

**Minutes of the Atlantic Scientific Review Group Meeting
St. Petersburg, FL, 6-8 January 2009**

Tuesday, 6 January 2009

1. Introduction

Gordon Waring (NEC) welcomed everyone to the 15th annual ASRG meeting, and thanked the SER staff for hosting the meeting. He welcomed Joe DeAlteris to the chairmanship. Laura Engleby and Anne Ney (SER) reviewed support logistics for the meeting. Engleby also introduced Dave Bernhart, SER Assistant Regional Administrator for Protected Resources.

Two new members have been appointed to the SRG. Andy Read, Duke University Marine Laboratory, was reappointed and Jack Lawson, Department of Fisheries and Oceans (DFO), Newfoundland, Canada, is a new member. Tom Eagle (NMFS-PR) said there is no magic number of people needed on the SRG. We can ask for another if needed. Also, there are no restrictions on the number of people from the same institution. Read asked if there will be an issue with travel for Lawson. Waring said no, it was just for this one because the nomination process was not completed in time to initiate foreign travel. He noted that the other SRGs have international scientists.

The group reviewed the draft agenda and made minor changes to accommodate availability of conference call participants and travel schedules. The SRG noted the importance of providing as much time needed for discussion of the manatee SARs, since it is the first revision since 1995. Engleby offered to give a presentation on risk factors to marine mammals in the Gulf from a management perspective. Sharon Young stated her concerns about research takes and also increasing exploration and development in the Gulf. Keith Mullin (SEC) said he sent out a copy of SER's Strategic Plan to SRG members that morning.

2. Manatees

Jim Valade (FWS, Florida) initiated discussions on the revised manatee SARs and was later joined via conference call by Dawn Jennings (FWS, Florida). The manatee SARs have not been updated since 1995 when the original stock assessment reports were prepared. Carlos Diaz (FWS, Puerto Rico) prepared the Antillean stock report. Both reports are being revised as part of the settlement of a lawsuit against the FWS by the Center for Biological Diversity.

Florida stock: Statistical analyses to provide an estimate of abundance are lacking. Instead, abundance information is based on counts. The 2001 survey number is used as N_{\min} because the weather conditions were most ideal for this survey. Read said the 4 management units have different population trends so why group them into a single stock for state of Florida? Valade responded there is not much overlap in winter habitat between units, but the genetics show interbreeding. Therefore, FWS considers the units to be a single stock. Young pointed out that there are no specifics presented on the genetic

information. In this case there are quite different units with different anthropogenic impacts and demographics. There may be a limited gene flow, but she would like more specific information. Jennings said there is not a good justification for “subpopulation” designation, since there is no distinction whatsoever in populations. The population trend in the SW region is in the negative but those data are older than those for the rest of the state. FWS hopes to have revised estimates for the SW soon. Young said it seems an inherent conflict to designate 4 management units but to manage as one. Valade offered to include more discussion about the genetics if that helps to clarify things. The identification of management units is an artifact of the research structure. Jim Gilbert asked if the genetic information has been published. Jennings said it should be published soon. Gilbert asked if it is possible to go back into the survey data and look more at sighting conditions. It is hard to drive the trend analysis if the numbers are dependent on sighting conditions. Jennings said the State of Florida is revising its survey methodology. They are also doing random sampling outside of warm water sites. Randy Wells pointed out that the 2001 data are now out of date for the SAR. Read said the management approach is much different than for bottlenose dolphins, where sometimes stocks are defined even if there is no genetic differentiation. If these were cetaceans we would be defining them as separate stocks. He said this shouldn’t be just a paper exercise to create 4 new reports, but the current approach leaves the FWS open to criticism. Patty Rosel said if there was no genetic differentiation we often don’t define separate stocks if there are no other data to support separation, although stocks can be defined without genetic information. Valade said that human impacts to the units are pretty consistent throughout. The biggest difference is the red tide issue. Management efforts are not differentiated by unit. Read said if there is not a benefit in terms of improved management then there is no point in splitting them into stocks. Young noted that the modeling indicates there is likely to be continuing differentiation in population trends. Doug Nowacek said they are the same problems but just of different magnitudes. Young said her recollection of the GAMMS report was that you can look at the differing regional or local impacts in order to split stocks. Jennings said the FWS would like to wait on any of that until they get the updated survival rate estimates for the SW region, which should be in the next several months. They will be revising the core biological model. Gilbert said the carrying capacity in Runge (2007) is based on expert consensus. This is a little soft. Jennings said they are looking at quantifying natural warm water habitat. Nowacek said the SRG would like a little time to review the document. No matter how we slice it, one stock or 4, they are all over PBR. He would like to hear an update on the pinger trials to avoid collisions. Valade said it is important to point out that the FWS solicitor’s office is involved in the SAR and they are under the impression that it is only fishery interactions that count. Young said that the FWS is incorrect in asserting that, relative to PBR, only fishery impacts are quantified for SARs. She read from the MMPA citing that PBR is the maximum sustainable for all sources of anthropogenic mortality. Jennings said both of the FWS solicitors say that the sections that require the stock assessment report are just concerned with commercial fisheries. Read said it is important that the SRG go on record that we disagree with the FWS and believe that all anthropogenic mortality should be applied to PBR. Valade said FWS solicitors need to hear what you have to say and they will interpret your comments. Some of the initial projections of decline will be impacted

by repowering of several power plants – this will have a positive impact on population growth.

Baltz asked if there is a plan for the event that the power plants go off line. Valade said there is an alternative warm water source proposed. They are trying to minimize the effects of closing these sites. Dan Odell mentioned that there is a lot of non peer-reviewed material cited in the manatee reports. Bob Kenney said it was mentioned at last year's joint meeting that things cited as 'pers. comm.' should be backed up and posted somewhere. Rosel asked that when the dissertations for the genetics work are published they be cited. Valade agreed.

3. Take Reduction Plan Updates

Bottlenose Dolphin TRP: (Stacey Horstman, SER)

Horstman provided an update on the Bottlenose Dolphin Take Reduction Team and Plan. The BDTRT met by webinar conference call in 2008. NMFS provided summaries of the outcome of the joint SRG meeting and the SRG comments on the Atlantic coastal bottlenose dolphin SAR and information on stock structure and mortality estimate revisions. The SER funded two gear research projects in 2008. The first study was on the use of pingers on gillnets in the Spanish mackerel fishery in North Carolina and the second study focused on modifying the pound net leader in the Virginia pound net fishery. The pinger study is ongoing, and the Virginia pound net study was completed in October 2008 with analyses ongoing.

The Team expressed an interest in exploring alternative ways to measure fishing effort. Currently, landings data are the only consistently collected data but there is some question as to whether these data may be biased when compared to measures of true effort. Thus, NMFS has used simulations of observer data to examine differences in bycatch estimates comparing various fishing effort variables. Results so far suggest that tons landed may be a good measurement of effort for estimating harbor porpoise bycatch but not for bottlenose dolphin, probably because with the latter there are so few takes and not sufficient power to detect a positive relationship.

The SER worked with the SEFSC and NEFSC to conduct a pilot project to collect effort data directly from fishermen, and, specifically, to determine the feasibility of voluntary collection of true effort data at sea. Datasheets were provided and two fishers agreed to participate and collected data for a full summer season (May-October) in Northern North Carolina. However, several challenges were realized, such as busy fishing schedules preventing full participation from the fishermen. Fishermen who did participate found the data sheets cumbersome to fill out while fishing. Therefore, it may be difficult to voluntarily collect true effort data, especially in the manner approached by the pilot project.

There have also been efforts to explore ways to enhance observer coverage in North Carolina (NC) gillnet fisheries. The North Carolina Alternative Platform Observer program observed 22 new vessels and has increased coverage for the NC beach seine fishery. In addition, an experimental "pulsed observer effort" method was tested in which observer effort was increased for a short period of time in the king and Spanish mackerel fishery in NC during the periods of known high bottlenose dolphin takes. It was thought that this might increase the probability of catching the rare bycatch events of bottlenose

dolphins. During the experiment, 5% coverage was maintained over 8 days. No takes were observed, but 2 strandings with evidence of fishery interaction (FI) were observed afterwards. Use of this method did require sacrificing observer coverage elsewhere and several fishermen felt overburdened over this short period of time. Better outreach would be necessary if the experiment were to be repeated. Furthermore, use of this method assumes that effort in September and October is representative of effort year-round. One method discussed to address this assumption is to repeat the experiment with three pulses, one each during the spring and fall seasons when takes are known to be highest and a third pulse during the summer season when fishing effort is considerably lower. The SRG agreed that it was worth repeating this method in 2009 with the addition of putting in pulsed observer coverage effort during the off-season.

