RIGHT WHALE NEWS

An independent forum for right whale conservation and recovery, published several times each year.

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Right Whales to the North

Contributed by Philip Hamilton, New England Aquarium

Because few right whales have been visiting the Bay of Fundy in recent years, and right whales have been increasingly common in the Gulf of St. Lawrence, we (the New England Aquarium (NEAq) and the Canadian Whale Institute (CWI) research teams) divided our search efforts this year and surveyed three areas simultaneously.

First, Monica Zani led two coastal efforts in the Gulf of St. Lawrence using the R/V *Callisto*. In July, the team trailered the boat up to Cheticamp (note: place names are indicated on map below) on the western side of Cape Breton and surveyed along the coast and out towards the Magdalen Islands. Right whales have been seen in this area and on the northeastern side of Cape Breton in recent years. Although they got some good surveys in, no right whales were found (though right whales were seen right off Cheticamp after they left!). In August, the team headed to the Acadian Peninsula in New Brunswick to survey the Chaleur Bay where many right whales have been seen in the past. They surveyed the Bay and the waters immediately east of the peninsula but again found no right whales. While it was frustrating to find no right whales in either area, much of our work in the Gulf is to get baseline survey data, which sometimes includes zero sightings.

Next, The R/V *Shelagh,* with a team led by Philip Hamilton, left Campobello, New Brunswick, in mid-July, conducted a brief survey of southern Roseway before fog closed in, and then made their way up the coast of Nova Scotia and into the Gulf of St. Lawrence through the Canso Canal. There was thick fog during almost all of that transit, so there was no survey effort along the coast. During the next two weeks, the team covered the area between Cape Breton and Prince Edward Island. This included a large survey box in the Shediack Valley east of the Acadian Peninsula, where the NMFS aerial team had persistent aggregations of whales in 2015 (the NMFS aerial surveys did not take place in 2016). Good news! The team had extraordinary luck with the weather (12 days in a row at sea) and found 17 whales including five mother-calf (m/c) pairs! The mothers were Harmonia (#3101), #3317, Fuse (#3405), Bocce (#3860), and #4094. Fuse and calf were seen a few weeks later in the Bay of Fundy, but Bocce and #3317 stayed in

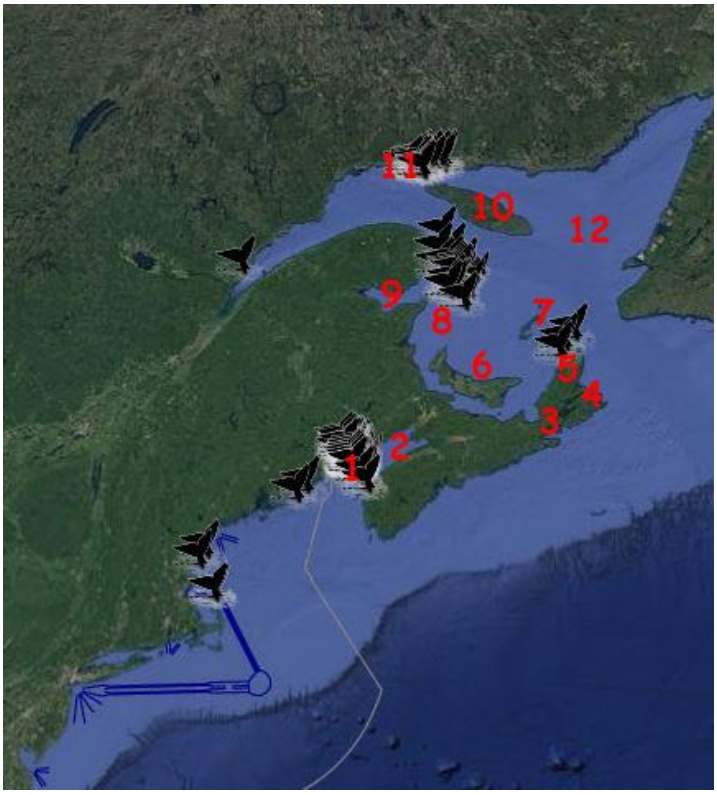
the Gulf for at least a month. Overall, the survey area was quiet (not many birds or cetaceans), and the seven non-m/c whales all seemed to be traveling. The second trip on the *Shelagh* in August, led by Amy Knowlton and Moe Brown, was not as lucky with weather or whales. They continued to survey east of the Acadian Peninsula and found only #3317 and her calf: no other right whales were seen. It should be noted that for all of July and August and into September, Mingan Island Cetacean Studies had right whales off Anticosti—at times in the middle of the shipping lanes. Many of the whales were seen on multiple days. These Anticosti sightings were the only consistent aggregation detected in the Gulf this year.

