

RIGHT WHALE NEWS

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NOAA Seeks Comments on Proposal To Extend Ship-Strike Rule off the U.S. East Coast

The NOAA Fisheries Service is seeking comments on its proposal on a rule to reduce the number of collisions between ships and North Atlantic right whales. The rule, part of NOAA's long-standing efforts to recover right whales, was implemented five years ago and is currently scheduled to expire in December 2013. NOAA's proposal, which includes a 60-day public comment period, was filed in the *Federal Register* on 6 June 2013.

Written comments on the proposed regulations must be sent to NOAA Fisheries no later than 6 August 2013. You may submit public comments via the Federal eRulemaking Portal at www.regulations.gov or by visiting the comment page on the Office of Protected Resources website at www.nmfs.noaa.gov/pr/comment.htm. The NOAA Fisheries Service will also accept written comments mailed to Office of Protected Resources, NOAA Fisheries, 1315 East-West Highway, Silver Spring, MD 20910 or faxed to 301-713-4060.

The existing rule reduces an ocean-going vessel's speed to 10 knots or less during certain times and locations along the U.S. East Coast from Maine to Florida. According to NOAA, this rule has reduced the number of whales struck by ships since 2008, when the speed limits began. No right whale ship-strike deaths have occurred in Seasonal Management Areas since the rule was enacted.

NOAA Fisheries Service revised estimates indicate that the restrictions cost the shipping industry and other maritime communities about one-third of the original 2008 projections. NOAA scientists say that industry participation and compliance is high, and that in most cases vessels have incorporated speed restrictions into their standard operations and voyage planning.

"Reducing ship speeds in areas where there are endangered right whales works," said NOAA FisheriesService's acting administrator Sam Rauch. "It is a proven method to reduce deaths and serious injury to these incredible creatures. Making these protections permanent will make U.S. East Coast waters safer for right whales, and will allow them to reach full maturity, which is critical to their long-term survival."

The rule proposes to continue the existing speed restrictions during migration periods along three regions of the U.S. East Coast: theNortheast, Mid-Atlantic, and Southeast. These restrictions are

implemented during the time of year when right whales occur in each area. Speed restrictions apply to vessels that are 65 feet or greater in length, except federal agency vessels.

The proposed rule also seeks public input on ways to measure the effectiveness of the existing speed restrictions and whether they should be phased out in the future.

After the public comment period, the NOAA Fisheries Service will review all the public comments and consider any new information that may be provided.

Department of Interior Announces First Offshore Renewable Energy Lease Sale

As part of the Obama Administration's all-of-the-above energy strategy to continue to expand domestic energy production, the Bureau of Ocean Energy Management (BOEM) announced on 4 June that BOEM will hold the first-ever competitive lease sale for renewable energy on the U.S. Outer Continental Shelf (OCS). The auction, scheduled to take place on 31 July, will offer 164,750 acres offshore of Rhode Island and Massachusetts for commercial wind energy leasing. In February 2011, former Secretary of the Interior Ken Salazar and former Secretary of Energy Steven Chu unveiled a coordinated strategic plan to accelerate the development of offshore wind resources. As part of the 'Smart from the Start' program (announced in November 2010) for expediting commercial-scale wind energy on the federal OCS, the Department of the Interior (DOI) has identified Wind Energy Areas to spur responsible development of this abundant renewable resource. These efforts are part of a series of Administration actions to speed renewable energy development offshore by improving coordination with state, local, and federal partners.

The Wind Energy Area offshore of Rhode Island and Massachusetts covers about 164,750 acres and is located 9.2 nautical miles south of the Rhode Island coastline. BOEM will auction the area as two leases, referred to as the North Lease Area (Lease OCS-A0486) and the South Lease Area (Lease OCS-A0487). The North Lease Area consists of about 97,500 acres, and the South Lease Area covers about 67,250 acres.

According to a report recently released by the Department of Energy's National Renewable Energy Laboratory, the potential for installed capacity is 1,955 megawatts (MW) for the North Lease Area, and 1,440 MW for the South Lease Area. Together, these areas could support enough electricity to power more than 1 million homes, a significant increase over what BOEM had originally estimated last year. (For a map of the Wind Energy Area, see the following article.)

BOEM also has made available a revised environmental assessment (EA) for commercial wind lease issuance and related activities within the Wind Energy Area offshore of Rhode Island and Massachusetts. The EA considers reasonable foreseeable environmental and socioeconomic impacts from issuing renewable energy leases and conducting site characterization (*e.g.*, surveys) and assessment (*e.g.*, installation and operation of meteorological towers and buoys) activities in the designated offshore area.

As a result of the analysis in the revised EA, BOEM issued a Finding of No Significant Impact, which concluded that reasonably foreseeable environmental effects associated with the commercial wind lease issuance and related activities would not significantly impact the environment.

