

RIGHT WHALE NEWS

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Boston-area Shipping Routes Moved to Save Right Whales

In early December 2006, the International Maritime Organization (IMO) approved a shift in the shipping lanes into and out of Boston to protect the North Atlantic right whale. The east-west leg of the port's Traffic Separation Scheme (TSS) will be rotated approximately 12 degrees to the north with a corresponding lengthening of the TSS. The width of the east-west lanes will be reduced from two miles to one and a half. The safety zone between the inbound and outbound lanes will remain at one mile. The changes are expected to go into effect July 1.

Scientists at the Stellwagen Bank National Marine Sanctuary relied on 23 years of sightings data on right whales, humpbacks, finbacks and other large whales to identify a hot-spot in the original shipping lanes. They calculated that the change in lanes could reduce the risk of ship strikes of right whales by 58 percent and of all baleen whales by 81 percent. The shifts were officially proposed to the IMO by NOAA's National Marine Sanctuary Program and Office of Protected Resources.

Canada Proposes Making Roseway Basin An Area to be Avoided

Led by Transport Canada, the Canadian government plans to submit a proposal in 2007 to the International Maritime Organization to designate Roseway Basin off the southeast tip of Nova Scotia as an Area to be Avoided. The Basin is frequented by right whales during summer months; it is also in the path of ships traveling between the east coast and Europe. A slight modification in route will allow ships to avoid the area. The proposal will be considered at the 53rd session of the IMO's Subcommittee on the Safety of Navigation on July 23-27 in London. If approved by that subcommittee, the proposal will be forwarded to the Marine Safety Committee, which will meet in October. If approved by the MSC, implementation, including updated charts and notices to mariners, would have to be in place by May 2008.

Moe Brown Receives IFAW Lifetime Achievement Award

The International Fund for Animal Welfare (IFAW) presents Lifetime Achievement Awards to individuals who have dedicated considerable time and effort to improving animal welfare on a larger scale than their annual Animal Action Award Winners. Past

lifetime achievement winners include world-renowned author Farley Mowat and primatologist Dr. Jane Goodall.

In 2006, IFAW Canada presented its third Lifetime Achievement award to Dr. Moira “Moe” Brown for her inspiring and tireless work to understand and protect the world's remaining North Atlantic right whale population. Moe works for the New England Aquarium and the Canadian Whale Institute; she also co-chairs the Canadian Right Whale Recovery Team with Jerry Conway. The IFAW award notes, “The North Atlantic right whale is the most endangered species of large whale in the world. Moira's work has focused on mitigating the impacts of human related activities, such as shipping and fishing, which are threatening the very survival of this magnificent species. Moira's lifetime of research, dedication and advocacy have been instrumental in changing shipping lanes in the Bay of Fundy which is the right whale's summer habitat. This change has reduced the potential of ship strikes and injuries to right whales in the Bay of Fundy by over 80 percent. Moira is currently actively working with Transport Canada to propose the implementation of protected, no traffic areas in the Roseway Basin to the International Maritime Organization (IMO). If this proposal is accepted by the IMO, it would significantly increase habitat protection for the right whale. Moira's work continues to make significant contributions to protecting these whales from extinction.”

More Dead Whales

The sixth known right whale mortality of 2006 was recorded when a juvenile was found off Brunswick, GA, December 30. The propeller cuts along the animal's right side suggest that a vessel strike was the cause of death. Dr. Michael Moore of the Woods Hole Oceanographic Institution was the necropsy team leader.

A dead neonate right whale was found off Jacksonville Beach, FL, January 25. Necropsy team leader Bill McLellan, of the University of North Carolina-Wilmington, said, “The cause of death from gross observation was probably dystocia, complications during birth.” The necropsy was conducted at the University of Florida in Gainesville.

Despite the priority in the current *Recovery Plan for the North Atlantic Right Whale* (2004: IH-10) for “gathering the maximum amount of information from stranded whales” which the Plan deems “essential,” funding for necropsies have “scraped the bottom of a weathered dried barrel” while funding for other less essential projects go “zooming along.”

