

RIGHT WHALE NEWS

*An independent forum for right whale conservation and recovery,
published four times a year in February, May, August, and November*

Volume 19 Number 2

May 2011

Changeable. Dynamic. Unpredictable. Right whale biology. On some days our ability to understand right whales and the factors that affect the population is puny indeed. Elusive. The 2010 Bay of Fundy season was unusual, with the lowest number of sightings for the 31-year study period (Right Whale News, September 2011). The two articles that follow continue the theme. These report unusual seasons in both the Southeast U.S. and in Cape Cod Bay. Uncertainties and unknowns. (Editor)

Cape Cod's Winter Bonanza

Contributed by Charles "Stormy" Mayo, Provincetown Center for Coastal Studies

I'm always amazed each January and February that these are the months when right whales choose to enter Cape Cod Bay, on the threshold of the bitter New England winter. Nevertheless these hot animals faithfully come each year to a cold sea when the sun hangs low all day, the waves are shards edged in indigo and emerald, and the heavy winter wind bites deeply at the surface. For those of us studying right whales, January is the cruelest month (T.S. Eliot notwithstanding), when our time at sea is strictly controlled by the passage of continental fronts, snow squalls rise wraith-like over hills in the grey interior, the decks are slick with frost and ice, and the treachery of the ocean declares itself in every swell and gust. The right whales, forever vagabonds, have for millennia come to Cape Cod during the winter and spring, arriving at the unwelcoming season, compelled by natural cycles that we, insular and sheltered, can barely sense—the flowering of fields of phytoplankton and the awakening of oil-rich copepods.

The early winter of 2011 started in the customary way, cold and cruel and offering little encouragement. As usual we were prepared go to sea hoping to find just the first few wanderers of what months later would become a seasonal procession of whales. But when, in January, the whales arrived, the circumstances were not usual and our sightings were not of solitary whales but of numbers—10 on one aerial survey, 17 on another. Cape Cod Bay, a federally designated critical habitat for right whales is seasonally host to 150 to 200 individuals and hence critically important to the future of the species, but we've not seen days or weeks of residency of numbers of whales in the early winter since we first found them deep in the bay in 1984; yet 2011 started with many resident and feeding right whales often within several hundred yards of the beach (Figure 1). As the season progressed the numbers of individuals in the lists managed by

our team matching whales to the New England Aquarium catalog kept rising as did the sightings recorded during each cruise and flight. Working their old haunts in the eastern bay, the right whales entered the near-shore shallows feeding on surface layers of zooplankton so dense that the orange patches could be seen from the beach. Nearly all whales observed over the many months of the extended 2011 season were feeding, mouths gaped at the surface. It was a bonanza for the whales, with a food resource unusual in all respects, in its density and persistence, and in its depth and breadth. Though the results of the study are preliminary, photo matching suggests that more than 300 individuals of the estimated remaining population of around 475 whales were recorded by the PCCS vessel and aircraft survey teams in the near vicinity of Cape Cod. Furthermore, given an intermittent field effort and the difficulty of executing full surveys in fickle winter conditions, it seems likely that the total number of whales in Cape Cod waters in 2011 was substantially higher than documented. Compared to the 27 years of our research and though truncated by periods of wild weather, the 2011 season in Cape Cod waters revealed to us the largest number of right whales recorded in historic times, the longest residency (January to mid May), the greatest biomass of zooplankton extending over the largest part of the bay, and the greatest number of individuals recorded during one air survey of the embayment (127).



Figure 1. Feeding right whales in Cape Cod Bay, just off Herring Cove Beach, Provincetown, Massachusetts, 3 May 2011. The number of right whales in Cape Cod Bay in the 2011 season was the largest to date. (Photo: S. Mayo, under NOAA/NMFS research permit #14603)

The messages gleaned from the data and observations from the 2011 season are not yet clear and the very pressing questions that always surround the mystery of the right whales persist.

