

RIGHT WHALE NEWS

A Publication of the Georgia Environmental Policy Institute, Athens, Georgia

Volume 14 Number 4

November 2007

72 Dead Southern Right Whales Patagonian Southern Right Whale Mortality Investigation

*William A. McLellan
University of North Carolina Wilmington*

During the austral spring of September into early October there has been an elevated level of southern right whale strandings on Peninsula Valdes, Argentina. While there were over 1,000 cows and calves identified in the region (a new record) there was high mortality of approximately 8-meter long calves in the southern Golfo Nuevo where red and green algal blooms have been detected. The regional stranding response team informed the Argentine government of the increased mortality and word made it north to the United States.

With NOAA Fisheries support, and in collaboration with Program to Monitor the Health of Southern Right Whales/ Instituto de Conservación de Ballenas (ICB), a team from the United States, including Katie Touhey (IFAW & CCSN), Michael Moore (WHOI) and William McLellan (UNCW), traveled to Peninsula Valdes to assist with the stranding investigation. The team arrived in Puerto Madryn on October 31 and operated from there through November 9. Working in conjunction with the regional stranding team, including Nadia Mohamed, Mariano Sironi, Marcela Uhart, Juan Emilio Sala, Marcos Ricciardi and Alejandro Fernandez Ajó we examined eleven carcasses: nine southern right whales (*Eubalaena australis*), one sei whale (*Balaenoptera borealis*), and one kelp gull (*Gariota cocinera*) associated with a right whale carcass. Most carcasses were condition code late three (organs intact but not of histological quality) or early code four (most organs dissolved). The detail and extent of the necropsies varied from minimal (dissecting for colon contents only) to thorough necropsies (examination of any/all identifiable organs).

When we left Argentina the total number of identified right whale carcasses was at 72 and still more reports needed to be investigated. The notable findings from gross observations included large numbers of kelp gull peck craters that covered nearly the entire back of many of the calves. Deep in these craters the blubber and sub-dermal tissues were inflamed and had marked red staining localized just below the surface wounds. Histological sections were collected from these tissues and could prove valuable in interpreting skin lesions in North Atlantic right whales. Samples collected from colon, urinary bladder and some stomachs are being sub-sampled and sent out to many labs in the U.S. to conduct biotoxin analyses. The most striking comment from the U.S. team

was the shock of walking down a beach with two to ten dead right whale carcasses lying at the high tide line.

***Acknowledgments:** We are grateful to Dr. Teri Rowles of NOAA Fisheries for support to undertake this study. We also thank the Southern Right Whale Health Monitoring Program at Península Valdés conducted by Instituto de Conservación de Ballenas / Whale Conservation Institute, Wildlife Conservation Society and Fundación Patagonia Natural, specifically, Nadia Mohamed, Mariano Sironi, Marcela Uhart, Vicky Rowntree, Roxana Schteinbarg, Diego Taboada, Juan Emilio Sala, Marcos Ricciardi and Alejandro Fernandez Ajó.*

Roseway Basin Now an “Area to be Avoided”

On October 7, 2007, the International Maritime Organization (IMO) adopted Canada’s proposal to designate 1,780 square kilometers of Roseway Basin as an “Area to be Avoided” by ships 300 gross tons or more in size, solely in transit, from June 1 to December 31. The measure goes into effect May 1, 2008.

Roseway Basin is located about 30 nautical miles south of Cape Sable Island, southeast Nova Scotia. The area is frequented by anywhere from 10 to 30 percent of the right whale population in the summer and fall; most of the animals are “socializing” and generally oblivious to ship traffic. The Basin also lies in the shipping routes between U.S. and Canadian ports and ports in Europe.

Canada’s proposal was submitted to the IMO by Transport Canada. The U.S. delegation to the IMO also supported the designation. Moira Brown, a senior scientist at the New England Aquarium and the Canadian Whale Institute, has been at the forefront (the self-described “professional pest”) of the Roseway initiative. She collaborated with Bob Kenney at the University of Rhode Island and Christopher Taggart and Angelia Vanderlaan at Dalhousie University. Their analyses of shipping routes and right whale sightings in the area indicated that by creating an Area to be Avoided, the risk of ship collisions with right whales could be significantly reduced with minimal disruption to ship routes. Moe, of course, is the first to acknowledge the leadership of industry, government and scientists in making the designation a reality. Among many deserving accolades are Irving Oil (for developing the solution of going around the Basin rather than going slow), Lindy Johnson of NOAA (for getting the U.S. to support the designation) and Angelia Vanderlaan (for data analyses). Moe played a similar role in the IMO-endorsed shifting of shipping lanes implemented in the Bay of Fundy in 2003.

The IMO designation is the third restriction to help move ships away from heavily-used habitats for right whales; the first moved shipping lanes in the mouth of the Bay of Fundy; earlier this year, traffic routes into and out of Boston were also moved to protect whales including right whales.

Momentum for the Area to be Avoided designation accelerated when scientists determined that a ship-struck dead right whale found in 2006 near Yarmouth likely came from Roseway Basin.