Finding suitable locations for conducting necropsies is difficult for the ideal site needs to be next to deep water, accessible by vehicle, hidden from public view and suitable for burial. Most of these sites are already developed. Dredged material disposal sites can serve the purpose, as exemplified by the Buck Island site in Jacksonville harbor. However, requests by the Georgia Department of Natural Resources to the Savannah District of the Corps of Engineers to use Andrews Island in the Brunswick harbor and the north bank of the Savannah River met with a blunt refusal. Citing degradation of water

quality standards by the decomposing carcass and the need for fill material to raise dike levels, District Commander Colonel Held recommended that whale carcasses be placed on an offshore barrier island. *Editor's note:* none of Georgia's barrier islands offer ideal site conditions as described above.

President's FY 2008 Budget Proposes Increase for Right Whales

President Bush's proposed budget for Fiscal Year 2008 contains several line items for right whale initiatives. These include \$6.4 million for "right whale activities" (primarily research and management), \$1.5 million for cooperative state recovery plans, and \$1 million for fishing gear modifications to reduce right whale entanglements. The total of \$8.9 million is a significant increase from the FY 07 budget of about \$5.2 million. (The FY 07 budget is subject to a continuing resolution, so the eventual outcome may be different.)

A thought-provoking proposal in the President's Budget is "market-based approaches to fisheries harvests such as Limited Access Privilege systems that provide exclusive privileges to harvest a quantity of fish – move fisheries management away from cumbersome and inefficient regulatory practices and have been shown to lead to lengthened fishing seasons, improved product quality, and safer conditions for fishermen" (page 40 of the Budget). As pointed out by Richard Allen at the 2006 North Atlantic Right Whale Consortium meeting, such a limited entry approach may increase lobstermen's revenues while reducing right whale entanglements.

If You're an Optimist, Expect the Ship Strike Final Rule This Summer

The Final Rule to reduce ship strikes of right whales has been completed by the National Marine Fisheries Service and is currently "in clearance." This month, the Final Rule is expected to move from the Department of Commerce to the Office of Management and Budget (OMB) and others in the Administration for review and political vetting. The OMB review, which will include interagency coordination and an economic review, will take a minimum of 90 days unless the agency asks for an extension (which they did for the Proposed Ship Strike Rule). Adding to the uncertainty of both timing and final outcome is the new Administration requirement that Rules be subject to review by a political officer for compatibility with the Administration's policies.

Expect MMC Right Whale Review Soon

The Marine Mammal Commission's North Atlantic right whale program review is almost ready for distribution. It should be posted on their web site (www.mmc.gov) in March

Disentanglement and Biopsy Activities Continue In the Southeast, Thanks to NFWF Grant

By Clay George

Georgia Department of Natural Resources, Brunswick

The Georgia Department of Natural Resources' (GDNR) Wildlife Resources Division recently received a \$50,000 grant from the National Fish and Wildlife Foundation to fund right whale disentanglement and calf biopsy efforts off Georgia and Florida. Funds are being shared among GDNR, the Florida Fish and Wildlife Conservation Commission (FWC), the New England Aquarium (NEAq) and Coastwise Consulting to cover field expenses, supplies, equipment, and salaries for two biologists who are permitted to lead biopsy sampling efforts (Chris Slay of Coastwise Consulting and Lisa Conger of NEAq). The objectives of the project are (1) to enhance right whale disentanglement infrastructure in the Southeast; (2) to collect biopsy samples from right whale calves in the Southeast; (3) to foster further cooperation among GDNR, FWC, NEAq, Coastwise and others with respect to right whale research and management in the Southeast; and (4) to provide GDNR and FWC staff with experience needed to apply for or be added to a right whale biopsy permit.

The project got off to a busy start January 15 when biologists from GDNR and NMFS responded to an entangled right whale located by the Wildlife Trust aerial survey team off St. Simons Island, GA. The first response team attached a satellite buoy as recommended by the Provincetown Center for Coastal Studies (PCCS) and removed a three-foot section of gear as a sample to be used for entanglement mitigation research. The following day a team of GDNR, FWC, NMFS and Coastwise Consulting biologists attempted to cut one of the lines exiting the whale's mouth but the whale avoided all approaches. NEAq subsequently matched the whale to a sighting of an entangled whale in the Bay of Fundy on September 27, 2006. The whale was last seen entangled off North Carolina on January 24, following satellite tracking and a second disentanglement attempt led by PCCS staff. The entanglement was assessed as probably not life-threatening, and the trailing gear was reduced and the tracking buoy removed. The exact type of gear entangling the whale is unknown at this time, but hook shanks, swivels and gangions found throughout the gear indicate that it may be longline gear of unknown origin. Information from future sightings of the whale will be used to reassess its entanglement status.

