RIGHT WHALE NEWS

An independent forum for right whale conservation and recovery, published four times a year

Volume 20 Number 3 ***October 2012***

Bay of Fundy Field Season 2012: Warm Water and Few Whales

Contributed by Moira Brown, New England Aquarium

As long-time right whale researcher, Philip Hamilton, so aptly said to the new team members, the life of a whale biologist ranges from having the patience of a Buddhist monk, as one foggy day after another precludes our first survey, to the adrenaline of a professional athlete when the weather turns fair for five survey days in a row. Patience and stamina, mixed with curiosity, optimism, and perseverance seems to be the successful formula. The New England Aquarium's (NEAq) right whale research team relocated to Lubec, Maine, in late July for our annual Bay of Fundy field season. This year marked our 33rd year of conducting right whale monitoring surveys and research in the Bay. Our research was supported by two long-time partners: Irving Oil (Saint John, New Brunswick) and the Island Foundation (Marion, Massachusetts). Every day the weather permitted (clear and less than 15 knots of wind), we headed into the Grand Manan Basin right whale critical habitat in the lower Bay of Fundy. The days at sea, especially in August, were long—weather checks at 4 a.m., wake up the team and depart at sunrise, a two-hour commute to the right whale area, survey all day, and try to return to shore by sunset.

We departed on our first survey day on August 4th full of optimism as there had already been a few right whale sightings from the Nova Scotia whale watchers in late June and July, as well as a report of sperm whales—a species only rarely seen in the bay prior to 2010. Although our optimism never waned all season, the 20 survey days between early August and October 3rd yielded only about 45 right whales and just one (Catalog # 3390 and calf) of the 7 known mother-calf pairs for the year. This was not the lowest number of right whale sightings on record, which occurred in our first year in the Bay of Fundy in 1980. But the number of right whales seen in 2012 was more typical of the 1980s when we averaged 43 right whales per year, and a long way from our highest number of right whales recorded in a single season of 215 in 1997. Recall that there were about 140 individuals in the 2011 season and about 62 individuals in the 2010 season (*Right Whale News*, September 2011).

The behavior of the whales this season gave us the impression that there was little food to hold them in the Bay. We typically would see a few whales one day, and then none the next survey day, and then a small influx again, followed by a day when the only right whales seen were #3390 and her calf. For example, on August 7th, we saw right whale flukes in all directions and the bird life was incredibly active: storm petrels, shearwaters, and gannets were there in droves! There were also many fin whales, minke whales, basking sharks, and harbor porpoise in a small

area of just a few square miles in size. It seemed to be a feeding frenzy. The next day we went back out only to find that the bounty of life had disappeared overnight, a pattern repeated several times during the season. In addition, the usual behavior of right whales surfacing close to where they sounded was replaced by whales surfacing a mile away from their last known position at the surface, leading us to think they may be traveling and searching for food rather than targeting a plankton patch at depth. Colleagues at the Grand Manan Whale and Seabird Research Station were similarly frustrated in their attempts to find basking sharks for a tagging program; these sharks also prey on zooplankton and the sharks were also fewer in numbers this year.

So where were the right whales and why were there so few in the Bay of Fundy? There were a few sightings from another habitat area near the Gaspe Peninsula in the Gulf of St. Lawrence, a few detected by the moored hydrophones in the Boston shipping lanes, and a few isolated sightings of lone animals along the east coast. Toward the end of our season we received reports from fishermen of right whales on Roseway Basin, the second critical habitat area for right whales in Canadian waters, but it was too late in the season to mount a survey offshore.

There is some anecdotal information that may shed light on the conditions in the Bay of Fundy. The sea-surface temperature has been quite a bit warmer this year—58-59° F compared to the more usual 46-52°F. A recent study discovered dramatic reductions in phytoplankton in the Gulf of Maine in recent years. Phytoplankton, or plant plankton, is the very base of the food chain and is dinner for the copepods that right whales feed on. So with warmer water temperatures and reduced volume of phytoplankton, it's possible that there have been some shifts in the food resource for right whales—perhaps the copepods are available in a different location than usual, or at a slightly different time of year. Assuming that right whales are responding to these or other environmental variations, changes in their distributions may actually be a positive sign. It may be demonstrating their ability to adapt to what will likely be an increasingly changing environment. Our challenge is to locate the areas outside of the Bay of Fundy where they may be aggregating in the summer months. We are making plans to expand the range of 2013 surveys in Canadian waters to cover Roseway Basin as well as other areas where right whales have aggregated in the past—including the waters south of Lurcher Shoals, Grand Manan Banks, and Georges Basin. You can visit our field season blog for more details and stories from the 2012 field season (rightwhales.neaq.org).

