

**Atlantic Scientific Review Group
Meeting Minutes – February 5-7 2014
NEFSC, Woods Hole, MA**

Wednesday, 5 February, 2014 (0830)

1. Introduction (Nowacek, Waring)

The meeting commenced at 10 am Wednesday (delayed due to snow). Russ Brown, NEFSC Deputy Science and Research Director welcomed the SRG to the Northeast Fisheries Science Center, and stated that the Center values their contribution to the Atlantic marine mammal stock assessment process.

SRG Chair Doug Nowacek started off introductions.

In attendance:

Doug Nowacek (SRG), Michael Moore (SRG), Buddy Powell (SRG), Randy Wells (SRG), Mike Simpkins (NEFSC), Dave Gouveia (GARFO), Shannon Bettridge (OPR), Bob Kenney (SRG), Debi Palka (NEFSC), David Laist (MMC), Fred Wenzel (NEFSC), Mendy Garron (GARFO), Lanni Hall (GARFO), John Brandon (IAT), Randy Reeves (IAT), Richard Pace (NEFSC), Peter Corkeron (NEFSC), Mridula Srinivasan (S&T), Sam Simmons (MMC), Mike Polito (WHOI), Andrea Bogomolni (WHOI/UCONN), Rob DiGiovanni (Riverhead Foundation), Beth Josephson (NEFSC), Gordon Waring (NEFSC) Paula Moreno (IAT) joined after lunch.

Remotely: Sharon Young (SRG; second and 3rd days in person), Rich Seagraves (SRG), Solange Brault (UMB), Stephanie Wood (NEFSC), Wendy Piniak, Dave Johnston (Duke University), Jerry Moxley (Duke University), and others.

Gordon Waring went over a few housekeeping details, including the fact that minutes of the meeting will be distributed within two months.

Nowacek revised the agenda to include a short presentation about the Independent Advisory Team (IAT) project.

Bettridge presented NMFS headquarters staffing updates. Eileen Sobeck is the new Assistant Administrator for NOAA Fisheries, Donna Wieting is the new Director of NOAA Fisheries Office of Protected Resources, and within OPR Mike Payne, Chief, Permits, Conservation, and Education Division retired and Tammy Adams is currently acting.

Documents: The new final Terms of Reference (TOR) document was distributed to the SRG 2/4/14. It is a publicly available document which will be on the F/PR site. It will be discussed Thursday afternoon or Friday. The issue of late stock assessment reports (SARs) will be handled before SAR review.

2. Harbor (Pv) and Grey (Hg) Seals

Waring provided an overview of the NEFSC seal program over the past three decades. He stated that until the late 1990s all NEFSC seal research was conducted under contract, was intermittent, and at low (<\$60 K) funding levels. The components included: 1) Maine coast harbor seal aerial abundance surveys, 2) southern New England seasonal monitoring surveys, 3) harbor seal diet around Cape Cod via scat analyses, and 4) gray seal counts and photo-ID at Monomoy National Wildlife Refuge (MNWR) and Muskeget Island. In 1998, NEFSC initiated seasonal (autumn-spring) monitoring surveys in New England (New Hampshire-Maine border to eastern Long Island) and scat collection work on important Cape Cod haulout sites in collaboration with graduate students. Since then, NEFSC has expanded collaborative research on both harbor and gray seals on an intermittent basis due to funding constraints. In recent years, the combination of NOAA and Bureau of Ocean Management (BOEM) funds has supported: 1) harbor seal capture/sampling/electronic tagging and an aerial abundance survey (2011-2012), 2) the first non-pup gray seal live capture/sampling/electronic tagging (June 2013), and 3) contractors to count the archive of digital images from prior aerial surveys.

Simpkins summed up, saying that in reality not a whole lot has been done in the past 30 years. We don't have the science to address a lot of the concerns from the public and from the fishing industry. Nowacek asked if NMFS has data that need to be worked up or does the agency need to collect more data. Simpkins said both.

Gilbert presented the methodology and results from the 2011-2012 NEFSC harbor seal abundance survey. He said he would like to stimulate conversation so the group can talk about future direction. Counts have been done for a long time, though 1986 was the only coast-wide count of harbor seals. One argument is whether to count during the pupping season or during the molting season. Most counts have been conducted in the pupping season. NEFSC has done pupping season counts but there are pros and cons of both. The results of the surveys included: 1) the average fraction of times the seals were located was 0.440, for a correction factor of 2.274 (0.62 s.d.); 2) 31 samples representing 13 unique sample areas were selected from 22 possible areas; 3) counts of all areas totaled 19,959 seals, the estimated available number of seals was 30,850 (2517 s.d.); and 4) the best estimate of abundance was 70,142 (20,034 s.d.; 0.2856 C.V.), $N_{min} = 55,049$. This best estimate was compared to the estimate from the 2001 survey which was 99,340. Four possible reasons were identified for the decrease in abundance from 2001 to 2012. First, there were assumptions about distribution that may have been incorrect. Second, the correction factor achieved was different between the two surveys: 2.54 in 2001 and 2.27 in 2012. We are pretty confident that this was reasonable but age ratios differed. Third, it could have been that some part of the population was not in the area during the survey. There was evidence of this from the 2011 satellite-tagged animals. Maybe fewer juveniles and adult males were available to be counted during the survey. Last, there could be a true decline in the population.

Bogomolni made the observation that she has been seeing a lot of weanling pups in her data that were born in March and April. Gilbert said they don't see enough pups even in the earlier May 15-18th window. Waring stated that when NEFSC was conducting captures in Maine in April they did not see any pups, but saw lots in mid-May work. Bogomolni said there were maybe 50 coming through rehab in early April. Moore said it might be worth looking through stranding records. DiGiovanni said it would be interesting to see where those early animals are coming from too; Bogomolni replied they are all from Maine. She was looking at mostly 2011 and 2012 data. Garron pointed out that the Unusual Mortality Event (UME) was in 2011 so that might have had an influence. Corkeron said there may be no statistical difference between the two abundance estimates. The lesson may be to change sampling strategy in order to decrease the error range, deploying more tags, etc. Gilbert agreed that there has not been enough effort. More funding is needed. Maybe we shouldn't do a pupping season count, but instead count when the fraction hauled out is more consistent. He stated that we can't capture seals in the summer though. Also, we had a goal of 60 tags but were not able to capture that many seals. There is another approach that puts out a lot of tags and then models haulout frequency. Gilbert said that in 2012 each area was counted only once. In 2001 we had 2 aircraft and with that replication derived totally different counts within 2 hours and within 2 days. Moxley asked about bootstrapping procedures to evaluate the effects of sample counts on total population counts. Gilbert said that was not done, but if anybody wants to they are welcome to the data.

Wood presented her work with pup staging and counting from aerial survey imagery. Single day pup counts were presented for Muskeget (1992-2008), Green (1994-2008) and Seal (2000-2008) Islands. These data show an increasing trend for Muskeget and Seal while pup counts at Green have been stable during this time period. Other small/newer sites were identified (e.g. Monomoy I, Nomans I, Great Pt. and Metinic Rock). Wood also discussed the potential use of image compositing software to decrease processing time for the archived aerial images (2009-2014). Wood has reached out to researchers at SMRU, NMML and DFO re compositing software. She is going to start processing the more recent surveys and work her way back so that a complete set of gray seal pup counts will be available. Nowacek wondered if NMFS had considered Unmanned Aerial Vehicles (UAVs) for aerial work. Johnston said Duke researchers are working with some people at Rutgers to do UAV testing at a seal colony off Tuckerton, NJ. It will be a great test site. Moore said Otis Air Force Base Cape Cod is also a test site. Moore said he has an UAV available if NMFS can get the permission. Brault said she also has access to UAVs. She also added a comment on Wood's talk supporting the investigation of using image compositing. That technology is beneficial because it can tell us areas that were not photographed.

Dave Johnston (on phone from Duke) presented work done at Duke University on counting seals in the Cape Cod area from the March 11, 2012 Google Earth imagery.

Josephson made a brief presentation on the status of counts of NEFSC aerial seal survey imagery. Photos from 2005 through present are archived and are currently being counted. In 2014 the Provincetown Center for Coastal Studies

will be performing monthly aerial survey flights, and the images will be provided to NEFSC for counting and archiving. Waring noted that the CCS surveys will include summer months, which have not been conducted before.

DiGiovanni (Riverhead Foundation) made a presentation of seal work done by his organization, a frequent collaborator with the NEFSC. He described their work on aerial surveys and counts and well as rehab and tagging operations. One of the problems has been that they are always tagging animals at the end of their rehabilitation and tagged animals always depart New York waters immediately. They use tags programmed to collect most of the data in first couple of months. Now they have telemetry datasets and are talking with NEFSC about analyzing the data. So far data from rehabbed animals don't seem to be much different than those from captured animals.