On a more positive note, the Southeast team has collected biopsy samples from five of thirteen right whale calves documented as of February 1. Skin and blubber samples will be submitted to Trent University and NMFS for ongoing genetics and population health studies. All work conducted to date has been aided by considerable support from the Wildlife Trust and NEAq aerial survey teams, NMFS and PCCS. The project will continue through the end of March.

Endangered Species Act Will List Two Right Whale Species Separately

The NMFS has completed an extensive status review of Northern hemisphere right whales and has concluded that right whales exist as two separate species, the North Atlantic right whale (*Eubalaena glacialis*) and the North Pacific right whale (*Eubalaena japonicus*). The agency also has determined that both species are in danger of extinction throughout their ranges. NMFS has issued two separate proposed rules to designate the two species as endangered. Comments on the proposed rules are due by February 26. For details, see the December 27, 2006 issue of the *Federal Register*, vol. 71, no. 248, pages 77694-77716.

NMFS Will Conduct Review of Southern Right Whales

The Endangered Species Act (ESA) requires the NMFS to review the status of listed species at least once every five years to determine if the species should be removed from the ESA list or reclassified, either elevated from threatened to endangered, or down-listed from endangered to threatened. On January 22, the NMFS announced that it would conduct a review of the southern right whale (*Eubalaena australis*), sperm whale and fin whale. NMFS is seeking information for the review; submittals should be made by no later than March 23 to whale.review@noaa.gov. For details, see the *Federal Register*, January 22, vol. 72, no. 13, pages 2649-2650.

Marine Sanctuary Schedules Right Whale Lectures And Teacher Training This Spring

A series of talks and an associated mini-course for teachers on the critically endangered North Atlantic right whale will be offered at two locations this spring – Boston and Cape Cod (Brewster). The speakers are leading experts in whale science, and have been involved in significant research off the Massachusetts coast and elsewhere. The program is sponsored by the Stellwagen Bank National Marine Sanctuary, and the Whale and Dolphin Conservation Society.

The Boston location is: University of Massachusetts/Boston Harbor Campus, Science

Building, Small Science Auditorium. The talks will be held on Mondays: March 12, 19, 26, April 2, 9 and 23. The talks are free but there is a fee for parking in the campus parking lot. The Urban Harbors Institute is a program partner.

The Cape Cod location is: Cape Cod Museum of Natural History, Route 6A, Brewster. These talks will be held on Wednesdays: March 7, 14, 21, 28, April 4 and 11. There is a fee of \$6 per talk but parking is free. The Cape Cod Museum of Natural History is a program partner.

Teachers interested in obtaining Professional Development Points can gain 12 PDPs for attending all talks and the supplemental educators' session after each lecture. These sessions will include hands-on activities and resource listings for Web pages, publications and audio-visual materials. A \$30 fee covers all lectures, education sessions and administrative fee for PDPs (unfortunately, parking fees in Boston are extra).

The lectures and speakers are:

"Grappling with Giants: Disentangling large whales and understanding entanglement," Scott Landry, Provincetown Center for Coastal Studies

"Dinner for 50 Tons: A story of one of the largest animals on the planet feeding on one of the smallest," Dr. Mark Baumgartner, Woods Hole Oceanographic Institution

"Whale Whisperer: Listening for right whales in the Sanctuary," Dr. Leila Hatch, Stellwagen Bank National Marine Sanctuary

"Collision Course: Whale tracks and ship routes," Dr. David Wiley, Stellwagen Bank National Marine Sanctuary

"CSI Right Whale: A forensics look into the issues impacting right whales," Dr. Michael Moore, Woods Hole Oceanographic Institution

"The Urban Whale: North Atlantic Right Whales at a crossroads," Dr. Scott Kraus and Dr. Roz Rolland