The revised EA addresses comments received in response to an environmental assessment published in July 2012 for a 30-day public review period. Those comments can be viewed at www.regulations.gov by searching Docket ID BOEM-2012-0048. The revised EA and Finding of No Significant Impact can be accessed on BOEM's website at [www.boem.gov/Renewable Energy Program](http://www.boem.gov/RenewableEnergyProgram).

Getting It Right: Right Whales and Offshore Renewable Energy Development

Contributed by Amy D. Whitt, Geo-Marine, Inc., Plano, Texas

Despite a slow start spanning more than a decade, the offshore renewable energy industry is in full swing in the US, particularly on the Atlantic Outer Continental Shelf (OCS) off the East Coast of the US where several development projects are currently planned or in progress. Conservationists and natural resource managers are hoping that the slow initial progression of offshore development will allow and encourage federal agencies and decision-makers to “get it right” so that certain standards are put in place to protect and monitor the marine environment prior to any actual development that has the potential to impact marine resources. Current spatial and temporal data on marine mammals, particularly the endangered North Atlantic right whale (hereafter referred to as “right whale”), are needed in potential development areas. These data will provide the industry and regulators with the necessary science-based information to inform the permitting and licensing of offshore renewable energy technologies and to determine potential monitoring and mitigation strategies for minimizing impacts on these marine resources.

Although once focused on large-scale marine mammal studies in relation to oil and gas exploration and development on the Atlantic OCS (*e.g.*, CETAP 1982), federal agencies are shifting their gaze to offshore renewable energy development. In an effort to “get it right,” the Bureau of Ocean Energy Management (BOEM) established the “Smart from the Start” wind energy initiative in 2010 to facilitate the siting, leasing, and construction of new projects on the Atlantic OCS, while also promoting an environmentally responsible offshore renewable energy program. To help determine appropriate sites for offshore development and minimize potential impacts to wildlife and habitats, BOEM and other federal agencies, state agencies, offshore developers, and stakeholders are funding a variety of marine mammal studies—including field surveys, reviews and analyses of existing data and information, and additional assessments. Many of these studies involve nearshore waters, which are prime areas for offshore wind development and also primary habitat for right whales. Several of the marine mammal studies related to offshore renewable energy development are summarized below. This is not a

comprehensive summary but a brief overview of some of the large- and small-scale studies recently conducted or in progress.

AMAPPS – **The Atlantic Marine Assessment Program for Protected Species (AMAPPS)** is a comprehensive research program funded by the BOEM, NOAA Fisheries Service, U.S. Fish and Wildlife Service, and U.S. Navy. This program was established in 2010 to address critical data gaps and increase agencies’ understanding of marine mammals, sea turtles, and seabirds in U.S. Atlantic waters from Maine to the Florida Keys (Fig 1). Prior to AMAPPS, the NOAA Fisheries Service and other organizations conducted shipboard and aerial surveys along the U.S. East Coast primarily during the summer months with the exception of more extensive aerial surveys targeting right whales. Consequently, data from other seasons were lacking for most marine mammal species, populations, and stocks. The AMAPPS program is enhancing NOAA Fisheries Service’s previous marine mammal survey efforts through the use of comprehensive year-round surveys, telemetry studies for correcting for availability biases (dive-surface intervals), passive acoustic monitoring, and development of alternative survey methods. These studies are allowing federal agencies and partners to develop models and tools to generate seasonal, spatially-explicit density estimates of marine mammals, sea turtles, and seabirds in the western North Atlantic. This detailed information is critical for analyzing potential impacts and developing effective monitoring and mitigation plans for offshore renewable energy activities. AMAPPS studies have been ongoing since 2010. Annual reports for the 2010 and 2011 studies and information on AMAPPS are available at: <http://www.nefsc.noaa.gov/psb/AMAPPS/>. The 2012 annual report is under review and will be available soon. Further studies are planned for 2013 and 2014.

NLPSC – **The Massachusetts Clean Energy Center**, in partnership with the Executive Office of Energy and Environmental Affairs, is funding marine mammal studies in federal waters south of Nantucket and Martha’s Vineyard. The studies are currently being conducted by the **Northeast Large Pelagics Survey Collaborative (NLPSC)** consisting of the New England Aquarium, University of Rhode Island, Provincetown Center for Coastal Studies, and Cornell University. Data-collection efforts include aerial surveys to record sightings of sea turtles, right whales, and other large whales in the NLPSC study area (Fig 1). The NLPSC has completed the first year of aerial surveys, which began in October 2011 and were flown twice monthly to record the seasonal trends in marine mammal occurrence in the study area. They will conduct an additional year of aerial surveys in an expanded study area that includes waters offshore of Rhode Island (Fig 1). Passive acoustic monitoring is also being conducted using pop-ups to detect right whales and other large whales and has been ongoing since November 2011. Results of these studies will be used to inform the federal offshore leasing process. The Year 1 final report is currently in review. Further information about the NLPSC studies can be found at: www.neaq.org/conservation_and_research_projects/project_pages/wind_energy_planning_surveys.php