White House Continues to Block Speed Rules

The President's Office of Management and Budget continues to review the National Marine Fisheries Service Final Rule to slow vessels to ten knots when approaching east coast ports when right whales are present (see the August 2007 issue of *Right Whale News*).

Representatives of the Defenders of Wildlife, Ocean Conservancy, International Fund for Animal Welfare, the Humane Society of the US and the Whale and Dolphin Conservation Society have proposed that the political process has become an even more of a threat to right whales than do ship strikes and entanglements. Specifically, they say that the Bush Administration's Executive Order 13422 has shifted the regulatory process so that the public is largely eliminated from the final decisions and for endangered species, cost/benefit analyses are emphasized and the influence of science is reduced.

Joint Review Panel Rejects Massive Coastal Basalt Quarry On Nova Scotia's Digby Neck

Mark Dittrick

Late-breaking news: On November 20, Nova Scotia's Environment and Labor Minister, Mark Parent, agreed with the panel's conclusion and has rejected the quarry proposal, saying, "I will not approve the project." A brief Canadian Press piece on the decision noted: "The panel expressed concern about the possible impact on marine life in the area, including endangered right whales in the Bay of Fundy."

Large bulk carriers will not be traveling through significant North Atlantic right whale habitat if the governments of Nova Scotia and Canada listen to the recommendation of a blue-ribbon assessment panel that plans for a large coastal quarry on the Bay of Fundy side of Nova Scotia's Digby Neck should not be allowed to go ahead.

The proponent of the Whites Point Quarry and Marine Terminal Project, Bilcon of Nova Scotia, a subsidiary of Clayton Block and Sand of Lakewood, New Jersey, wants to extract 2 to 2.5 million tons of basalt aggregate from the project site each year and transport approximately 40,000 tons per week by ship to New Jersey for road building and concrete manufacture. The life span of the project is estimated at fifty years.

The panel's report was perhaps the most unequivocal rejection of a project in the history of environmental assessment in Canada. Historically, when an assessment panel makes

an extremely rare recommendation that a project be rejected, it provides a list of conditions that should be met if the project is allowed to continue in spite of the recommendation to reject. The Whites Point Quarry panel offered no such fallback recommendations.

The full report can be seen at:

<http://www.gov.ns.ca/enla/ea/whitespointquarry/WhitesPointQuarryFinalReport.pdf>.

The project's potential negative impact on the well-being of the North Atlantic right whale played a significant role in the panel's recommendation to reject it.

Working at the request of Sierra Club of Canada, Chris Taggart of the Oceanography Department of Dalhousie University weighed in with comments on the project proponent's EIS and testified during two weeks of hearings last June. Mark Dittrick, Sierra's Atlantic Canada Chapter conservation chair and spokesperson for Sierra U.S. and Sierra Canada's North Atlantic Right Whale BEACON project (see *Right Whale News*, May 2006), also submitted comments on the EIS and presented at the hearings.

The panel's lead recommendation reads: "The panel recommends that the Minister of Environment and Labour (Nova Scotia) reject the proposal made by Bilcon of Nova Scotia to create the Whites Point Quarry and Marine Terminal and recommends to the Government of Canada that the Project is likely to cause significant adverse environmental effects that, in the opinion of the Panel, cannot be justified in the circumstances."

With respect to right whales, the panel said, in part, "Quarry activity and its associated shipping would potentially affect several marine species listed under the Species at Risk Act (SARA)...These include...Endangered Species (Northern right whales, blue whales, leatherback turtles and the inner Bay of Fundy [iBoF] salmon. Several whale species aggregate along the length of Digby Neck and Islands. The quarry site is near concentrations of humpbacks that attract whale watchers. The proposed shipping route transits the area frequented by the northern right whale but avoids the Right Whale Conservation Area. Ship movements and collisions, as well as sonic disturbance from blasting, would pose the most important threats to whales."

The panel also said, "A Sierra Club [of Canada] submission, drawing on widely accepted models created by DFO scientists, showed that particle trajectory in the Bay of Fundy was highly variable and very sensitive to timing, depth and the point at which the particle entered the system. One alternative showed sediment being carried from the site, presumably along with associated residual chemicals, to the nearby whale feeding habitat, where uptake by plants and eventual accumulation into the local food chain, including whales, could be possible....As noted by DFO, 'the increased ship traffic due to the proposed activity, and the proposed route of these vessels, will result in an increase in the probability of vessel/whale interaction along the proposed route'....The Panel acknowledges that while the probability of a whale/project vessel interaction may be low

in comparison with existing or future non-project vessel traffic, an unknown level of risk would be added by the Project."

The panel also recommended that the province begin the process of developing a province-wide coastal management plan.

The Whites Point Quarry Panel members were Robert Fournier (Chair), who holds a Ph.D. in Oceanography, Jill Grant, whose Ph.D. is in Regional Planning, and Gunter Muecke, who holds a D.Phil. in Geochemistry. All three are affiliated with Dalhousie University in Halifax.

The panel's report was delivered to the governments of Nova Scotia and Canada on October 22. Both governments have 60 days from that date to accept or reject all or some of the recommendations.