For more information on the right whale lecture series and educators' mini-course, visit the Sanctuary's web page at <http://stellwagen.noaa.gov>

Audubon Society of Rhode Island Will Feature Right Whales on Earth Day

The Audubon Society of Rhode Island is planning a right whale festival as part of their Earth Day events on Saturday, April 21, from 10 am to 4 pm. The festival will take place at the Society's Environmental Education Center, 1401 Hope Street (Route 114) in Bristol, RI. Activities will include childrens' games, a right whale art contest, programs focused on the Center's 32-foot long right whale model, and various booths. Local media, including festival sponsors Cox Cable and Coast 93.3, will publicize the event. For details, consult the Center's web site at www.asrieec.org or call 401-245-7500.

There is still time for organizations or Right Whale Consortium members to request booth space at the festival. If interested, contact Center Executive Director Ann Dimonte at 401-245-7500, ext. 16.

The Urban Whale: North Atlantic Right Whales At the Crossroads

*A review by Mason Weinrich, Whale Center of New England,
P.O. Box 159, Gloucester MA 01930*

In the past twenty-five years, the North Atlantic right whale has gone from being little studied to becoming one of the best known whales in the world. However, until now much of the information has been disparate. It has been scattered in various papers, theses, conference abstracts, newsletters, and other assorted publications. Now Scott Kraus and Roz Rolland have taken on the not-insignificant task of compiling the state of knowledge into one source. The product of this work is *The Urban Whale*, published by Harvard University Press, a 500+ page volume of 17 chapters written by a total of 35 authors.

The name of the work comes from the claim by Scott Kraus that, perhaps more than any other whale in the world, North Atlantic right whales live the entirety of their lives in an "urban" world. Being a coastal species, living much of their lives along the rapidly developing east coast of North America, they face the issues with which many of us are all too familiar – coastal shipping, coastal fishing, industrial development, and habitat degradation. In fact, as Kraus points out, even the re-discovery of this population can be attributed to surveys of the Maine coastline that were undertaken in 1980 to determine the environmental effects of a proposed oil refinery for down east Maine.

These points are all made in the volume's first chapter, an introduction to the species by the editors. During this chapter they also set the stage for readers of the volume. For those not familiar with the species, they describe its basic biology and distribution. This chapter also serves as a general overview for the book overall, briefly touching on the topics that will subsequently be described in greater detail.

Right away, though, the reader learns that this volume is not just your average compendium of scientific knowledge. The first thing the reader comes to is an italicized story of a single whale – EG # 1405. The story describes the 1935 incident where 1405's

calf is killed off of St Augustine, FL, by a sport-fisher out for a day of recreation. It describes how the same person riddled 1405 with hundreds of bullets to get her to leave her calf. Despite being sighted on and off for the next 50 years, she was never seen to calve again. Sadly, she likely died from a ship collision prior to her last sighting in 1995. While this story details the last North Atlantic right whale legally hunted, it also sets the tone for the way this species has been treated by humans. These stories, some inspiring, some sad, all fascinating, lead off each chapter. They serve to remind us that the data reported in the volume were obtained through long-term studies on individual animals, who often represent far more than data points to the researchers and specialists who authored the chapters of the book.

At the same time, the volume loosely follows the flow of a scientific paper. There are several chapters which serve as the introduction, several on methods, a number which present results (on biology and species conservation), and several which contemplate the future of the right whale population in the face of a changing and continually developing environment.

The specific chapters start with a historical review by Randy Reeves, Tim Smith, and Elizabeth Josephson, of the hunting of right whales throughout the ocean from the Basque period until the late 1960's. As one would expect from this expert team, the chapter is authoritative. The authors detail 33 separate fisheries known to have taken right whales, accounting for the killing of at least 5,500 animals. They do a good job of discussing the limitations of the existing data, and how our knowledge could be improved, although it will likely remain far from exhaustive.