For the bottlenose dolphin TRP, the current measure slated to expire in May 2009 placing restrictions on the nighttime medium mesh gillnet fishery in NC state waters during the winter was amended to continue until May 2012.

Horstman also provided fishery updates: The NC Division of Marine Fisheries now requires beach seine gear used during the Atlantic Ocean striped bass beach seine fishery to be constructed of all multi-filament or fiber nets, bringing this portion of the fishery back to the more traditional manner of beach seine fishing. As a result, the Atlantic Ocean striped bass beach seine fishery is now the only fishery in NC that is included under the LOF mid-Atlantic beach haul/seine fishery. All other beach-anchored gillnets in NC used in the manner of a seine are now considered under the Mid-Atlantic gillnet fishery. In addition, there were 2 permit requests for the VA pound net fishery. One was denied by VMRC. The 2nd is pending. Finally, the spiny dogfish fishery will have quota increases in North Carolina and the fishery is expected to ramp up.

The Bottlenose dolphin TRT will meet again in 2009.

Pelagic longline TRP: (Erin Fougères, SER)

Fougères provided an update on the Pelagic Longline Take Reduction Team and Plan. The proposed rule was published in June 2008. It contains 3 regulatory measures and 4 non-regulatory measures. Regulatory measures include 1) a 20 nautical mile limit on long line length in the mid-Atlantic Bight, 2) the requirement that a placard on marine mammal handling and release guidelines be placed in the wheelhouse and on the working deck of every registered vessel and 3) the creation of the Cape Hatteras Special Research Area (CHSRA). All longline vessels setting gear in or transiting through the CHSRA have to provide 48-hour notice to NMFS before entering the CHSRA and they must take an observer if one is assigned. There are no waivers for this requirement. Non-regulatory measures include the recommendations for 1) 12-15% observer coverage in all areas of the PLL fishery, 2) increased communications among captains when marine mammals are sighted or entangled, 3) development of improved techniques for bycatch reduction and release and 4) quarterly bycatch reports. Public comments on the proposed rule were mostly positive. The TRT expressed concern that the 48-hour notice requirement was overly burdensome and posed safety risks and suggested softening the requirement for vessels transiting through the area. The TRT also discussed how the 20 nautical mile limit would be measured and enforced and recommended that the placard requirement be extended to include the Gulf of Mexico longline vessels and that it be translated into Vietnamese. They supported increased effort for observer coverage and also produced a

consensus statement concerning the increased prevalence of fixed trap pot gear within the CHSRA. New, ongoing research projects related to the pelagic longline fishery include research on pilot whale and gear interactions in the CHSRA and research on variable hook strength and on weak hooks. It was also noted that pilot whales interact with two other fisheries in the Cape Hatteras region- the green stick troll fishery and the charter boat troll fishery. In both fisheries, pilot whales are targeted as indicators of fishing locations. Integration of pilot whale genetic work and habitat modeling should allow splitting of abundance estimates for the two species in 2009 and for the 2010 SAR. However, the ability to deal with assigning mortalities to species is still confounded by a lack of biopsy samples during fall and winter months when bycatch is highest in the mid-Atlantic region. A cruise is planned in December 2009 to try to collect biopsies in the region to help with this deficiency. The final rule should be published in 2009 and outreach workshops are planned for 2009. The TRT will convene by conference call in 2009.

Atlantic Trawl Gear TRP (Diane Borggaard, NER):

The Atlantic Trawl Gear Take Reduction Team (ATGTRT) met in December to finalize the Atlantic Trawl Gear Take Reduction Strategy. The ATGTRS identified both education and outreach activities as well as research needs.

The Education and outreach portion of the ATGTRS recommends a number of related activities and tasks necessary to promote the exchange of information necessary to reduce the bycatch of marine mammals in Atlantic trawl fisheries. These include certain voluntary measures be implemented immediately for the Atlantic trawl fisheries in defined areas. NMFS has been working with industry to develop and distribute species identification placards that identify “hotspot” areas where bycatch rates are relatively high.

The ATGTRS also includes recommended research needs necessary to improve our understanding of the factors resulting in the bycatch in Atlantic trawl fisheries. The results of the identified research will be used to direct additional research and/or identify measures to reduce the serious injury and mortality of short- and long-finned pilot whales, Atlantic white-sided dolphins, and common dolphins taken incidental to commercial trawl fisheries operating in the mid-Atlantic and Northeast regions of the United States.

The ATGTRS includes a monitoring component that specifies annual updates to the ATGTRT on a number of issues including stock abundance, updated bycatch information, and updates on the status of various tasks identified by the ATGTRS.

Harbor Porpoise TRP (Diane Borggaard):

Borggaard explained that the HPTRT had been reconvened and met in December 2007. This was triggered because takes were above PBR even though population numbers were about the same as previous years. There was non-compliance with HPTRP regulations and harbor porpoise takes were occurring outside of HPTRP management areas. A HPTRT meeting follow-up teleconference was held on 31 January 2008. General recommendations from the TRT included both regulatory and non-regulatory measures to reduce harbor porpoise takes to below PBR (currently 610 animals). Regulatory measures included the expansion of existing HPTRP management areas and the creation of new

management areas with seasonal requirements. Recommendations specific to New England were both non-regulatory and regulatory. Some New England non-regulatory consensus measures include: 1) state partners to codify HPTRP gear requirements into the state gear regulations for Maine, New Hampshire, Massachusetts, and Rhode Island; 2) state partners, in collaboration with NMFS, to conduct annual workshops with fishermen to disseminate recent compliance and take data and provide information on effective gear and fishing practices and; 3) state partners, in collaboration with NMFS, to develop an enforcement and education effort to increase pinger compliance. New England regulatory consensus measures include: 1) expand pinger use to include November in the Massachusetts Bay Management Area; 2) create a new management area between the HPTRP Massachusetts Bay Management Area and Western Gulf of Maine groundfish area (termed 'X Box' by HPTRT) and require pingers from December 1 through May 31 (no March closure); 3) establish the Southern New England Management Area, which surrounds the existing Cape Cod South Closure Area to encompass a broad area south of Cape Cod and Rhode Island, and along the east coast of Cape Cod (pingers required from December 1 through May 31, the March closure in the current Cape Cod South Closure Area will remain); and 4) consequence closure area concept in New England agreed upon by the HPTRT to address non-compliance within existing HPTRP management areas. The consequence closure areas are three pre-defined seasonal closure areas NMFS will implement if non-compliance in specified existing management areas results in a bycatch rate that exceeds a specified target bycatch rate after two consecutive years. There were three areas agreed upon: 1) an area consisting of the original Cape Cod South Management Area and its southern expansion (closed February - April); 2) an area off the coast of ME, NH, and MA (includes portions of Mid-Coast, MA Bay, and 'X Box' Areas) (closed October - November); and 3) an additional closure area added east of Cape Cod after January 2008 teleconference (closed February - April).

Some mid-Atlantic non-regulatory recommendations from the HPTRT Meetings included: 1) state partners, in collaboration with NMFS, to conduct annual workshops with fishermen to disseminate recent compliance and take data and provide information on effective gear and fishing practices; and 2) state partners, in collaboration with NMFS, to develop an enforcement and education effort to increase compliance. One mid-Atlantic regulatory consensus measure was to create a new management area southeast of the current Mudhole Closure Area which will be closed to large and small mesh gear from February 1 through March 15 to address the high level of observed harbor porpoise bycatch in this area. Gear requirements in this area will be consistent with those in the current Mudhole Closure. Another regulatory recommendation measure was to modify the tie-down spacing requirement for large mesh gillnets in both the Waters off New Jersey and Southern Mid-Atlantic Closure Areas from no more than 15 ft. to no more than 24 ft.

The TRT agreed to a number of necessary technical corrections and clarifications identified in the HPTRP since it was first published in 1998. These include correcting inaccurate management area coordinates and clarifying regulatory text.

The TRT agreed to establish a research component under both the New England (50 CFR 229.33) and Mid-Atlantic (50 CFR 229.34) regulations. This includes a provision to allow research authorized through a NMFS scientific research permit to be conducted

within the HPTRP management areas.

A proposed rule & draft environmental assessment was prepared in the northeast region based on HPTRT consensus recommendations with publication of the proposed rule targeted for early 2009. The proposed rule is currently being reviewed at OMB.