Rhode Island Ocean SAMP— The University of Rhode Island Center of Excellence for Offshore Renewable Energy and the Rhode Island Coastal Resources Management Council have worked collaboratively to develop the **Rhode Island Ocean Special Area Management Plan (Ocean SAMP)**—a “zoning” plan with area definitions—that is relevant to siting renewable

energy facilities in state and nearby federal waters. Funded by the Rhode Island State Office of Energy Resources, the Ocean SAMP includes a compilation of data and information on Rhode Island's ocean-based resources and serves as a coastal management and regulatory tool. For the marine mammal component of the Ocean SAMP, researchers at the University of Rhode Island assessed the distribution and relative abundance of marine mammal species occurring in the Ocean SAMP Study Area and the larger Rhode Island Study Area (Fig 1). They compiled sightings, stranding, and bycatch data from various sources, such as the North Atlantic Right Whale Consortium database, the National Marine Fisheries Service, the Smithsonian Institution, and the American Museum of Natural History. Each marine mammal species occurring in the region was ranked according to its conservation priority based on abundance, likelihood of occurrence in the Ocean SAMP Study Area, endangered status, known threats, and sensitivities to specific activities. The right whale was ranked as a high priority species based on its endangered status, common occurrence in the region, and potential occurrence in the Ocean SAMP Study Area, particularly during spring and fall migrations. Researchers stressed the importance of considering potential impacts of activities related to the construction and operation of renewable energy facilities. The full marine mammal and sea turtle assessment (Kenney and Vigness-Raposa 2010) and the rest of the Ocean SAMP reports are available for download at <http://seagrant.gso.uri.edu/oceansamp/index.html#>.

NJDEP EBS – The New Jersey Department of Environmental Protection (NJDEP) funded an Ecological Baseline Study (EBS) to document the year-round occurrence of marine mammals, sea turtles, and seabirds in coastal waters off New Jersey (Fig 1) and to provide the state with baseline data in advance of offshore wind energy development. Geo-Marine, Inc. (GMI) conducted this two-year EBS from January 2008 through December 2009. Research methods used to collect marine mammal occurrence data included year-round line-transect shipboard and aerial surveys and passive acoustic monitoring via pop-ups. This was the first year-round study focused on marine mammals in nearshore waters off New Jersey. The survey data were used to generate robust density estimates for species or animal groups in the NJDEP study area and to model animal density as a function of spatially-indexed environmental covariates. This study confirmed the year-round presence of right whales and provided important information for developing year-round monitoring and mitigation protocols to minimize disturbance to right whales and other species in this region. Results of the EBS are summarized in GMI (2010), which is available at <http://www.nj.gov/dep/dsr/ocean-wind/report.htm>. In addition, Whitt *et al.* (2013) discussed the specific results related to right whales and recommendations for how these results can be used to inform the current management framework in advance of offshore wind development in the Mid-Atlantic.

These studies and others are the key to “getting it right,” right from the start of renewable energy development. Results from these studies provide critical information for natural resource conservation efforts and for aiding the renewable energy industry in siting and regulatory decision support. Although there are standard monitoring and mitigation plans in effect for oil and gas exploration and development activities, protocols to protect marine mammals during the construction and operation of offshore renewable energy facilities are still a work in progress. BOEM has taken some steps towards developing standard monitoring/mitigation protocols to minimize or eliminate the potential impacts to ESA-listed marine mammal species. For example, all vessel operators must comply with NMFS’ vessel-strike reduction measures for right whales; BOEM has amended these measures to protect not only right whales but all protected species.

There are also seasonal restrictions on certain operations which require mandatory speed restrictions in Seasonal Management Areas and Dynamic Management Areas. Other mitigation measures include establishing and monitoring exclusion zones during geophysical surveys to reduce or avoid any possible acoustic harassment to protected species. BOEM (2012) and MMS (2007) summarize these and other requirements to minimize or eliminate the potential impacts to right whales and other marine mammal species. These protocols are a step in the right direction; however, additional regional and site-specific protocols will be needed to ensure the protection of populations and species, particularly the right whale. The studies mentioned above and many others will provide the specific information that BOEM and other agencies and stakeholders can use to guide the decision-making process for placement of renewable energy facilities and to refine monitoring/mitigation protocols on a regional and site-specific basis.

