North Atlantic Right Whale Recovery Plan
Southeast U.S. Implementation Team, May 11-12, 2016
Guana Tolomato Matanzas National Estuarine Research Reserve
in Ponte Vedra, FL

KEY OUTCOMES MEMORANDUM

I. Overview

The North Atlantic Right Whale Recovery Plan Southeast U.S. Implementation Team (SEIT) conducted a two-day meeting on May 11 and 12, 2016 at the Guana Tolomato Matanzas National Estuarine Research Reserve in Ponte Vedra, Florida. The SEIT's Forum was conducted from 9:00 am to 5:00 pm on May 11 and was open to the public. The SEIT deliberated from 8:30 am to 3:00 pm on May 12, 2016. The Forum agenda was planned with input from the SEIT in order to facilitate priority information updates and discussion with participants and SEIT members. Agendas from both days are attached. The May 12 SEIT deliberations focused on the following primary objectives:

- SEIT Business
- Forum Review
- Review of forum group break-out results
- Threats to North Atlantic right whales (NARW) in the Southeast US the for 5-year Action Plan

This Key Outcomes memorandum summarizes the primary results of the SEIT deliberations on May 12. 2016. In general, the synthesis integrates the main themes discussed at the meeting and are presented in five main sections: Overview, Participants, Meeting Materials, Key Outcomes, and Next Steps. The Key Outcomes section is further segmented into the following sections:

- Welcome and Meeting Kick Off. This section provides a brief overview of meeting purpose and agenda review.
- SEIT business
- Focused SEIT discussions
- Consensus Actions. This section summarizes consensus recommendations of the SEIT.
- Other. This section summarizes other topics discussed during the meeting.

II. Participants

The SEIT meeting was attended by 11 of the 12 Team members: Nancy Allen, Clay George, Mike Getchell, Amy Knowlton, William McLellan, Katie Moore, Becky Shortland, Leslie Ward-Geiger (Team Lead), Tom Wright, and Sharon Young. Lance Garrison attended via teleconference. Bill Kavanaugh was unable to attend. Barb Zoodsma, Laura Engleby, David Gouveia (Greater Atlantic Regional Fisheries Office), and Claire Surrey-Marsden represented NOAA Fisheries (NMFS) Southeast Regional Office, Protected Resources Division.

III. Meeting Materials

The following materials were provided to SEIT members via email prior to the meeting:

- The final meeting agenda,
- Day 1 forum break-out group questions for consideration and guidance, and
- SERO Protected Resources Division NARW-related recovery challenges within the context of Endangered Species Action Section 7 Consultations.

IV. Key Outcomes

Below is a summary of the main topics and items discussed during the meeting. This summary is not intended to be a meeting transcript and is not necessarily in chronological order of discussions. Rather, it provides an overview of the main topics covered, the primary points and options raised in the discussions, and areas of full or emerging consensus.

A. Welcome and Meeting Kick Off

The meeting kicked off with a brief review of the meeting purpose and agenda.

B. SEIT Business

The SEIT discussed possible dates for the fall SEIT meeting. The next SEIT meeting is planned for October 4 and 5, 2016 as these dates had the fewest number of conflicts for Team members and coincide with the 2016 North Atlantic Right Whale Festival.

The Team reviewed the fall meeting's consensus actions and status:

- Following the fall meeting:
  - B. Zoodsma shared examples of 5-year Action plans with the SEIT.
  - Sighting protocols from various entities were forwarded to the SEIT.
  - B. Zoodsma learned that NOAA IHA staff use Duke NARW models as one of many sources of information when assessing the impacts of proposed actions.
  - B. Zoodsma investigated adjusting the EWS flight restrictions from flying only in a maximum of sea state 3 to a maximum of sea state 4. Would require a contract modification so wasn't implemented prior to 2015/2016 calving season surveys.
- The Southeast US (SEUS) NARW population workgroup. Previously, the Team had recommended objectives of the workgroup would be to investigate season/inter-annual abundance trends and residency patterns. The SERO PRD leadership is supportive of such a workgroup as long as work products/outcomes have implications for the Southeast Region. The Team recommended this effort be coordinated with the fall 2016 NARW population workshop recommended by Dr. Richard Merrick, Director of Scientific Programs and Chief Science Advisor for NOAA Fisheries. The Team discussed compiling a list of relevant SEUS population-related research for contribution to the workshop to avoid information gaps or redundant work in the future.
- Defining passive acoustic detection distances (descriptive-level research needed). This action remains incomplete. L. Garrison will check with M. Soldevilla on efforts being conducted in the SEUS.