Four in-water pinger tester units that were purchased from RJE International in 2007 were distributed to state enforcement partners to detect the presence of functional pingers on at-sea gillnet gear. Along with the NMFS Observer Program, NERO is currently exploring the possibility of acquiring a durable, reliable open-air pinger detector to complement their in-water pinger testers.

The barium sulfate gillnet gear study reported on last year will not be conducted. After extensive efforts, barium sulfate gillnets cannot be acquired for the study. The study has been shifted to examining the effects of two different hanging ratios (0.5 and 0.33) on harbor porpoise bycatch. This testing will begin in March 2009 south of the Cape Cod South Closure Area.

Atlantic Large Whale TRT:

Borggaard reported that trap/pot fishers had been given an additional 6 months (through April 5, 2009) for compliance with the sinking groundline requirement. However, NMFS was sued over this by the Humane Society US et al. and, pursuant to a preliminary injunction issued in the case, reinstated the DAM consistent with the previous regulations for this except that it will only be reinstated north of the pre-existing Seasonal Area Management boundaries (i.e. north of 42° 30' N. latitude). At the 2008 ALWTRT meeting, some members presented the team with low profile line proposals as alternatives to the sinking groundline, but the proposals that were submitted did not receive widespread support and the Team did not recommend NMFS pursue further action for the broad-based use of low profile line as an alternative to sinking groundline. low profile line The proposals from some state fishery management & fishing industry members then turned into an exemption from the sinking groundline requirement, but NMFS noted that any exemption proposal considered would have to include a trade off related to vertical line reduction in order to generate a conservation benefit. The TRT discussed but didn't recommend that NMFS consider any of the proposals except for Maine Department of Marine Resources (DMR) and North Carolina industry. NMFS formed a Maine TRT subgroup to discuss the Maine sinking groundline exemption proposal. In the end, Maine DMR withdrew the proposal based on mixed responses from Maine Subgroup members, lack of a clear path forward & challenges associated with a lack of data. This process highlighted challenges ahead such as data limitation & uncertainties that will need to be addressed more broadly by NMFS & ALWTRT. NMFS is still reviewing the North Carolina industry proposal related to an exemption to sinking groundline in a small area in the southern part of the state. NMFS will let the ALWTRT know about the status of the North Carolina industry proposal shortly. Additionally, NMFS is presently evaluating the conservation benefits of a proposal put forward by the Southeastern U.S. Atlantic shark gillnet fishery for consideration of ALWTRP modifications not related to groundline.

The ALWTRT previously agreed to two overriding principles: 1) reduce profile of all groundlines; and 2) reduce risk associated with vertical lines. Although the ALWTRP

does have vertical line regulations, the team is still discussing options related to further reducing the risk from vertical lines. NMFS will be convening the ALWTRT in two subgroups in 2009 (i.e. Northeast and Mid/South Atlantic) to further discuss the issue. (NMFS expects that the full team will be convened in 2010.) At the 2009 meeting, NMFS will be providing an update on its vertical line model which includes sighting per unit effort analysis for large whales, and information on the distribution of vertical lines. NMFS will also be talking with the team about options to monitor the plan including compliance with and effectiveness of the regulations. For example, modifications have been made to observer data forms to obtain information related to the plan requirements (e.g. weak links) which can be used to monitor the effectiveness. Additionally, there are additional gear marking requirements and NMFS will be further discussing this related to monitoring effectiveness of the plan. Waring asked if there have been entanglements with marked gear. Borggaard replied there has been at least one, but acknowledged there could be improvements made to the gear marking scheme. The marks are unique to broad areas and they can't get to individual fishermen right now. Gilbert said the DAM areas still aren't quick enough. Can you close it all and then open things – like they do for harbor porpoise? Borggaard responded that the NMFS works as fast as it can, but, amongst other things, the regulations require NMFS to review various factors which takes time. Gilbert said it makes the agency look ineffectual. Borggaard agreed that it's not ideal but that NMFS is doing the best it can based on the regulatory process. Part of the reason there is some delay is to give the fishermen time to haul their gear. Young pointed out that quota regulated fisheries open and close quickly. Borggaard also said the regulations require them to decide between 3 options so there is time needed to analyze options. Many vertical line options are in the research and development stage. One idea is a time tension line cutter. Nowacek asked about visibility line. Kenney said that researchers cannot obtain permission to test it. Nowacek said there is a sunset clause on the ship strike rule if it is not effective, how is that measured/implemented? Nowacek said the ASRG should get an update on the measurement of effectiveness of the ship strike rule before the next meeting.

4. Proposed List of Fisheries

Engleby and Borggaard noted additions to the 2009 LOF that was published in December 2008. Additions were: 1) High Seas Atlantic Highly Migratory Species Fisheries (the longline component of the fishery is Category I, purse seine gear is Category III, all other gear types are Category II); and 2) US Atlantic, Gulf of Mexico trotline fishery (added as a Category III fishery). Additions to the list of mammals that are incidentally killed or injured included: 1) long-finned pilot whale (WNA) in Cat I “Northeast sink gillnet fishery”; 2) harbor seal (WNA) in Cat II “Northeast bottom trawl fishery”; 3) Atlantic white-sided dolphin (WNA), Harbor seal (WNA), Gray seal (WNA), and Harp seal (WNA) in Cat II “Mid-Atlantic bottom trawl fishery”; 4) bottlenose dolphin (WNA coastal stock) in Cat III “Florida spiny lobster trap/ pot fishery”; and 3) bottlenose dolphin (WNA coastal stock) in Cat III “Southeastern US Atlantic, Gulf of Mexico stone crab trap/ pot fishery”. Other changes and clarifications were: 1) “Mid-Atlantic mid-water trawl”: removed *Illex*, *Loligo*, and butterfish; 2) “Mid-Atlantic bottom trawl fishery” descriptions: added *Illex*, *Loligo*, and butterfish as well as chub mackerel and misc. other pelagic species; 3) “Mid-Atlantic Haul/ Beach Seine Fishery” (Cat II):

revised description which complements NCDMF regulations; and 4) “Gulf of Mexico menhaden purse seine fishery”: Corrected typographical error to reflect correct stocks driving the categorization (Northern and Western Gulf of Mexico coastal stocks), and boundary definitions for the Northeast sink gillnet and Northeast anchored float gillnet fisheries.

Considerations for future LOF revisions include evaluation of the shrimp trawl fishery (Category III) and enhancing characterization of gillnet fisheries in the Gulf of Mexico.

Gilbert pointed out that the LOF has more fisheries involved in interactions with harbor seals than the SAR. Eagle said the LOF can have more. He said the marine mammal species in bold in the LOF interactions are the ones driving the designation of the fisheries.

5. Stranding Program / Events

SEC:

There were three UMEs in the southeast region in 2008: 1) Texas/Louisiana (113 bottlenose dolphin mortalities, cause of death not determined); 2) mid-Atlantic Delphinidae UME (multi-species, no consistent cause of death determined); and 3) Indian River Lagoon (IRL) (48 bottlenose dolphin mortalities, cause undetermined, only low levels of brevetoxin found).

Dolphins present in Lake Pontchartrain, LA found in 2007, are still there and still show signs of fresh water lesions. Increased monitoring was performed by the SEC in 2008 during the spring influx of freshwater due to opening of the Bonnet Carre Spillway. Eleven surveys were conducted between 29 April 2008 and 10 May 2008. No changes in dolphin numbers, behavior or skin condition were seen during the influx of freshwater during this time. Monthly monitoring trips will continue through 2009.

Hurricane Ike related displacements include a dwarf sperm whale mother/calf pair (euthanized) and three bottlenose dolphins. There were also two unconfirmed reports of out-of-habitat bottlenose dolphins. Hurricane Omar caused the loss of 4 South American sea lions and 3 South American fur seals from Marine World, St. Kitts. One sea lion and all fur seals remain missing.

Two new Stranding Agreements were put in place (one in South Carolina and one in North Carolina) and one Agreement expired. Capacity building workshops were held in 2008 to increase training in areas in NC and northeast Florida. Concern was expressed at the loss of stranding response expertise in North Carolina and the impact that may have on reporting of fishery interactions. Training for responders in the Outer Banks and in central NC is hoped to reduce these impacts.

The SRG discussed how UME data are incorporated into the stock assessments, concluding that currently they are not being incorporated but probably should be, particularly for smaller stocks or large UME events. Several alternative methods were discussed including deducting the known UME mortalities from the abundance estimate and N_{min} or modifying the recovery factor. Further investigation is needed to determine the best way to handle UME mortalities in assessments and how to generalize to all species- not just bottlenose dolphins. The current UME in the IRL may serve as a test case for investigating alternative methods.