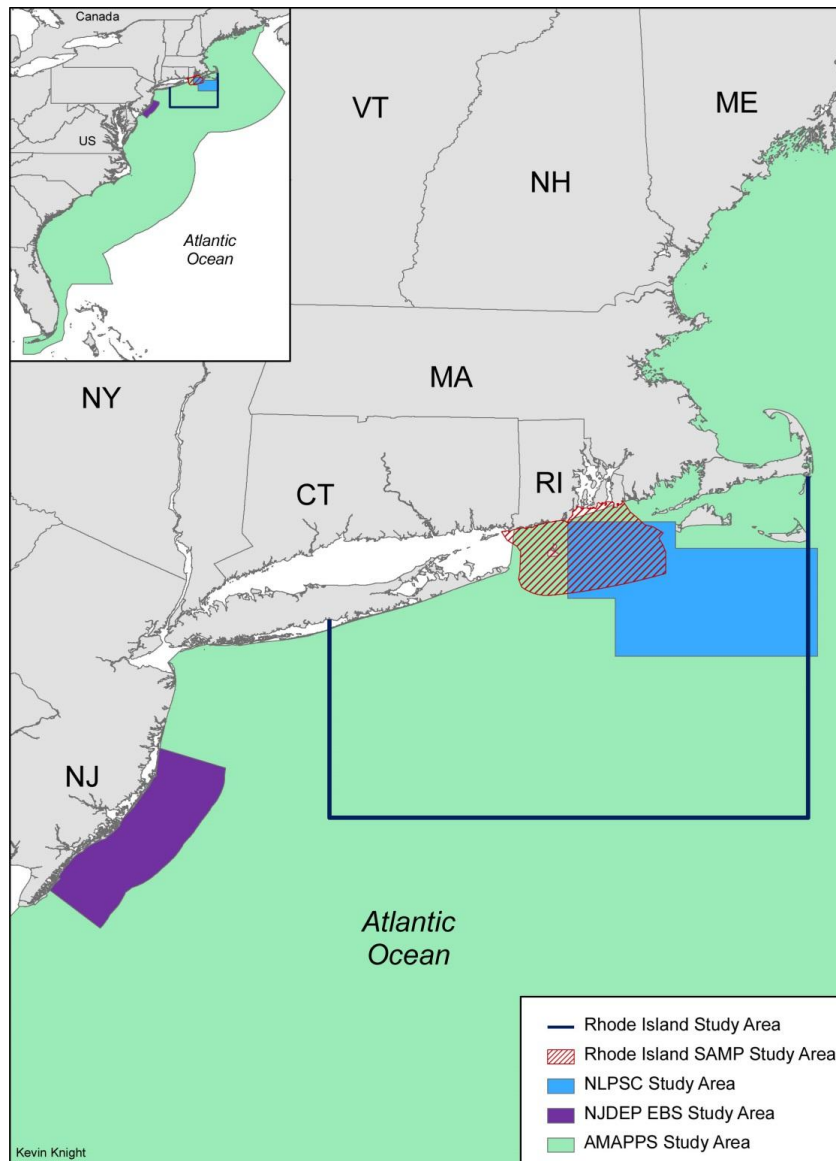


Figure 1. Locations of marine mammal studies conducted in relation to offshore renewable energy development on the Atlantic OCS.

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1334—The Grande Dame of the Population

Contributed by Philip Hamilton, New England Aquarium

Day-to-day research is sometimes spiked by unusual and, yes, exciting events. Such was the case on 21 February 2013 about 2 nautical miles (nmi) off Ponte Vedra, Florida. During this past SEUS calving season, female #1334 was seen with her ninth documented calf, and subsequently darted for biopsy samples. She is the most productive female in the population—at least based on the births we have recorded. She is an interesting whale. She is seen almost exclusively in the Southeast in her calving years, suggesting that she uses feeding habitats other than those that are



On 21 February 2013, female #1334 was sighted and darted, along with her ninth calf. She is the most prolific mother in the population and apparently uses poorly known habitats. Photos: FWC, NOAA/NMFS permit #15488.

well surveyed. We know at least one of those habitats is in the middle of the far North Atlantic—450 nautical miles SSE of Greenland and 575 nmi east of Labrador—where, in August 1989, she was seen with her 8-month-old calf. Who knows how many others she has taken to northern areas? She has never been seen in the Bay of Fundy or Cape Cod Bay. Because of her sparse sighting history, we had not previously had the opportunity to collect a skin sample from her for genetics analyses. This year, the FWRI aerial team sighted the pair and directed their boat crew to the location. Both the mother and calf were genetically sampled within hours of their discovery. And, this was the only sighting of #1334 and her calf for the season; and thus the only chance for getting a biopsy from them. The biopsy samples are particularly important for discovering more about this unique female and her calf. Is there a genetic signature in whales such as #1334 that use different habitats? Which males does she mate with? Because she and her calves are almost never seen in the Northeast, few of her calves have been photo-identified and added to the Catalog (their callosity patterns are not fully developed at the time when they are last last sighted in the southeast). We have genetic samples from two of her previous calves—the only two out of eight that have been photo-identified. The sample from this year’s calf will make three, and will allow us to genetically link this individual with future sightings. Very slowly we may begin to unveil some of #1334’s mysteries.