The next two chapters provide a background into two important techniques used to develop our base of current knowledge about the population. Phil Hamilton, Amy Knowlton, and Marilyn Marx describe the development and procedures of the Right Whale Catalog, housed at the New England Aquarium, presenting both the advantages and the limitations of this technique. Moira Brown and her team both describe survey methodology and review in some detail what studies have shown about the species distribution. They specifically use three case studies (Southeast US, Cape Cod Bay, and Gulf of Maine Sighting Advisory System) to show where these techniques have been helpful, and what future work may add to our knowledge of right whale habitat.

The next six chapters go into detail about the biology of right whales. Chapters include food and feeding (Baumgartner, Mayo, and R. Kenney); reproduction (Kraus, Pace, and Frasier); genetic insights into population structure (Fraisier, McLeod, Gillet, Brown, and White); internal health and biology as determined through fecal sampling (Rolland, Hunt, Doucette, Rickard, and Wasser); external measurements of health (Rolland, Hamilton, Marx, Pettis, Angell, and Moore); and acoustic communication (Parks and Clark). All of these chapters treat their subjects completely, in understandable, logical, and well written treatises. Perhaps it is my bias, but I particularly liked the way that Baumgartner, Mayo, and Kenney combine their differing personal perspectives (from the respectful astonishment of Mayo to the pragmatism of Kenney) to differing ecological scales (from the micro-patch focus of Mayo to the large-scale work of Kenney and Baumgartner).

It is also particularly helpful to have the results of years of molecular genetics research in one location, and well summarized. While many of us had the opportunity to see the conclusions presented in various forums, this chapter represents the first readily available work that details many of these studies. Since their implications are very important (i.e. that there may be a number of whales, scale unknown, that have never been seen to date and are not included in current population estimates), it is a critical piece of the volume and imperative to have in hand.

The volume then goes on to confront the myriad of conservation issues that right whales now face in their busy, industrial habitat. This section includes chapters on acoustic pollution (Clark, Gillespie, Nowachek, and Parks), lessons from detailed necropsies (Moore, McLellan, Daoust, Bonde, and Knowlton), fishing gear entanglements (Johnson, Kraus, J. Kenney, and Mayo), and vessel strikes (Knowlton and Brown). Most of the information here will be familiar to readers of *Right Whale News*, but when placed in this succession they remind us of the hurdles that we all face in dealing with these complex problems in a timely way.

The last three chapters leave us looking forward in unique and thought-provoking ways. R. Kenney looks at the prospects of right whales facing global warming. He reviews his own and other scientists' past work on the effect of climate changes such as the North Atlantic Oscillation on right whale biology, but he also looks forward to how shifts in circulation and climate might affect the availability of *Calanus* in the traditional known habitats of the whales. Lance Garrison provides a detailed chapter on new modeling techniques that can help us learn about right whale habitats, using emerging techniques including GIS, spatial modeling, and remote sensing (among others) to determine habitat suitability. The editors then conclude the volume with their own comparisons of right whales to other cetaceans facing the "urban whale syndrome," including killer whales in the Pacific Northwest, St. Lawrence beluga whales, and Indo-Pacific humpbacked dolphins. They conclude on a note of greatly cautioned optimism, pointing out that the species has indeed survived to this point, the problems that they face are largely known, and the solutions are often close at hand, even if they can sometimes be difficult to implement.

In all, the authors have done an admirable job in putting this volume together, consistently using the most knowledgeable people in each discipline to put together comprehensive chapters. By initially providing some biological background in the introductory chapters, they also made this volume useful to those not as familiar with this animal as are most of the readers of *Right Whale News*. The book is also a visual delight, with a nice section of color plates in the center, and well reproduced black and white illustrations throughout.

Perhaps one drawback, which may be inevitable with the number of authors involved, is the sometimes disparate writing styles both within and between chapters. Those of us who know most of the authors will have no problems picking out their distinctive voices and styles, even at times within chapters. This lends an air of authenticity to the work,

but to a reader not as familiar with the principals involved these sometimes suddenly changing voices may not be as clear.

In all, this book succeeds in being a valuable reference to those in the field, by providing a useful summary of our current knowledge. It also serves as a valuable work for students, by providing them with promising avenues of study that could be undertaken to advance our state of knowledge. It is also a powerful tool for managers who need this compendium at their fingertips. It is reasonably priced, and should be on the shelf of every reader of *Right Whale News* and of many other interested parties.