Johnston presented results from the GPS cell phone non-pup gray seal tagging work done in Chatham in 2013. It was a huge collaborative effort between many organizations. The main advantage of the cell phone tag is cost – one year of data collection costs approximately \$200. Duke researchers are looking forward to working more with partners to get some papers out, including examining the effects of the tagging procedure, and understanding more about the provisioned animal and the animal that was killed by a shark. He presented movement data and dive profiles from the tagged seals to date. Gilbert asked if they have related the dive data to location. Are the seals going to the bottom? Johnston said Jerry Moxley is working on that now. It looks like there is a lot of benthic activity. Gilbert asked if anybody looked at the stomach of the seal that was killed by a shark. Bogomolni replied that only Clupeoidei were found. Moore said it would be interesting to overlay the tag positions with bycatch and fishery spots. Johnston said a Duke graduate student is conducting a survey of members of the Cape Cod Commercial Fisherman's Alliance to determine if the tagged seals' movements overlap important fishing areas. Moore noted that it looks like much of the summertime movements are inshore, while most of the fishing effort is more offshore then, but we still see a lot of bycatch. Simpkins said that he can provide the contacts with NEFSC staff that conduct the bycatch analysis and the social science staff people who do these kinds of surveys.

Wenzel presented his work on bycaught seal stomach content analysis. Moore asked to what degree is the analysis biased by the fact that you are sampling only seals caught by the fishery. Wenzel confirmed that it is, quite a bit. He also has not compared the contents to the catch in the nets they were caught in. Gilbert pointed out that Amy VanAtten had done that. Palka said the fishermen are not targeting hake and redfish, the primary species found in the stomachs. Bogomolni said she had a conversation with a fisherman who thought the seal would be eating the targeted fish, but the seal stomach in fact contained the prey of the target species. Corkeron said this work is just summarizing the diet of juveniles that are feeding in nets, not the diet of the whole population. He said Richard Arnett had found the same thing in Ireland.

Moore presented information from Lisa Sette at PCCS that 3-9% of animals hauled out in Chatham on any given day have evidence of entanglement. Disentanglement efforts are difficult and have had low success. Also, in a 2011 paper by Bogomolni et al., over 45% of grey seal stranding mortality was attributed to entanglement. European data show more bycaught animals washing up because they have onshore breeze. It is amazing that some of these animals live as long as they do, given the amount of trauma they go through. It is the equivalent of culling seals. At the 2013 live capture 20 seals were caught and 2 of them were entangled. Moore is perplexed why there isn't more of an outcry. Corkeron pointed out that the major reason behind the harp seal ban in Europe is the cruelty. Corkeron added that shooting would be more humane than the entanglements the seals had. Moore said the majority of the NGOs have stayed away from the problem of entanglement. Laist asked if there are any cases you could say are marine debris as opposed to active gear? Bogomolni answered that some cases were obviously marine debris, but they were rare. Most cases are monofilament that looks like gillnet. Moore said entanglement in debris is a much smaller problem than entanglement in active gear. Laist said that point should be made. Moore said he and colleagues are working on a paper.

Bogomolni made a presentation on her work done on seal health and disease in collaboration with NEFSC. She has done work on biomarkers of contaminant exposure in seals. In the search for zoonotic pathogens in seals they found evidence of several pathogens, including human-derived ones. They also examined disease rates in stranded and bycaught seals. Bycaught and stranded seals seem to be equally healthy. Future work will be aimed toward developing long-term baseline data on seal health, looking at the effects of anthropogenic impacts and natural toxins on seal health, and to track the health of seals through temporal and spatial scales. Wells asked if she is working closely with the rehab programs to standardize the sampling protocols? Bogomolni said she is, but it would be great to be able to improve that. Wells pointed out that inter-laboratory variability can be great. NMFS's national

stranding response agency has been helpful. Gilbert commented that, probably 10% or more of harbor seal pups are abandoned naturally. Those could be the ones that are being bycaught. This could be a biased sample of total pups. Moore wondered if it would be useful to do stable isotope analysis to see if these animals got enough milk from their mothers. Polito said the whisker sample would probably be the best way to get that information. Bogomolni talked briefly about the Northwest Atlantic Seal Research Consortium (NASRC), explaining that it is a science advocacy group, not a seal advocacy group. DiGiovanni added that the goal of the Consortium is that we want the groups doing seal research to do more coordinated work. The group includes members from Atlantic Canada.

Waring and Simpkins wrapped up the session with an overview of future research. The explained that NMFS is called on by the public and the fishing industry to explain changes they are seeing and NMFS doesn't have the science to adequately address their concerns. We have cobbled together funds and worked collaboratively with others. We are starting to turn the corner in our seal research program. We obtained funding from the NMFS Office of Science and Technology (S&T) for seal work. BOEM also provided funding because they are interested in all species that might be in areas of their alternative energy projects. We have a proposal in to BOEM to do more tagging. People are drawing conclusions with the sparse information that is out there now. Hopefully in the future we will have sufficient funds to build partnerships. Waring said one of the questions we have for the group is where else should we tag seals? There are more potential spots in the Nantucket/Cape Cod region. There are large aggregations at Nomans and Isle of Shoals but those areas have unexploded ordnance. NMFS would like to partner up with multiple people who have tags. There are consistent protocols in place for sampling. Nowacek asked if the tags are ever recovered. Johnston said the tags can be reused if recovered, and they would like to recover them because they have high resolution data on them. If they molted off on land we would go and look for them. Moore said one in ten seals will get bycaught within the year. Gilbert asked if BOEM funds were only for tagging gray seals. Waring responded that funds were for both grays and harbors. Gilbert asked how much coordination NEFSC will do with Canada's Department of Fisheries and Oceans on gray seal abundance. Waring said as much as possible. Simpkins said we should coordinate with Canadians too to get better understanding of transboundary movement. Young said it is important to know abundance and trends. A question from stakeholders is how many seals are enough. Abundance and trends are needed to inform management goals. Trends are an important thing – is the population approaching OSP? Science could help inform the complaints that haulout behavior conflicts with beach use and could help with understanding ways to mitigate conflict situations. Simpkins said we are hoping to get information that will provide context for these situations. Maybe perceived conflicts are not really conflicts. Young encouraged publication of data, and as much outreach as possible. Corkeron said that the point that people choose to ignore data is an important one. The fact that the European harbor seal population reduction by 50% during an epizootic event had no impact on fishery landings is being ignored. This is a social issue, not a science issue. Waring said models that support the point of view of the fishing industry will be accepted and others will not. Young said it is important to communicate the biases in the science. Corkeron disagreed with Waring, saying NOAA is capable of better than that. Nowacek said if there are things that are rising to the surface, those should be taken into account when planning science. We need to examine the perceived conflicts. Simpkins listed a few perceived conflicts such as fishery competition, wind-energy areas, and closed fishing areas. We need abundance and distribution and movement information to answer these questions. Diet research is next. The stable isotope and fatty acid analysis costs more money. Bogomolni offered that FAQs the consortium has put together might be helpful. Wells said he appreciates the time and effort the Center has put in to the seal day review. He also mentioned his group has found a good anti-biofouling material for tags. Simpkins said NEFSC is open to suggestions for how we should use our \$50,000, and suggestions for future direction. Nowacek asked if there were other things that the SRG could do other than recommend more funding? Simpkins said it was good for us that the SRG picked seals as the species of the year because that opened up more ideas and avenues for collaboration.

3. Independent Advisory Team for Marine Mammal Assessments

Paula Moreno presented the Independent Advisory Team (IAT) project. She said she was grateful to have the opportunity to talk to this group. The IAT is a marine mammal project being developed under the new Science Center for Marine Fisheries (SCeMFiS), a National Science Foundation (NSF)/Industry & University Cooperative Research Center (I/UCRC) (further information about SCeMFiS is available at scemfis.org and on the NSF program at www.nsf.gov/eng/iip/iucrc/). Moreno summarized the structure established by NSF for these centers and the diversity of groups that are eligible to become "Industry Partners" (private and public companies, trade organizations, NGOs and government agencies). The mission of SCeMFiS is to develop research essential for the sustainable management of shellfish and finfish resources. It is the first I/UCRC dedicated to fisheries-related

research. Examples of SCeMFiS science components are survey design, stock assessment modeling and studies of marine mammal/fisheries interactions.

The IAT consists of Paula Moreno (marine ecologist at the Gulf Coast Research Laboratory), John Brandon (stock assessment scientist), Andre Punt (professor at University of Washington, School of Aquatic & Fisheries Sciences), and Randall Reeves (marine mammal expert). Moreno said that Greg DiDomenico, the industry liaison of the IAT, was probably known to the SRG as he attended SRG meetings. Young corrected this by stating that he had never attended SRG meetings, only Take Reduction Team meetings.

Moreno's presentation highlighted some of the marine mammal stock assessment challenges and research recommendations included in recent SRG, NMFS (e.g., GAMMS III Workshop), and Marine Mammal Commission reports. These were considered examples of research areas within the scope of the IAT's project. Moreno requested input from the SRG and NMFS to increase the team's awareness of research priorities for improving assessments of Atlantic marine mammal stocks.