Does this change in the distribution of right whale food bode well or ill? Are our observations an indication of a slow and inexorable modification of the whales' habitat and of profound changes in plankton productivity? Does the enriching of Cape Cod Bay coupled with the paucity of whales in the Bay of Fundy in the autumn of 2010 present a picture of a larger transformation of the Atlantic system? Or is the increased use of Cape Cod Bay just a reflection of inter-annual variability and of the whales' plastic response to it? In the end it's not at all clear that the 2011 influx of whales and of their prey will have positive effects on the beleaguered right whale at a time of increased environmental perturbation and intensified planning for human use of the coastal zone and of the outer continental shelf.

The book is not closed. The future of the right whale includes the continued work in the shallow waters of Cape Cod—work that will contribute to conservation, recovery, and wise management of the species and the habitat.

(Studies of the right whales of the Cape Cod region are supported by NOAA Fisheries through the Division of Marine Fisheries, Commonwealth of Massachusetts.)

Report from the SEUS Calving Area

Contributed by Katie Jackson, Florida Fish and Wildlife Conservation Commission

Preliminary data from the 2010-2011 calving season indicate that 164 individual whales were sighted from South Carolina to Florida. This number is lower than the approximately 230 whales documented during the previous 2009–2010 calving season. These totals include cataloged whales, calves, and whales with temporary “intermatch” or season codes that have not yet been officially matched to the catalog. A total of 302 Whale Alert sightings were disseminated to Early Warning System (EWS) network participants. Approximately 76% of these sightings were off Florida's coast.

Twenty-one mother/calf pairs have been sighted as of this writing. This includes one post-season mother-calf report (Catalog #1123 “Sonnet”, first photographed off Rhode Island by NOAA Northeast Fisheries Science Center (NEFSC) in April, which had not been seen in the SEUS this season, with or without a calf). This number is on par with the average 22 calves born each year from 2000 to 2010. Three of the 21 mothers were documented with their first-known calves (Catalog #3240 “Orion,” #3270 “Pico,” and #3430). The calving interval (average number of years between documented calves) for the remaining 18 mothers was calculated as 3.8 years (calving intervals of individual whales provided by NEA). This average includes one 2-year interval from #2660 “Gannet,” who lost her 2009 season calf. One of the first-time mothers, #3270 “Pico,” was photographed on 5 January 2009 near the island of Pico in the Azores. She

has a bonnet callosity that closely resembles the shape of her namesake island and is one of only two right whales to be seen in the Azores since the 1880's (*Right Whale News*, February 2009).

A total of five right whale carcasses (including well-known, reproductively active female #1303 "Slash"—discovered off Virginia), two presumed calf deaths, five new entanglement cases, and a three-year-old whale with a severe injury caused by a recent vessel strike were documented during the 2011 calving season. The severely injured whale, #3853, is the calf of #2753 "Arpeggio" (*Right Whale News*, February 2011). This mother/calf pair was sighted a remarkable 50 times along the coasts of Florida and Georgia during the 2008 calving season and was likely seen by hundreds of beachgoers due to their numerous nearshore sightings that season. A 28 year-old female, #1308, was found dead on a beach in North Carolina on 27 March 2011 (Figure 2). Necropsy results show she was likely killed by a vessel strike during her migration north with her calf. Her calf has not been sighted and is presumed dead. This deceased female is survived by three calves, including reproductively active female #3108.