Copies of *The Urban Whale* may be ordered from www.amazon.com for \$55.00.

Changes

Former Congressman **Gerry E. Studds** (D-MA) died October 14. Congressman Studds was an active leader and supporter of marine legislation, including the Marine Mammal Protection Act, the Magnuson Act and the National Marine Sanctuaries Reauthorization Act. Following his retirement from office in 1996, the Marine Sanctuary off the Massachusetts coast was re-named the Gerry E. Studds Stellwagen Bank National Marine Sanctuary in his honor. A more detailed tribute to Congressman Studds may be found on the Sanctuary's web site: <http://stellwagen.noaa.gov/news/gerryestudds2.html>

Vicki Cornish has accepted a position with The Ocean Conservancy as Director of Marine Wildlife Conservation. She will be working on collaborative efforts to reduce bycatch of marine mammals and sea turtles as well as other marine wildlife conservation issues to promote the goal of wild, healthy oceans. Previous to her appointment, Vicki worked for NMFS for 15 years, including assignments with the Office of Protected Resources, the Office of Science and Technology, and the Southeast Regional Office. Vicki can be reached at The Ocean Conservancy, 2029 K Street, NW, Washington, DC 20006; telephone 202-429-5609; e-mail: vcornish@oceanconservancy.org

Programmatic EIS on Right Whale Research

*By Michael Payne, Chief, Permits, Conservation and Education Division
Office of Protected Resources, NMFS, Silver Spring*

NMFS is proposing to establish a more efficient procedure for reviewing and issuing research permits and permit amendments for studies of right whale species in both the North Atlantic and North Pacific. Currently, NMFS analyzes each permit application for research on species covered by the Endangered Species Act or the Marine Mammal Protection Act in a separate Environmental Assessment. NMFS is now suggesting a programmatic approach, which will allow it to do a better job of addressing the potential collective environmental impact of research activities. The new approach will analyze the

effects of all research activities that have been conducted on right whales in the proposed action area in the past five years, and will also recommend 'take' targets for the next five years based on that analysis. This should increase efficiency by reducing the amount of time required to process permit applications.

Under the new approach, NMFS would issue scientific research permits and permit amendments to qualified researchers for activities expected to have only short term, temporary effects on northern right whale populations and other aspects of the human environment. Each right whale research permit application would be analyzed by NMFS to determine whether the proposed research, including the direct and indirect effects of the proposed research, falls within the range of effects analyzed by the Programmatic Environmental Impact Statement (PEIS). If so, the permit or permit amendment would be issued under the PEIS. If the proposed permit or permit amendment is outside the scope of the PEIS, then separate analyses under the National Environmental Policy Act (NEPA), the ESA, and the MMPA would be necessary. All authorized takes would be recorded so that the total authorized number of takes under the PEIS can be monitored.

In summary, the objectives of a Programmatic EIS for ESA/MMPA scientific research permits on right whales are: (1) to issue scientific research permits that help gather information useful to conserving and recovering endangered northern right whales while meeting legal mandates; (2) to comprehensively analyze the potential effect of right whale activities on ESA-listed species, non-listed species, and the human and physical environment; and (3) to improve constituent service through the issuance of certain types of permits or permit amendments in a programmatic manner to reduce time and costs required to process these actions.

The new procedure is expected to be completed by the end of 2007. NMFS has completed the first three chapters of the Draft EIS and is beginning Chapter 4, which analyzes the effects of alternatives considered on right whales and the environment. This chapter is the core of an EIS document and is expected to take several months. We are targeting a release of the DEIS for public review and comment in May 2007. Our goal is to use the final EIS as the NEPA support for issuing scientific permits on right whales in FY 08 and beyond.

NEFSC Seeks Permit Amendment

The NMFS's Northeast Fisheries Science Center has submitted a request to amend its Permit #775-1600 by shifting the authorized takes for biopsying of right whales from adults to calves on the calving grounds. The shift would not result in an increase in the total number of authorized takes, but would reduce the number of adults that could be biopsied by 15, while increasing the number of calves to be biopsied on the calving grounds from 15 per year to 30 per year. The application is currently in ESA review.