- Incorporating NOAA Right Whale Early Warning System (EWS) sighting data into Duke University's habitat model. The EWS aerial survey data have been excluded from the current Duke model on cetacean distribution. Differences in data collection methods and possibly data access may be impeding progress. SEIT members associated with aspects of the Duke model or SEUS survey data collection (FWC, Navy, NOAA Fisheries) committed to facilitating the incorporation of EWS data into the updated models.

C. Focused Discussions

Forum Review

L. Ward-Geiger reviewed day 1 presentations to facilitate Team deliberations. Deliberations included the following key points:

- The recent vessel-strike related mortality of a NARW calf in the NEUS (originally the calf was observed with cow, *Punctuation*, in January in the SEUS) brought up questions/discussion regarding the preliminary forensic findings, location and timing, and the federal enforcement of the ship speed law.
- Review of aerial survey efforts.
    - Team members noted the excellent collaboration between the two survey teams.
    - Prioritizing the EWS MOA lines may be compromising the ability to survey other lines or photograph whales outside of the EWS MOA lines. B. Zoodsma noted the EWS MOA lines may not be dropped due to MOA between NMFS and funding agencies (Navy, USCG, ACOE) and certain ESA Section 7 Biological Opinions; however, there is some flexibility in how the EWS lines are flown.
    - The Team discussed concerns that a fixed survey area will not detect distribution shifts, the newly designated critical habitat is not being completely surveyed, and that the surveys are likely missing animals in the SEUS. A few members pointed out that the surveys are likely not missing mother/calf pairs because unknown calves are not being detected in the NEUS.
    - One Team member noted that these aerial survey methods are related to aerial survey objectives (highest priority is vital rate information) and that 100% sighting detection probability may not be needed to adequately address the objective(s) with acceptable levels of uncertainty. An analytical feedback loop is needed to access effort and methods.
- A member asked if there is an appropriate level of data available to understand NARW population for the Incidental Harassment Authorizations and ESA section 7 consultations and suggested that a prioritized research list is needed.
- Biopsy sampling/genetics analysis.
    - C. George noted that he has been banking blubber samples supplemental to the skin sampling for genetics for almost 10 years and raised the issue of a needed strategy for analyzing the blubber. For example, are there any health-related questions, calving interval investigations, etc.?
    - C. George raised concern regarding if and how genetics work will continue in the future given constraints such as funding, staff and lab transitions etc.

- The Team briefly discussed whether it would be worth pursuing NARW genetics analysis capabilities locally (within the SE or US).
- NMFS needs to think carefully and strategically before expending limited resources on this program which would be costly.
- L. Engleby remarked that NMFS should: Communicate objectives (including scope and timing) for genetics work, investigate cost, develop a long-term plan, discuss a way forward with collaborators if benefits outweigh costs.
- A. Knowlton suggested inviting additional experts to next SEIT meeting to talk about blubber/health assessment and suggested a conference call with the geneticists as well.

- Regarding the topics of acoustic detection/monitoring/anthropogenic acoustic impacts, members noted that mother/calf pairs vocalized quietly in the SEUS and that there is apparent age-related variation in vocal behaviors as the calf matures.

<u>5-year Action Plan for North Atlantic right whales in the SEUS</u>

- The Team reviewed and considered results from the Day 1 breakout groups to see if there were any ideas they had not previously considered or that they wanted to bring forward for further consideration in the 5-year SEUS Action Plan.
- L. Ward encouraged SEIT to collectively think about what the SEUS seascape may look like in the future to help refine potential scenarios and facilitate the identification of emerging or future threats to NARWs. She encouraged the Team to consider scenario-planning with initial information provided by SEIT members and including how current and forecasted threats may impact specific vital rates (survival, reproduction).
    - Examples:
        - Atlantic Coast Port Access Route Study noted that 90% of trade is carried over water. Shipping environment is dynamic and responsive to economic forces. Container vessels will double in number and size by 2030. SEUS ports will likely accommodate larger vessels. Automated ships may also be on the horizon –may mean smaller crews, fewer observers, etc.
        - Florida's human population is expected to increase by 30% in ~ 15 years.
        - The Navy's USWTR will be 40% operational by 2018 and fully operational by 2024.
        - Climate change: how do we evaluate effects of climate change? Need to consult with experts and conduct a vulnerability assessment.
- Federal agency representatives on the SEIT should investigate how their agencies' activities in the SEUS will look in 2022 compared to 2016. BOEM information would also be useful.
- B. Zoodsma reviewed right whale-related challenges from a SERO PRD/ESA Section 7 consultation perspective. The ESA Section 7 consultation-related items included:
    - Indirect effects (small boats) from piers/docks/marinas, etc.
    - Utility –Oil and Gas, Pipelines. Including LNG terminals
    - Military Activities –including Navy-associated activities in the SEUS Atlantic (training, construction, removing/disposing of towers, etc.), Air Force Base water training areas, etc.