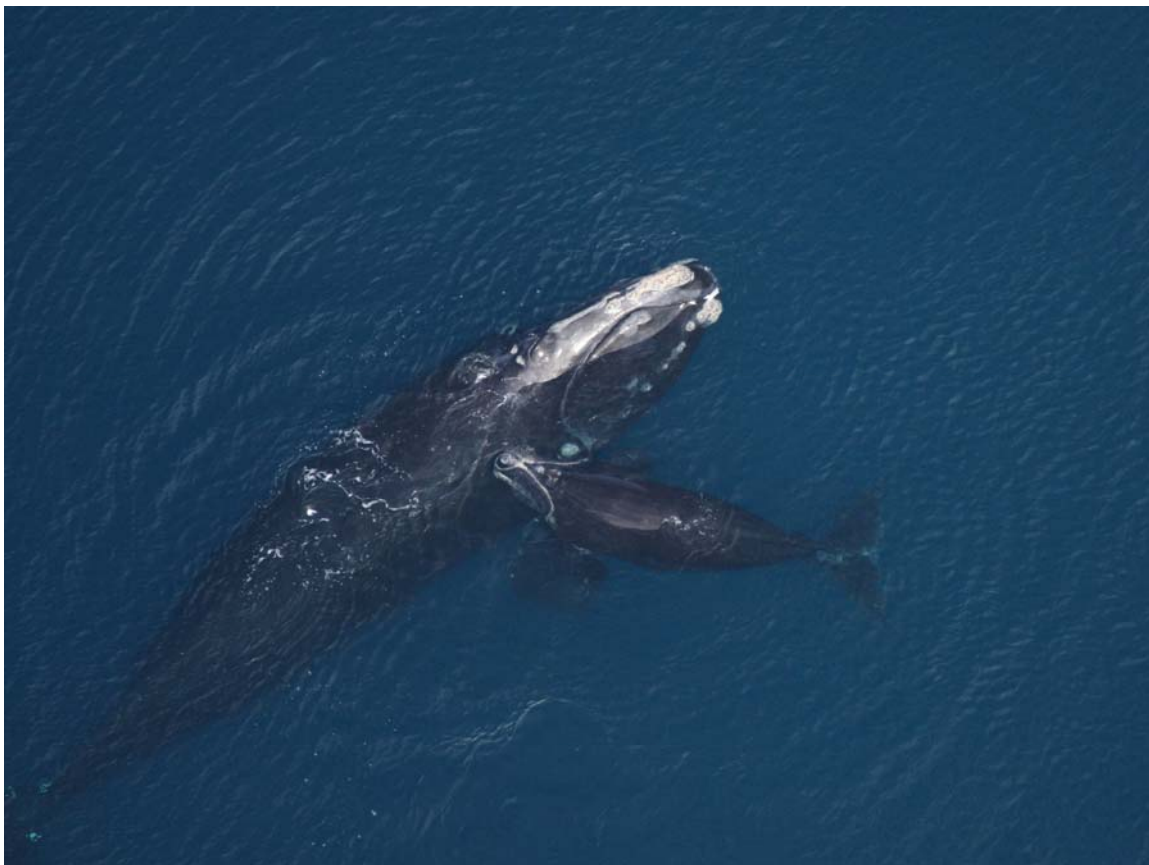


Figure 2. Female Catalog #1308 with her fourth calf, northeast of St. Augustine, Florida, 31 January 2011. On 27 March, this female was found dead on a beach in North Carolina. Her calf has not been sighted since and is presumed dead. (Photo: FWC, under NOAA/NMFS Permit # 594-1759).

Weather was a major factor for surveys in the SEUS this winter. Inclement conditions kept survey planes grounded for more days than is typical, and overall effort from South Carolina to Florida was down about 15% from the 2010 season (though effort in the NEWS survey area was very similar between the two seasons). The total number of right whales sighted and sighting events generated from the South Carolina/Northern Georgia (SCGA) and EWS surveys decreased by approximately 50% from the 2010 season and more closely resembled totals from 2006–2007. Only a handful of right whale sighting events were documented during March 2011. Warmer temperatures likely contributed to the early departure of whales in February. Similarly, cooler temperatures in early December likely led to the larger concentrations of whales sighted in the SEWS survey area and areas south this season. With the observed effects of weather on whale distribution and survey effort, it is not surprising that there would be whale sightings still trickling in from public sources, and that these sightings would include whales not yet identified in the SEUS this winter. One of these whales was #3346 “Kingfisher” who was sighted by a recreational boater off Vero Beach, Florida, in January 2011 (report and photographs relayed by the Marine Resources Council). Now eight years old, #3346 has carried an entanglement on his right flipper for seven years. He has been documented in the SEUS each winter since his birth and these sightings have proven valuable to track his health and entanglement status.