This first year of the project will culminate with the submission of research recommendations to the SCeMFiS. The team's efforts should be seen as supplementary to those of NMFS and the SRG to strengthen the science underlying marine mammal stock assessment. Wells asked for clarification as to whether Moreno sees the IAT's role as one of advising NMFS, or advising the ASRG, or complementary to the ASRG. Moreno replied that the goal is simply to contribute to improved stock assessment by engaging in specific areas of research, i.e. it is a science project that reports directly to SCeMFiS and whose findings are in the public domain. There is no intention for the IAT's work to overlap with or duplicate that of the SRG. Reeves noted that he expects the IAT to be both informed by and its work carefully scrutinized by the SRG. If the IAT comes up with a method or two to handle data and analyses in a novel way, then the products of the project will become well known to, and hopefully of use to, the SRG and NMFS. It was suggested that, in a sense, the IAT is offering to bring more firepower to data analyses for assessment, recognizing that the job is not being done perfectly now. Moore said he sees it as a potential addition, since the SRG had identified some of these areas as ones in which it would like more expertise.

Gilbert said he was still confused as to whether the IAT is advising NMFS or the SRG. Moreno explained that the NEFSC will receive the recommendations directly because NEFSC is a member of the SCeMFiS. The IAT has a short-term goal to submit recommendations for research projects that the team could work on in the second year. Nowacek asked if the recommendations for research go to the SCeMFiS. Moreno said yes. Nowacek asked if the industry partners, or the academic partners, give the IAT its direction. Moreno said IAT members are working independently as experts in this research area. She said she formed the team with the understanding and expectation that it would carry out its work independently while recognizing that judgments concerning whether or not to fund any particular research proposal would be the prerogative of the SCeMFiS board. Moreno also stated that the IAT is a scientific group formed to conduct research and not to carry out advocacy.

Moore pointed out that the SCeMFiS has a number of stakeholders on its board and queried why potential stakeholders such as the NRDC or HSUS are absent from the board. He said he is seeing a structure that has some stakeholders at the table but others not. Moreno said that, in principle, all stakeholders are welcome to join the center. It is not restrictive as to who can participate. The industry liaison is expected to follow project progress and provide information to help ensure project goals are met. Nowacek said it is pretty clear that the fishing industry is overwhelmingly represented in the SCeMFiS membership. Moreno said she is not keeping track of what groups are or are not members of the center and emphasized that it is new and its membership is likely to expand in the future. Nowacek stressed the importance of ensuring that the IAT is truly independent. Moreno reiterated that her role is that of functioning as PI of this project and that she does not play a role in selecting center partners.

Nowacek said at this stage it would be a good exercise for the SRG to think about what aspects of the stock assessment process it feels could use some work. He saw no particular downside to taking advantage of the extra analytical expertise. Reeves stated his view that it would be a great outcome of this meeting if the IAT were to get some clear direction from the SRG in pointing out where the team should focus its efforts. Nowacek said it would definitely be beneficial if the SRG and the IAT could coordinate such that they do not produce conflicting sets of recommendations. Moreno repeated that the overarching goal of the IAT is to improve the stock assessment process, but which aspects will be pursued is still being discussed and the group was attending this meeting to receive input. Young said it seemed like things might become clearer with time. For instance, she will be interested

to see how the marine mammal stock assessment process meets the SCeMFiS goal of informing sustainable fisheries. Moreno said she had also contacted Kristy Long (F/PR) to announce the initiation of this project and to inform her about the project scope. Moreno also requested Long's input on research priorities and expressed interest in following TRT meetings and findings.

Corkeron said that given the IAT is specifically fishery-focused, and what NMFS does is conservation, it might have been better for the IAT to include scientists who are more involved with design-based marine area management rather than scientists who come from model-based fishery science. Moreno responded by pointing out that she is a marine ecologist with expertise in marine mammal behavior and population models. For example she has developed a spatially-explicit abundance model for bottlenose dolphins on the northern Gulf of Mexico continental shelf. There may be potential for some productive "cross-fertilization" given the differing expertise of people in the IAT. Brandon commented that the group would seek to work to its strengths, and that the distinction between design-based and model-based was arbitrary in this context. For example, simulation models can be used to improve statistical power of survey designs.

Powell said he had initially understood that the IAT was an advisory body, but he now hears that this is a research group that can bring expertise to bear. In his view, if the SRG can help frame some of the questions for the IAT to address, and the team's work goes through a peer review process, it would be beneficial.

Moore checked at the 'why join' section of the SCeMFiS website, and noticed that members need to pay a lot of money to join. He concluded that the center obviously provides an avenue for giving industry access to science. Moreno said a number of fishing industries have come to realize that they have a common problem that can be addressed through research. She also reminded the group that SCeMFiS is part of a NSF initiative (I/UCRC program) intended to strengthen academic-industry partnerships. Nowacek said the research that will get approved by the SCeMFiS board will not necessarily be what the SRG thinks is most important.

Thursday, 6 February, 2014 (0830)

In attendance:

Doug Nowacek (SRG), Michael Moore (SRG), Buddy Powell (SRG), Randy Wells (SRG), Mike Simpkins (NEFSC), Dave Gouveia (GARFO), Shannon Bettridge (NMFS F/PR), Bob Kenney (SRG), Sharon Young (SRG), Debi Palka (NEFSC), David Laist (MMC), Fred Wenzel (NEFSC), Mendy Garron (GARFO), Lanni Hall (GARFO), John Brandon (IAT), Randy Reeves (IAT), Richard Pace (NEFSC), Peter Corkeron (NEFSC), Mridula Srinivasan (NMFS S&T), Sam Simmons (MMC), Mike Polito, Andrea Bogomolni (WHOI/UCONN), Rob DiGiovanni (Riverhead Foundation), Beth Josephson (NEFSC), Paula Moreno (IAT), Gordon Waring (NEFSC).

Remotely: Rich Seagraves (SRG), Laura Engleby (SERO), Jessica Powell (SERO), Erin Fougères (SERO), Keith Mullin (SEFSC), Lance Garrison (SEFSC), Kathy Foley (SEFSC), Patty Rosel (SEFSC), Stacey Horstman (SERO), Jim Valade (FWS) and others.

Ship Speed Rule

Bettridge presented updates on the ship speed rule. The final rule to extend the ship speed rule was published in December and the Federal Register notice for public comments on a petition for an exemption for dredge vessels went out January 30 with a closing date March 3. NMFS is treating a comment received as petition for exemption. Laist (MMC) said he has just finished a paper on the effectiveness of the ship speed rule. The paper will be coming out in Endangered Species Research.

Bottlenose Dolphin Take Reduction Plan (BDTRP)

Stacey Horstman (SERO) presented updates on the Bottlenose Dolphin Take Reduction Plan (BDTRP). The team provided consensus recommendations which included a state-wide, year-round, 100 yard setback for small mesh gillnet in North Carolina with two exempted areas. Another recommendation was for more research to better understand stock structure. NMFS has coordinated with the State of North Carolina to implement the setback. A dolphin take has since happened in one of the exempted areas but it was not a gillnet fishery. They have held a webinar meeting, and formed a working group to come up with mitigation measures for this dolphin take. In addition, the SE region has worked with the NE to allocate sea days, and is continuing a partnership with NC

SeaGrant working on an RFP. Work has been done with bay, sound and estuarine stock bottlenose dolphin interactions with trap pot gear. Interest is focused on areas south of N.C. and primarily blue crab fisheries. SERO has reviewed a summary of interactions, looking at spatial and temporal characteristics, and has come up with regulatory and non-regulatory recommendations. Recommendations include education on best practices as well as research to characterize trap pot gear and its use. A trap pot working group has been formed. Nowacek asked where the exempted areas are and how were they decided on. Horstman explained that the northern exempted area is Cape Lookout to Bogue Inlet. The second is from Carolina Beach to the N/S Carolina border. The working group is working on how to mitigate the interactions of stop net. Nowacek said Andy Read did some interaction work with stop net. Horstman said Andy is a part of the working group.

Pelagic Longline Take Reduction Team (PLTRT)

Erin Fougères (SERO) presented PLTRT updates. In September 2013, 44 out of compliance letters were sent out. Also in September, the monitoring plan was finalized. Per the consensus recommendation from the Pelagic Longline Take Reduction Team (PLTRT) at the August 2012 meeting held in St. Petersburg, FL, a work group was formed to update the current Pelagic Longline Take Reduction Plan (PLTRP) research priorities with the goal of eliminating research that has been conducted or is no longer relevant, identifying new promising opportunities, and prioritizing among candidate activities. The Research Priorities Work Group met via conference call on September 12 and 25, 2012 and on January 28, 2013. Priorities agreed to by the Work Group were based on the current PLTRP research priorities, the current state of relevant research, and new understanding of techniques and technologies. Work Group members prioritized items (highest, high, medium, or low) through discussion and based on their perceived usefulness at addressing key issues for reducing pilot whale and Risso's dolphin bycatch, understanding effects of implemented PLTRP management measures, and the feasibility of conducting the actual research (available methods, not necessarily available funds/funding sources). Highest and high priority items identified by the Team include: 1) Investigate possible attractants/deterrents for pilot whale/Risso's dolphins to pelagic longline gear and experiment with gear modifications to decrease the likelihood of hooking and/or entanglement; 2) Evaluate the effects of implemented PLTRP Management Measures; and 3) Investigate preferred habitat of pilot whales in the Mid-Atlantic Bight region. To address some of the highest priority research items, SERO funded a contract with UNCW to conduct hook testing on carcasses and provided funding to the SEFSC to conduct weak hook research in the mid-Atlantic in the summer of 2013 (worked with 2 vessels and made 5 trips for 30 fishing days). Additional work was to be completed in the SAB in early 2014. SERO is also providing funding to NC SeaGrant for an RFP in 2014. Nowacek asked about the SE center funding for weak hooks – where will it be presented? Fougères said it would be to the TRT. There will be a webinar in early spring. Nowacek also asked what would be the target of the NC SeaGrant funds. Fougères said that would be for habitat issues and hook research and baseline evaluation - all highest priority items.