Read expressed concern that NOAA is reducing stranding effort in North Carolina. Fougères said it is a matter of getting people trained in that area.

NEC:

Borggaard reviewed northeast strandings and entanglements. As of December 29, 2008, there were twenty-four whales that were reported and confirmed entangled, or previously entangled, by survey aircraft, fishermen, whale watch vessels and various other sources within the United States and Canadian waters. There were three reported and confirmed re-sightings of live, previously reported entangled whales. Twenty-one cases are confirmed to be new to the Network. Of the twenty-one individuals, fourteen of the animals were assessed and responded to; the remaining animals were not responded to due to the fact that they were either lost by the reporting platform, were not found by the responder (typically because no one stood by), conditions (sea state, time of day, range offshore) did not allow a response or were reported to have a minor entanglement or shed the gear during the initial observation of the animal.

As of December 29, 2008, there have been six reported ship strikes. Borggaard noted that this number includes cases in which whales were observed with indications of ship strike, but it could not be confirmed that the interaction was pre-mortem.

There were also 39 confirmed mortalities: this includes carcasses, carcasses with indication of entanglement, as well as carcasses with indication of ship strike.

Stranding data presented represents preliminary data entered into the National Stranding Database by Northeast Region Stranding Network Members which has not been reviewed or validated by NOAA. Not all data may be present, especially for the months of October through December. Pinniped strandings (Alive and Dead) for 2008 totaled 639 (308 harbor seals, 145 harp seals, & 128 gray seals). Cetacean strandings (Alive and Dead) totaled 251 (90 bottlenose dolphins, 49 harbor porpoises, 44 short-beaked common dolphins & 38 Atlantic white-sided dolphins).

Unusual Mortality Event documents were prepared for the 2006 Northeast Region Humpback UME and for the 2006 Northeast Region Pinniped UME.

An increase in reported strandings for common dolphins and Atlantic white-sided dolphins was documented in the mid-Atlantic states (New Jersey to North Carolina), primarily during the months of February and March of 2008. Consultation was initiated with the UME Working Group on March 31, 2008 and the common dolphin and Atlantic white-sided dolphin strandings were declared a UME on April 8, 2008. From January through April, 14 live strandings and 21 mostly fresh carcasses early code 3 (moderately decomposed) were reported. Clinical signs observed for the live animals were stress related to the stranding event: muscle tremors, arching, fluking and seizing. All live stranded animals were euthanized. Other small cetacean species were documented in these areas during this time, but reported numbers were consistent with historical numbers and not believed to be involved in the UME.

Of the 35 reported stranded animals, 23 necropsies were completed and samples were submitted for analysis. Samples included: histology, biotoxin, life history and virology. Five samples were analyzed for biotoxin and all came back with negative results. Histology samples are still being analyzed. There has been no evidence of a viral infection from the samples analyzed. Teeth will be aged and genetic samples and contaminants will be analyzed. Environmental parameters will also be investigated to

identify any link between changes in water temperature, shifts in prey species, and fishing efforts in the mid-Atlantic area.

The bulk of these strandings occurred in February, March and April with no additional documented strandings in May, June and July. The Mid-Atlantic Delphinidae UME was declared over in April 2008.

Odell asked about the dolphins in the Shrewsbury River in NJ. Wells said some have died, 5 are still there.

Waring reported that a Sable Island branded gray seal stranded off Wellfleet, MA in December. The necropsy determined that the adult female, which contained a full-term pup, had fractured ribs. Also, he reported that the NEC is working with researchers at the Center for Coastal Studies who are developing a photo catalog of neck wrapped and/or scarred gray seals.

6. NEC updates: (Debra Palka, NEFSC)

Palka summarized NEC 2008 surveys and plans for 2009 and 2010. In 2008 there were two large whale research cruises on the *RV Delaware II* and one aerial survey which concentrated on refining determination of $g(0)$. The first *Delaware II* cruise was a right whale winter habitat study conducted 16 February through 11 March. Despite bad weather, 46 whales were sighted, 49 bongo tows and 3 Tucker trawls were conducted, the video plankton recorder (VPR) was deployed 26 times, and six satellite tracked surface drifters were successfully deployed. The spring survey (5-31 May) counted 301 right whale sightings, with over 180 photo-ids and one biopsy. The aerial survey flew 6,782 km of trackline, making 137 circles over animals. In 2009, the center is scheduled for research time on the *Delaware II* from 17 June through 30 July. Possible projects to be conducted include large whale photo-id work, biopsy of various species, and small scale ecosystem survey. The NOAA twin otter airplane will be used in August for a turtle abundance survey in the mid-Atlantic region. The *RV Henry B. Bigelow* will be used from August 2-18 to prepare for the 2010 abundance survey and 30 Nov – 18 Dec for what is tentatively planned as a mid-Atlantic pilot whale biopsy cruise. All plans are funding dependent, and there were some questions about the probability of funding. Valade asked if any ship survey work has been done for right whales in winter off southeast US coast. Read said starting in spring 2009 there will be year-round coverage of the navy training area.

Waring reported that the NEC is still using the NOAA twin otter to monitor harbor seal and gray seal abundance and habitat use in southern Massachusetts waters (Plymouth to Nomans Is, and gray seal pup production on Muskeget Is in Nantucket Sound and Green and Seal Islands off mid-coast Maine.

Read asked how specific are NEC estimates of $g(0)$ to the specific observers or platform. Palka said they are pretty specific to that platform, and noted that it is still better than nothing for other platforms. Read asked if the Canadian survey is a one off. Palka said they would like to repeat it but don't know if they will have funding.

Palka reported that Fred Serchuk was selected as the NEFSC Deputy Director of Science, and that Richard Merrick is acting as Division Chief. She is acting Chief, Protected Resources Branch.

7. SEC Updates: (Keith Mullin, SEC)

Mullin said that there was no field work in 2008. All planned aerial surveys and estuarine mark-recapture photo-ID/biopsy studies were cancelled due to lack of funds. The 2008 large vessel survey planned for summer 2008 to cover the east Florida shelf and Gulf oceanic waters was cancelled due to fuel costs. Four staff joined a plankton cruise to collect bottlenose dolphin and Atlantic spotted dolphin biopsies in shelf waters of the western and eastern Gulf of Mexico.

Field work in 2009 is dependent on budget and funds. The first priority is the large vessel summer survey that will cover oceanic waters and provide abundance estimates for oceanic dolphin species and will also focus on group size estimates for sperm whale through 90-minute count exercises. Should more funding be available, an aerial survey in the western Gulf of Mexico is needed to update abundance estimates for bottlenose dolphins and Atlantic spotted dolphins, and a bay, sound and estuary photo-ID capture-recapture study followed by biopsy effort would be the third priority.

Significant loss of staff occurred in 2008 due to decreased budgets. Three staff members were lost in 2008 and two more are expected to be lost in 2009, overall a 40% reduction in staff for the SEC marine mammal program.

Waring asked if the SEC is doing work with Mexico on surveys. Mullin replied that Mexican scientists are trying to get the RV *Gordon Gunther* down there to do a plankton survey and NMFS may be able to put some observers on board. While there is no collaboration specific to sperm whales, NMFS will try to get 90 minute counts on sperm whale groups to improve abundance numbers, and maybe try to measure some animals. Carol Roden (MMS) said there has been funding set aside by the MMS for a prey study for sperm whales in the Gulf.

12. FY09 Budget status: (Tom Eagle, F/PR)

Eagle stated that F/PR is operating at '07 levels, and NMFS will not know what the budget is going to look like until March. The best thing would be to get the entire amount from '08 into '09, since there was a million and a half dollar increase in the president's budget request.

10. Acoustic Research:

SEC acoustic research: (Lance Garrison, SEC)

Garrison (SEC) provided a written summary of SEC passive acoustic monitoring (PAM) studies for 2008. There are two primary components to the PAM efforts. The first involves the use of a towed array during line transect surveys in an effort to augment information on marine mammal spatial distribution and abundance. The second involves the deployment of fixed position long-term (3-6 months) monitoring stations in right whale habitats during winter months between Florida and North Carolina.