(Chris Taggart's PowerPoint presentation at the Whites Point Quarry hearings can be seen at: <http://www.ceaa.gc.ca/010/0001/0001/0023/001/WP-1784-018.pdf>. Mark Dittrick's PowerPoint presentation can be seen at: <http://www.ceaa.gc.ca/010/0001/0001/0023/001/WP-1784-045.pdf>. Transcripts for each hearing day's proceedings can be seen at: http://www.ceaa.gc.ca/010/0001/0001/0023/hearings_e.htm#1811. Chris Taggart presented on Day 4 and Mark Dittrick presented on Day 11.)

New Take Reduction Rules: DAMs and SAMs to be Phased Out

As a result of litigation brought by the Humane Society of the U.S. and the Ocean Conservancy, the National Marine Fisheries Service has issued Final Rules on the Atlantic Large Whale Take Reduction Plan (*Federal Register* 72 (193): 57104 -57194; October 5, 2007).

The Final Rules contain a number of new requirements including (1) the use of a 600-pound weak link on lobster gear; (2) the use of broad-based gear modifications, including a requirement to use sinking or neutrally buoyant groundline in many areas, with much of coastal Maine exempted; (3) the elimination of the Dynamic Area Management program as of April 7, 2008; (4) the expansion of the Seasonal Area Management program starting April 7, 2008, followed by its elimination on October 6, 2008; and (5) the use of a 1,100-pound weak link in gillnet gear.

Summarizing the new Rules has not been undertaken here, and interested parties are urged to review the *FR* notice referenced above for the complete version.

Navy Revises Search for Sonar Training Site Off the Southeast U.S. Coast

The U.S. Navy is looking for a site off the southeast coast to use for anti-submarine warfare training. The Navy will select an area about 30 to 50 nautical miles offshore, about 500 square nautical miles in size, and in water depths between 120 and 900 feet. The site would be instrumented with undersea cables and sensor nodes. Training in the detection of quiet diesel submarines typically would involve an individual unit or up to three vessels and two aircraft using the range at any one time.

In 2005, the Navy released a Draft Overseas Environmental Impact Statement (DOEIS) and Draft Environmental Impact Statement (DEIS) on the proposal, in which three potential sites were identified: off NE Virginia, SE North Carolina and NE Florida. The Navy has now determined that the DOEIS and DEIS should be revised and reissued, incorporating some of the suggestions received during the first round of public comment and to include a fourth potential site off Charleston, South Carolina. Apparently, the Navy's preferred location is off Camp Lejeune, NC, but that may change as a result of the public comment period. The comment period for the revised DOEIS and DEIS ended October 22. For further information, contact USWTR DOEIS/DEIS Project Manager, Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508-1278; tel. 757-322-4398; fax 757-322-4894.

Vampire Facts and Daylight Truths

Jim Hain

The Undead ... that refuse to die. Or rather, aren't allowed to die. Press releases, websites, and outreach materials continue to describe a right whale population of "350," "only about 300," or similar ... as well as a population "threatened with extinction" ... with some materials going so far as to affix an end-date. These descriptions have been put forward by various advocacy and education groups, and ... the National Marine Fisheries Service.

In contrast, the Right Whale Report at the November 2007 Annual North Atlantic Right Whale Consortium meeting described a population best estimate of 393, and speakers provided evidence of a modest population growth rate. In view of changing and updated information, we (the right whale community) do ourselves a disservice by putting forward outdated and incorrect information. Truth and credibility must underlie all of our efforts.

Truth, of course, is always important. Why is it important in this instance? Because it changes the management approach. Rather than managing for a declining population and a species doomed to extinction, instead, management can be for a growing (albeit slowly) population where there are real prospects for recovery. Rather than doom-and-gloom, there can now be cautious optimism. Rather than government and donors throwing

dollars into a sewer of despair, the dollars can be seen as contributing to a promising and positive outcome. It is time to drive in the stake and open the curtains.

Overhaul of the Southeast Implementation Team: An Opportunity

Jim Hain

The Endangered Species Act authorizes the Secretary of Commerce to establish teams to, among other things, review recovery activities and provide recommendations on how to improve such activities. Teams can also provide an external check-and-balance on agency performance. For the right whale, two such teams were created in the early 1990s, one for the northeast (the Northeast Implementation Team or NEIT) and one for the southeast (SEIT). (Canada also created a right whale recovery team.) However, the NEIT has not met in over two years. On the other hand, the SEIT has conducted twice-yearly meetings, information exchange has been valuable, and there has been good progress on a number of fronts, including education and outreach and coordination of Early Warning System initiatives.

Recently, the NMFS Southeast Regional Office (NMFS/SERO) initiated an evaluation of the effectiveness of the SEIT, following up on Task 5.3 in the *Recovery Plan for the North Atlantic Right Whale (Eubalaena glacialis) Revision* (NMFS, 2005). At the May 3, 2007, SEIT meeting, participants and stakeholders provided comments and input. There were many positive responses. At the same time, concerns were expressed about the NMFS management of the Team, budgetary transparency, accountability and communication from NMFS, and the lack of participatory decision-making. It was also suggested that a technical advisory committee be considered.