Atlantic Large Whale Take Reduction Plan (ALWTRP)

David Gouveia (GARFO) brought everyone up to date on the Atlantic Large Whale Take Reduction Plan. The proposed vertical line rule was published in July 2013. Sixteen public hearings were conducted associated with this. Six alternatives were proposed which included 1) increasing trawl length, 2) closures, 3) exemptions for state waters, 4) increased reporting, 5) cap on breaking strength on line, 6) weaker weak links. For the Northeast, NMFS proposed increased trawl lengths; closures; gear marking and exemptions to some areas within state waters. The proposed closures included three options for portions of Cape Cod Bay and the outer Cape (January 1 to April 30); Jeffreys Ledge (October 1 to January 31); and Jordan Basin (November 1 to January 31). In the mid-Atlantic, the co-occurrence of commercial trap/pot and gillnet gear and large whale sightings per unit effort were low resulting in only gear marking and monitoring proposals for that region of the coast. The Southeast proposed measures would create a new seasonal trap/pot management area. Within this area NMFS is proposing a prohibition on multiple trap/trawls for commercial trap/pot fisheries; a maximum breaking strength for all vertical lines; lower weak link tolerances, and gear marking. NMFS received approximately 45,000 comment letters. The common themes of the comments included opposition to gear marking, concerns about the implementation timing, costs, and safety and feasibility issues. Currently, NMFS is reviewing the letters and consolidating all of the issues raised. NMFS will consider these comments as part of its deliberative process. NMFS is currently developing final rule and supporting environmental analysis. NMFS is anticipating publication of the final rule during the summer of 2014. Young stated that there was a fishery management action under consideration by the South Atlantic Fishery Management Council (SAFMC) and the Southeast Regional Office (SERO), that would have a negative impact on right whales, particularly right whale calves, in the Southeast. As part of its scoping process the Council identified its preferred action which proposed to lift the trap/pot prohibition in calving areas. Gouveia said SERO staff are working through

the ESA section 7 process to address the risks associated with the Council's preferred action. Jessica Powell said there was an increase in the catch limit of black sea bass (*Centropristis striata*), which was unexpected to SERO. That was unfortunate timing. The SAFMC council is considering revising the winter closure for black sea bass trap/pot gear which was put in place to protect right whales. SERO has been trying to work closely with the council. They are involved with the advisory board that is concerned with lifting black sea bass closure and are trying to provide alternatives which offer conservation benefits and protections to right whales. NMFS is in a scoping process which just closed February 3. Young said the council did scoping separately in the NMFS sustainable fisheries scoping. There seems to be a disjoint. Powell said SERO agrees and recognizes that the timing is off and that some of the council's alternatives are contradictory to SERO's efforts within the ALWTRP. Moore commented on NMFS proposed gear marking requirement. He stated that the proposed added marks are ephemeral. He and Nowacek suggested that NMFS consider other gear marking options such as RFID tags and line tracers. Gouveia said tracers had been discussed by the Team but the Team did not like the costs associated with that option. Nowacek said RFID tags only cost 20 cents and would be a much more efficient and cheaper option. He expressed dismay as to why it is an economic issue. Gouveia agreed, saying maybe it is reluctance to change. But he also noted that the RFID tags have been experiencing some technical issues. The tags are not holding up as well as had been hoped in the cold water and not faring well as the rope is pulled through the vessel's hauler. Therefore, Gouveia feels that the tags are not yet ready for use in commercial fishing at this time.

Harbor Porpoise Take Reduction plan (HPTRP)

Gouveia provide an update of the recent Harbor Porpoise Take Reduction plan activities. Following NMFS action to shift the consequence closure from October 2012 to February 2013, NMFS convened four Team meetings. At these meetings the Team: 1) deliberated on maintaining, modifying, or removing the consequence closure strategy; 2) considered revisions to the "Other Special Measures" provision of the Harbor Porpoise Take Reduction Plan regulations; and 3) discussed ways to improve enforcement efforts to ensure compliance with the Plan's requirements. The Team agreed that current consequence triggers no longer reflected actual bycatch in the Northeast sink gillnet fishery. Ultimately, no concrete plans for modifying or replacing the consequence closure strategy emerged. Therefore, the only immediate option to prevent the improper triggering of closures was to remove the consequence closure strategy from the Plan. The Team agreed to require NMFS to solicit input from the Team before taking action through the *Other Special Measures* provision of the Plan. Consequently, NMFS revised the Plan's regulatory text to reflect this change. To improve compliance, NMFS agreed to examine observer data regarding pingers on observed hauls, and will provide that data to NOAA's Office of Law Enforcement (OLE). This effort included time and area of fishing activity of observed gillnet vessels and any other relevant information, including vessel homeport, registration number, etc. NMFS also committed to work with OLE on potential enforcement efforts, including additional at-sea operations with State Joint Enforcement Agreement partners and the U.S. Coast Guard and additional dockside enforcement activities.

Gilbert asked why enforcement seemed reliant on additional funding from NMFS line items to ensure adequate enforcement efforts. Gouveia noted that the limited enforcement funds were a product of the multiple areas enforcement are asked to focus on. Simply put – enforcement is suffering the same fate as everyone else in this tough economic climate. They are asked to do more with less funding. As a result, managers must find creative ways to utilize available funds. NMFS chose to invest in a series of grants to the States in the form of Joint Enforcement Agreements. Gouveia made it clear that it is not that NOAA Enforcement has dropped the ball. NOAA Enforcement has done an outstanding job, but funds are tight and they need help to address the areas we need them to address. We are always trying to be creative in how we spend our funds. Bettridge reinforced Gouveia's point by saying we tend to forget that it is not NMFS law enforcement, it is NOAA law enforcement.

NE Region Stranding Updates

Mendy Garron (GARFO) presented stranding program information for the Northeast region. She said there have been some gaps created by the loss of the Prescott funding. Nowacek asked if the budget moving through Congress now contains Prescott money. The answer was yes – 3.8 million dollars. Waring added a comment on the loss of coverage in Nantucket. Garron went on to report that in 2011 there was a pinniped UME that closed in November of 2012. The case control study has not been completed. The person in charge was funded through the regional office and that funding has dried up. That funding is now being evaluated. The role of the on-site coordinator has grown and it is now almost a full-time job, so it has been hard to fill that role and sustain it. There is also an ongoing mid-Atlantic Bottlenose Dolphin UME. The Riverhead Foundation has gotten a Prescott grant to fund work on that UME and Rob DiGiovanni is the coordinator. Nowacek asked if there are biopsy samples from other species being

tested. Garron replied that they have looked at few other species. They just looked at one right whale biopsy and did not see the morbilli virus, at least not in the skin. Moore said the clinical disease does lead to shedding of the virus. Garron wanted to take this opportunity to address SRG recommendations. Young said she appreciates the fact that the Agency has done a great job of updating the UME online. Moore agreed that internally the focus has been incredibly good. However, he bemoaned the loss of level A coverage in a significant part of the northeast, comparing that to the partial observer coverage for fisheries. He has been wondering how to advise NOAA to address the data gap. Young agreed, saying it is important to get biological samples to add to our understandings of stock structure. Wells added kudos to the investigative team and asked who is doing the modeling work at Princeton. Garron said she could get that name for him. Wells said his lab is doing some things that could be useful. Nowacek asked if the role of onsite coordinator continues on after the UME is over. Garron said every event is different. For the 2011 UME, NMFS thought it was important for someone who was involved in the whole thing to finalize reports. We have struggled with that over the years. Moore said we have gotten better at closing out those reports in recent years. DiGiovanni said this UME is a good example for us to use to look at the effects of the loss of funding. Without the money we may not have been able to identify the UME as quickly. Young said that funding is targeted for elimination every year. It is critical, but to the uninitiated it could look like a luxury. The public does want a stranding response. HSUS tries to advocate the importance to its constituent base. Wells said the Prescott program was meant to supplement the stranding budget. The two pieces – the welfare piece and the data piece – may be better funded if they were separated. Simpkins said the issue of the Prescott funding has come up multiple times at national level meetings at NMFS and there is always support across the room. There is strong support for trying to keep this coming. DiGiovanni said Prescott is providing basic support. The resources spent on just the one UME event were more than Prescott was this year. Having a start team with objectives identified early in the process makes work will be more efficient going forward. Gilbert asked if any animals involved in the UME were identified as from the offshore stock. Moore replied that there were two large offshore morph animals that tested negative.