A Sea Change

Contributed by Stormy Mayo, Center for Coastal Studies, Provincetown, Massachusetts

*“Full fathom five thy father lies;
Of his bones are coral made;
Those are pearls that were his eyes:
Nothing of him that doth fade
But doth suffer a sea-change
Into something rich and strange.”*

*William Shakespeare, *The Tempest**

This is a time of change and I suspect that the right whales came to know it long before we recognized the first hints of temperature increase and altered oceanography, and before we applied to it the jargon of today. We stand in awe at their consciousness, their immediate awareness that the courses of fertile currents have changed, that flood-borne food has been diverted from ancestral haunts, and that the shallows of Cape Cod Bay present a different and perhaps less oily cuisine to staunch their ravenous appetite. We photograph them from the deck of a rolling vessel or fly over them, perched in small aircraft, and yet long after they've acted on their profound understanding of the sea—miraculous and detailed in comparison to our electronic caricatures—we're amazed at their nearly real-time reaction to the changing ocean. Long after they have responded, we're still trying to match the gross patterns of their distribution and behavior against conditions we documented 20 years ago. By the standards of their millennial experience, our documentation, what we call a “long time series,” is vanishingly small, as trivial as are the products of the sensory devices we use to “sample” their environment. And so it is remarkable that change in what seemed to be an imperturbable and unassailable ecosystem is now apparent enough to penetrate the mind of the human scientist: the change must indeed be profound!! We are engulfed by our wonder at the richness of the right whales' sense of their changing system that we seek to decipher with our simple after-the-fact discoveries; this is the humbling backdrop of our effort to capture the story of the right whale season in Cape Cod waters.

And in fact we have seen that change, though through the fog of natural variability that often confounds our efforts to document with the certainty expected of a scientist. For the third consecutive season right whales entered Cape Cod Bay in November, two months earlier than during the previous 26 years. They appeared in aggregations that, in behavior and numbers, were more typical of our observations during March of 1985-2010. It appears that right whale season in Cape Cod Bay has extended, at least as far as our short time series can demonstrate. Combine that change with our first-ever sighting of a bowhead whale (interacting with right whales in a social group in 2012) in Cape Cod waters, and the flood of a subtly different zooplankton during the peak period of whale residency, and it's clear that right whales know something that at first escaped us—the ecosystem is in a state of flux. Enough said!

Not quite!! In early January Regina Asmutis-Silvia of Whale and Dolphin Conservation relayed to us reports of a mother and calf off Plymouth, three months earlier than our previous earliest sighting of a new-born calf. Joint efforts to assess the repeated sightings, fully 1,000 miles from

the birthing ground off Georgia and Florida, strongly suggested that the birth happened at the right time but in the wrong place—in the cold waters of Cape Cod Bay! Although nursing very close to the thermally elevated plume of a nuclear power plant, water temperatures in the vicinity of the pair were 3-4°C, well below temperatures thought to be supportive of a newly birthed whale. Although conditions for birthing and nursing were apparently poor, subsequent sightings by our aerial survey team suggested that the mother and calf remained in the Cape Cod region and were healthy.

The change in the way right whales use the Gulf of Maine has been underway for several years. For the last three years in Cape Cod near-shore waters our photo documentation from aircraft and vessels has yearly identified more than 40% of the estimated North Atlantic right whale population, this year more than 220 whales. With a high number of 316 individuals identified in 2011, it is clear that the recent increase in whales in the winter in our study area reflects a change in the pattern of habitat selection and use that tracks above the estimated growth in the population. But, while subtle variations in the composition of the plankton may be cueing such altered patterns, we suspect that alterations in the fundamental oceanography of the region may underlie the habitat-use response of the right whales, causing Cape Cod Bay to become a magnet for the North Atlantic population.

This is a time of change, and the right whales know it. But neither they, the sentients of the ocean, nor we, stewards of their ecosystem, are able to glimpse the equilibrium, if there is one. So the role that Cape Cod Bay is to play in the ultimate fate of right whales is as opaque as the dense green sea that they harvest in their guided wanderings.

Summary of Right Whale Research and Conservation Activities in Canada

*Contributed by Moira Brown, New England Aquarium,
and Christopher Taggart, Dalhousie University*

Researchers from non-governmental, academic, and government agencies involved in right whale research and conservation activities in Canadian waters were solicited for input on their various programs; the results are summarized in this article. The authors apologize for any errors they may have made in content when compiling and editing the information.