At the October 25, 2007, SEIT meeting, Barb Zoodsma, NMFS/SERO, presented a “Blueprint for Moving Forward.” NMFS/SERO plans to appoint a “Framework Committee” of five to eight members. The role of the Framing Committee will recommend people to be added to and subtracted from the SEIT. The NMFS/SERO will decide who serves and for how long. The “Goals” for the new SEIT were defined as: (1) Early Warning System administration; (2) education and outreach; (3) passive acoustics; (4) aerial survey approaches to management; and (5) emerging issues. The new arrangement will be given a trial run of a year.

It is too early to say what effects this approach will have. At issue is the close control of the Team and recovery efforts by NMFS/SERO versus a more inclusive and deliberative approach. With this overhaul and transformation, will the effectiveness and efficiency of right whale recovery initiatives be increased? A standard measure of agency performance is whether or not there has been a reasonable connection between the information/input provided and the outcome/decision resulting. While the SEIT is a useful model in many ways, stakeholder input suggests that there is room for improvement. At this juncture, the NMFS/SERO has both a responsibility and an opportunity.

A Long-Distance Swimmer with a Mind of Her Own

Normally, right whale cows give birth to their young off the southeast U.S. coast between December and March. On June 2, 2007, right whale female #2360 was sighted with a calf in the Great South Channel, 60 nautical miles east of Cape Cod. The small size of the calf and sightings of #2360 without calf in March and April off Cape Cod indicated that it had been born in northern waters. This calving in the northeast U.S. was reported by Melissa Patrician of the Woods Hole Oceanographic Institution, in a presentation at the North Atlantic Right Whale Consortium meeting on November 7. But there is more to the story.

Photos provided by Julie Albert of the Marine Resources Council showed that six weeks later, on July 17, this mother/calf pair had swum to 15 nautical miles southeast of Mayport, Florida. Two months later, New England Aquarium researchers sighted the mother/calf pair in Canada in the Bay of Fundy. But wait, there is still more. Female #2360 was also sighted in the 2003-04 southeast U.S. calving season with her first calf; again she displayed unusual behavior. On January 25, 2004, she was sighted by the Marine Resource Council's volunteer sighting network off Indialantic, Florida, traveling south; and shortly thereafter, off the Port of Miami. She then took her calf to the Gulf of Mexico, where the pair was sighted off Panama City, Florida in April.

She is not alone, as there have been other instances of unusual cow/calf travels. One was a satellite-tagged individual, # 1140 and calf, reported by Mate *et al.* (1997). This pair made a round trip from the Bay of Fundy to New Jersey in August/September 1990.

A Right Whale in Iowa: Who knew?

There is a right whale in Iowa. Actually, it's a right whale skeleton at the University of Iowa's Museum of Natural History, near the center of the campus. The website (www.uiowa.edu/~nathist) describes how the whale, taken in February 1898 off the Outer Banks of North Carolina, came to exist as a skeleton displayed in a Midwestern museum. Once at the website, go to Exhibits, Mammal Hall, and then Atlantic Right Whale.

Attention, Whaling Logbook Readers

Are you in the habit of reading the logbooks of whaling ships? If so, please keep your eye out for references to right whales in the North Atlantic. Of particular interest are entries that include references to killer whales, either in the entry or on the same page. If you find one, please notify Michael Dyer, Librarian at the New Bedford Whaling Museum Research Library, at 508-717-6837 or mdyer@whalingmuseum.org

NMFS Proposes North Pacific Right Whale As Separate Species

The National Marine Fisheries Service has completed a status review of the Northern Right Whale and has determined that the right whale in the North Pacific Ocean is a separate and distinct species (*Eubalaena japonica*) from right whales in the North Atlantic (*E. glacialis*) and the southern hemisphere (*E. australis*). The agency also determined that the North Pacific right whale is in danger of extinction throughout its range. Two specific areas off the coast of Alaska are proposed as Critical Habitat for the species. The areas in the Gulf of Alaska and the Bering Sea total approximately 36,800 square miles.

Public comment on the proposed rule is being sought with a deadline of December 28. Details are provided in the *Federal Register*, 72 (2008): 61089-61105).

2008 Right Whale Budget

While the Administration had asked for an appropriation of \$8.9 million for right whale recovery initiatives for Fiscal Year 2008, disagreements between Congress and the Administration over funding for the U.S. Department of Commerce has resulted in a Continuing Resolution – providing funding for right whale recovery in FY 2008 at the same level as approved for FY07: \$7.78 million. The FY07 budget was also subject to a Continuing Resolution. Funding over the last ten years looks like this:

Fiscal Year	Appropriation in Millions of Dollars
1999	\$1.0
2000	\$4.1
2001	\$5.0
2002	\$7.0
2003	\$10.0
2004	\$12.45
2005	\$11.83
2006	\$7.78
2007	\$7.78
2008	\$7.78 - estimate

As reported in the May 2007 issue of *RWN*, an increasing percentage of the funds have been used for NMFS salaries (33% in FY06, 39% in FY07).