For these sightings on the north side of the Gulf, Christian Ramp of the Mingan Island Cetacean Study reports that the most recent count was around 20 different identified right whale individuals. That might increase, he described, as not all whales have been matched yet. In the beginning of the season it was mainly males, followed by resting females, and the last sightings contained a mother-calf pair. During the previous two years, they have observed right whales, but not more than two individuals, and usually for one or a few days. There have been right whale sightings before, but back into 1998 and 2002. Their main research area is along the Quebec North Shore, between the Mingan Islands and Anticosti Island. They have good annual coverage, so have a pretty good idea what is happening. The 20 right whales are definitely new. The first sighting was on July 7th and at last check, there were still right whales in the area.

To the south, with the R/V *Nereid* and crew in the Bay of Fundy, it was a more exciting season than the past several. The first right whales were photographed on July 25th, and have been seen every day since. At least 70 whales have been documented to date, including two m/c pairs: Fuse and calf seen 20 days after their last sighting in the Gulf, and a sixth m/c pair—a healthy Clipper (#3450) and calf (for a previous article on Clipper, see *Right Whale News*, March 2016). At least five of the whales looked unhealthy with lots of lesions and scratch marks on their bodies, while others had healthier looking skin. Right whales were dispersed all over the Bay, including a week-long aggregation to the northwest near Campobello and the Wolves, an island group to the east of Campobello. The *Nereid*'s last day at sea was in mid-September.

As to population health and human impacts, there were four new entanglements and one previously known entanglement reported in Canada this summer. The pre-existing entangled whale was Velcro (#1306) who was seen with line still in his mouth in the Bay of Fundy on August 16th and multiple days thereafter. He was first seen with the entanglement on 13 September 2015 in Roseway Basin. He currently has a large area of swath lesions on his head and appears to be in poor health. The four new cases included one right whale that was reported towing a buoy off the south shore of Nova Scotia (N.S.) on August 16th, but later observed without the buoy. We don't know who the individual is yet, and it is unclear what its current entanglement status is. Another whale was seen off Brier Island, N.S., on August 29th with lines

cutting into the head, around at least one flipper, and trailing about 50 feet. That animal is emaciated and covered with so many cyamids that it is difficult to discern its callosity pattern. We are still trying to match it. Another entangled whale was seen dead on Sable Island on September 1st with heavy line wrapping the body. The whale was decomposed with no skin remaining, and the only potential for identification will be through genetics (if Trent is able to get enough quality DNA from the bone). It was a small animal, possibly a calf of the year. The fourth entanglement is the only one that had a full disentanglement response. Whale #4057, since named FDR, was seen by the team from the Grand Manan Whale and Seabird Research Station and reported to the *Nereid* on August 13th. The *Nereid* stood by until the Campobello Whale Rescue team arrived. Over a five-hour period, the team was able to cut all the line off both flippers and the back, leaving only a small piece of line exiting the right side of the mouth. While it was a successful rescue effort, this whale had deep wounds from his 2014 entanglement and was not in robust health prior to this most recent entanglement, so we are still concerned about him.



*A preliminary plot of right whale sightings, 1 July through 8 September 2016. This provides some impression of the sightings distribution described above. Place names are: 1) Campobello I., 2) Bay of Fundy, 3) Canso Canal, 4) Cape Breton I., 5) Cheticamp, 6) Prince Edward I., 7).Magdalen I., 8) Shediac Valley, 9) Chaleur Bay, 10) Anticosti I, 11) Mingan I., and 12) Gulf of St. Lawrence.. Sightings are influenced by sighting effort (*e.g.*, Roseway Basin and Brown's Bank were largely unsurveyed in 2016 season due to weather). Plot drawn from [www.nefsc.noaa.gov/psb/surveys/.](www.nefsc.noaa.gov/psb/surveys/)*

In addition to the dedicated surveys, opportunistic right whale sightings from Race Point to the Gulf of St. Lawrence have provided valuable data to the North Atlantic Right Whale Photo-Identification Catalog this summer (see also *Right Whale News* December 2015). Over 50 opportunistic sightings have been received since June. The opportunistic sightings have always been interesting, but in recent years, opportunistic sightings from whale watches, fishing vessels, recreational boaters, and even fellow researchers are providing us with more insight to the movements and habitat use of these whales.