- Transportation –ship/vessel/aircraft operations. SpaceX test demonstration launch and potential launch facility in Camden County, GA.
- Aquaculture

- B. Zoodsma encouraged the Team to use the ESA Section 7 consultation information together with all of the other sources of information and Team member expertise to identify the most important SEUS challenges for the 5-year plan. The finished product could either feed into larger picture agency-wide NARW effort or could be a stand-alone action plan for SEUS.
- Need to consult with NOAA experts on climate change and conduct a regional vulnerability assessment for right whales. Support for "climate smart" management decision needs.

SEIT items for consideration in a 5-year action plan:

<u>Prioritized Threats</u>

1. Vessel collisions, harassment, noise
2. Energy development (ie wind farm placement etc)
3. Noise
4. Climate change (6.6 year calving interval)
5. Emerging fisheries

<u>General Information Gaps</u>

1. Cumulative effects of non-lethal activities
2. Behavioral response to different stimuli (noise –e.g. pile driving, impulse sound from ordnance detonation, large wind farms, air guns, etc.)
3. Demographics of NARWs off SC and NC (PAM is learning when and where whales are but not anything about who is there)
4. Population assessment/analytical framework (e.g. 6.6 year calving interval)
5. Threats assessment
6. Habitat characterization of MAUS
7. Exploration into potential causes for non-reproducing females.

D. Consensus Actions

1) All members will compile a list of possible relevant research for upcoming NARW population workshop. B. Zoodsma/L. Garrison will investigate how best to integrate efforts between the SEIT and the workshop.
2) L. Garrison will follow up with M. Soldevilla on efforts to determine detection distances of passive acoustic devices.
3) L. Ward will consult with FWC staff to see if Jason Roberts, Duke University, needs any additional data from aerial surveys.
4) NMFS to organize phone conference to better understand hindrance to incorporating/obtaining data Duke needs for habitat models. A. Knowlton to investigate any impedance with obtaining data from NARW Consortium.
5) NMFS and Duke to coordinate on solutions for incorporating existing EWS data.

6) N. Allen will reiterate to appropriate people the importance of including SEUS right whale survey data in Duke cetacean density distribution models.
7) A. Knowlton will investigate biopsy blubber sample uses and send genome paper to SEIT members.
8) Members that are agency representatives will investigate how their agencies' relative activities in the SEUS will look in 2022 compared to 2016.
9) L. Garrison to investigate climate change vulnerability assessment for NARW.
10) B. Zoodsma will put the Duke Model action item in the 5-year plan format for SEIT to see and get a feel for process.

E. Other

- T. Wright suggested looking into satellites as a tool for detecting missing right whales.
- S. Young suggested adding a recreation vessel community representative to the SEIT to address increasing vessel/right whale interaction problem.

II. Next Steps

- Team members will continue to consider threats and information gaps to aid in formulating the 5-year action plan. Team members should think about topics familiar to them and consider potential actions. Send information to L. Ward.
- SEIT conference call will be conducted during the last week of June.

NORTH ATLANTIC RIGHT WHALE SOUTHEAST IMPLEMENTATION TEAM MEETING
MAY 11-12 2016
GTM NERR

AGENDA DAY 1 - FORUM

Meeting Goal: Review the status of ongoing SE recovery activities and identify emerging issues

Meeting Objectives:

1. Review recent studies and upcoming monitoring activities
2. Review recovery activities implemented since last meeting
3. Obtain updates from recovery partners
4. Develop and provide input for SEIT consideration

Time	Topic	Speaker
9:00-9:20	Welcome and Introductions • Welcome • Review purpose and objectives of meeting • Housekeeping • Review Agenda • Round-robin Introductions	T. Pitchford
9:20-9:30	SEIT Update	L. Ward
9:30-10:45	Field Season Updates and Highlights • Aerial Surveys • Whale-vessel Interactions • Injured Whales • Demographics and Discovery Curve • Other On-going Project Updates • Biopsy sampling, LIMPET and UAS • Sebastian Inlet River Incursion Discussion	M. White, K. Howe, J. Jakush, C. George, and K. Jackson
10:45-10:55	BREAK – 10 minutes	
10:55-11:50	Acoustics • NEFSC Acoustic Project Update • North Atlantic right whale tagging and tracking on the SEUS calving grounds • Behavioral ecology and sound production of North Atlantic right whale mother-calf pairs in the Southeast Discussion	G. Davis D. Nowacek S. Parks
11:50-12:15	Emerging Issues (population trend) • Report Card Discussion Discussion	A. Knowlton
12:15-1:30	LUNCH with Break-out Session Break-out groups	Provided