Andrews Island May Be Used for Right Whale Necropsies

Initially, the Savannah District of the U.S. Army Corps of Engineers refused to allow the Andrews Island spoil disposal area in Brunswick Harbor, Georgia, to be used for right whale necropsies, citing water quality issues and the need for fill dirt (see *Right Whale News*, February 2007: 2). These issues now appear to have been resolved. A few others, such as compliance with the state's Coastal Marshlands Protection Act, remain to be resolved.

2007 Heroes of the Sea Memorial Award

The Wildlife Trust Heroes of the Sea Memorial Award honors biologists Emily Argo, Jackie Ciano, Michael Newcomer and their pilot Tom Hinds who died in a plane crash while conducting right whale aerial surveys in 2003 (see *Right Whale News*, February 2003:1). The Trust is proud to announce that Giselle Muschett is the 2007 recipient of the award, which is accompanied by a gift of \$5,000 to assist with research expenses. Giselle is a graduate student conducting a study of Antillean manatees in Panama. The goals of her project include documenting the abundance and habitat use of manatees in the Lake Gatun region of Panama in the face of Panama Canal expansion. Obtaining baseline data in this region will be critical in assisting with future conservation initiatives and assessment of habitat changes.

Donations to the Heroes of the Sea Memorial Award endowment may be made to Wildlife Trust, 460 West 34th Street, 17th Floor, New York, NY 10001-2320; tel. 212-380-4460.

Secretary of Commerce Recognizes Ship Strike Strategy Team

On November 15, the Secretary of Commerce presented the 2007 Department of Commerce Gold and Silver Medal Awards at a ceremony in Washington, DC. The medals are the two highest honor awards that can be given by the Secretary of Commerce. Four of the silver medals were given to NMFS staff members, Lindy Johnson (Office of General Counsel), Richard Merrick (Protected Species Branch), Gregory Silber (Office of Protected Resources) and Barbara Zoodsma (Southeast Regional Office), for leadership in developing a ship strike strategy to recover North Atlantic right whales in partnership with the U.S. Coast Guard and International Maritime Organization.

Whale Port: A History of Tuckanucket

A Book Review by Jim Hain

Foster, Mark. 2007. *Whale Port: A History of Tuckanucket*. Houghton Mifflin, Boston. 64 pp.

This is a gem of a book, written in the style of David Macaulay and Jan Adkins. It provides an engaging and accurate description of a New England whaling village and an evolving history that begins in 1683 and carries through to the present. The illustrations are excellent. The book makes a fine addition to a whales and whaling library, and/or an excellent Christmas gift. And yes, right whales are included at several points.

NMFS Proposes New Research Permit Requirements

In a *Federal Register* notice (*FR* 72 (177): 52339-52343; September 13, 2007), the National Marine Fisheries Service provided Advance Notice of Proposed Rulemaking for scientific research permits on marine mammals. The agency is seeking to streamline and clarify general permitting requirements and requirements for scientific research and enhancement permits. For additional information, see the *FR* notice referenced above and www.nmfs.noaa.gov/pr/permits/mmpa_anpr.htm. You can also contact Mike Payne at 301-713-2289 or Michael.Payne@noaa.gov. The written comment period has been extended to December 13.

North Atlantic Right Whale Consortium Meeting

Business Meeting

The Consortium business meeting was held on November 7 at the New Bedford Whaling Museum in New Bedford, Massachusetts.

Participants elected Doug Nowacek to be Consortium vice chair, who will succeed Moe Brown, who in turn will become chair starting January 1, 2008. Charles “Stormy” Mayo, Clay George and Michael Moore were elected to the board for three-year terms. For 2008, the officers and board of the Consortium are:

Officers

Moira Brown (New England Aquarium and Canadian Whale Institute), chair
Doug Nowacek (Florida State University), vice chair
Heather Pettis (New England Aquarium), secretary

Board

Timothy Frasier (Trent University)

Clay George (Georgia Department of Natural Resources)
Philip Hamilton (New England Aquarium)
Robert Kenney (University of Rhode Island)
Scott Kraus (New England Aquarium)
Charles “Stormy” Mayo (Provincetown Center for Coastal Studies)
William McLellan (University of North Carolina – Wilmington)
Michael Moore (Woods Hole Oceanographic Institution)
Laurie Murison (Grand Manan Whale and Seabird Research Station)
Regina Asmutis Silva (Whale and Dolphin Conservation Society)
Jamison Smith (National Marine Fisheries Service)

Following the meeting, the date for the 2008 meeting of the Consortium was tentatively selected for November 5-6, at the New Bedford Whaling Museum in New Bedford, Massachusetts.

