal moved south and stayed off South Carolina, while the other animal moved south and remained off Florida. The movement as far south as Florida had not been anticipated based on earlier findings, so the southern migratory stock is now being considered a new management stock. To provide clarification, Garrison is using divisive clustering analyses by Medoids and ordination methods to examine the spatial patterns of bottlenose dolphins north of Cape Lookout, North Carolina. Survey data from the summers of 1995, 2002, and 2004 were used in the analyses. The sightings were clustered based on latitude, depth, temperature and distance from shore. Two clusters turned out to be the best for all three data sets – with similar median sea surface temperatures for each cluster for each year. Discriminant analysis shows a strong separation by temperature and latitude, and a low assignment error. The third and fourth clusters began artificially splitting by depth gradient. He is satisfied that the models illustrate consistent patterns of habitat use with strong evidence for two clusters, though the north/south extent appears to vary with year. There appears to be a well defined geographic split between northern and southern migratory stocks in some years, but more overlap in other years.

Based on the new data analyses, the SEFSC has developed a new stock structure hypothesis. In the summer, there appears to be a northern migratory stock north of the Chesapeake Bay, and a southern migratory stock off Cape Hatteras, and in the winter the northern migratory stock moves south to central North Carolina while the southern migratory stock moves further south.

There are several concerns that need additional research. It is not known if there are any North Carolina estuarine (*or coastal*) residents - as the Pamlico Sound dolphins may go outside the Sound in winter, so these animals could be part of the southern or northern migratory stock. There is also a question as to whether there are multiple coastal stocks. These are NOT the animals that Rosel showed earlier which were in the middle of the coastal and offshore, as the animals in question here are further inshore. There is some tagging evidence that the coastal stock begins nearshore as they start moving south, then moves a bit more offshore as they continue the southward migration. It is likely that we may be dealing with mixed stocks that can only be dynamically refined with new analyses and additional samples.

In summer time, cluster analysis allows the development of abundance estimates for each of the stocks. Mortality assignments are another issue – some reassignments have been made, particularly for the northern and southern migratory stocks. The next issue is how to allocate fishing effort and observed effort of the takes.

Work continues to confirm assigned spatial clusters with genetic findings, complete analyses of genetic data to determine southern coastal structure to see if there is one or more groups, and to complete analyses to differentiate coastal morphotype versus continental shelf versus offshore distributions. Methods will be evaluated to adapt mortality estimates to the revised spatial boundaries determined from habitat analyses. More detail is needed on the exchange rate between stocks. The depleted status of the stocks will be re-evaluated once these stocks are better defined.

Garrison asked the ASRG for advice on whether the southern stock should be separated out based on these preliminary findings. The ASRG suggested keeping it together as one stock pending additional information. Any separation will change PBR and the mortality estimates, which has significant management implications, so caution should be taken until there is sufficient information to make changes. The question was asked whether the SEFSC is comfortable with the SAR as drafted, given that the information appears to be provisional right now. Garrison indicated his confidence in the SAR as drafted, as it indicates we are trying to focus on real biological stocks that move relative to dynamic environmental conditions, which the ASRG agreed is a great step forward. The importance of ramping up the effort in differentiating the bays, sounds, and estuaries stocks was discussed. The SEFSC will have a draft SAR for this stock(s) for the 2009 SAR process. NMFS plans to use the photo-identification data for the N_{\min} estimates.

Waring reviewed a proposed new appendix that would summarize all available abundance estimates and survey data. The SRG generally approved, and it was suggested that it could include a hot link to survey plots indexed within the document.

Wells asked if there are any adjustments to N_{\min} based on large UME events. Pace responded that this would reduce the lower bound of the estimate and may not have any bearing on the animals sighted in the abundance surveys. Hansen said unless you know the origin of the stranded animals, they cannot be assigned to a stock. This is an issue for the coastal bottlenose dolphin strandings.

The beaked whale strategic status was discussed. There has been little bycatch in commercial fisheries (e.g. pelagic longline), since the driftnet fishery has been closed. Strategic status was based on the concern over potential acoustic mortality and imprecise abundance estimates. Kogia is also listed, but there have been strandings of this species. There was general discussion of the merits of the designation. Young suggested some revised language for clarifying the designation—see Kogia in the northern Gulf of Mexico. It was also noted that the likelihood of finding carcasses is low because they are an offshore species.

Carol Fairfield (SEFSC) provided an overview of the information in the new rough-toothed dolphin stock assessment report. Sightings will be listed and no N_{\min} will be reported. It was noted that most mass strandings are off Florida, which is a region not well covered by the SEFSC surveys.

Atlantic spotted dolphin GOM stock– Young pointed out that there were the animals that were mentioned in another SAR as part of a UME.

Clymene – GOM – no comments.

Pantropical GOM – no comments.