PAM data collected during line transect surveys has been used to study the differences in vocalizations between geographic regions and stocks of bottlenose dolphins and Atlantic spotted dolphins (Baron et al. 2008). The data are also being used to compare visual and acoustic detections and evaluate the utility of passive acoustics to augment/improve survey abundance estimates and to improve estimates of sperm whale group sizes. Cancellation of the 2008 RV *Gordon Gunter* cruise precluded deploying the array this year. There are several challenges for PAM efforts during large vessel surveys. First, it is unknown whether or not the 5-element array is operational, as it has not been

deployed since 2005. It likely needs maintenance and/or upgrade; however, there is no available funding to do this. Second, the inclusion of directed PAM efforts during surveys requires additional staffing that may preclude other survey activities (e.g., biopsy sampling, prey sampling, etc.) due to limitations on available bunk space on the *Gordon Gunter*. It is unclear whether the data collected with PAM are of sufficient use to justify these lost opportunities.

Efforts to employ PAM to evaluate right whale spatial distribution and habitat use in the southeast US were initiated in a pilot study by SEC during 2001. More recently, SEC is working to evaluate the utility of PAM stations that incorporate automated signal recognition near real-time reporting. The primary goal of these efforts is to provide information on right whale occurrence in specific areas (e.g., in shipping channels) that may be helpful in reducing the risk of vessel strikes. A single auto-detection buoy (AB) was deployed off of Jacksonville, FL during February 2008 in a pilot effort. Two buoys were deployed in November 2008 with positions straddling the shipping lane near the pilot buoy offshore of Jacksonville. These buoys are currently active and are reporting right whale vocalizations approximately every 4 hours. Notifications of right whale detections by these stations are being incorporated into the Early Warning System (EWS) notifications that are used to alert mariners to right whale sighting locations in the southeast US calving habitat. NMFS will also be comparing these detections to right whale sightings by aerial survey teams and evaluating the diurnal patterns in right whale calls. In addition, there are several ongoing studies in the southeast to evaluate the vocalization behavior patterns of right whales in the calving grounds.

NEC acoustic research: (Gordon Waring, NEFSC)

Waring presented a report prepared by Sofie Van Parijs and Denise Risch (both NEC) on ocean noise monitoring and the acoustic behavior of marine mammals and fish. The passive acoustics program at NEC started in late 2005. The main focus at present is a 3-year National Oceanographic Partnership Program (NOPP) grant project. Cornell University, NOAA Sanctuaries and NEC are working together to develop 'An ocean observing system for large scale monitoring and mapping of ocean noise throughout the Stellwagen Bank Sanctuary'. This project started in October of 2007 and will continue into 2010. In addition to the NOPP project, work on acoustic behavior of marine mammals focuses on developing an increased understanding of how individual animals and different species use calls during different social events, aggregations and seasons. The localization of groups of calling animals proves especially useful in interpreting the acoustic dataset. In 2009 NMFS will continue to explore how available passive acoustic techniques can be used most effectively in combination with other available survey platforms for answering relevant management and science questions in the northeast, including integration of towed hydrophone arrays with traditional visual marine mammal surveys.

Read said there are some ongoing projects on incorporating acoustic data into abundance estimates, but we are not there yet.

Wednesday, 7 January 2009

5. Stock Assessments

Status of 2008 SARs:

Eagle said SEC was still working on a comment response for *Kogia* and noise in the Gulf. Nowacek suggested including some of the sperm whale references on the effects of noise. In addition, the Alaska Center is still preparing responses to comments on their reports.

Review of the appendices:

Table 1 and Appendices (1-4): The SRG provided comments pertaining to consistency in reporting numbers (e.g., using 0 before decimal points), language, definitions, figures, footnotes, and removing extraneous text.

Review draft 2009 SARs:

Right whale – Kenney recommended that the SRG and NMFS should revisit whether we need to set the PBR to 0. He noted that the SRG did it before by executive fiat but there is no acknowledgement of the fiat in the report. There was some discussion on reporting PBRs less than 1. Young said calf mortalities should be added to the section that mentions calf serious injuries. There was some discussion on SI definitions in regard to the new workshop guidelines. Young said she is troubled by the fact that we have animals that were last seen entangled or with significant propeller injuries and not seen since that are not in our tables or otherwise accounted for. Some examples she gave were animals considered SI by NEAq including #3522, last seen in 3/ 2005 with prop cuts >8cm in depth and multiple moderate sized cuts on left fluke; #3380 prop cuts >8cm deep with cut end of left fluke and several prop cuts; #1403 partly shed line in 2006 but last seen with substantial wound on rostrum; #3503 with cuts >8cm. depth and multiple cuts on right flank; #3603 with cuts >8cm in depth with outer half of right fluke missing (2006/7). There were others on the NEAq “watch list” who were of concern to them as well including 3445, 3610, 3260, 2029, all within the time frame covered by the SARs. How should we deal with these? Read said we should let NMFS come up with a policy on this and then review it later. Young said where gear is determinable it should be reported in the SI and Mortality table. Read said he was confused when looking at the population size section. Kenney clarified that the 325 was the 2003 count. It was rerun to get 345 for 2005, but the text is a bit confusing. He recommended moving the current population right up to the top as has been done for other species. Read said he would like to talk more sometime about demographic parameters that are measured. It was agreed that Palka and Waring would discuss this with Tim Cole and Richard Pace and send the SRG an email to schedule a conference call.

Humpback – some minor editorial comments. Table 2 mortality adult number #8667 is a strange way to identify a humpback, they usually have “names” provided. What does that refer to?

Fin – Nowacek asked about the about fin and sei whale abundance. Palka explained how the fin/sei category is proportioned. It needs to be written a little more clearly. In the Other Mortality section it is unclear what “the last 2 decades” which refers to.

Sei – Why is the Aug 2006 abundance number the best – need to give justification. The one that uses June 2004 is actually better. Palka said we can use the 2004 then. There is inconsistency in the ‘Status’ section. Why is there no discussion of mortalities that we don’t see (like the discussion in the right whale chapter)? In each large whale chapter there should be some language that there may be many mortalities that we don’t observe. It says fin several times where it should say sei in the sei section. Nowachek suggested checking that the contour depth for the survey in 2006 is consistent across reports.

Minke – The bottom trawl fishery take should be included. Some animals appear to be missing from Table 2 in 2005 (Sep 20 and 25th), and another (Sept 24, 2007) these were reported in Smith, Koyama *et al.*

Beaked whales – The abundance estimate number in the text for 2004 Cuvier’s beaked whale doesn’t match the table (this is for all *mesoplodon*). The status section shouldn’t say that mortality and serious injury is insignificant because the species are lumped. The SAR shouldn’t say “acoustic *or* blunt trauma”, and especially not “acoustic *of* blunt trauma”. There were some editorial comments on the Blainville’s report.

Risso’s dolphin – Should be Appendix IV not Appendix VI. Wells has an updated citation.

Long-finned pilot whale – Young asked if the mid-water trawl observer coverage was 31%. Palka responded yes. Because pilot whale takes are not separated into species, Young also suggested that the location of the takes should be reported, which may help to elucidate the species. DeAlteris recommend that NEC should refer to the UMEs as ‘small cetacean’ (not ‘mid-Atlantic’), and Status of stock section should reflect that it is a grouped stock without an individual PBR.

Short-finned pilot whale – Minor editorial comments were provided to SEC.

White-sided dolphin – Young noted some inconsistencies or missing numbers in tables and text.

Common dolphin – Minor editorial comments were provided to NEC.

Harbor porpoise – Read asked about Canadian observer coverage. The Canadian observer program data are not recent. Palka answered there has been no coverage. She asked if we should we assume zero or use an average. Read said using an average would be a good thing to do. Rosel said she would provide a paragraph to update the reference and text on mid-Atlantic animals and stock definition. The SRG recommended leaving in information pertaining to Newfoundland and Gulf of St Lawrence. Read said he has a paper just coming out with estimates of rate of increase which will send to Palka. Palka asked if the NEC should we use this new calculated number for Rmax? Read and Young both said it would be better to cite the paper than to use the default. Young asked why bycatch went down so dramatically. Palka said compliance was better but not 100%.

Young suggested it might be worth saying in the report that the TRT was reconvened because the takes were above PBR at the time, even though not now. Palka said the NEFSC has been working on a modeling exercise on harbor porpoise.

Harbor Seal – The SRG recommended including distribution maps in all seal reports. The SRG provide NEC with several minor editorial comments.