Non-Governmental Organizations

Sean Brilliant and the **Canadian Wildlife Federation (CWF)**, along with **Tonya Wimmer and World Wildlife Fund Canada**, (WWF, see below) and **Christopher Taggart** and his group at **Dalhousie University** (see below)—largely funded by WWF—have been researching probabilistic movement patterns of right whales throughout Atlantic Canada and are using the movement patterns to quantitatively estimate the risk of fishing gear entanglement. These collaborators recently provided Fisheries and Oceans Canada (DFO) with a briefing note to help inform the DFO on policy designed to mitigate gear entanglements. CWF has also been assessing the dynamics and distribution of fixed-gear buoy-lines (lobster and crab traps) to

increase the knowledge of how entanglements occur and how to minimize entanglements through changes in gear-setting practices. CWF has also been evaluating the role of critical habitat, as defined under the Species At Risk Act, in protecting marine species at risk and is providing specific recommendations for improvements in the Act.

Moira Brown and the **Canadian Whale Institute** are planning to conduct a right whale vessel survey in 2013 in Roseway Basin and waters extending toward the Bay of Fundy and are continuing their work with the Bay of Fundy Disentanglement Support Network and with shipping industry stewardship activities. These efforts are contingent on funding from DFO and Environment Canada (EC). Brown is also working with **New England Aquarium** personnel to continue their annual Bay of Fundy vessel-based right whale surveys (34th year), which include photo-identification, skin biopsies, and fecal material collection with funding supported by The Island Foundation and Irving Oil. In collaboration with Lei Harris and the St. Andrews Biological Station, DFO (see below), an aerial survey for right whales in the waters between Bay of Fundy and Roseway Basin is also scheduled for 2013

Jerry Conway and **Mackie Greene** with the **Campobello Whale Rescue Team** will be involved in training DFO fishery officers and local fishermen in disentanglement techniques during 2013. This training is contingent on DFO and EC funding.

Laurie Murison and the **Grand Manan Whale and Seabird Research Station** personnel continue their volunteer work in conjunction with other researchers and various Grand Manan and Bay of Fundy whale-watch interests, and through public donations. Their efforts include annual estimates of zooplankton (copepod) abundance and energy content and water-column monitoring in the Grand Manan Basin Critical Habitat. They are also maintaining their long-term opportunistic sightings and photo-ID database, which is incorporated into the North Atlantic Right Whale Consortium database. Other efforts include public education on right whale conservation through the distribution of printed materials to fishing associations, and whale-watch interests, museum displays, and lectures to the general public visiting Grand Manan Island. The group also co-ordinates the whale sighting phone-in line. With funding support from DFO and various Grand Manan fishing associations, they are developing strategies for mitigating fishing threats to right whales in the western Bay of Fundy via aerial surveys conducted immediately before and during the early November–December lobster fishery, and occasionally in June.

Maria Recchia and the **Fundy North Fishermen's Association** are continuing their ghost-gear retrieval program in areas of high gear loss with funding support from DFO and EC. In 2012 they retrieved 198 derelict lobster traps; 35 lobster buoys; 13,918 m of rope; 52 m of chain; 365 m of cable wire; 40 m of aquaculture birdnet; hundreds of handline bugs; 15 m of extension cord; numerous pieces of gillnet, weir twine, scallop fishing equipment, and plastic shrink wrap; and the front-end axle and tires of a 1940-era truck! They are now researching the primary causes of the gear losses that become ghost-gear and to identify mechanisms that would help mitigate such losses.

Tonya Wimmer and the **World Wildlife Federation** have been working with the Marine Animal Response Society and the Maritime Marine Animal Response Network to respond to

incidents involving right whales throughout the Canadian Maritime Provinces. Their efforts include conducting necropsies, collecting data and samples, and responding to reports of entangled or entrapped right whales. These efforts are done in collaboration with U.S. partners and ongoing efforts are contingent on DFO and EC funding.

Academic Organizations

Timothy Frasier and his group at **St. Mary's University** are continuing their genetics studies related to the health, reproductive success, and mortality of right whales and their respective contributions to the low reproductive rate of the species. They are also attempting to infer population history through genetic data, and when combined with new analytical techniques, their methods may provide new insights in the population trends.

Susan Parks and her group at **Syracuse University** are planning behavioral studies in the Bay of Fundy that will involve acoustic recordings of mother-calf pairs, lone calves, and whales producing gunshot sounds. These recordings will aid in quantifying normal swimming and respiration behaviors, communication sounds, separation periods, and reunion events.