NORTH ATLANTIC RIGHT WHALE SOUTHEAST IMPLEMENTATION TEAM MEETING
MAY 11-12 2016
GTM NERR

AGENDA DAY 1 - FORUM

Time	Topic	Speaker
1:30-2:15	Break-out Session Discussion	L. Ward
2:15-3:10	Other Research • Analyzing the distribution of recreational boating off the coast of Northeast Florida to determine implications for the conservation of the North Atlantic right whale • Right whale distribution and anthropogenic threats in the mid-Atlantic region Discussion	N. Montes C. Good
3:10-3:20	BREAK – 10 minutes	
3:20-4:45	Agency Updates • BOEM • Navy • USCG • SEFSC • SERO Discussion	J. Johnson J. Nissen K. Moore L. Garrison B. Zoodsma
4:45-5:00	Closing Remarks and Adjourn	L. Ward/T. Pitchford

NORTH ATLANTIC RIGHT WHALE SOUTHEAST IMPLEMENTATION TEAM MEETING
May 2016

AGENDA DAY 2 - DELIBERATIONS

Time	Items
08:30 - 9:00	• Next Meeting Date • Overview today's agenda • SEIT Business
9:00 - 10:00	Forum review/Emerging issues
10:00 - 10:15	Break
10:15 – 11:15	Review of outcomes from Forum breakout teams—ideas generated re: 5-Year Plan topics/actions, Discuss potential SEUS seascape and nearshore changes/impacts for the next 5-year period per agency updates
11:15 - 11:45	SER 5-Year Plan and NMFS-related initiatives/challenges (Barb Zoodsma, Laura Engleby, Dave Gouveia, Jim Mclaughlin)
11:45 - 12:00	Working Lunch
12:00-2:00	Discuss Recovery Implementation within a 5-year Action Plan. Consider needed conservation actions/strategy focused on reducing the most critical current or projected threats within a 5-year outlook. Critical information gaps? What are key indicators of progress and how should milestones be defined for given actions? Sub-teams to flesh-out actions?
2:00 - 2:15	Break
2:15 - 2:45	Open agenda time to assess next steps, review recommendations
2:45 - 3:00	Wrap up

DRAFT

DRAFT SEIT Forum Breakout Groups May 11, 2016

Guidance:

1) SERO PRD is requesting the SEIT's assistance with developing a 5-year action plan. The goal of the plan is to focus right whale recovery efforts in the Southeast Region (NC-FL) (we discussed this concept during our fall SEIT meeting).
2) Please exclude fishery interaction take reduction related items (the Greater Atlantic Regional Fisheries Office has the lead on the Atlantic Large Whale Take Reduction Plan which addresses fisheries interactions).
3) Threats and key information gaps/needs are the primary Plan topics to focus on. Consider key challenges to species recovery -either faced in the SEUS specifically, or monitored in the SE in order to inform management actions/species response to management actions. How can we reduce important areas of uncertainty, knowledge gaps?
4) What are key actions needed in 2017-2023?
5) What are key indicators of conservation progress? How well are we set up to measure this and on what timeframe?
6) This effort is patterned after the "Species in the Spotlight" Five Year Action Plans. It might be helpful to consult some of those documents –see http://www.nmfs.noaa.gov/stories/2015/05/05_14_15species_in_the_spotlight.html

Questions:
Please come to the meeting with thoughts ready. Breakout groups will address the following 5 questions, estimated time per question is 10-15 minutes per question.

1. Please list types of critical current or projected threats that should be highlighted in a 5-year plan.
2. Please list critical information gaps that should be highlighted in a 5-year SEUS plan.
3. Please prioritize, in one list, items from #1 and #2.
4. What SEUS actions should be taken to reduce threats and enhance species health over the next 1 – 5 years? Consider these within the context of:
    a. Monitoring & Research
    b. Education and Public Outreach
    c. Enforcement
    d. Other
    e. Specify the expected benefits for each action addressing a threat or information need.
5. Who are potential partners that can contribute to each action? How can resources be leveraged best?