Manatee- Antillean

Diaz and Jennings participated via conference call, and Valade summarized the report. Gilbert recommended that the count data be summarized in a table. Nowacek asked how much effort has been put into using the data to assess trends. Diaz said only the surveys conducted from 1991-2002. The numbers are variable but have been plotted to show trends. Nowacek asked if there are plans for additional surveys. Diaz said they are working on developing a population model and plan to do some surveys. DeAlteris had questions about the 5-year review. The review recommends downlisting from endangered to threatened. Is this prudent given that the population size in Puerto Rico is only 117 and there are 7 average annual mortalities? Wells added that there is additional concern raised with the level of decline projected. Deutch *et al.* 2007 cites a 20% decrease – how can that be reconciled with the downlisting? Diaz said in Puerto Rico the population is stable or increasing. Read said he didn't understand the rationale for downlisting. Diaz said the area of the island of Puerto Rico is small, so its manatee population size should not be compared to that of Florida. Jennings said when they did the 5 year review they separated the two stocks because of the differences in the life history and the differences in threats. When the FWS recommends any kind of change in classification we cannot separate the 2 stocks. Genetic differences are shown to be great. FWS is talking internally about listing the 2 stocks separately. Gilbert commended this SAR for using all sources of human mortality. Diaz asked if there is anything else that would help (other than a table of abundance numbers). Nowacek said you are losing between 3 and 6% of your population per year so it is hard to justify downlisting. Jennings said they have asked that question themselves.

Manatee- Florida

Jennings said that they do have good information on mark-recapture in FL and the math isn't working. Annual mortalities of 300-400 animals per year cannot be sustained with a population of 3,000 animals. How does OSP relate to any of this? Gilbert said OSP requires some sense of current and/or historic carrying capacity and at this point you don't have an idea of carrying capacity. Jennings said they are going to start with their core biological model. Then they will revise. Gilbert referred her to studies and reports by DeMaster *et al.* Eagle said the method used to calculate OSP is characteristic of the environment for each stock. You can either back-calculate from historical abundance or model a series of abundance estimates. He said that the 1992 legislation is the only place where we come out and say what we use for OSP. Read said without an actual estimate of abundance, as opposed to counts, you cannot estimate OSP. He didn't think that an OSP determination would be very helpful and suggested the FWS look at the ETP tuna/dolphin history. Nowacek said the logic of using mortality numbers to estimate

abundance is difficult. Jennings said it is strictly a mark recapture method that is used. Read noted that the three data sets —mortality numbers, mark/recapture estimates and counts are internally inconsistent. Jennings said she suspects that the minimum counts are off. Nowacek said even if there are twice as many manatees as the minimum counts, annual mortality of 2% is still high. Under Florida statute (which is currently based on a version of the IUCN criteria) the definition of threatened is the same as the Federal criteria for Endangered. So how can the service be considering downlisting to threatened under the ESA? Jennings said under the ESA we have to look at the threats. We are really looking at watercraft mortality, and are establishing regulatory zones. She said they could think about a take reduction team for watercraft strike. Gilbert said in this SAR the non-fishery take should be included. More documentation of non-fishery deaths might be appropriate. Nowacek said it seems the Service is going another step beyond what Florida has just done for downlisting. Eagle said unless you do a separate 4d rule all the protections remain in place, unless the FWS explicitly reduces the protections. He asked if they plan on doing that. Valade replied in the negative. Jennings said that the state is reevaluating their criteria and standards. Read said if the minimum counts don't mean very much (i.e. the FWS stated that they were not statistically valid for determining trends), then the trends documented in the SAR in Florida may not mean very much so it is troubling that downlisting is going on. Young said even though the protections may stay in place, especially in straightened economic times, there is more impetus to protect a more critically listed species. She said the Service is required to provide annual SARs for endangered species and that the SARs should contain 5-year running averages of all sources of mortalities and they have failed to meet that legal requirement which had resulted in litigation by Center for Biological Diversity. Jennings said they had planned to appoint a new recovery team early this year. Eagle said if you use the ESA authority for a recovery team that process doesn't have all the MMPA timelines. But he pointed out that you avoid FACA issues. Read encouraged them to consult with people in the Fisheries Service who have experience with TRTs. Seagraves said if the American public sees that manatees have been downlisted they will think the species is doing better. The perception is important. Valade asked what they should expect for comments. DeAlteris replied that the SRG will have some broad comments that will be presented to the FWS in a letter. Individual SRG members will also provide specific comments to FWS. Waring asked if the FWS wants to publish the reports with NMFS stock assessments. Answer: Yes. But they don't have to conform to the NMFS schedule for public comment so they can publish for public comment independently.

Risk factors to bottlenose dolphins in the Gulf of Mexico – Laura Engleby

Engleby provided an overview of risk factors and management challenges for bottlenose dolphins in the Gulf of Mexico. The presentation focused on four issues: fishery interactions, illegal feeding, depredation and harassment and the impacts these have on bottlenose dolphins, although it should be noted that there are a variety of other risks faced by cetaceans in the Gulf of Mexico.

There are 5 Category II and III fisheries that overlap with a variety of strategic stocks of bottlenose dolphins in the Gulf of Mexico (pelagic longline fishery, menhaden fishery, gillnet fisheries, the shrimp trawl fishery and the crab and lobster pot fishery) as well as large-scale recreational fisheries. Observer coverage for most of these fisheries is either

very low or non-existent. However, the SRG agreed that increased observer effort in some of these fisheries may be warranted. Several research takes have been documented in the Gulf of Mexico as well, primarily in Texas waters, during research gillnet fishing and also in turtle relocation trawls. Further work is needed to characterize these gears and to determine why there seems to be a high interaction rate for the low level of effort and whether this would indicate likelihood of takes in similar commercial fisheries. The Agency is developing a process to authorize research takes following NEPA review.

Depredation by dolphins is an emerging issue. Fishermen are becoming frustrated with dolphins and are taking extreme measures including shootings and use of pipe bombs. There is some question as to whether fishery management actions could be exacerbating the problem of depredation through discard requirements. It was recommended that further information be obtained from fishery managers, and that the depredation problem be presented to fishery managers so they could consider the problem when deciding fishery management actions. Research on dolphin behavior during depredation might be warranted. Is it possible to alter discard timing, for example, to minimize dolphin feeding?

Illegal feeding of dolphins is still documented, mainly in Florida. Outreach is ongoing to combat this problem. Finally, dolphin harassment and programs offering opportunities to swim with wild dolphins occur in the Gulf of Mexico, primarily documented in waters of Florida. Outreach, the Dolphin Smart program and perhaps peer pressure have decreased these activities in the Florida Keys, but they still occur in the Panhandle of Florida.

To combat these risks, increased involvement in regional partnerships and alliances that are focused on protecting coastal ecosystems in the Gulf of Mexico is necessary and it is important that these collaborative efforts properly integrate protected species into their plans. Increased observer coverage for some fisheries would help quantify mortalities. There is the need to increase marine mammal conservation as a priority in the observer programs in the Gulf of Mexico. Observer programs in the Gulf of Mexico are fishery-specific and so less flexible in responding to emerging needs. Finally, the coverage of stranding networks within the Gulf of Mexico is uneven. There have been recent losses in some areas, and there is lots of capacity building to be done in the Gulf States. Other major challenges to bottlenose dolphin management in the Gulf of Mexico include a lack of information on population structure and abundance for many stocks, a lack of information or understanding of the cumulative impacts of the various risk factors, and insufficient infrastructure and resources to enable adequate research.

There was some discussion of research takes. Engleby said they might consider making a recommendation to classify the research fishing as Category II so they could have observer coverage. Ney said the research nets are all beach anchored gillnets, perpendicular to the coast, with soaktimes of 12 hours or more, including overnight. Borggaard said if they sell their catch they are required to report. Young asked about takes in research trawl. Borggaard said she didn't know about takes in the NE (though they have been documented in the SE), but NMFS is trying to be proactive. They have to get a permit if they taking marine mammals. Seagraves explained about the research set aside program. The fishers sell the catch to pay for the research. NMFS has a contract with these vessels. Eagle said the Office of Science and Technology is looking at an authorization process for marine mammal takes for research fishery. Young said some of

us are somewhat concerned about how long this process will take. Seagraves said management practices contributing to depredation problems is a big issue. It is important to address this in the SAR. Is this being evaluated by fisheries people during a NEPA process? Engleby said they don't really know the scope of the problem. Seagraves said the decision makers on the fisheries side should have this information.

Young identified another emerging issue. Because of the development pressure from the alternative energy industry, FERC (Federal Energy Regulatory Commission) is getting involved with wave energy generation facilities. FERC should be in the loop when you are considering partners for research and impact analysis. Carol Roden said MMS is the agency that permits these projects and is addressing oversight issues with FERC. No project can go ahead without an MMS permit.

Read asked if there are any state observer programs for mackerel. NMFS answer: no. Wells said we need also to consider transboundary issues with bordering nations.