Christopher Taggart and his lab at **Dalhousie University**, supported by Natural Sciences and Engineering Research Council (Canada) (NSERC), CWF, DFO, and EC, are finalizing their research and publications on the energy density distribution of the right whale prey field in Roseway Basin, the physical processes involved, and how those insights can be used to redefine Critical Habitat in the Basin. They have also completed and published their work on reduced vessel-strike risk in the Basin following the implementation of the voluntary Area To Be Avoided. They also worked with various colleagues (*e.g.*, CWF and WWF above) to address gear-entanglement risk and mitigation as well as whale conservation policy from an international (*e.g.*, USA, Canada, Spain) perspective. The lab's near-real-time AIS vessel-monitoring network continues to be operational with funding support from DFO. With support from EC, the lab also collaborated with the Marine Mammal Observation Network (Réseau d'Observation de Mammifères Marins; ROMM) in Rivière-du-Loup and the Shipping Federation of Canada in providing vessel-traffic density and risk-to-whales maps for an atlas entitled "A mariner's guide to cetaceans in the Northwest Atlantic—towards harmonious cohabitation."

Bradley White and his group at **Trent University** along with the Natural Resources DNA profiling and Forensic Centre are continuing their curation of right whale tissues and the associated DNA bank that now identifies 589 individual right whales representing ~75% of the catalogued animals. The DNA bank is being used to determine the origin of fecal samples, confirm maternity, identify dead individuals, and assign paternities to calves. The databank is also being used among various research projects seeking to address questions, such as the location(s) of the mating ground(s) and nursery use of members of the population. Efforts are currently underway to sequence the right whale genome and to screen the population for genetic variations in candidate genes which have been known to influence reproductive success.

Government Organizations

Lei Harris and the Species at Risk team at the **St. Andrews Biological Station (DFO)** are continuing with their poster campaign for Atlantic Canada as an aid in seeking information on the locations of groups of the right whales outside the known aggregation and critical habitat areas. The poster distribution will be expanded in 2013 to include several regions in Prince Edward Island, Nova Scotia, New Brunswick, Newfoundland and Labrador, and the Gaspé Region of Québec. In collaboration with the New England Aquarium, they will also initiate an aerial right-whale survey in Canadian waters in the summer of 2013, to address, in part, the objectives of the Canadian Right Whale Recovery Strategy. This will help in identifying potential critical habitat located outside the Grand Manan Basin and Roseway Basin Critical Habitats and will help in determining the migratory routes of right whales (to evaluate whether migratory routes constitute critical habitat) and assess their proximity to human-induced threats (*e.g.*, fishing activity).

Heidi Schaeffer and the **Species at Risk Management Division (DFO)** convened the 2013 North Atlantic Right Whale Recovery Network meeting in Halifax, N.S. on 10-11 April, and the Network met again in Moncton, N.B. on 13-14 May. The Division has been finalizing the “Partial Action Plan for the North Atlantic Right Whale (*Eubalaena glacialis*) in Atlantic Canada: Fishery Interaction” which is scheduled for completion sometime in late 2013 or early 2014. The Ministerial Order for the protection of Right Whale Critical Habitat is also scheduled for completion in late 2013 or early 2014.

Yvan Simard and the **Maurice Lamontagne Institute (DFO)** have completed their efforts to characterize the time-space variability of zooplankton aggregations in the Gaspé-Baie des Chaleurs Basin that is known to be visited by right whales. They have also developed an acoustic mapping and a multi-year monitoring time-series that is coincident with the passive acoustic monitoring of right whales.

Marine Mammal Commission Concludes Review

On 12 April 2013, the last in a series of review meetings was held at the National Marine Fisheries Service’s (NMFS) Science Center in Silver Spring, Maryland. The meetings, held in each of the Service’s six regions, were aimed at identifying high priority marine mammal research and management needs in each region. The Commission will use the information to develop a set of national priorities for guiding federal research and conservation efforts for marine mammals.

Information provided by Samuel D. Rausch, Acting Director of NMFS, was perhaps most telling. “Budgets are declining ... we can’t do what we did before ... we are a small program, and issues that we are concerned about rarely come up in the conversation [on Capitol Hill] ... we don’t have the marine mammal champions on the Hill ... or the support that we have had in the past.”

During a public session, Jim Hain, Associated Scientists at Woods Hole (and Editor of *Right Whale News*), commented on the right whale budget and spending plan as well as research permits. He suggested that consideration be given to an ombudsman who might facilitate interactions between the external right whale community and the agency.

Rebecca Lent, Executive Director of the Commission, advises that the report is currently being drafted and that several intermediate review steps will be required. The Commission will be providing updates to *Right Whale News* as to the status and availability of the report.



The commissioners and staff of the Marine Mammal Commission at the review meeting on 12 April 2013. Back: Dennis Heinemann, Science Director; Victoria Cornish, Energy Policy Analyst; Timothy Ragen, Executive Director; Michael Gosliner, General Counsel; Peter Thomas, International and Policy Program Director; Tanya Dobrzynski, NOAA liason. Front: Michael Tillman, Commissioner; Daryl Boness, Commission Chairman; Frances Gulland, Commissioner; Emily Hardgrove, Intern.