Population models (*e.g.*, Fujiwara and Caswell, 2001) indicate that preventing the death of two female right whales per year could enhance population growth. Taking this into consideration, examining the lives and deaths of individual whales provides valuable insights into the life histories of right whales. To this end, several of the 2010–2011 mothers have notable histories: #1243 “Magic” lost her 2006 calf due to a ship strike outside the St. Johns River entrance and her only known female calf, #2143 “Lucky”, also died as a result of ship-strike injuries; #2029 “Viola” survived a recent life-threatening entanglement in 2007 between giving birth in 2006 and 2011; #2660 “Gannet” has a large scar of unknown origin on her head and is the only known surviving female calf of right whale #1160 “Bolo”; #3010 “Binary” was entangled while caring for her calf this winter; #2420 is rarely seen outside the SEUS and has only two sightings in the right whale catalog outside Florida and Georgia; #3430 is only seven years old (a very young mother) and is the first born calf of #2330 “Celeste”; #3293 “Porcia” was an uncatalogued whale before giving birth in 2008 and is one of only a few females in the catalog to have a pronounced curve to her rostrum referred to as a “roman nose”.

The effort put forth by the network of agencies, organizations, and individuals involved in right whale protection and monitoring during the 2011 calving season, as in previous seasons, was extraordinary. Contributing sources included the three Early Warning System (EWS) aerial surveys conducted by EcoHealth Alliance (formerly Wildlife Trust)/Georgia Department of Natural Resources (GDNR) and the Florida Fish and Wildlife Conservation Commission (FWC), South Carolina/Northern Georgia (SCGA) aerial survey conducted by EcoHealth Alliance, New England Aquarium (NEA), UNCW/Duke USWTR survey teams, biopsy teams (FWC, GDNR,

and NOAA NEFSC), Marineland Right Whale Project, Marine Resources Council (volunteer public sighting network), and opportunistic sightings by U.S. Coast Guard, U.S. Navy, harbor pilots, dredge observers, ship captains, recreational boaters, and other research teams. In total, 302 Whale Alert sightings were disseminated to EWS network participants. EWS and SCGA aerial surveys are funded by one or more of the following: NOAA Fisheries, U.S. Navy, U.S. Coast Guard, U.S. Army Corps of Engineers, and South Carolina State Ports Authority. . The whales included in this article and many others can be researched on the catalog’s website: <http://www.neaq.org/rwcatalog>.

###

Offshore energy. Environmental studies. History repeats itself. In the early and mid-1970s, oil supplies were reduced and motorists queued up in long lines at gas stations. Among the outcomes from the energy crisis was an interest in developing domestic sources and exploring for offshore oil and gas off the eastern U.S. The responsible agency was the Bureau of Land Management, within the Department of the Interior. Environmental studies were required prior to the proposed leasing of tracts. Among these studies was the large-scale, multi-year Cetacean and Turtle Assessment Program (CETAP), 1978–1982, at the University of Rhode Island, Narragansett, Rhode Island, led by Dr. Howard Winn. Three decades later, attention has again turned to offshore energy—this time the focus is on offshore renewable energy (including wind energy). While the responsible oversight agency remains the same, it has undergone several name changes—from the original Bureau of Land Management to the Minerals Management Service to the current Federal Bureau of Offshore Energy Management, Regulation, and Enforcement. What hasn’t changed is that environmental studies are required to produce information relevant to leasing and management decisions for offshore tracts in federal waters. The articles that follow describe two current study programs. (Editor)

AMAPPS: “CETAP on Steroids”

A broad-scale, multi-component, and multi-year comprehensive assessment of marine mammal, marine turtle, and seabird abundance and spatial distribution in U.S. waters off the East Coast was initiated in April 2010—described by the NMFS Chief Scientist at the time as “CETAP on steroids.” This Atlantic Marine Assessment Program for Protected Species (AMAPPS) is the largest effort since the 1979-82 CETAP program, and more comprehensive in nature. It is a joint effort of the National Oceanic and Atmospheric Administration (NOAA), the Bureau of Ocean Energy, Management, Regulation, and Enforcement (BOEMRE), the U.S. Fish and Wildlife Service (USFWS), and the U.S. Navy.