SAR review continued –

New Atlantic Bottlenose Dolphin Bay, Sound & Estuary SARs –Patricia Rosel (SEC)

Rosel presented information on the creation of 9 new draft SARs for bottlenose dolphins in bay, sound and estuarine (BSE) waters of the NW Atlantic. There has been evidence of resident populations of bottlenose dolphins along the eastern seaboard for some time and these animals have not been captured in any stock assessment reports to date. These new SARs will also resolve the inconsistency in the SAR approach when compared to the Gulf of Mexico where 33 BSE stocks were delineated in the first SAR document in 1995. The nine new draft SARs are based on the best available data and cover estuarine waters of Florida Bay, Biscayne Bay, the Indian River Lagoon, Jacksonville, FL, southern Georgia, northern Georgia and southern South Carolina, the Charleston, SC area, southern North Carolina and northern North Carolina. As new research is performed or new information becomes available, the boundaries of some of these stocks may require change. There are several areas with insufficient information available to determine whether they should be included in an adjacent stock or be delineated as their own stock with further research needed. During the process of creating these new draft SARs, several issues were encountered. First, definitions of dolphin residency based on photo-identification catalogs differ from one study area to another resulting in inconsistencies across the draft SARs in terms of defining population size and Nmin. Second, the current stock boundaries do not include adjacent coastal waters in the estuarine stock delineations. However, it is known that residents in some areas may briefly enter coastal waters, or transit from one inlet to the next using coastal waters. Third, all but the Florida Bay stock were considered strategic because of the apparent small population sizes and documented mortalities in many areas, primarily in commercial and recreational crab pot gear.

The SRG recommended that, given the variation in residency definitions, Nmin (and therefore PBR) be left as unknown for all but the Florida Bay stock which has a photo-identification mark-recapture abundance estimate. There was also lengthy discussion about whether coastal waters should be included in any of these stocks. Of particular concern were the Southern NC and Northern NC stocks, where estuarine residents are known to make use of coastal waters where they could interact with nearshore gillnets.

However, data are not available to determine how far offshore the estuarine animals regularly go and there was not consensus on whether the stock boundaries might be pushed out 0.5 km or 1 km or 1 mile from shore. Further research is necessary to deal with this question, and it needs to be addressed quickly, as it may impact the deliberations of the bottlenose dolphin TRT. If any estuarine stock boundaries are changed to include coastal waters, then summaries of strandings data must be included in both the appropriate estuarine stock SAR and adjacent coastal stock SAR. The SRG also recommended that these stocks be considered strategic because of the lack of an abundance estimate in the face of known mortalities.

Gilbert suggested not leaving the areas between stocks blank in the maps. Young said the reports should include a map that at least shows the relation between contiguous stocks, maybe put all stocks onto an inset. Read said there is question about degree of certainty for drawing boundaries. He is not clear that we have a consistent approach. Rosel said some were based on the study area of somebody's published research. Read said maybe it is enough to say that these boundaries are tentative. Rosel said the SARs should all say that, if not she will add that. Read said talk about resident vs. transient should be minimized—it is not a scientifically defensible delineation. He thought the estuary/coastal boundary is the biggest issue. He said we see estuarine dolphins around nets. DeAlteris said if you only see estuarine animals along the coast the boundary should be off the beach. Rosel said they did discuss putting the boundary 1km offshore. Palka said it would be nice to get that mixing matrix. Fougères disagreed that all animal within 1km are estuarine. Rosel said it doesn't have to be the same for every stock. Young said this will complicate our understanding of how to impose management measures. Is it premature to go out with these? Industry will be concerned about double counting and how to deal with this new structure. We need to be sure before this goes out for public comment that we are confident of the delineation. DeAlteris said the location of the takes could be used to assign bycatch to stock. Baltz said an approach that gets away from human-defined habitats would be good. Read said a general research recommendation would be to try to determine the mixing matrix. Rosel agreed to add text about the fact that estuarine animals will go along the coast and may be involved with fisheries. Engleby said they would like SRG review of the coastal BODO chapter that is not ready yet, and also maybe a conference call, so they can say to the Take Reduction Team that the SRG is in support. Palka said we haven't even started redoing the bycatch estimates. Rosel said we will be trying to look at the strandings and figure out stocks. Read said since they are not added into the mortality estimate maybe it is not such a big deal. Stacy Horstman said animals that are clearly attributed to fishery interactions are added as a plus one to mortality estimates. Crab pot strandings are all in inshore waters. But what if you can't assign the stock? Young suggested using the beaked whale model and add or account for those mortalities in each SAR. Rosel asked Eagle if there are any SARs that have overlapping areas. Eagle replied that there are some that have mixing. Young asked if there wasn't geographic overlap between coastal and offshore BODO? Read said we should be conservative when assigning strategic status. We should go through them stock by stock. Kenney pointed out that we just backed off of assigning all the beaked whales strategic status. DeAlteris said using pers. comm. to cite key information is okay with adequate documentation but others felt that given that these may be contentious, pers comm. citations should be avoided. We need to be able to back up every decision. Eagle

said last year we talked about using pers. comm. citations and decided it is okay for background information but if information is used to make a management decision there should be a reviewed document behind it. He added that this is good for the discussion of how to more effectively use the SRG—a background document distributed to the SRG would have been helpful.

Biscayne Bay – The SRG noted that some geographical references were not on the map, there should be some description of plans to deal with stockless sections of the coast. Read noted the different usage of numbers and time periods to come up with abundance. Read said the report should say 157 is Nmin, and be consistent with other chapters. The alternatives would be to just say the population size is unknown or to perform mark-recapture analyses with existing data. If you leave it as undefined it will allow you to go forward. Looking at trends is not necessarily the right way to do it. The SRG consensus was to take out the PBR. Eagle said even if you had a PBR you could conceivably make a case for strategic status if you add in unknown sources of mortality. Young said you should say that interactions may have occurred in fisheries but these fisheries are not observed. You can't just say fisheries are not observed without mentioning that there may be some level of fishery interaction.

Indian River – The SRG recommended not using photo-catalogue size for abundance estimates. There will be a number generated from aerial surveys and will also be a mark-recapture number. So change abundance to unknown. Live capture and UMEs should be mentioned under status section. Odell said that when the national strandings database is cited you should report the date accessed.

Florida Bay – The SRG that more information is needed on how the Torres data were used to establish boundaries. It was recommended that historical information on live captures be included. The SRG concurred that this stock is not strategic.

S. Georgia – There should be some mention of animals outside stock boundaries. Young commented that the report should say why crabpot interactions are common.

Northern N. Carolina – Rosel noted that new abundance estimates will be available soon. The SRG said the report should denote that this stock is exposed to fishery interaction when animals go outside the estuary. Young said the last sentence in the status section is a good one for all the stocks. Engleby said the report on research mortalities is close to being final. Wells suggested also looking at the 1996 radio tracking report.

Southern North Carolina – The report should also say the dolphins are vulnerable to entanglement.

Charleston – The SRG said it was okay to leave in the discussion on residents and transients because that is not used to generate estimates. Change verbiage in status section.

Hilton Head – The SRG reiterated the Charleston comments.

Jacksonville – The SRG reiterated the Charleston comments. Mullin recommended that the human interaction tables be standardized for all stocks.

Gulf of Mexico stocks

Bottlenose dolphin:

Bay, Sound, and Estuarine – Mullin noted the lack of information on these stocks and stated that SEC plans to write 33 separate reports for 2010. The SEC will prioritize drafts based on new information and stocks at risk.

Coastal – Mullin noted the lack of information for this stock.

Oceanic – The SRG provided some editorial comments and recommended that text pertaining to strandings (taken from the coastal report) be deleted.

Shelf – No comments

Atlantic spotted dolphin – The status of stock should say no PBR.

Pantropical spotted dolphin – The SRG provided minor editorial comments.

Striped dolphin – The SRG provided minor editorial comments.

Spinner dolphin – The SRG provided minor editorial comments.

Rough-toothed dolphin – The SRG provided minor editorial comments, and recommended removing the text “...calculated PBR...” from the last section.

Clymene dolphin- The population size estimate should be noted as “US waters only.”

Fraser’s dolphin – No comments

Killer whale - No comments.

False killer whale – No comments.

Pygmy killer whale – No comments.

Dwarf and Pygmy sperm whales – The data from the stranding records was confusing, the reports should cite when the national database was accessed. Odell provided a new citation on pygmy sperm whale.

Melon-headed whale – The new information in the stranding table should be highlighted.

Risso’s dolphin – No Comments

Short-finned pilot whale – The report should note that it is considered a separate stock.