SE Region Stranding Updates

Erin Fougères made a brief presentation on the stranding statistics, the impact of the loss of Prescott Program and Unusual Mortality Events (UMEs). There were 5,504 strandings in the southeast between 2007 and 2013, an average of 786 per year. The majority of the strandings occur in Florida, Texas and North Carolina. The lack of Prescott funding will seriously diminish or eliminate the capacity to respond in central NC, SC, and GA. Other areas will likely have to reduce their effort and the analyses conducted on stranded animals. Continued lack of funding will have long-term effects, including a decreased understanding of marine mammal/human interaction issues and population health. There were three UMEs active in 2013 – the mid-Atlantic bottlenose dolphin UME (July 2013-present), the Indian River Lagoon bottlenose dolphin UME (January 2013-present), and the Northern Gulf of Mexico cetacean UME (February 2010-present). Details were presented on these UMEs, with thanks given to Jenny Litz, onsite coordinator for the Gulf of Mexico UME for slides and data. Moore said he can understand suggesting that the Deepwater Horizon oil spill caused the UME, but how do you explain the mismatch in timing. Fougères said we can't say DWH is the cause, but we are investigating it as a contributing factor. Wells asked where legal proceedings stand with BP. Fougères said it could certainly go to court. It could settle, but we are preparing to be ready if it goes to court. Young asked if it is possible that there are bioaccumulation processes going on through ingestion of contaminated prey. Fougères said one of the questions is what may be still at the bottom and still entering the food chain. Moore said that given the loading of that system, it is likely to continue to have impacts for decades. Wells observed that last summer his team was sampling dolphins in a marsh that looked clean but mats of tar, oil and dead vegetation were at the bottom. Nowacek asked how much effort has there been in looking for floaters. Fougères said there have been no targeted surveys, just opportunistic ones. She highlighted one other exciting thing her office has recently accomplished - they launched a smart phone app for reporting stranded animals (see http://sero.nmfs.noaa.gov/protected_resources/outreach_and_education/mm_apps/index.html).

Stock Assessment Reports

Discussion

The SRG complained that some of the SARs had not yet been submitted for review and agreed that some of the late SARs may have to wait until next year. Mullin (SEFSC) explained that since the Deepwater Horizon oil spill the SEFSC workload has increased 50% and they are having a difficult time keeping all balls in the air. Maybe we just need to reduce our goal. Young said the Agency has a statutory obligation to review strategic stocks annually and others every 3 years. All bottlenose dolphin stocks in the Gulf of Mexico have new information. Updates of SARs have to be a priority. Management measures are imposed based on what's in the stock assessments so this is not

acceptable. Another issue is that the 2014 draft SARs are just like the 2013 SARs. The 2014 drafts were put in before the 2013 versions were finalized. There are serious timing issues. Mullin said he didn't disagree. Another option would be to submit draft SARs for review on time but without all updated numbers. Young said if you were a contractor or someone in industry or academia and you did not submit your reports on time there would be consequences. Nowacek said the SRG will have to have some dialog on which SARs need to be updated. Moore said he had written a memo to Nowacek and Waring with his concerns, the gist of which was the generic failing to develop trend analysis. The SARs don't change much year to year. These are generic and substantive shortcomings. There should be more planning of surveys so that they can be compared interannually. He hopes that AMAPPS data can help with this. There needs to be rethinking of how resources are applied so there can be consistency. Young said the more recent GAMMS directive on aging data should have been applied. Bettridge explained that the GAMMS III guidelines have not yet been adopted by the Agency. Mullin said NMFS is working hard internally to develop a nationwide plan to communicate that we don't get enough ship time or air time to fulfill our obligations. Moore said currently you have more time than anyone else in the world has. There needs to be more long-term planning. Mullin said we have set up long-range plans repeatedly. Seagraves' notes echoed Moore's frustrations. NMFS should do triage on what they are currently doing. Also, methodologies change, etc, so they are not comparable. No population dynamics models have been applied. Simpkins explained that in the past NMFS has had infrequent surveys because we have had to fight for them each time. In recent years NMFS has had external funding, though it is embarrassing to be forced to rely on external funding to fulfill our mandate. We do have an agreement in process to extend AMAPPS for another 5 years. That won't help us for the Gulf of Mexico though. There will be a lot of improvements in consistency. For 2 years now we have been working on the issue that we don't have the resources. PRSIPP (Protected Resources Science Investment Planning Process) is underway. Moore said so a strong statement along the lines that I was suggesting would be good? Simpkins said yes. Nowacek asked if the other SRGs are taking up the subject of insufficient data to estimate trends. Bettridge said yes, all 3 SRGs share the frustration. Nowacek said maybe there should be a letter that we all sign off on with one voice. Bettridge said if so, that should be addressed to the Assistant Administrator for NOAA Fisheries.

Bettridge reported on the status of the 2013 SARs. Public comment period ended on 04 February 2014. Young pointed out that the timing of the closing of the comment period on 2013 drafts made it impossible to have those reviews incorporated into the version 2014 reports currently being reviewed.

Lyssikatos (NEFSC) made a presentation on a proposal for revised timing on bottom trawl bycatch analysis and methodology revisions. Instead of doing a complex estimate on only one or two species per year, NMFS proposes to run an annual stratified ratio estimator on all species that had bottom trawl interactions and to have those results, and accompanying methodology tech memo, ready for the SRG to review in the Fall, prior to submission of draft SARs. Young asked if NMFS would be making serious injury and mortality (SI&M) determinations in the fall. The answer was yes, similar to this year, when the determinations were submitted to the SRG for advance review. Nowacek said maybe the SRG should contemplate having a virtual rendezvous in the fall.

Josephson continued this discussion by asking if the early review of the SI&M determinations seemed to be an effective approach. The SRG agreed with continuing this plan – there should be a mid-September early review and the SRG can have a teleconference to discuss and review.

Josephson initiated a discussion of the SAR appendices and inclusion of older bycatch data in the text of the SARs. She expressed a desire to streamline the reports by consolidating the historical strings of bycatch estimates into appendix tables, either summarized by fishery or summarized by species or both. Nowacek thought the suggested appendix tables would be helpful. Young said it is sometimes interesting to look at fluctuations in bycatch over time. Wells said the SRG made a strong point about the need for trend analyses earlier, so would like to have the history preserved somewhere. Gilbert said he would agree with a historical table for bycatch. He said old contract reports on abundance do not need to be in the SAR.

Reviews

Manatees – Jim Valade (FWS; via phone connection) updated the group that plans to reclassify manatees were put on hold due to sequestration. At the same time there were concerns about the effects of the die-off. Now the reclassification may not happen for a couple of years. Young said that makes sense to her but she wondered what FWS's petitioners think. Valade said they are not happy. Nowacek asked who the petitioners are. Valade said it is a group called Save Crystal River. Powell asked Valade if he could give the SRG a status of the core biological

model. Valade said the Service has not moved forward with that since the last SRG meeting and progress with that could take about 3 years or more. Powell mentioned that Carol Knox has put out an informal abundance count from a recent synoptic survey. The FWC has been working on updating survey methodology. Are there any updates there? Valade replied that the State of Florida has developed a methodology for a better survey. They hope to have a publication out as early as May. The recent survey did not utilize the new quantitative methods, but just used the traditional method – a minimum count at warm water sites. 4,831 was the count. The numbers are very close to those from previous surveys. There were 829 deaths reported in 2013. Many deaths were related to red tide in southwest Florida. The State recently submitted paperwork to close the red tide event. Powell said that what is of particular interest to the SRG is, if you look at the Runge model, things certainly have changed, with recent high mortality unrelated to watercraft, there is concern that systems have changed. How that will affect manatee mortality? We are seeing mortality that is ecologically-based. Seeing resources go into understanding some of those ecological dynamics would be important. Valade said there has been discussion that the warm water springs that the manatees rely on are not in good shape. We need to retool the model. The revised 2012 SAR is the most recent one. It includes most of the suggestions from the SRG and the public. Nowacek said with the minimum population estimate that is in that SAR, how do we interpret the loss of over 800 animals this year? Young said the MMPA requires the FWS and NMFS to update strategic stocks annually when there is new information. The FWS should be doing new manatee SARs every year. Valade said the Service has had internal discussions. We are required to revise when there is information that suggests that the population has changed. In 2012 we decided there was information for an update that year. The mortality events in 2012 warrant a revision and we will be working on a revision this year. Young cited chapter and verse of the MMPA to the effect that updates should be annual for strategic stocks. Valade said FWS legal guidance says that we are required to do a review annually but not a revision.

Atlantic White-sided Dolphin – only editorial comments from reviewers Kenney and Gilbert.

Bottlenose Dolphin Central Georgia – Read and Wells were reviewers. Wells said most of his comments were editorial. Under the Other Mortality section on the second line it says it was not possible to make determinations of human interaction for 14 of 16 strandings. There should be explanation why so many strandings were CBD. Rosel said most Bays, Sounds, and Estuary (BSE) SARs have a statement like that. She asked if Wells suggests this be done for all? Wells said he was only commenting on the GA one for now. If we knew what was needed we might be able to fill those gaps.

Bottlenose Dolphin Mississippi Sound – Rosel said this report is not ready yet but it is a new SAR.

Bottlenose Dolphin Oceanic – Seagraves had a comment (read by Nowacek) that the isobaths of the map don't match the text descriptions. Young said the report says the dolphins in the UME were assumed to be not from the offshore stock but should say why this was assumed. Seagraves had wondered why the abundance was an order of magnitude lower than that of the Atlantic offshore bottlenose dolphins. Mullin explained that in the Gulf of Mexico the offshore bottlenose dolphins only occur in a narrow band. A lot of the offshore area of the Gulf is greater than 200 meters deep. Seagraves commented on the long intervals between surveys and on a general lack of observer coverage. Do we expect any changes in observer coverage? Rosel replied that the only fishery there is pelagic longline and that is one of the highest covered fisheries. Engleby agreed.