The program includes various level-of-effort and funding options—Tier I through Tier III. The Northeast Fisheries Science Center, Woods Hole, Massachusetts, describes that AMAPPS is envisioned as a five-year \$36.7 million project. Currently, it is operating under the Tier III research plan, but implementation of the plan has been reduced primarily because assets were redirected to the Deepwater Horizon oil spill response in 2010 and because of weather factors. In terms of funding, over the life of the project, the majority of the funding will come from BOEMRE and the Navy, with NOAA, USFWS, and U.S. Geological Survey (USGS) making more modest funding contributions, but significant in-kind contributions of scientific, ship, and aerial personnel and expertise as well as data analysis.

The overarching objective is to provide seasonal, spatially explicit density estimates that incorporate habitat characteristics. The data collected during the shipboard/aerial surveys and tagging data will be incorporated into a comprehensive geospatial database. This will include sighting and telemetry data, survey effort, visual detections, passive acoustic detections, and ancillary habitat data collected during each survey. The goal of these data management systems will be to provide ready access to the collected data for both public users and government agencies in support of environmental assessments. For seabirds, data will also be incorporated into the seabird database presently housed by USGS at the Patuxent Wildlife Research Center.

Partners in the project may have various needs and applications for the information (*e.g.*, NOAA: stock assessments; BOEMRE: offshore energy permitting; Navy: training ranges) but overall, the enhanced data will allow managers to address data gaps essential to supporting conservation initiatives mandated under the National Environmental Policy Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, and Endangered Species Act.

The broad-scale aerial surveys are conducted at an altitude of 600 ft (standard protocol for large-scale multi-species surveys—provides balance between area surveyed and ability to identify species) and 110 knots. While right whales may occasionally be sighted, the primary source of right whale data continues to be the North Atlantic Right Whale Sighting Surveys (NARWSS) off the northeastern coast of the U.S.

For further information: www.nefsc.noaa.gov/psb/AMAPPS includes a project overview as well as the complete April 2010 proposal. The 2010 report that provides sampling detail as well as first-year results is available at:

www.nefsc.noaa.gov/psb/AMAPPS/docs/Final_2010AnnualReportAMAPPS_19Apr2011.pdf.

The NEFSC right whale surveys, including reports, are described at:

www.nefsc.noaa.gov/surveys/NARWSS

New Surveys to Begin South of Martha's Vineyard

Contributed by

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

In February of this year, the Massachusetts Clean Energy Center (MassCEC) and Executive Office of Energy and Environmental Affairs issued a Request for Proposals (RFP) for “field survey work for marine resource characterization,” focusing on North Atlantic right whales and other large endangered whales, sea turtles, and birds. Proposals were submitted in March and reviewed, and the winning contractors were selected. The two proposals selected for the project were a collaborative proposal for the whale and turtle work from New England Aquarium, Provincetown Center for Coastal Studies, Cornell University, and the University of Rhode Island; and one for the bird component from the City University of New York, College of Staten Island. The investigators from both groups will be collaborating and working closely together on the project. At present, final negotiations on the scope of the project and the budget are underway, and the work should commence within the next month or so.

Last year, MassCEC contracted with Applied Science Associates, South Kingstown, Rhode Island, for a study summarizing the existing marine mammal and seabird data for the offshore area south of Martha's Vineyard and Nantucket. This area had not been addressed in the Massachusetts Ocean Plan and was the focus of planning for offshore renewable energy development. Based on that study, the agency concluded that there was a need for data with finer spatial and temporal resolution than was available in the existing data. Based on industry response to a Request for Interest issued by the Bureau of Ocean Energy Management Regulation, and Enforcement (BOEMRE), the study area proposed in the RFP has been reduced, focusing on the waters south of the Vineyard and inshore of the Traffic Separation Scheme (Figure 3).