Returning to the sighting reports, noteworthy occurrences were the sightings of surface-active-groups, with numbers between 7 and 30 on several occasions. And finally, we await photo analyses and catalog matching to evaluate the total number of right whales sighted in these waters this season. What percentage of the estimated 526 whales in the population will we be able to account for?

Editorial

Recovery Plans Review: Need and Opportunity Converge for Right Whales

Jim Hain

In September 2016, need and opportunity may be converging. A review of a decade of history will provide the underpinnings, followed by current events (the NMFS National Recovery Plan Review), a reality assessment, and finally, a look to the future.

Scott Kraus and co-authors have shone a light. The 2016 article, "Recent scientific publications cast doubt on North Atlantic right whale future" (full citation in Literature section below) offers a cautionary perspective. They describe that in January 2016, an announcement by NOAA on expanded critical habitat for right whales included the statement: "We're making significant progress in reversing the population decline of the species, and [we are] seeing signs of recovery." In contrast to this optimistic view, these authors describe that recent science suggests fishing gear entanglements are increasing in number and severity, and that this source of injury and mortalities may be overwhelming recovery efforts.

A summary of the concluding points are as follows: 1) until recently, the population was growing at 2−3% per year; 2) in recent years, population growth rates appear to be declining; and 3) mortalities and serious injuries from fishing gear entanglements remain far higher than the limits mandated by the U.S. Endangered Species Act and the Canadian Species At Risk regulations. In conclusion, right whales are not yet a conservation success story. Mortalities and injuries from

fishing gear need to be reduced, and the causes of reduced calving rates need to be better understood.

This is not the first time Kraus and co-authors have raised the flag. In the 22 July 2005 *Science* article, "North Atlantic right whales in crisis," their message was similar: injury and mortality from vessel collisions and fishing gear entanglement needed to be reduced.

Subsequently, the U.S. Marine Mammal Commission conducted a North Atlantic Right Whale Program Review, 13 −17 March 2006, in Woods Hole, Massachusetts (see also *Right Whale News*, May 2007) A focus of the review was on the effectiveness and cost-effectiveness of the National Marine Fisheries Service (NMFS) federal recovery program for the endangered North Atlantic right whale. The 2007 panel report noted the following concerns: "Although the objectives of the North Atlantic right whale recovery program are appropriate, overall strategy and implementation are not adequately accountable." Among the concluding recommendations were: "… the panel recommends that NMFS and other agencies act more aggressively to prevent right whale mortality. In general, they should set higher standards of protection and place greater reliance on the ability of industry to adapt to those standards, rather than continuing to depend on a complex, shifting, inefficient, and ineffective network of regulatory measures to protect the whales."

Another milestone came in 2007 when editors S.D. Kraus and R.M. Rolland produced *The Urban Whale: North Atlantic Right Whales at the Crossroads* (Harvard University Press). In this literate compendium of information, many authors contributed summaries, insights, and perspectives into science and conservation.

Next, on 1 July 2011, Douglas Nowacek, Chair of the North Atlantic Right Whale Consortium, submitted a letter to Jane Lubchenco, NOAA Administrator, with copies to NMFS staff, the U.S. Marine Mammal Commission, and congresspersons from Atlantic coastal states. The letter was entitled "A Statement of Concern for North Atlantic Right Whales and Associated Biota," and identified four areas of concern: 1) ship-speed regulations, 2) offshore energy and aquaculture, 3) fishing gear entanglements, and 4) funding for research.

Earlier this year, on 10 February 2016, NMFS announced the initiative, *Species in the Spotlight: Survive to Thrive*. The announcement read, "Of all the species NOAA protects under the ESA, we consider eight among the most at risk of extinction in the near future. [This] initiative [is] a concerted agency-wide effort to spotlight and save these highly at-risk species." The North Atlantic right whale was not included. However, Donna Wieting, Director of the Protected Resources Division, speaking at the North Atlantic Right Whale Consortium meeting on 4

November 2015, allowed that the list is not static and re-considerations are possible in light of new information.

While for a decade or more, concern, criticism, and grousing has been directed to the agency, some blue sky, and opportunities, may be occurring. In early 2016, NMFS initiated a Protected Species Recovery Program Review. The stated objective for the review is to evaluate the current NMFS recovery program to determine if the current recovery planning process results in recovery plans that are effective roadmaps for recovering the species. The review will evaluate, within the context of current budget constraints, the efficacy of the recovery planning process. This will include the quality of recovery plans, the implementation of recovery actions, and the monitoring of recovery progress. The requested recommendations included: "Going forward, what improvements to the recovery program would increase the likelihood of recovering species?"