International Workshop Will Address Detection and Classification of Marine Mammals using Passive Acoustics

The Third International Workshop on Detection and Localization of Marine Mammals using Passive Acoustics will be held at the Federal Reserve Building in Boston, Massachusetts July 24-26.

The purpose of the workshop is to present current research on the detection and classification of marine mammals using passive acoustics. Researchers are invited to present their scientific work, to detail the advantages and drawbacks of the methods they use, and to show their recent results. Topics will be extended beyond passive acoustics to other relevant areas of research that directly affect the study of marine mammals and the effect of anthropogenic sound on their behavior.

The workshop encourages presentations from different fields. Scientific researchers could include specialists in biology, acoustics, signal processing, mathematics, electronics, and computer science. Participation may be limited to ensure a dynamic and interactive exchange. Time will be allotted for oral presentation of current relevant research. A half-day will be reserved for the comparison of all scientific methods presented using a common data set of recorded Odontocete clicks provided by the workshop. Participants who do not work on this specific dataset are welcome to join the workshop, and to present their own work on detection and classification techniques based on passive acoustics or other relevant research as outlined in the topics list. A poster session is also scheduled.

Authors will be accepted for presentation or poster session by the scientific committee. A maximum of 20 papers will be accepted for publication in a special edition of the Canadian Journal of Acoustics. Topics for consideration are (1) Underwater acoustics; (2) Detection and Classification; (3) Localization; (4) Biology of Marine Mammals; (5) Density Estimation; and (6) Applications. Additional topics may be considered.

April 1 is the deadline for abstract submissions for oral presentations and poster presentations. Details for abstract submission are at www.rightwhaleweb.org/workshop. Questions regarding the workshop should be directed to David Moretti at d.j.moretti@ieee.org or Heather Pettis at hpettis@neaq.org

Scientific Literature and Reports

Anon. 2007. Anchovy fishery threat to Patagonian ecosystem. *Science* 315(5808):45. January 5, 2007.

Cole, T., P. Gerrior and R. Merrick. 2007. Methodologies of the NOAA National Marine Fisheries Service aerial survey programs for right whales (*Eubalaena glacialis*) in the Northeast U.S., 1998-2006. Northeast Fisheries Science Center Reference Document #07-02. Available on line at www.nefsc.noaa.gov/nefsc/publications/crd/crd0702/

- Ebbeson, G.R. and F. Desharnais. 2006. Localization of right whales using matched correlation processing. *Canadian Acoustics* 34(3):70-71.
- Estes, J.A., D.P. Demister, D.F. Doak, T.M. Williams and R.L. Brownell, Jr., editors. 2007. *Whales, Whaling and Ocean Ecosystems*. 418 pages. University of California Press. Available through www.ucpress.edu
- Fitzgerald, E.M.G. 2005. Pliocene marine mammals from the Whalers Bluff Formation of Portland, Victoria, Australia. *Memoires of Museum Victoria* 62(1-2):67-89.
- Gabriele, C.M., J.M. Straley and J.L. Neilson. 2007. Age at first calving of female humpback whales in southern Alaska. *Marine Mammal Science* 23(1):226-239.
- Hatch, L.T., E.B. Dopman and R.G. Harrison. 2006. Phylogenetic relationships among baleen whales based on maternally and paternally inherited characteristics. *Molecular Phylogenetics and Evolution* 41(1):12-27
- Jiang, M., M.W. Brown, J.T. Turner, R.D. Kenney, C.A. Mayo and M. Zhou. 2006. The role of physical processes in springtime zooplankton distribution in Cape Cod Bay and implications for North Atlantic right whale foraging. *EOS, Transactions, American Geophysical Union* 87(36): supplement.
- Kraus, S.D. and R.M. Rolland, editors. 2007. *The Urban Whale: North Atlantic Right Whales at the Crossroads*. Harvard University Press. See review starting on page 7.
- Mizroch, S.A. and D.W. Rice. 2006. Have North Pacific killer whales switched prey species in response to depletion of the great whale populations? *Marine Ecology Progress Series* 310:235-246.
- Monger, B.C. and A.J. Pershing. 2006. Use of near-real-time satellite observations to forecast right whale foraging areas in the Gulf of Maine. *EOS, Transactions, American Geophysical Union*, 87(36): supplement.
- Parks, S.E., C.W. Clark and P.L. Tyack. 2006. Acoustic communication in the North Atlantic right whale (*Eubalaena glacialis*) and potential impacts of noise. *EOS, Transactions, American Geophysical Union* 87(36): supplement.
- Sasaki, T., M. Nikaido, S. Wada, T.K. Yamada, Y. Cao, M. Hasegawa and N. Okada. 2006. *Balaenoptera omurai* is a newly discovered baleen whale that represents an ancient evolutionary lineage. *Molecular Phylogenetics and Evolution* 41(1):40-52.
- Sirovic, A. 2006. Blue and fin whale acoustics and ecology off Antarctic Peninsula. *Dissertation Abstracts International Part B: Science and Engineering* 67(4):1862.