Papers, authors and presenters (in bold)

Note: for author affiliation and contact information, contact Heather Pettis, the Consortium Secretary, at hpettis@neaq.org

POPULATION BIOLOGY AND DISTRIBUTION

2007 North Atlantic Right Whale Report Card. M. Moore and **M. Brown**. (*Note: this peer-reviewed report will be posted on the Consortium web site, www.rightwhaleweb.org. When it is, it can be cited.*)

North Atlantic Right Whale Catalog Update. **P.K. Hamilton**

Optimism in the Face of Mortality: An Updated Viability Analysis of the North Atlantic Right Whale. **R. Pace**

Forecasting Right Whale Distributions from Satellite and Oceanographic Data Using Dynamical Models. **A. Pershing**, N. Record, B. Monger, D. Pendleton, C. Mayo, M. Brown and R. Kenney.

Predictive Modeling of North Atlantic Right Whale (*Eubalaena glacialis*) Calving Habitat in the North Atlantic. **C.P. Good**; C. Taylor; M. Zani and L.I. Ward-Geiger.

Evidence of the First Known Western North Atlantic Right Whale Calf (*Eubalaena glacialis*) Born Outside of the Southeastern U.S. Calving Grounds. **M.R. Patrician**; I. S. Biedron ; H.C. Esch; F.W. Wenzel; L.A. Hall; A.H. Glass and M.F. Baumgartner.

Right Whale Sightings in the Mid-Atlantic and Southeast Atlantic Bight from 2001-2007. C.R. Taylor; W.A. McLellan; A.H. Glass; M. Zani; and **D.A. Pabst**.

Northern Right Whales (*Eubalaena glacialis*) in the Northeast Gulf of Maine: Are They Found within State Waters? **R.Z. Klyver**, S.K. Todd, J.K. Allen, T.A. Stephenson and E. Summers.

Should I Stay or Should I Go? Estimating Movement Forces in NW Atlantic Right Whales with Hierarchical Bayes. **R.S. Schick**; J.S. Clark; B.R. Mate; M.F. Baumgartner; C.S. Slay; S.D. Kraus; P.N. Halpin; A.J. Read; D.L. Urban; F.E. Werner and B.D. Best.

Biogeochemical Analysis of Baleen Fragments Discovered within Viking Era Ships. **N.S. Lysiak**; B.A. McLeod; T.R. Frasier; C.R. Hammerschmidt; A.P. McNichol; R. Löchen and M.J. Moore.

Comparing and Quantifying Stereotyped Dive Profiles to Explore Right Whale Behavior. **D. Nowacek**; A. McGregor; M. Johnson and P. Tyack.

ACOUSTICS

Right Whale Mother-Calf Acoustic Communication in the Bay of Fundy. **S. Parks**; M. Johnson; W. Lange; M. Moore; D. Nowacek and P. Tyack.

Acoustic Behavior of Individual North Atlantic Right Whales in Cape Cod Bay. N. Jaquet; T. Webster; S.M. Van Parijs and **D. Risch**.

EDUCATION

The North Atlantic Right Whale Consortium Education Team - Year One in Review. **R. Asmutis-Silvia**; A. Dimonti; M. Dittrick; P. Gerrior; P. Hamilton; J. Hathaway; A. Knowlton; S. Kraus; W. McWeeny; M. Moore; K. Thoms; A. Smrcina; L. Ward and M. Williamson.

The CALVIN Project: Two Years Into It. **T. Lameyer**; **M. Olivari**; T. Forbes; M. Houghton; C. Koos; W.T. McWeeny; E. Motycka and B. Olivari. (*Note: The students received a standing ovation for the second year in a row!*)

GENETICS

The North Atlantic Right Whale Family Tree: Evaluating the Presence of Mating Structure. **R.M. Gillett**; T.R. Frasier; P.K. Hamilton; S.D. Kraus and B.N. White.

Genetic Profiling and Parentage Analyses through 2006. **T.R. Frasier**; R.M. Gillett; B.A. McLeod; P.K. Hamilton; M.W. Brown; S.D. Kraus and B.N. White.

HEALTH AND PHYSIOLOGY

The Cytotoxicity and Genotoxicity of Hexavalent Chromium in North Atlantic Right Whale (*Eubalaena glacialis*) Cells. J.P. Wise, Sr.; S.S. Wise; S. Kraus; F. Shaffiey; M. Grau; **T. Li Chen**; C. Perkins; W.D. Thompson; T. Zheng; Y. Zhang; T. Romano and T. O'Hara.

A Wax Ester Digester? Comparing the Lipid Content and Composition of Right Whale Fecal Material to Those of Their Copepod Prey. **Z.T. Swaim**; A.J. Westgate; H.N. Koopman; R.M. Rolland and S.D. Kraus.

Visual Assessment of North Atlantic Right Whale (*Eubalaena glacialis*) Health and its Relationship to Reproduction. **H.M. Pettis**, R.M. Rolland, P.K. Hamilton, A.R. Knowlton and S.D. Kraus.

Visual Assessment of Health and Human Impacts for *Eubalaena australis* at the Auckland Islands. S.D. Kraus and **R.M. Rolland**.

MANAGEMENT

Atlantic Large Whale Take Reduction Plan (ALWTRP): Update on 2007 Activities. **D. Borggaard**.