Sperm whale – No comments.

General SAR discussion

The SRG noted that there were no reports for the Caribbean. Mullin responded that there is very little information, but short reports could be produced.

The SRG discussed how they could be utilized to provide more thorough peer review of the SARs. Read noted that they could give specific advice on anything asked. For example, if NMFS is changing data collection or analyses methods they should be brought up. Wells suggested that NMFS provide cruise reports to the SRG. Palka suggested that the SRG review the new modeling methods NEC is using to generate bycatch estimates. DeAlteris said that both the SRG and NMFS/FWS need to be more specific in our requests.

Eagle noted the availability of the NMFS workshop report on revised SI and mortality guidelines. He said the agency is moving slowly on making that into policy.

Tier II working on draft report of Aug 08 meeting.

11. Right Whale Issues: (Diane Borggaard)

Critical Habitat:

For the past several years, NMFS has been analyzing the physical and biological features that are essential to the conservation of right whales and that may require special management considerations or protection. In the Northeast, one of the principal features under consideration is areas supporting copepods at suitable densities to meet right whale foraging requirements. In the Southeast, we have been analyzing physical and biological features associated with calving habitat. NMFS anticipates publishing a proposed rule sometime later this year. Young said she hoped NMFS is looking at their approach with respect to what they did in the Pacific. There they just drew boxes around the sightings and didn't take into consideration comments that pointed out similar prey densities outside the boxes. Gilbert and Young suggested talking to researchers outside of NMFS and noted that the SRG could help with the process. Eagle said that it is not clear to him whether the SRG's charge under the MMPA would cover work under the ESA. Further, it is not clear that the FACA exemption would apply to review of an ESA process. Eagle also noted that the Ship Strike final rule was published.

Thursday, 8 January 2009 (Hilton Inn)

13. ASRG Business & Wrap-Up

Discussion centered on the focus and venue for the 2010 meeting. If the focus was to initially be passive acoustics then the Stellwagen Sanctuary office was the recommended meeting site. However, many members agreed that focusing on Gulf of

Mexico issues would be useful, and holding the meeting at Louisiana State University was discussed. Rosel said that problems in the Gulf have been underappreciated, and Engleby noted her concerns on dolphin stranding and habitat off Texas and Louisiana.

Waring said that the meeting would need to be moved back to early February due to administrative issues. Further, he would work via email with the SRG to finalize the meeting venue.

The meeting adjourned at 10:00. Following, the SRG met in executive session.

APPENDIX I
Atlantic Scientific Review Group
Draft Meeting Agenda – January 6-8 2009
St. Petersburg, Florida

Tuesday, January 6, 2009

1. Introduction (DeAlteris, Waring)

- Welcome, housekeeping
- Travel reimbursement
- Introductions
- Membership status? Are we at full strength, what specialties are we lacking?
- 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

- Northeast region (NER)
- Southeast region (SEC/SER)
- How are Unusual Mortality Event data incorporated into stock assessments? (SRG, SEC, NEC)

Wednesday January 7, 2009

5. Stock Assessments

- Status of 2008 SARs (NEC/SEC)
- Review Appendixes (NEC/SEC/NER)
- Review draft 2009 SARs (NEC/SEC)

- Manatees
 - Florida – (Jennings, Valade)
 - Antillean – (Diaz, Valade, Jennings)
- How can the SRG be utilized to provide more thorough peer- review of the SAR (Group)
- Revised Serious injury & Mortality guidelines (F/PR)
- SAIP Tier III Workshop results (F/PR)

6. NEC Updates

- NEC 2008 surveys (Palka)
- NEC 2009 survey plans (Palka, Waring)
- NEC staff changes (Palka)

7. SEC Updates

- 2008 SEC fieldwork (Mullin, Garrison)
- 2009 SEC fieldwork plans (Mullin, Garrison)
- SEC staff changes

8. Marine Mammal Commission Updates (Gisiner)

9. FWS Updates

Thursday, January 8, 2009

10. Acoustic Research

- NEC acoustic research (NEC)
- SEC acoustic research (SEC)
- Status on incorporating acoustic data into abundance estimates (NEC, SEC)

11. Right Whale Issues

- Ship strike strategy (F/PR)
 - US (contents of rule, implementation, advanced technology workshop)
 - Canada (including recovery team updates, US-Canada MOU on right whales, ATBA in Roseway Basin)
- Critical habitat (NERO/SERO)
- Fishery-related rulemaking
- IMO proposals
- Other (litigation, budget, ...)

12. FY09 Budget status

13. ASRG Business & Wrap-Up

- Finalize recommendations from this meeting, timeframe
- Venue and timing for 2010 meeting
- Adjourn

Appendix II. Meeting Attendees (those marked with an asterix were phone ins)

Firstname	Lastname	Organization	StreetAddress	City	State	Zip	email	Phone
Donald	Baltz	LSU	Department of Oceanography and Coastal Studies	Baton Rouge	LA	70803	dbaltz@lsu.edu	225-578-6512
Diane	Borggaard	NMFS/NERO	One Blackburn Drive	Gloucester	MA	01932-2298	diane.borggaard@noaa.gov	
Barbie	Byrd	NMFS/SEFSC/PRB					barbie.byrd@noaa.gov	252-728-8793
Joe	DeAlteris	URI	Fisheries Center, East Farm	Kingston	RI	02881	jdealteris@uri.edu	401-874-5333
*Carlos	Diaz	USFWS					Carlos_Diaz@fws.gov	
Tom	Eagle	NMFS- PR2	1315 East-West Hwy.	Silver Spring	MD	20910	Tom.Eagle@noaa.gov	301-713-2322 x 105
Laura	Engleby	NMFS/SERO	263 13th Ave. South	St. Petersburg	FL	33701	Laura.Engleby@noaa.gov	727-551-5791
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Lance	Garrison	NMFS/SEFSC	75 Virginia Beach Dr.	Miami	FL	33149-1033	lance.garrison@noaa.gov	305-361-4488
James	Gilbert	University of Maine	Dept. of Wildlife Ecology	Orono	ME	04469-5755	james.gilbert@umit.maine.edu	207-581-2866
Stacey	Horstman	NMFS/SERO	263 13th Ave. South	St. Petersburg	FL	33701	Stacey.Horstman@noaa.gov	727-551-5780
*Dawn	Jennings	FWS	7915 Baymeadows Way, Suite 200	Jacksonville	FL	32256		
Beth	Josephson	NMFS/NEFSC	166 Water Street	Woods Hole	MA	02543	elizabeth.josephson@noaa.gov	508-495-2362

Robert	Kenney	URI	Narragansett Bay Campus Box 40	Narragansett	RI	02882- 1197	rkenney@gso.uri.edu	401-874-6664
Keith	Mullin	NMFS/SEFSC	P.O. Drawer 1207	Pascagoula	MS	39568	Keith.D.Mullin@noaa.gov	228-762-4591 x 280
Anne	Ney	NMFS/SERO/PRD		St. Petersburg	FL		anne.ney@noaa.gov	727-551-5607
Douglas	Nowacek	Duke University	Duke Marine Lab, 135 Duke Marine Lab Rd	Beaufort	NC	28516	dpn3@duke.edu	252-504-7566
Dan	Odell	Hubbs Sea-World Research Institute	6295 Sea Harbor Drive	Orlando	FL	32821- 8043	dodell@CFL.RR.com	407-761-7601
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Andy	Read	Duke University	Duke Marine Lab, 135 Duke Marine Lab Road	Beaufort	NC	28516	aread@duke.edu	252-504-7590
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Patricia	Rosel	NMFS/SEFSC	646 Cajundome Blvd. Suite 234	Lafayette	LA	70506	patricia.rosel@noaa.gov	337-291-2123
Richard	Seagraves	Mid-Atl. Fishery Management Council	Room 2115 Federal Bldg. 300 S. New St.	Dover	DE	19904	rseagraves@mafmc.org	302-674-2331
Jim	Valade	USFWS	7915 Baymeadows Way, Suite 200	Jacksonville	FL	32256	Jim_Valade@fws.gov	904-731-3116
Gordon	Waring	NMFS/NEFSC	166 Water Street	Woods Hole	MA	02543	gordon.waring@noaa.gov	508-495-2311
Randall	Wells	Chicago Zoological Society - Mote Marine Lab	1600 Ken Thompson Pkwy.	Sarasota	FL	34236	rwells@mote.org	941-388-2705
Sharon	Young	Humane Society - US	2100 L. St. NW	Washington	DC	20037	Syoung@hsus.org	508-833-0181