The project is for one year of relatively intensive surveys, which will include separate aerial surveys for whales and birds. Discussions among the investigators concluded that joint surveys were not feasible because of the substantial differences between the optimal survey altitudes for the two groups. Of course, sightings of all relevant taxa will be shared between the two survey teams. The whale surveys will include high-resolution digital photography that will be analyzed for sea turtles, with any bird photos collected being shared with the avian survey team. There will also be passive acoustic monitoring for right and other whales using Cornell's autonomous recording units (“pop-ups”).

The Massachusetts Clean Energy Center is located in Boston, the website is: www.masscec.com.

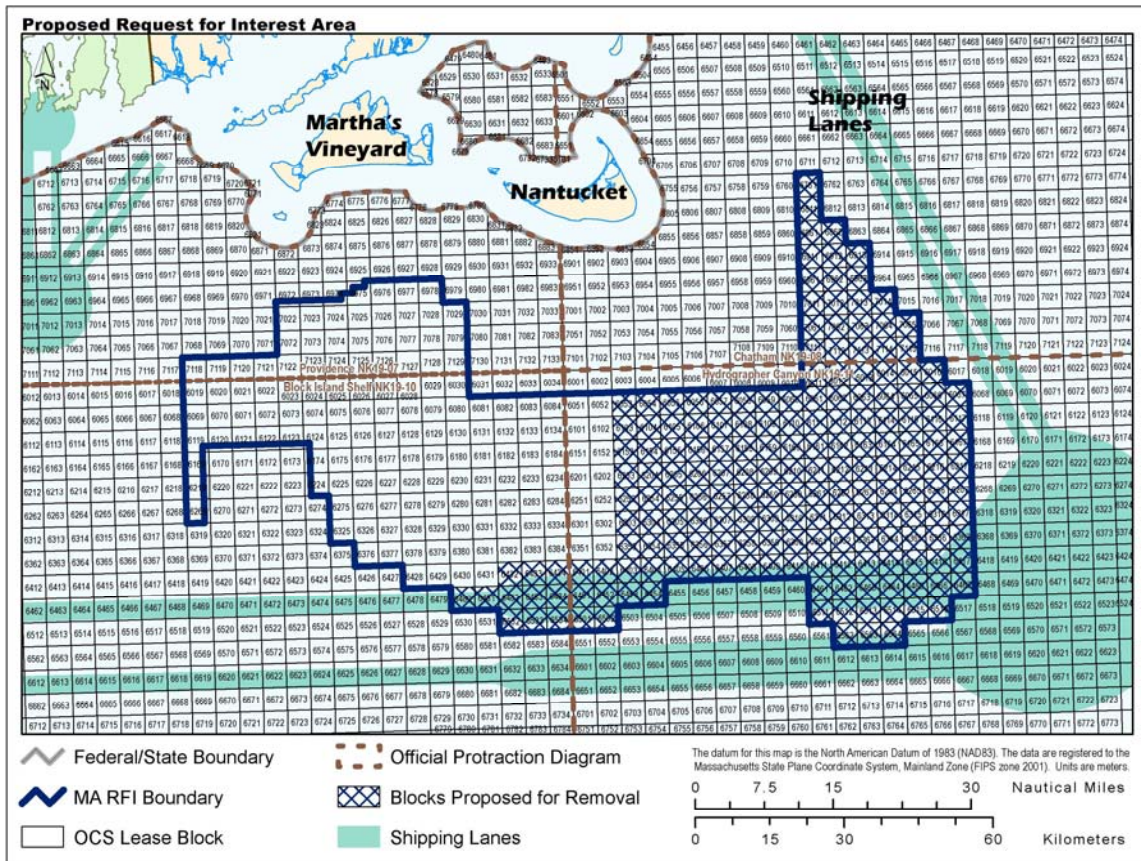


Figure 3. The study area for the upcoming MassCEC survey project south of Martha's Vineyard. The numbered boxes are BOEMRE's OCS lease blocks (3 x 3 statute miles). The bold blue outline shows the original area included in the RFI, and the X's identify the lease blocks to be removed based on industry responses to the RFI.