The focus came during a well-organized webinar, on 19 −22 April 2016. A six-member review panel was convened: Dr. Lisa Ballance, NMFS Southwest Fisheries Science Center; Dr. Kristin Carden, Society for Conservation Biology; Dr. Deborah Crouse, U.S. Fish and Wildlife Service; Dr. Brad Gruver, Florida Fish and Wildlife Conservation Commission; Dr. Beth Polidoro, Arizona State University; and Jennifer Steger, NOAA Restoration Center Northwest & Alaska Region. The meeting was facilitated by Bennett Brooks, Consensus Building Institute, New York, New York. In the early sessions, NMFS staff gave foundational presentations. These were followed by 11 case studies. The North Atlantic right whale was one of the case studies.

The right whale presentation was given by David Gouveia, Branch Chief, Marine Mammal and Sea Turtle Conservation Program, Greater Atlantic Regional Fisheries Office. His presentation summarized the current status and concluded with the recovery challenges faced by scientists and managers (link to Powerpoint slides given below at the bottom of the article).

Perhaps the most relevant point during the presentation, Gouveia mentioned that a Right Whale Recovery Monitoring Plan was being developed (said to be an outgrowth of the existing Atlantic Large Whale Take Plan's monitoring scheme). In subsequent correspondence (21 April and 2 September 2016), Gouveia described that the Right Whale Recovery Monitoring Plan is intended to characterize the current status of the North Atlantic right whale population and its trends in abundance, describe and evaluate past and ongoing recovery activities, identify gaps in current knowledge and data needs, and provide recommendations for studies needed to address deficiencies in existing knowledge and steps needed to enhance recovery of the species. The document will also be useful in providing supporting material for future right whale five-year status reviews; revisions of the Right Whale Recovery Plan; and budget planning and cost-effective utilization of limited resources.

During the course of early development of the Monitoring Plan, it was decided to incorporate the plan into an expanded 5-year status review for North Atlantic right whales. Gouveia described that the 5-year status review is required under the ESA to ensure that the listing classification of the species is accurate. The review will be based on the best scientific and commercial data available at the time of the review. The expanded process will include more comprehensive information that will improve the evaluation of North Atlantic right whale recovery efforts. The last 5-year status review was completed in August of 2012, and can be found at: http://www.nmfs.noaa.gov/pr/pdfs/species/narightwhale_5yearreview.pdf.

The new 5-year status review is scheduled for August 2017. NMFS has initiated the process by publishing a notice in the Federal Register (29 July 2016) that announces the 5-year review and a request for information for North Atlantic right whales. This call for information is open until 27 October 2016. However, NMFS will continue to accept new information about any listed species at any time. (Information on submitting comments is below.) The project is being led by Mike Asaro from the NMFS Marine Mammal Branch in Gloucester. He is working closely with colleagues from the Northeast and Southeast Science Centers, Greater Atlantic and Southeast Regional Offices, and headquarters staff.

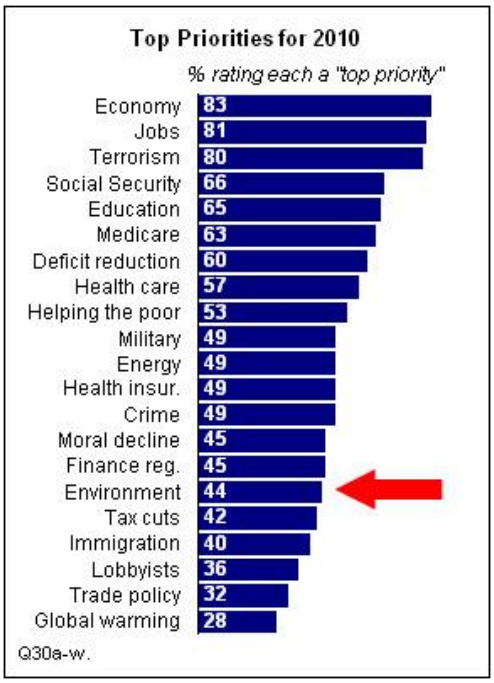
Based on the results of this 5-year review, NMFS will make the requisite determination of its right whale listing under the ESA. In addition, NMFS intends to have this new 5-year status review be more detailed than previous reports to help better gauge how recovery efforts are progressing for North Atlantic right whales.