Frank Lautenberg

Contributed by Robert D. Kenney, University of Rhode Island

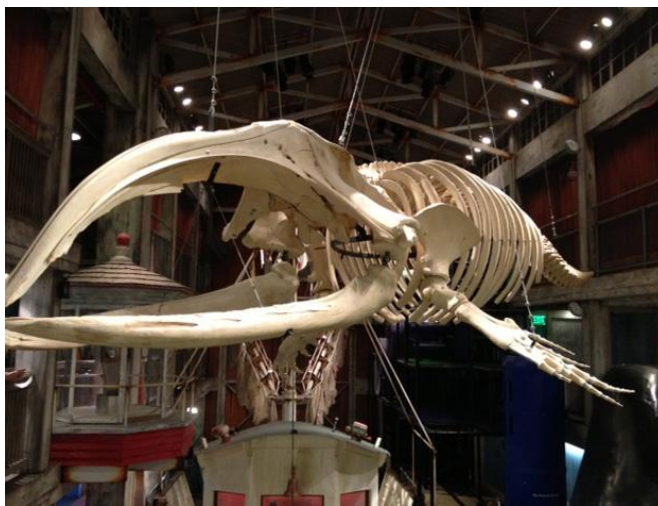
Frank Lautenberg, 89, senior senator from New Jersey, died on 3 June 2013 in a New York hospital of complications from viral pneumonia. Lautenberg was first elected to the U.S. Senate in 1982, and he served three terms until announcing his retirement in 2000. He “un-retired” to successfully run for New Jersey’s other Senate seat in 2002, and he was elected to his fifth term in 2008. In February of this year, he announced that he would not run for re-election in 2014.

At the time of his death, he was the oldest serving member and the last remaining World War II veteran in the Senate.

In the 99th Congress in 1985–86, Lautenberg was the junior minority member of the Senate Appropriations Subcommittee on Commerce, Justice, State, and Judiciary. It was that subcommittee that added a line item to the National Marine Fisheries Service budget for right whale research and recovery. This line item kicked off the collaborative research program that eventually became the North Atlantic Right Whale Consortium. Looking back, it seems like another era when bipartisanship was still possible—when a committee of six Republicans (Warren Rudman, NH, chair; Ted Stevens, AK; Lowell Weicker, CT; Mark Hatfield, OR; Paul Laxalt, NV; and Arlen Specter, PA) and five Democrats (Ernest Hollings, SC; Daniel Inouye, HI; Dale Bumpers, AR; Lawton Chiles, FL; and Lautenberg) could take action to protect an endangered whale. All eleven of those gentlemen deserve our respect and thanks. My recollection, though, from those days of letters and telephone calls from Howard Winn’s office at URI, is that the right whale’s foremost champions in the subcommittee were Senators Weicker and Lautenberg.

In the broader context of a Senate career of almost 30 years, funding a research program on a single whale species probably doesn’t rise to the top ten list of accomplishments. However, from our perspective, it rises to number one. From both the right whales and the research community, thank you, Senator Lautenberg.

Skeleton of Right Whale #3911 Installed at the Georgia Aquarium



An entangled two-year-old female, Catalog #3911 was sighted by an aerial survey team east of Jacksonville Beach on 25 December 2011. Several disentanglement efforts followed. Unfortunately, on 1 February, the whale’s body was sighted by an aerial survey team southeast of Marineland and subsequently towed to shore. A necropsy was conducted on 3 February 2011. As is sometimes true, “The dead teach the living.” The skeleton of this individual, along with educational signage and materials, has been installed at the Georgia Aquarium in Atlanta. (Photo: C. Pope, GAAQ)

People and Changes

After 12 years as Executive Director of the Marine Mammal Commission, Tim Ragen retired in May. Prior to his appointment, Tim, with a Ph.D. from Scripps, was the Steller sea lion recovery coordinator for NOAA. Rebecca Lent has joined the Commission as the new Executive Director. She was formerly the Director of the Office of International Affairs with NOAA Fisheries. Prior to that position, she was the Regional Administrator for the Southwest Region and then Deputy Assistant Administrator for Regulator Programs. She holds a Ph.D. from Oregon State University.

Calendar

10-11 October 2013. Southeast U.S. Right Whale Forum and Implementation Team meetings. Location to be determined.

6-7 November 2013. North Atlantic Right Whale Consortium Annual Conference, New Bedford Whaling Museum, New Bedford, Massachusetts.

9-13 December 2013. Society for Marine Mammalogy's 20th Biennial Conference on the Biology of Marine Mammals. Dunedin, New Zealand.

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