Political Process Poses Greatest Risk to Recovery of Right Whales. **A. Hawley**; S. Weaver; J. Hathaway; S. Young; V. Cornish and R. Asmutis-Silvia.

Science-based Conservation: Moving Ships in Atlantic Canadian Waters to Protect Right Whales (*Eubalaena glacialis*). **M.W. Brown** and A. Vanderlaan.

HUMAN IMPACTS

Comparative Quantitative Estimates of Decreased Encounter Probabilities in the Right Whale Habitat through Shifting of Vessel Traffic. **J.J. Corbett**, J. Callahan, T. Callahan and J. Firestone.

Evaluating Speed Restrictions from a Biomechanical Perspective. **R. Campbell-Malone**; K.C. Baldwin; J.C. DeCew; J.J. Raymond; M.J. Moore and I. Tsukrov.

Predicting Lethality from Gear and Vessel Trauma in North Atlantic Right Whales (*Eubalaena glacialis*). M.J. Moore; S. Barco; R. Bowman; C. Gutiérrez; C.T. Harry; **A.R. Knowlton**; S. Landry; E. Maloney; W.A. McLellan; D.S. Rotstein and K.M. Touhey.

Systematic Collection and Analysis of Automatic Identification System (AIS) Data for Right Whale Conservation Efforts in the Southeastern U.S. (SEUS). M. Mueller; **E. Hines** and L. Ward.

- A Foraging Model for Predicting the Risk of Vessel Strike to North Atlantic Right Whales. **C. Mayo**; M. Page; D. Osterberg and A. Pershing.
- Entangled North Atlantic Right Whale Summary, October 2006-September 2007. **G.K. Krutzikowsky**; S. Landry; R. Bowman; W.B. Sharp and C.A. Mayo.
- The Impact of Increasing Line Strength on Entanglement Scarring Severity in North Atlantic Right Whales (*Eubalaena glacialis*). **A.R. Knowlton**, L.A. Hall, P.K. Hamilton, M.K. Marx, H.M. Pettis and S.D. Kraus.
- Field-testing of Acoustically Released Pop-up Buoys in the Northwest Atlantic Offshore Lobster Trap Fishery. **R.B. Allen** and J. DeAlteris.
- Why the Time Tension Line Cutter? **S.C. Moffat** and B. Brickett.
- Time Tension Line Cutters (TTLC): Laboratory Evaluation. **K. Baldwin**; D. Landino and B. Brickett.
- You Built a What and Why. **K.C. Baldwin**; B. Brickett; T. Pickett and S. Moffett.
- Fishing with TTLCs and Triggers on Standard Lobster Gear. **Ben Brickett**
- Massachusetts Gear Research Program. **Erin Burke**.

Scientific Literature and Reports

- Cooper, L.N., S.D. Dawson, J.S. Reidenberg and A. Berta. 2007. Neuromuscular anatomy and evolution of the cetacean forelimb. *Anatomical Record* 290(9):1121-1137.
- Elvin, S.S. and C.T. Taggart. 2007. Right whales and vessels in Canadian waters. *Marine Policy* (2007), doi:10.1016/j.marpol.2007.08.001. Available through www.sciencedirect.com
- Frasier, T.R., P.K. Hamilton, M.W. Brown, L.A. Conger, A.R. Knowlton, M.K. Marx, C. K. Slay and B.N. White. 2007. Patterns of male reproductive success in a highly promiscuous whale species: The endangered North Atlantic right whale. *Molecular Ecology* (in press).
- Gibbons, J., J.J. Capella, A. Kusch and J. Carcamo. 2006. The southern right whale *Eubalaena australis* (Demoulin, 1822) in the Strait of Magellan, Chile. *Anales del Instituto de la Patagonia Serie Ciencias Naturales* 34:75-79.
- International Union for the Conservation of Nature and Natural Resources. 2007. 2007 IUCN Red List of Threatened Species. Available at www.iucnredlist.org The List

includes all three species of right whale and shows the southern right whale as trending up.

Ivashchenko, Y.V., P.J. Clapham and R.L. Brownell, Jr., editors. 2007. Scientific reports of Soviet whaling expeditions in the North Pacific, 1955-1978. U.S. Department of Commerce, NOAA Technical Memo NMFS-AFSC-175; 34 pp & appendix.

Johnson, T. 2007. Entanglements: The intertwined fates of whales and fishermen. University Press of Florida. 312 pp. Now out in paperback. For a description of the book, go to www.entanglements.net

Marine Mammal Commission. 2007. Marine Mammal Commission Annual Report to Congress 2006. 200 pages. Species of special concern include both the North Atlantic right whale (pages 54-66) and the North Pacific right whale (pages 66-72). For availability, go to www.mmc.gov

Mellinger, D.K., S.L. Niekirk, H. Matsumoto, S.L. Heimlich, R.P. Dziak, J. Haxel, M. Fowler, C. Meinig and H.V. Miller. 2007. Seasonal occurrence of North Atlantic right whale (*Eubalaena glacialis*) vocalizations at two sites on the Scotian Shelf. Marine Mammal Science 23(4):856-867.