Bottlenose Dolphin Offshore – Seagraves and Nowacek were reviewers. Nowacek said the trend section cites the Taylor *et al.* paper and wondered if we really have to have annual surveys to detect population decline? Pace said that is relative to the CV of the number. If the surveys were much more precise we would not necessarily require annual surveys. Corkeron said that is based on classical hypothesis. Didn't Barlow have something out using a Bayesian approach pointing to a decline? Surveys with dugongs detected a precipitous decline. There are ways of looking at the data other than the classical. Nowacek referred to the statement about other mortality "unclear what proportion..." and asked why stock was not determined. Rosel said routinely there is a very low rate of determination whether an animal is an offshore morph. If it is suspicious they send a sample and the SEFSC performs a genetic determination.

Bottlenose Dolphin Baratavia Bay – Wells referred to the statement on the second page that some dolphins are not included in any stocks and wondered if there should be a SAR-like section for unincluded animals. Rosel said there is no place that summarizes all the gaps where there are dolphins not in a SAR but that they are each covered in

adjacent SARs. Maybe a formal section would be worthwhile. Wells said maybe something titled like an existing SAR so they remain on the radar. Under fishery info the report says there are no documented interactions with hook and line fisheries, but later says animals have been disentangled from hooks so there is interaction. Young said there is no usable estimate of abundance because existing estimates are more than 8 years old. According to the new GAMMS guidelines Nmin should have been decreased. Bettridge said GAMMS III guidelines have not been adopted. Young said there is no observer program for shrimp trawl and this should be reflected in the statement saying there have been no documented observations. Wells said there has been a lot of good work toward getting abundance estimates, but some of that is tied up in the Deepwater Horizon Natural Resource Damage Assessment (NRDA) process.

False Killer Whale – Nowacek had editorial comments only. Read did not send anything. Kenny commented that the coast of Maine sighting in the distribution map was suspicious.

Fin Whale – Nowacek objected to the double negative language “should not be considered an unbiased”. Gilbert said if you don’t have an estimate for part of the stock you can’t call it Nbest. It is just a minimum guess. Pace said Nbest is not Nperfect. Palka said that is a generic problem that is not brought up in any SAR. We are covering the area we are responsible for but it is not the habitat for the entire population. Young said NMFS should just caveat what the Nbest is for. Kenney pointed out a mismatch between the stock definition range in the first paragraph and the survey range for the 2007 Canadian survey. Pace said he would examine the text used to describe the range of the stock.

Gray Seal – Gilbert said this stock has the same problem as the fin whales, there is no population estimate for gray seals in US waters. We think we have a common population with Canada. He wondered if we should recommend we get an abundance estimate from pup counts in US waters. There is no Nmin so there is no PBR. There are a lot of references to DFO docs that he couldn’t find. Lawson pointed out that the mid-Atlantic gillnet section has some missing numbers. Moore said the piece that is missing is the serious injury estimate. We could be just above or just below PBR. Waring said the information on entanglement rates obtained by Lisa Sette only pertains to the Chatham area. Moore suggested tabling discussion of seal serious injury rates until next year.

Harbor Porpoise – Young pointed out some about superfluous language in this report. In the final portion just before status of stock this report talks about US management measures. No other stock has that information. NMFS should leave out the parts about the consequence trigger and just say for more information see the webpage. It is good that this stock has new references.

Harbor Seal – Gilbert had some editorial comments and some references that needed to be removed. We can’t talk about a trend because the 2001 estimate is too old. Lawson’s notes had information about boat strikes. Gilbert suggested removing the reference to GAMMS III if that has not yet been implemented.

Humpback Whale – Moore lamented that the MoNAH data are now 9 years old and still have not been published. It is depressing to not see that investment realized. Planning should include the commitment to publish and use. Young said the reference to the MoNAH project should be removed because it is too old anyway. Corkeron said seeing these data out would have other value anyway. The data should still appear in the literature. Nowacek asked if trends could be derived from simple calculations on the mark recapture data. Pace said those data are owned by different institutions. He has been negotiating with them. We don’t have a process in place right now, maybe we can structure some regular agreement. Moore said there should be a cost-benefit analysis on how to move forward. Young offered that if it is something that a third party can mediate then maybe there are people at this table that could mediate. Simpkins said the reality check is that there is not a big chunk of large whale money. On the sunny side, it is possible BOEM is interested in what’s going on with endangered species, so there is potential for getting AMAPPS funding for humpbacks. If the SRG thinks it is important that could be a good recommendation. Kenney said he had three comments that were more than editorial. The first was the MoNAH paragraph, and the second was about the status review. That seems to be dragging on. Bettridge reported that the Biological Review Team was addressing peer review comments on the draft humpback whale global status review when the agency received a petition to designate as a Distinct Population Segment and delist humpback whales in the North Pacific Ocean. The Team is now addressing questions related the petitioned action and finalizing the status review report. Moore reiterated a comment made last year – that the discussion of the UME should cite the UME report instead of saying there were no definitive conclusions. Kenney pointed out that in the discussion of SI and Mortality some old

language should be removed. Young said the structure of Table 2 is harder to follow than the table that used to be there. She misses the comments column.

Killer Whale – Nowacek said he was glad to see an update even though there was not much new information.

Minke Whale – Kenney had editorial comments only. Moore had the same generic comments about trends. Young noted that there should be mention that there is evidence from the stranding database that there are interactions with gillnets.

Right Whale – Kenney had just editorial comments. Nowacek asked why not say they are experiencing exponential growth. Nowacek said he had some concern that the person in charge of right whales in the Southeast is not there for a significant part of the time the right whales are there. Gouveia said some of the GARFO staff have gone down there to cover, and there is also an onsite NOAA Corps Officer. Nowacek said it seems hard to justify why NMFS gave up the aerial survey effort off SC/NC. Young said Garrison designed a system that is designed to pick up some of the slack, but there is no question that effort is down. There is also a backlog of acoustic data. Caroline Good has been contracted to analyze those. The SEIT has been pushing on the issue of coverage of those areas. Gouveia said the mid-Atlantic coverage is also a big issue for the TRT. We narrowed down areas of high priority and have mapped out a plan with different parties contributing funding. Corkeron said the passive acoustics side of that is well under control. Van Parijs has already got data from some organizations with acoustic effort in the mid-Atlantic area and is still nagging others. Nowacek said Duke has 5 buoys off Oregon Inlet too. Young said it would be useful to consider some other new papers to cite in the SAR, for example there is no mention of Jordan Basin. The calf born in 2013 in Cape Cod Bay should be mentioned. Some additional information is available on the use of the mid-Atlantic corridor in the Firestone et al. 2008 paper, and regarding the ship speed rule in the Silber and Bettridge 2012 paper. She said the Feb 1, 2011 subadult female should be included in the Serious Injury and Mortality table. Young also brought up the Sept 9, 2012 #3960 serious injury that she thought should be included. In more general discussion, Pace commented that NMFS should not trade the best dataset we have by moving huge amounts of resources to cover outlying areas. Nowacek agreed but said a previously unknown productive female in the population is not trivial. Using passive acoustics is a good place to start. Powell pointed out that the ID part is lost with acoustics.

Northern Bottlenose Whale – Moore had just editorial comments.

Pantropical Spotted Dolphin – Powell and Segraves were reviewers. Powell made the same comment regarding trends.

Long-finned Pilot Whale – Segraves asked NMFS to provide more information on the stratified ratio methodology.

Short-finned Pilot Whale – Powell and Moore were reviewers. Powell asked if observers take samples for genetics. Rosel said they do when they can, but not always. We analyze every sample they collect. Moore said his solution was a tape measure. Powell asked if it could be done by photograph. Pace replied in the affirmative and cited the Rone and Pace 2012 Marine Mammal Science paper. Young lamented that bycatch mortality is still not split by species. Josephson said it is split in the 2014 SARs. All the pelagic longline fishery were determined to be short-finned pilot whales and all the gillnet and trawl takes were determined to be long-finned pilot whales.

Risso's Atlantic stock – Lyssikatos addressed a comment from Powell on pinger use. Powell said the report needs some rewording to make it clearer.

Risso's Gulf of Mexico stock – Gilbert had a generic comment on the Mortality and Serious Injury paragraph. He said the Anderson 2008 and NOAA 2012 citations were not both needed and maybe the whole paragraph was unnecessary. Foley clarified that the paragraph was added to all SARs. Gilbert asked why the high seas highly migratory species fishery was not included in the commercial fisheries section, as was done for the Gulf offshore bottlenose dolphin SAR. Foley said she thought there was an interaction with bottlenose dolphins and no interaction with Risso's. Gilbert said it would be good to clarify whether fisheries are included that do interact or could potentially interact with each species.

Sei Whale – Gilbert said stock definitions are difficult. This stock has the same issues as gray seals and fin whales

with difficulty assigning what fraction belongs to the U.S. Lawson's comments were only editorial.