And now to the message of this editorial. In recent years, there has been a "drift" on the part of NMFS. Decisions, planning, funding, and resource allocation have increasingly been internal to the agency. There has been a government-centric approach. The expertise and resources of the external right whale community have been underutilized. In 2016, the agency perhaps sought to rectify this situation and took a more inclusive stance. A National Recovery Program Review utilized an independent panel, took place with a public-accessible webinar, and public comments were incorporated into the report document. So where is the rub? When the opportunity was presented on this noteworthy event (focusing here on right whales), only a single individual (me) submitted written comments. While a handful of participants from our community logged in to the webinar, their views went unvoiced.

At the same time, one of the high-priority recommendations of the panel was to "partner with academics, scientific societies, and other species experts for assistance with the research and analysis necessary to produce effective recovery plans." Among the discussion topics raised by the panelists was the imperative for effective partnerships. In the response document (see link

below), “NOAA Fisheries agrees and will address through ongoing capacity building and best practice[s].”

But, and this is a big “but” … none of this will be easy. There is another factor: “the gorilla in the room.” Tim Ragen, former Executive Director of the Marine Mammal Commission, and co-authors addressed the topic, “Human Values, Crisis, and Conservation,” at the 19th Biennial Conference on the Biology of Marine Mammals, 27 November to 2 December 2011, in Tampa, Florida. They offered that conservation (of marine mammals) and the marine environment do not fare well in the face of the many crises (natural and human-related) that face us. Conservation and the environment appear low on the spectrum of political interest and resources (figure below).



Relative values, what people are concerned about.
Pew Research Center for People and the Press, 25 January 2010.

What next? An opportunity has been presented. Going forward, members of the diverse right whale community may consider doing the homework, reviewing the documents, providing comment, and participating in the democratic process. Everyone will have their own perspective and contribution. Me? I will continue to advocate for inclusive and productive deliberation and actions based on best practices.

As one panelist noted, “I look forward to seeing how [NMFS] utilizes the information provided during this review process … .”

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All material from the National Marine Fisheries Service final National Recovery Program Review synthesis report and response to the review may be found at: www.nmfs.noaa.gov/pr/recovery/#2016%20National%20Recovery%20Program%20Review

# # #

To submit comments on the 5-year right whale review (prior to 27 October 2016):
Electronic submission: Submit all electronic public comments via the Federal e-Rulemaking Portal www.regulations.gov. Enter NOAA-NMFS-2016-0092 in the keyword search box. Then select, "Comment Now!"
Mail or hand delivery: Therese Conant, NMFS Office of Protected Resources, 1315 East-West Highway, Silver Spring, Maryland 20910.

Block Island Windfarm to be Operational in November

The first offshore windfarm in the United States, the 30-megawatt, 5-turbine Block Island Windfarm is scheduled to come online in November 2016. The towers rise nearly 600 feet above the water to the blade at its highest point (straight up). Each blade is 241 feet in length. Jeff Grybowski, CEO of Deepwater Wind, headquartered in Providence, Rhode Island, describes that this project will demonstrate the potential of offshore wind in the U.S. He considers the Block Island turbines to be a small-scale demonstration that may open the way for larger wind farms, which would be farther from shore and out-of-sight from land.

Location of the Block Island windfarm.
The turbines are within state waters and about 3 miles from the southeastern bluffs of the island.

Block Island turbines at sunrise. Source: Deepwater Wind.

Right whales figured into the plan. During the construction phase, pile driving was scheduled to adopt a seasonal restriction to protect right whales—delaying this activity until after 1 May. The right whale protection agreements were formed by a Deepwater Wind-led coalition of offshore wind developers and national environmental organizations that included the Conservation Law Foundation, the Natural Resources Defense Council, the National Wildlife Federation, Energy Management, Inc. (Cape Wind), and NRG Bluewater Wind.

For more information: www.dwwind.com.

Final Report on Surveys of Wind Energy Areas off Martha's Vineyard

Contributed by Robert D. Kenney,
Graduate School of Oceanography, University of Rhode Island

Proactive environmental studies for the Massachusetts and Rhode Island-Massachusetts Wind Energy Areas (WEAs) included studies of endangered large whales and sea turtles. The studies were aimed at baseline data on distribution, abundance, and temporal occurrence. Objectives included assessing the degree of inter-annual variability and an overview of habitat-use patterns.