Michaud, J. and C.T. Taggart. 2007. Lipid and gross energy content of North Atlantic right whale food, *Calanus finmarchicus*, in the Bay of Fundy. Endangered Species Research 3(1):77-94.

Onbe, K., S. Nishida, E. Sone, N. Kanda, M. Goto, L. A. Pastene, S. Sinsuke and H. Koike. 2007. Sequence variation in the Tbx4 gene in marine mammals. Zoological Sciences (Tokyo).

Parks, S.E., M. W. Brown, L.A. Conger, P.K. Hamilton, A.R. Knowlton, S.D. Kraus, C.K. Slay and P.L. Tyack. 2007. Occurrence, composition, and potential functions of North Atlantic right whale (*Eubalaena glacialis*) surface active groups. Marine Mammal Science 23(4):868-887.

Shirihai, H. and B. Jarrett. 2006. Whales, dolphins, and other marine mammals of the world. Princeton University Press, Princeton, NJ. 384 pp.

Shirihai, H. and B. Jarrett. 2006. Whales, dolphins and seals: A field guide to marine mammals of the world. A & C Black Publishers, Ltd., London.

Simard, P., J.L. Lawlor and S. Gowans. 2006. Temporal variability of cetaceans near Halifax, Nova Scotia. Canadian Field Naturalist 120(1):93-99.

Simmons, M.P. and S.J. Isaac. 2007. The impacts of climate change on marine mammals: early signs of significant problems. Oryx 41(1):19-26.

Slutsky, J. 2007. Model scale simulation of a ship-whale encounter. Naval Surface Warfare Center, Carderock Division, West Bethesda, MD. NSWCCD-50-TR-2007/053.

Trites, A.W., V.B. Deecke, E.J. Gregr, J.K.B. Ford and P.F. Olesiuk. 2007. Killer whales, whaling, and sequential megafauna collapse in the North Pacific: A comparative analysis of the dynamics of marine mammals in Alaska and British Columbia following commercial whaling. *Marine Mammal Science* 23(4):751-765.

Urazghildiieva, I.R. and C. Clark. 2007. Acoustic detection of North Atlantic right whale contact calls using spectrogram-based statistics. *Journal of the Acoustical Society of America* 122(2):769-776.

Wade, P.R. and 23 additional authors. 2007. Killer whales and marine mammal trends in the North Pacific – A re-examination of evidence for sequential megafauna collapse and the prey-switching hypothesis. *Marine Mammal Science* 23(4):766-802.

Calendar

December 13: Deadline for comments on the Advanced Notice for Proposed Rulemaking related to scientific research permits. See article on page 10 for details.

December 28: Deadline for comments on the proposal to recognize the North Pacific right whale as a distinct and endangered species, and to designate critical habitat for the species. See article on page 8 for details.

January 18: Deadline for comments on the U.S. Coast Guard's Port Access Route Study (PARS) on the area east and south of Cape Cod. For more information, see the *Federal Register* 72 (227): 66122; Nov. 27, 2007.

May 6, 2008: Southeast Implementation Team spring meeting, tentatively in St. Augustine, FL. For further information, contact SEIT co-chair Leslie Ward at Leslie.Ward@MyFWC.com

November 5 – 6, 2008 - note new dates - Tentative dates for the North Atlantic Right Whale Consortium annual meeting. Note: these dates were determined after the Consortium meeting. Tentative location: New Bedford Whaling Museum, New Bedford, Massachusetts. For further information, contact Heather Pettis, the Consortium Secretary, at hpettis@neaq.org

December 2009: 18th Biennial Conference on the Biology of Marine Mammals sponsored by the Society of Marine Mammalogy, to be held in Quebec City, Canada. For details, go to www.marinemammalogy.org

2011: 19th Biennial Conference on the Biology of Marine Mammals sponsored by the Society of Marine Mammalogy, to be held in Tampa, Florida. For details, go to www.marinemammalogy.org

Right Whale News

Right Whale News is a publication of the Georgia Environmental Policy Institute. The editor is Hans Neuhauser; the Associate Editor is Jim Hain. The editorial board consists of Bill Brooks, Moe Brown, Scott Kraus and Sigrid Sanders.

The Georgia Environmental Policy Institute underwrites the costs of *Right Whale News*. Thanks to the Institute's supporters, *Right Whale News* is published quarterly and is distributed electronically free of charge.

Back issues of *Right Whale News* published between 1994 and 2007 will be available shortly at www.GEPInstitute.com

Citing *Right Whale News*: The requested format for citations from *Right Whale News* is: Right Whale News. [year]. Volume/number/page(s). Publication of the Georgia Environmental Policy Institute, 380 Meigs Street, Athens, GA 30601, USA. [Month and year of issue].

To subscribe to *Right Whale News* or to submit news, articles or commentary for publication, please contact the editor, Hans Neuhauser, at the Georgia Environmental Policy Institute, 380 Meigs Street, Athens, Georgia 30601 USA. Telephone 706-546-7507. Fax 706-613-7775. E-mail: hansneuhauser@bellsouth.net