Common Dolphin – Moore said the stock range definition was confusing because these dolphins are the most commonly stranded animal on Cape Cod. Palka agreed that the text needed to be changed. Powell pointed out that there seems to be a big drop in the estimate for trawl bycatch that should be explained.

Sowerby's Beaked Whale– Powell had no comments. Young said the Pacific region has nice text in their SARs about the potential adverse effects of high frequency sonar on beaked whales. She recommended the region consider putting something in there under other mortality and maybe in the status section as well. Waring said per previous discussions with the SRG NMFS was told to take that stuff out. Nowacek said we should go back and check past minutes, but he agreed with Young. Moore pointed out a case that would be valuable to highlight as the cost of losing Prescott funding – that of the True's beaked whale that was not able to be examined promptly.

Gilbert made a generic observation that in the southeast SARs there are citations regarding oil that refer to pdf documents available online that are not primary science. NOAA 2010a and NOAA 2010b need to be removed.

Sperm Whale – The Atlantic sperm whale SAR was updated, but not included on the original list. Nowacek said that the SRG would make sure that gets reviewed. Young said there should have been an update for Gulf of Mexico sperm whales because the MMPA mandate strategic stocks to be reviewed every year. Bettridge clarified that the statute says strategic stocks have to be reviewed every year, and updated if there is any new info. Young said in this case there is new information. Young suggested that because of the new Serious Injury Guidelines, a 2008 interaction with the pelagic longline fishery should change to a serious injury, and that the animal's calf was also seriously injured. There are changes to the longline fishery coming up. Also, BOEM is planning a programmatic EIS for Gulf of Mexico oil and gas development, so this SAR should be up to date.

NE Region Fieldwork Updates

Tim Cole (NEFSC) presented right whale team fieldwork updates. Moore asked to what extent would the glider program detect whales in areas where NMFS would not have been surveying already. Would be practical to use the gliders as a way to broaden the survey area or broaden the focus west of the Hague line? Cole said it would not broaden the focus. The gliders can't really cover more area than the plane can. Moore pointed out they send gliders to Bermuda and back. Why not use them to mow a broad swath? Nowacek added that a glider is much cheaper than an airplane. Palka said Mark Baumgartner is suggesting doing some broadscale lines. Corkeron further explained that Baumgartner has a grant proposal in to the Navy. He (Corkeron) and Van Parijs are co-investigators. It is a promising technology but it is not quite there yet. They are still waiting to hear about the status of that proposal. Moore said the SRG should recommend more work with gliders. Young asked if there was any thought to putting acoustic buoys in the inshore Maine waters where there is vertical line risk. It would seem useful to get more information from those areas. Palka said Van Parijs has plans to put out 10 MARUs along the southern flank of Georges Bank. Corkeron said most of the passive acoustics program at NEFSC is run on external funds, so it is more science than management directed, but Van Parijs can tell you tomorrow if Chris Clark or others have any acoustic buoys inshore.

Corkeron said there are some background problems. At the moment it seems that oceanographic conditions in the Gulf of Maine have changed as fast as those in the Arctic. NOAA ships built recently have been built more for fisheries research than putting boats in the water to study whales. Getting abundance from passive acoustics is still some distance off. Elsewhere in the world right whales migrate further than ours usually do here. Maybe ours are just going further now. How can we be more flexible? In many places people only get information from calving grounds. Gliders are still bleeding edge, but we need to move that ahead. Demographic work and photo-ids are still important. Aerial surveys are still happening, and NEFSC is looking at running a cruise to deliver popups. NEFSC is also hoping to run a late fall cruise out to the Gulf of Maine. The Agency has been collaborating more closely with other people in the right whale research community. NEFSC is optimistic that funding will resume this year.

Palka provided a brief overview of the Atlantic Marine Assessment Program for Protected Species (AMAPPS) project that started in 2010. The overall goals are to 1) collect broad-scale data over multiple years on the seasonal distribution and abundance of marine mammals, sea turtles and sea birds; 2) collect similar data at finer scales at sites of interest to BOEM and the Navy; 3) collect tag telemetry studies of sea turtles, birds and seals; 4) assess the population sizes; 5) develop models and tools to create seasonally, spatially-explicit density estimates incorporating

habitat characteristics; and 6) explore alternative platforms and technologies to improve assessments. This work is conducted by the NEFSC, SEFSC, and FWS and covers waters from Florida through Maine to Halifax, Nova Scotia and from the coastline to at least the 200 nmi EEZ.

Nowacek asked what thought has been given to repeatability and long-term planning. Palka said the methods used by the SEFSC and NEFSC are very similar and the same tracklines have been repeated in different years and seasons. The NEFSC has also been coordinating with the Canadians and standardizing with them as well. The goal is to repeat areas we have done in previous years. We would like to be doing surveys more frequently, but due to funding limitations, we cannot survey every season within one year. Moore recommended consistent surveys continue going forward, and the centers should increase their abilities to analyze what data has already been collected.

Then Palka told the ASRG that the NEFSC conducted a 45 day line transect abundance survey during July-August 2013 on the NOAA ship Henry B. Bigelow in the same region surveyed in 2011. The cruise had visual observers looking for marine mammals, turtles, and sea birds. Passive acoustic data were conducted simultaneously. In addition, oceanographic data were collected using CTDs, bongo nets, moose nets, Isaac Kidd trawls, and a visual plankton recorder. During Feb - Apr 2014 on the NOAA ship Gordon Gunter, another similar survey will be conducted, though there will be less emphasis on the waters deeper than 2000m. There is also a possibility that NEFSC will have access to the NOAA ship Henry B. Bigelow for 30 days in July-August 2014.

Planning for 2015 meeting

Jacksonville, Florida was decided on as the venue for the 2015 meeting, though date setting was not done. The special topic will be shared between bottlenose dolphins and manatees.

Friday – 8:30

In attendance: Gordon Waring, Doug Nowacek, Michael Moore, Randy Wells, Mike Simpkins, Dave Gouveia, Shannon Bettridge, Debi Palka, Mridula Srinivasan, David Laist, Sharon Young, Bob Kenney, Jim Gilbert, Paula Moreno, John Brandon, Peter Corkeron, Richard Pace, Randy Reeves, Sam Simmons, Sofie Van Parijs
On phone: Kathy Foley (SEFSC), Patty Rosel (SEFSC), Keith Mullin (SEFSC), Lance Garrison (SEFSC), Jim Valade (FWS), Laura Engleby (SERO), Stacey Horstman (SERO)

SE Region Fieldwork Updates

Mullin (SEFSC) presented an overview of SEFSC 2013 and proposed 2014 fieldwork. Field work funded by BOEM was conducted in summer 2013 in Texas to collect bottlenose dolphin biopsies in coastal waters adjacent to several bay, sound and estuary areas that were sampled in 2012 and biopsy collection was conducted in western Mississippi Sound in both summer and winter. Photo-ID mark-recapture surveys were conducted in Pamlico Sound in summer, and spring and fall photo-ID surveys were conducted in Biscayne Bay. In addition, the SEFSC carried out a spring aerial survey and a summer ship survey in the Atlantic as part of the AMAPPS project. Deepwater Horizon damage assessment work consumed a considerable amount of field work and included mark-recapture photo-ID surveys to estimate abundance in Barataria Bay, live-capture for health assessments in Barataria Bay and Mississippi Sound, and summer biopsy surveys in coastal waters adjacent to Barataria Bay. In 2014, plans are to do summer biopsy work in central Texas coastal waters, spring and fall photo-ID work in Biscayne Bay, conduct a spring AMAPPS aerial survey, perform sperm whale tagging work in the southeastern Gulf, and continue with NRDA health assessments, reproductive outcome assessments, and mark-recapture photo-ID surveys in Barataria Bay and Mississippi Sound. Mullin also summarized the SEFSC genetic analyses of Bryde's whales in the Gulf of Mexico. Nowacek said the genetics of the Bryde's whales are interesting. He asked if anybody had been out since 2010 to look for these whales. Mullin said yes, they are still there. Nowacek mentioned a meeting he had been to recently involved with an EIS BOEM is working on and asked if any work SEFSC was doing was coordinated with that. Garrison said yes, we may need another survey. Seasonal density maps may be most relevant to assess acoustic exposure. Nowacek said let's keep that dialog going on.

Garrison (SEFSC) made a presentation about where the SEFSC is with respect to the NRDA process. They are currently engaged in analysis and injury assessment. Results are not complete and are also tied up in legal proceedings. Moore asked, given the persistence of the oil in the sediments, do you really think it is going away? Garrison said this is a challenge, trying to work with NRDA to keep the long view. How are we going to continue to

monitor over time? Moore said it could be decades. Garrison said that will be relevant on the restoration side. Moore asked what NMFS is actually going to do in terms of restoration. Garrison said drafting the plan is an ongoing and fairly public process. Nowacek asked if biopsies are being screened for dispersants. Also, is sampling ongoing to look for contaminants at the prey level. Garrison said SEFSC is fortunate that in the deep water we have samples prior to and during the spill. However, many samples have not been run for PAH's. He was not sure there is a way to screen the biopsy samples for DOS (dispersants).