Smith, J., K. Koyama and J. Kenney. 2006. Atlantic large whale entanglement and ship strike report 2004 – Updated 30 October 2006. 112 pages. National Marine Fisheries Service, Protected Resources Division, Gloucester, MA. Available from www.nero.noaa.gov/whaletrp

Taylor, B.L., M. Martinez, T. Gerrodette, J. Barlow and Y.N. Hrovat. 2007. Lessons from monitoring trends in abundance of marine mammals. *Marine Mammal Science* 23(1):157-175.

Urazghildiiev, I.R. and C.W. Clark. 2006. Acoustic detection of North Atlantic right whale contact calls using the generalized likelihood ratio test. *Journal of the Acoustical Society of America* 120(4):1956-1963.

Vanderlaan, A. and C. Taggart. 2007. Vessel collisions with whales: The probability of lethal injury based on vessel speed. *Marine Mammal Science* 23(1):144-156.

Wade, P., M.P. Heide-Joergensen, K. Sheldon, J. Barlow, J. Carretta, J. Durban, R. LeDuc, L. Munger, S. Rankin, A. Sauter and C. Stinchcomb. 2006. Acoustic detection and satellite-tracking leads to discovery of rare concentrations of endangered North Pacific right whales. *Biology Letters* 2 (3):417-419.

Woodward, B.L., J.P. Winn and F.E. Fish. 2006. Morphological specialization of baleen whales associated with hydrodynamic performance and ecological niche. *Journal of Morphology* 267(1):1284-1294.

Calendar of Events

March 7, 14, 21, 28, April 4, 11: Right whale lecture series, Cape Cod Museum of Natural History, Brewster, MA. For details see article on page 5.

March 12, 19, 26, April 2, 9, 23: Right whale lecture series. University of Massachusetts, Boston Harbor Campus. For details, see article on page 5.

April 1: Deadline for submitting abstracts for the Third International Workshop on Detection and Localization of Marine Mammals using Passive Acoustics. Boston, Massachusetts. For more information, see article on page 12.

April 21: Right whale festival at the Audubon Society of Rhode Island's Environmental Education Center, 1401 Hope Street (Route 114), Bristol, RI. For details, see article on page 6, consult their web site at www.asrieec.org, or call 401-245-7500.

May 3: Spring meeting of the Southeast U.S. Right Whale Recovery Plan Implementation Team. To be held at the Guana Tolomato Matanzas National Estuarine Research Reserve's Environmental Education Center in Ponta Vedra Beach, Florida. For

additional information, contact Leslie Ward, co-chair of the SEIT, at Leslie.Ward@MyFWC.com

July 24 – 26: Third International Workshop on Detection and Localization of Marine Mammals using Passive Acoustics. Boston, Massachusetts. For more information, see article on page 12.

September 1: Deadline for submitting abstracts for the annual meeting of the North Atlantic Right Whale Consortium meeting (see next item).

November 7-8: Annual meeting of the North Atlantic Right Whale Consortium, New Bedford Whaling Museum, New Bedford, Massachusetts. For further information, contact Heather Pettis, Consortium Secretary, at hpettis@neaq.org

November 29-December 3: 17th Biennial Conference on the Biology of Marine Mammals, Cape Town, South Africa. Sponsored by the Society for Marine Mammalogy. For more information, visit the Society's web site: <http://www.marinemammalogy.org/>

Right Whale News

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