Pages from History: Illegal Takes of Right Whales

Despite an international agreement, from 1947 to the late 1970s, whalers from the Soviet Union killed probably 200,000 more whales than they officially reported. The Soviets were keeping two sets of books, and the truth came to light after the Cold War in 1993, when the massive illegal whaling during several decades was reported. The illegal catches included more than 3,000 southern right whales, including hundreds from the population off Argentina. In addition, the Soviets killed 393 right whales during a six-year period beginning in 1962 in the southeastern Bering Sea and Gulf of Alaska. Those animals probably comprised the bulk of the existing North Pacific population, which was recently estimated by NMFS biologists at about 30 individuals.

A paper by Phil Clapham and Yulia Ivashchenko in 2009 (A Whale of a Deception. Marine Fisheries Review 71(1): 44-52) describes these events in detail and includes a number of excellent photographs. It is available at spo.nmfs.noaa.gov/mfr711/mfr7114.pdf.

New Website Address for North Atlantic Right Whale Consortium

The domain name for the North Atlantic Right Whale Consortium website has changed. The new site is www.narwc.org. This website is where current and back issues of *Right Whale News* are located. Please update your bookmarks and links.

2010 Stock Assessment Reports Posted

NOAA Fisheries has released the final versions of the 2010 Marine Mammal Stock Assessment Reports (SARs). These are available online at: www.nmfs.noaa.gov/pr/sars/region.htm. Individual species (e.g., N.A. right whale) can be downloaded separately.

New Federal Rules to Protect Whales from Entanglement in Fishing Gear?

The National Marine Fisheries Service is considering new rules that govern the type of gear that can be used in certain zones, as well as what marking must be used to identify gear. NMFS is holding 15 public scoping meetings during July and August. The scoping meetings are an opportunity for public to get involved in the development of conservation measures intended to reduce the risk of serious injury and mortality of large whales due to entanglements in vertical lines. NMFS is committed to publishing a final rule to address vertical line entanglement by 2014.

NMFS is accepting comments from the public on management options. Additionally, NMFS is seeking information on the range of impacts that should be considered for the various options identified to reduce the incidental mortality and serious injury of right, humpback and finback whales incidentally taken in commercial trap/pot and gillnet fisheries.

The meetings begin 11 July in East Machias, Maine, and end on 24 August in Garden City, Georgia. A schedule of meetings and locations, as well as background information can be found at: www.nero.noaa.gov/whaletrp.

Calendar

2-3 November 2011. North Atlantic Right Whale Consortium Annual Meeting, New Bedford Whaling Museum, New Bedford, Massachusetts. The deadline for abstract submission is 2 September 2011. See www.narwc.org for further information.

19 November 2011. Third Annual Right Whale Festival, Jacksonville Beach, Florida, Seawalk Pavilion, 10 a.m. to 4:00 p.m. For more information, see www.rightwhalefestival.org.

27 November-2 December 2011. 19th Biennial Conference on the Biology of Marine Mammals, Tampa Convention Center, Tampa, Florida. See www.marinemammalscience.org for further information.

24-27 April 2012. Florida Marine Mammal Health Conference IV, Mote Marine Laboratory, Sarasota, Florida. For information see: conference.ifas.ufl.edu/marinemammal/index.htm

Scientific Literature and Reports

Baumgartner, M.F. and S.E. Mussoline. 2011. A generalized baleen whale call detection and classification system. *Journal of the Acoustical Society of America* 129(5):2889-2902.

Dudzinski, K.M., S.J. Brown, M. Lammers, K. Lucke, D.A. Mann, P. Simard, C.C. Wall, M.H. Rasmussen, E.E. Magnusdottir, J. Tougaard and N. Eriksen. 2011. Trouble-shooting deployment and recovery options for various stationary passive acoustic monitoring devices in both shallow- and deep-water applications. *Journal of the Acoustical Society of America* 129(1):436-448.