Pilot whale long-finned – Atlantic – editorial.

Pilot whale short-finned Atlantic - editorial & strandings item (footnotes). Mike Simpkins- wanted to know status on stock – id work.

Pilot whale short fin – GOM – no comments.

Risso’s NW Atlantic – minor editorial comments.

Risso’s GOM – minor editorial – provide more details on animal released from Pelagic II fishery.

Harbor porpoise – no comments, although some numbers did not add correctly, also include info that Canada does not observe the fishery any more.

Atl. Whitesided dolphin – no comments other than note to include ‘Atlantic’ in stock name.

Fraser’s GOM – no comments.

Common dolphin Atlantic – strandings table – 2003 strandings in Florida not in Odell’s data, change stock name to short-beaked

Gray seal – no comments

Harbor seal – question on bycatch relative to pingers

Harp seal – concerns regarding ice conditions and

Minke whale – editorial – some comments on minke whale strandings and % that were necropsied; stranding records should be reexamined for entanglements/releases

Right whale – editorial comments.

Sei whale – editorial only.

Dwarf Sperm whale GOM – no comments/ strandings table program.

Pygmy sperm whale GOM – no comments strandings table program.

Sperm whale GOM – new pubs are available and should be cited – independent pop est available from MR studies – impact of steel platforms at 1000 m.

Blainville’s beaked GOM – no comments, some editorial, include UME info.

Cuvier’s beaked GOM- some editorial, same as above.

Gervais’ beaked whale GOM – some editorial, same as above.

Northern bottlenose whale – question on stranding in Delaware Bay – calf not recovered.

Bryde’s whale GOM – no comments.

Fin whale – Atlantic – annual human caused mortality – text missing on fishery mortality.

Humpback whale Maine – question on status of delisting; missing a 2006 SI off Florida.

False killer whale GOM – no comments.

Killer whale GOM – no comments.

Melon-headed whale GOM – strandings table not correct/ summary table has misspelling.

Pygmy-killer whale GOM – check strandings table.

Rough-tooth dolphin – see above.

Rough-tooth dolphin GOM – editorial.

Spinner dolphin GOM – no comments.

Striped dolphin – NWA – no comments.

Bodo, WNA offshore – pop size – combined abundance estimate; check numbers; pelagic ll release animal; mid-atl gillnet bycatch missing-include reason.

Bodo, WNA coastal – missing citation – some editorial comments – table 2, mortality for northern migratory needs clarification – contaminant info from Georgia – crab pot mortality clarify – clarify research mortality – provide criteria for delisting from depleted.

Bodo, N GOM continental – no comments, minor editorial.

Bodo, GOM coastal – minor editorial.

Bodo, GOM oceanic – minor editorial.

Bodo, GOM bay, sound, estuarine – no comments.

Appendix III –fisheries descriptions – comments from Seagraves and Baltz.

10. ASRG Business

APPENDIX I
Atlantic Scientific Review Group
Draft Meeting Agenda – January 8-10 2008
Monterey, California

Tuesday, January 8, & Wednesday (morning) January 9, 2008

Joint SRG meeting

- F/PR agenda

Wednesday (noon), January 9, 2008

1. Introduction (Baltz, Waring)

- Welcome, housekeeping
- Travel reimbursement
- Introductions
- Appointment of rapporteurs; Minutes deadline
- Agenda review and schedule
- Documents

2. Take Reduction Plan Updates

- BDTRP (SER)
- PLTRT (SER/SEC)
- ATTRP (NER/NEC)
- HPTRP (NER)
- ALWTRP (NER)

3. Proposed List of Fisheries

- Regional changes (SER/NER)

4. Stranding Program / Events

- Gulf of Maine harbor seal UME (NER /SRG)
- Southeast region (SEC/SER)

5. NEC Updates

- NEFSC 2007 surveys (Palka, Pace)
- Status on abundance estimates from 2007 surveys (Palka)
- NEC 2008 survey plans (Palka, Waring, Pace)
- NEC Acoustic Research

Thursday January 10, 2008

6. SEC Updates

- Abundance estimates for the Gulf of Mexico 2007 abundance surveys (Mullin)
- 2007 SEFSC fieldwork (Garrison, Mullin)
- 2008 SEFSC fieldwork plans (Garrison, Mullin)

7. FY08 Budget status

8. Manatee Issues

9. Right Whale Issues

- Update on NMFS's regulations to reduce the threat of ship strikes (F/PR)

10. Stock Assessments

- Status of 2007 SARs (NEC/SEC)
- Review Appendixes (NEC/SEC/NER)
- Review draft 2008 SARs (NEC/SEC)

11. ASRG Business & Wrap-Up

- Finalize recommendations from this meeting
- Venue and timing for 2009 meeting
- Adjourn

APPENDIX II

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Monterey, California.

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