Melissa Soldevilla (SEFSC) gave a presentation on marine mammal bycatch estimates in the Gulf of Mexico shrimp trawl fishery. As she explained, that fishery is one of the largest U.S. fisheries with 5,000 vessels. It is managed for red snapper and sea turtles with bycatch reduction devices and turtle excluder devices being implemented. There is an observer program with <1% coverage. The observed marine mammal bycatch has averaged approximately one animal/year between 1997 and 2011, with the majority of the takes being bottlenose dolphins. The remaining unidentified dolphin takes may be bottlenose dolphins or Atlantic spotted dolphins (which have been taken in a similar trawl fishery). These takes of bottlenose dolphins may belong to the shelf, coastal, or bay, sound, and estuary stocks. NMFS is developing an annual bycatch mortality estimate for this fishery. Proposed estimation methods have been investigated. From preliminary estimates, several stocks are close to or above PBR. Corkeron asked if Atlantic spotted dolphins forage behind trawlers? Soldevilla said she didn't know. Corkeron said if you get that behavioural information it may help you partition the species. Gilbert asked if the fishery will be recategorized. Garrison said the report is in draft form and that it has large potential implications.

Rosel (SEFSC) gave a presentation on the development of a stock risk assessment process to help choose where best to direct resources for stock assessment research of bay, sound and estuary stocks of bottlenose dolphins in the Gulf of Mexico. The method incorporates an assessment of the number and severity of 19 threats impacting a stock and an evaluation of the quality of data available for performing a stock assessment. First, a thorough literature search is conducted to develop a summary of the presence, severity and impact of 19 potential stressors for a given stock area in order to estimate a cumulative threats score. Next, the level of available data used to perform stock assessments, namely information on abundance, mortality and stock structure for a given stock, is evaluated to generate a data assessment score. Together, these two scores are used to determine whether a given stock should be given low, medium or high priority for research. In this process, it is not simply the level of threat(s) faced nor the amount (or lack of) of data available for a stock that leads to the prioritization of one stock over another. Rather, it is the interplay of the two scores that is important; so in theory, stocks with limited amounts of data available that face a high level of threats should be prioritized above stocks with more data availability and moderate to low levels of threats. To date, the process has been applied to the estuarine stocks in Texas. It is hoped this assessment method could be extended to coastal and pelagic cetacean stocks in the Gulf and Northwest Atlantic. A Technical Memorandum describing the process and the threat assessments for the Texas stocks is being prepared. Nowacek asked why the project started with the Texas stocks. Rosel replied that it was to increase familiarity with Texas estuarine stocks and to help direct BOEM-funded fieldwork. Nowacek said he looks forward to publication of this research.

NE Region Passive Acoustic Updates

Van Parijs updated the group on passive acoustic work at NEFSC. Autonomous recorder deployments planned and ongoing include 10 units between Georges Bank and Long Island listening for baleen whales, 5 units off Cape Hatteras directed toward picking up right whale migration, 6 units in Cape Cod Bay focused on cod spawning activity, and 2 units in Stellwagen for long term noise-level monitoring. Towed array work will continue on the 2014 AMAPPS spring survey. Glider work in collaboration with Baumgartner will be done on right whales and cod. Significant progress has been made with organizing a collaboration of researchers and data focused on right whale migration and movements the length of the US Atlantic seaboard. Several NOAA noise reference stations will be installed in our areas to perform long-term ambient noise monitoring. Nowacek asked how the low-frequency response is on gliders. Van Parijs replied that it is great. Looking for cod is just like looking for baleen whales. She also pointed out that there are acoustic data from inshore coastal Maine collected by Maine DMF. Young said she was impressed that the passive acoustics group is getting out so many publications. She is dismayed that so much of the SARs relies on gray literature and personal communications.

Terms of Reference

Bettridge gave a brief introduction to the Terms of Reference document and some highlights. She expressed appreciation for all the SRG does and supported the direction that has been taken with the annual in-depth

discussion on one topic. She explained why a terms of reference was felt to be needed at this point since SRGs have been operating since 1995 without such a document. The regions are currently experiencing more turnover, and there is a need for clear guidelines for how that is done and for operational guidelines. The Alaska region SRG had 4 new members last year. They need a clear idea of expectations. People often confuse SRGs with TRTs. SRGs are not advocacy groups. NMFS wants to make clear what types of expertise are wanted on SRGs. Plus, a Terms of Reference is required by Department of Commerce policy. It is not because we have had any problems or that the Agency doesn't like anything the SRGs are currently doing. In the drafting process, we found out that there are differences between regional groups. NMFS drafted a document, received comments and differing levels of support, and now we have the final product. It is a single document for all three SRGs. It defines the purpose and scope, roles and responsibilities – of the agency, liaisons, the FWS, chairs, and members. The SRG review is the peer review of the draft SARs.

Nowacek asked for clarification on liaisons – since it specifies that each science center should provide a liaison, should we have a SE liaison? Should our SRG have two? Bettridge said it was phrased that way to leave the door open, but we don't have plans to appoint more liaisons at this point. She said it is important that staff from the regions and centers attend the meetings. It is always better to have people attend in person. Maybe at least one key science center person and one key regional office person should come from each center. Gilbert commented that maybe we do need a liaison from each center. Liaisons coordinate with their people to get their SARs together and coordinate who comes to meetings. Bettridge said unofficially we do have two liaisons since she relies heavily on Keith Mullin on SE issues. This is not the only region that has problems with travel restrictions. Laura Engleby said NMFS is under severe budget restrictions, it is not due to lack of desire to be there. Nowacek passed on a comment from Seagraves on the no advocacy point. Language in the TOR talks about desiring a “balance of viewpoints”. It does not say a balance of scientific expertise. Bettridge said the statute says viewpoints, but that has caused a lot of confusion – NMFS interprets that as expertise. Per the requirements of the TOR, NMFS will be seeking new SRG members through the Federal Register (FR) notice process, with one notice to be posted for all three SRGs. Young said that she is hoping that, outside of the FR notice requirement, the TOR will not necessarily change how things are done. Nobody should be appointed to the SRG over the SRGs wishes. Bettridge said NMFS's goal is to have a group that can work together and provide us with a thorough peer review. If there was someone the SRG would not want on the group NMFS would take that into consideration. In terms of invited experts, those would be on ad hoc basis. Simpkins said he is committed to providing the best information to his superiors and can't imagine another group would have a better perspective. We will have to see how it plays out, but the intention is to have an SRG to do what it needs to do, and keep going with things that are working well. We will keep dialog open. Bettridge said there is provision for revision of the document. Wells asked if there is guidance on numbers of members. Bettridge replied no. Waring commented that the Federal Register procedure would open up membership for application from afar. Funding for travel is limited, so what do we do about that? Bettridge said it is conceivable that somebody would apply from far away. However, we do want to try to keep this meeting in person, not virtual. Nowacek asked if a nomination of somebody coming from the chairman would carry a different weight than from application through the FR notice. A departmental directive is that new members should not be registered lobbyists. The term of service is 3 years, and a member can serve up to 3 consecutive terms before a one-year hiatus. Nowacek asked if the clock starts now. Bettridge said there are different options we can go forward with. The first review of the membership will be starting in 6 months. The details will be worked out. Palka asked if that would mean that in 3 years someone would have to leave? Bettridge said not necessarily. NMFS didn't want to just hand down a transition plan, we wanted to work with the chairs as much as possible. Nowacek said losing 1/3 of the membership every year would be too tumultuous. Bettridge said the Code of Conduct section does not imply that anybody has been behaving badly. Nowacek said the SRG had an unwritten rule that if somebody doesn't show or participate somehow for 3 consecutive meetings we kick them out. How will that work? Bettridge said there is provision for NMFS to remove a member if they don't show for 2 consecutive meetings. The document also specifies that minutes will be completed within 2 months. The SRG's letters of recommendations will be directed to the AA and response will come within 2 months. The Act provides for compensation for travel. The first review of the TOR will be in 2 years, and is the provisions of the TOR are expected to be fully implemented within 3 years. Appendix B is an important part of the document. FWS has not adopted GAMMS or the new serious injury determination policy. It is important that we consider this as our peer review and it meets the requirement of the Information Quality Act. Nowacek drew attention to the requirement for provision of SAR drafts to the SRG 3 weeks in advance of the meeting. Bettridge said yes, we are formalizing the expectations of ourselves as well. Gilbert asked the reason for the list of stocks in Appendix A since it is dynamic. Bettridge said in future that list will be a link to an updateable webpage.

Budget

Simpkins said all he has to share is a good feeling about right whale money and a good feeling on AMAPPS money. Bettridge added that the Agency has lifted the hiring freeze.

Nowacek said Tim Regan was nominated to serve on the SRG by the SRG last year. His materials went up for nomination. Waring said NMFS did not want to move forward until we had the new TOR. Moore said there is also renewed interest from Andy Solow. Bettridge said this year two people did step down – Dan Odell and Joe DeAlteris. Gouveia said fishery council representation is important from a management perspective. NMFS has a significant hole in our ability to put marine mammal science into the process because we have no SRG member on the NE or SE councils. It is a real detriment. Somebody from the NE council should be on the SRG. The SRG should be expanded so there is full representation for all 3 councils on the coast. Waring said one of the reasons we nominated Seagraves was that we at that time had expertise on NE & SE fisheries, but not in mid-Atlantic fisheries.

The public part of the meeting adjourned and the SRG went into closed session.