The aerial and acoustic project was conducted by the Northeast Large Pelagic Survey Collaborative (NLPSC), a collaboration of New England Aquarium, Center for Coastal Studies, University of Rhode Island, and the Cornell Bioacoustics Research Program. Studies were conducted between October 2011 and June 2015. The Bureau of Ocean and Energy Management (BOEM) recently announced the availability of the final report.

The contract was originally for one year of surveys in the Massachusetts WEA, and was supported by the Massachusetts Clean Energy Center (MassCEC). However, after the first year MassCEC entered into an agreement with BOEM to support extending the surveys and expanding them into the Rhode Island-Massachusetts WEA. During the 3 year and 9 month period, 76 aerial surveys and six acoustic monitoring deployments took place in the WEAs south and southwest of Martha's Vineyard.

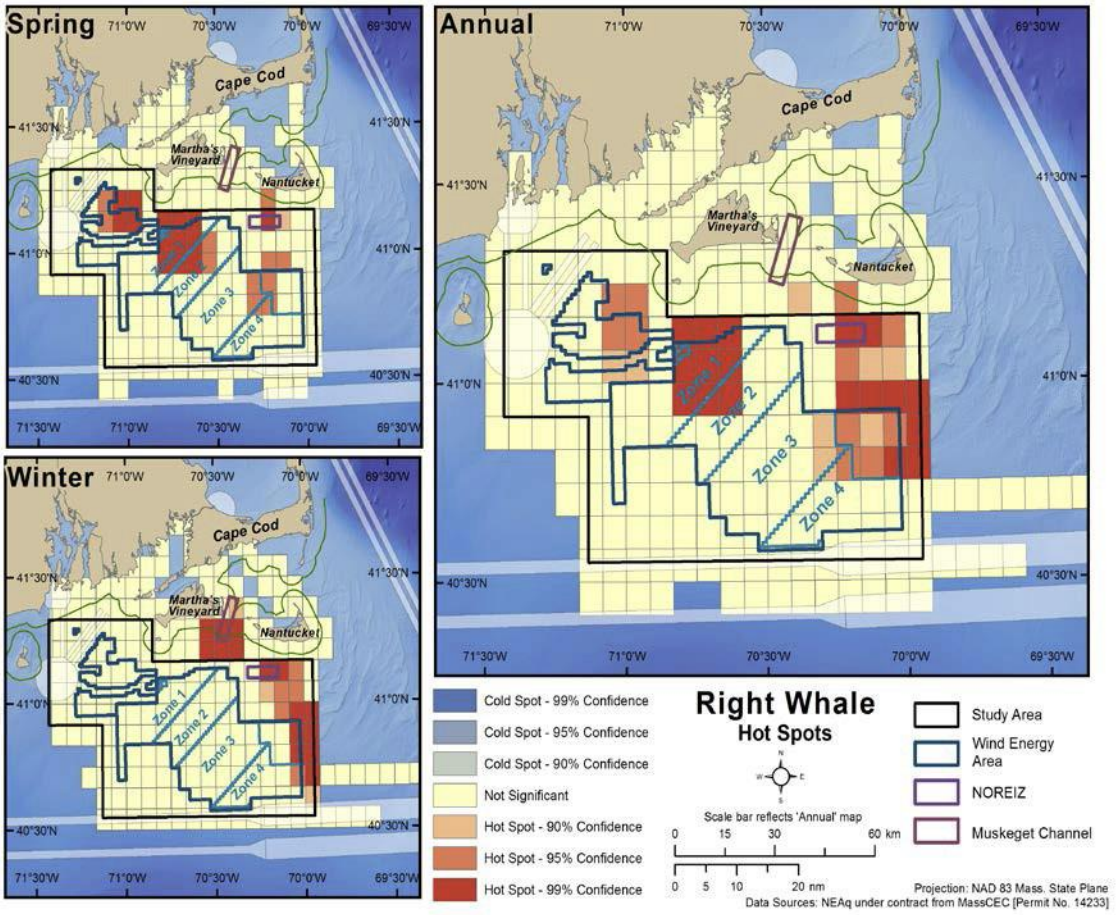
Eight endangered species (5 whales, 3 turtles) were sighted in the study area: North Atlantic right whale (*Eubalaena glacialis*), humpback whale (*Megaptera novaeangliae*), fin whale (*Balaenoptera physalus*), sei whale (*B. borealis*), sperm whale (*Physeter macrocephalus*), leatherback turtle (*Dermochelys coriacea*), loggerhead turtle (*Caretta caretta*), and Kemp's ridley turtle (*Lepidochelys kempii*). Right, humpback, and fin whales were also sampled acoustically, and blue whales (*B. musculus*) were detected acoustically but never sighted. Non-endangered species observed included minke whale (*B. acutorostrata*, also sampled acoustically), common bottlenose dolphin (*Tursiops truncatus*), short-beaked common dolphin (*Delphinus delphis*), harbor porpoise (*Phocoena phocoena*), pilot whale (*Globicephala* sp.), Atlantic white-sided dolphin (*Lagenorhynchus acutus*), Risso's dolphin (*Grampus griseus*), gray seal (*Halichoerus grypus*), and harbor seal (*Phoca vitulina*), as well as a variety of sharks and other large fishes.