Fasick, J.I., N. Bischoff, S. Brennan, S. Velasquez and G. Andrade. In press. Estimated absorbance spectra of the visual pigments of the North Atlantic right whale (*Eubalaena glacialis*). *Marine Mammal Science* 27: no. doi.10.1111/j. 1748-7692.2011.00467.x

Hinch, P.R. and E.M. De Santo. 2011. Factors to consider in evaluating the management and conservation effectiveness of a whale sanctuary to protect and conserve the North Atlantic right whale (*Eubalaena glacialis*). *Marine Policy* 35(2):163-180.

Laqueux, K.M., M.A. Zani, A.R. Knowlton and S.D. Kraus. 2011. Response by vessel operators to protection measures for right whales *Eubalaena glacialis* in the southeast US calving ground. *Endangered Species Research* 14:69-77.

Marques, T.A., L. Munger, L. Thomas, S. Wiggins and J.A. Hildebrand. 2011. Estimating North Pacific right whale, *Eubalaena japonica*, density using passive acoustic cue counting. *Endangered Species Research* 13(3):163-172.

Mellinger, D.K., S.L. Nieukirk, K. Klinck, H. Klinck, R.P.Dziak, P.J. Clapham and B. Brandsdottir. Confirmation of right whales near a nineteenth-century whaling ground east of southern Greenland. *Biology letters* 7 (3):411-413.

Noren, D.P. and J.A. Mocklin. In press. Review of cetacean biopsy techniques: factors contributing to successful sample collection and physiological and behavioral impacts. *Marine Mammal Science* 27: no. doi.10.1111/j. 1748-7692.2011.00469.x

Parks, S.E., M.M. Johnson, D.D. Nowacek and P.L. Tyack. 2011. Individual right whales call louder in increased environmental noise. *Biology Letters* 7(1):33-35.

Roman, J. 2011. *Listed: Dispatches from America's Endangered Species Act*. Harvard University Press, Cambridge, Massachusetts. 368 pp.

Tobe, S.S., A.C. Kitchener and A.M.T. Linacre. 2010. Reconstructing mammalian phylogenies: a detailed comparison of the cytochrome b and cytochrome oxidase subunit I mitochondrial genes. *PlosONE* 5(1).

Wade, P.R., A. Kennedy, R. DeLuc, J. Barlow, J. Carretta, K. Shelden, W. Perryman, R. Pitman, K. Robertson, B. Rone, J.C. Salinas, A. Zerbini, R.L. Brownell, Jr., and P.J. Clapham. 2011. The world's smallest whale population? *Biology Letters* 7(1):83-85

Wade, P.R., A. De Robertis, K.R. Hough, A. Kennedy and R. DeLuc. 2011. Rare detections of North Pacific right whales in the Gulf of Alaska, with observations on their potential prey. *Endangered Species Research* 13(2):99-109

Wilson, C. 2011. The rocky road from research to operations for satellite ocean-colour data in fishery management. *ICES Journal of Marine Science* 68(\$):677-686.

Zamorano-Abramson, J., J. Gibbons and J. Capella. 2010. Diversity and summer distribution of cetaceans in inlet waters of northern Aisen, Chile. *Anales del Instituto de la Patagonia* 38(1):151-157

Right Whale News

Right Whale News is a publication of Associated Scientists at Woods Hole. It is disseminated online through the courtesy of the North Atlantic Right Whale Consortium. The Editor is Jim Hain. The editorial board consists of Julie Albert, Mark Dittrick, Tim Frasier, Robert Kenney, Scott Kraus, Bill McWeeny, Hans Neuhauser, and Melissa Patrician.

Current and back issues of *Right Whale News* published between 1994 and 2011 are available at the North Atlantic Right Whale Consortium website, www.narwc.org—select the *Right Whale News* tab.

To submit ideas, article topics, and comments, contact Editor Jim Hain at jhain@earthlink.net and place “RWN Editorial” in the subject line. To subscribe, contact Heather Pettis at hpettis@neaq.org and place “RWN Subscribe” in the subject line.

Citing *Right Whale News*: The requested format for citations from *Right Whale News* is: Right Whale News Volume(number): page(s). Alternatively, a less formal citation may simply use month and year of issue.