There were 60 sightings of North Atlantic right whales over the entire study. They occurred in the study area only during winter and spring, from December through April, with a peak in March. Effort-weighted mean sighting rates (whales per 1,000 km of survey effort) were used for analysis of temporal variability. Right whale mean sighting rates were highest in winter (4.31) and spring (3.58), and zero for both summer and autumn. There was no significant variability in sighting rate among years, suggesting inter-annual consistency in use of the area. However, there was significant variability in sighting rate by month, season, and season and year combined.

A Sightings per Unit Effort (SPUE) analysis looked at the spatial patterns of relative abundance. The distribution in the winter and spring was clustered in the northern and eastern portions of the study area. A Hot Spot Analysis derived from the SPUE data was used to further define habitats of importance. Hot Spots were identified within both of the WEAs in spring, and outside of the

WEAs in winter—both just offshore of the islands and along the eastern limit of the study area (see figure below).

During the course of the study (October 2011–June 2015), 77 unique individual right whales were identified in the study area—15% of the "best estimate" of 526 for the population in the 2015 NARWC Report Card. Of the individuals sighted, 43 were males, 27 were females (12 known reproductive females), and 7 were of unknown sex. Including photoID records from other studies (primarily NMFS and Center for Coastal Studies) and expanding to a broader time span (January 2010–June 2015), there were 196 different right whales identified in or near the study area.



Results of the spring, winter, and overall Hot Spot Analyses for North Atlantic right whale habitat use in and near the NLPSC study area, derived from SPUE data in 5-minute cells. The Mass. WEA is the larger polygon subdivided into four zones; the R.I.-Mass. WEA is comprised of the smaller polygons more to the northwest.

North Atlantic right whale up-calls were acoustically detected on 478 of the 1,020 days (47%) of recording in the study area between November 2011 and March 2015. They showed a diel

pattern of vocal activity—being most vocally active during the evening hours. Months with over 90% monthly acoustic presence occurred in the late winter/early spring, paralleling the visual survey results: March 2012, February–March 2013, April 2014, and February–March 2015. On the other hand, right whales were detected acoustically within or near the WEAs during all months of the year, implying that aerial surveys missed individual animals or small groups outside the window of greatest seasonal presence.

For further information and the 117-page final report:
http://www.boem.gov/Northeast-Large-Pelagic-Survey-Collaborative-Aerial/

Report from Australia

This year's count at Australia's biggest southern right whale calving ground at the Head of Bight in South Australia has sighted record numbers since data collection began in 1991. A team of researchers from Curtin University led by Ph.D. candidates Claire Charlton and Rhianne Ward has been at Head of Bight on the edge of the remote Nullarbor Plain since mid-June. They have counted up to 172 whales including 81 mothers with calves on a single day from their Head of Bight study area, extending15 km E-W and 2 km from shore. These numbers are consistent with the 7 % growth rate since southern right whales were almost wiped out by commercial whaling in Australia from 1820 to 1935. The survey findings were confirmed by a recent aerial survey of the area by the Western Australian Museum, which counted similar numbers.

Collaborators from Murdoch University's Centre for Marine Science and Technology are using drones for the first time to take photos of the whales to aid with identification and health checks. Charlton said the 55-m high Bunda Cliffs overlooking Head of Bight make for an ideal vantage point to watch the whales. The whales come very close to shore—usually within a few hundred meters, and sometimes as close as 60 meters. The shallow, sandy bottom, protection from wind and its location within the Great Australian Bight Marine Park has helped the Head of Bight become one of the largest southern right whale calving areas in the world. The area has become popular, and sometimes hosts 250 whale watchers a day.

Charlton describes, "The sanctuary zone here is doing a good job of providing the protection that the whales need. There is a full vessel closure in whale season and a total exclusion zone —something we should be proud of."

For further information:
Head of Bight Visitor Center: http://www.headofbight.com.au
The Great Australian Bight Right Whale Study: http://www.gabrightwhales.com.
South Australian Whale Center: http://www.sawhalecentre.com.

News Bytes

Research on Modified Ropes to Reduce Whale Entanglement. On 16 June 2016, The Massachusetts Energy and Environmental Affairs Office announced two initiatives to fund research to reduce whale entanglement. The first will provide the New England Aquarium's Anderson Cabot Center for Ocean Life with $180,000 to develop modified fishing rope to reduce the entanglement of endangered whales and other marine species. The second will provide a $19,000 grant from the Massachusetts Environmental Trust for the South Shore Lobster Fishermen's Association to assist the aquarium with field testing of the developed rope prototypes. (Source: Massachusetts Division of Marine Fisheries newsletter Vol. 37, 2016)

Proposed Action Plan for NARW in Canada. The Minister of Fisheries and Oceans has posted the Proposed Action Plan for the North Atlantic Right Whale (*Eubalaena glacialis*) in Canada: Fishery Interactions on the Species at Risk public Registry. The public consultation period is from 18 August to 17 October 2016. For a copy of the proposed plan and information on submitting comments, go to: http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=2973.

International Bycatch Criteria for U.S. Imports. On 11 August 2016, NMFS issued a final rule implementing import provisions of the Marine Mammal Protection Act. At issue was the fact that U.S. fisheries abide by conservation practices, including measures to reduce marine mammal bycatch; while international commercial fishing operations are less rigorous in this regard. The rule requires nations exporting fish and fish products to the U.S. to be held to the same standards as U.S. commercial fishing operations. The rule stablishes a 5-year exemption period to allow foreign harvesting nations time to develop regulatory programs comparable in effectiveness to U.S. programs.

Ocean Noise Strategy Roadmap. On 13 September 2016, NOAA released a final version of the Ocean Noise Strategy Roadmap. The roadmap and summary of the comments received, and responses to those comments are posted at: http://cetsound.noaa.gov. The next steps will include continued and new partnerships with other federal agencies as well as with stakeholders and the public.

People and Changes

Sean Hayes has been appointed Branch Chief of the Protected Species Branch, Northeast Fisheries Science Center, Woods Hole, Massachusetts. He has a Ph.D. from UC Santa Cruz. His began in his new position on 1 May.

Calendar

1 October 2016. Right Whale Festival. Seawalk Pavilion, Jacksonville Beach, Florida. 10 a.m. to 4 p.m. For more information: http://www.rightwhalefestival.com.

4 −5 October 2016. Southeast Implementation Team meetings, Guana-Tolomato-Matanzas Research Reserve facility, 505 Guana River Road, Ponte Vedra Beach, Florida. The public Forum is on the 4th; the closed Team meeting is on the 5th.

27 October 2016. Deadline for review and request for information for North Atlantic right whales. See information on page 9 to submit comments.

2 −3 November 2016. North Atlantic Right Whale Consortium Annual Meeting, New Bedford Whaling Museum, New Bedford, Massachusetts. For further information: http://www.narwc.org.

5 −7 April 2017. Annual meeting of the Marine Mammal Commission. Location in or near Woods Hole, Massachusetts. North Atlantic right whales will be on the agenda, among other topics.

23-27 October 2017. 22nd Biennial Conference on the Biology of Marine Mammals. Halifax Convention Center, Halifax, Nova Scotia, Canada.

Scientific Literature and Reports

Argüelles, M.B., A. Fazio, C. Fiorito, D. Pérez-Martínez, M. Coscarella, and M. Bertellotti. 2016. Diving behavior of southern right whales (*Eubalaena australis*) in a maritime traffic area in Patagonia, Argentina. Aquatic Mammals 42(1):104-108. doi: 10.1578/AM.42.1.2016.104.

Belén Argüelles, M., M. Coscarella, A. Fazioa, and M. Bertellotti. 2016. Impact of whale-watching on the short-term behavior of southern right whales (*Eubalaena australis*) in Patagonia, Argentina. Tourism Management Perspectives 18:118-124.

Bertulli, C.G., R.H. Leeney, T. Barreau, and D.S. Matassa. 2016. Can whale-watching and whaling co-exist? Tourist perceptions in Iceland. Journal of the Marine Biological Association of the United Kingdom 96(4):969-977.

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