Figure 1. Although right whales were fewer in number this year, they still put on quite a show. A breaching sequence of a one-year-old juvenile, the 2011 calf of Catalog #1243.

However, the Bay of Fundy, as usual, did not disappoint. On August 19th we were photographing a few right whales and one whale surfaced nearby. Later, we realized we had just documented a novel species for the Bay, a bowhead whale! Upon reviewing photographs, we learned that it was not just any bowhead, but the same individual (based on scarring on the peduncle) as seen by the aerial survey team from the Provincetown Center for Coastal Studies in March 2012! On October 3rd, the Bay surprised us yet again with another special cetacean sighting, an orca (killer whale)! There have been a number of sightings over the last several years of a lone male around Nova Scotia, easily identified by scars on its tall dorsal fin. And further, this orca turned out to be the same one we saw during a survey of Roseway Basin in 2010.

SEUS Right Whale Recovery Plan Implementation Team: Information Posted

As of September 2012, documents and summary reports from the Southeast U.S. ImplementationTeam (SEIT) meetings have been posted on the Southeast Regional Office/NMFS website. This includes the Key Outcomes (summary notes), Terms of Reference, and current team members: sero.nmfs.noaa.gov/pr/SoutheastImplementationTeam.htm

A related website, sero.nmfs.noaa.gov/pr/mm/rightwhales/RightWhalesSouth.htm, includes a plot of sightings distribution and aerial survey contract reports.

Surveys Initiated Off Chesapeake Bay

Contributed by William A. McLellan and Michael Walsh,
University of North Carolina at Wilmington

The mid-Atlantic region has long been under-sampled for right whales, and discussions have identified a need for surveys in this area. This is about to change. Vessel and aerial surveys will be conducted in Virginia this winter in the ocean off Chesapeake Bay in a joint program between the Virginia Aquarium & Marine Science Center Foundation (VAQF) and the University of North Carolina Wilmington (UNCW). Funded through a NOAA Section 309 grant to the Virginia Coastal Zone Management Program, the surveys will focus on an ocean area that includes the proposed wind energy area designated by the Bureau of Ocean Energy Management off Virginia. The vessel surveys will focus on large whale distribution, photo-identification, biopsy, and disentanglement efforts, while the aerial surveys will focus on large whale identification and distribution. The surveys are scheduled to start in November of 2012, will run monthly through April 2013, and will cover an area approximately 50nm across the Chesapeake Bay mouth and out to 50 nm offshore on the continental shelf. All marine mammal data will be collected with current survey methodologies, posted to the OBIS SEAMAP web portal when finalized, and will contribute to baseline data essential for meaningful marine spatial planning efforts in support of offshore wind energy development.

FY12 Right Whale Spending Plan Summary

In recent years, it has been the practice for *Right Whale News* to report the NMFS right whale spending plan for the current fiscal year in the May issue. As was the case in 2011, the report has been delayed. Herewith, the FY12 report is provided with the assistance of staff at the Office of Protected Resources, National Marine Fisheries Service, Silver Spring, Maryland. Total funds received by NMFS were similar to both FY11 and FY10. However, the portion directed to NMFS salaries has continued to increase, and in FY12, was 45% of the funds received.

Table 1. The NMFS/NOAA right whale spending report for FY2012 funds. Dollar amounts are expressed in thousands (i.e., the Total in row 1 is $7,904,000). Key: NEC=Northeast Fisheries Science Center, NER=Northeast Regional Office, SEC=Southeast Fisheries Science Center, SER=Southeast Regional Office, F/PR=Office of Protected Resources, Headquarters, and GC/CS=General Counsel.

	NEC	NER	SEC	SER	F/PR	NOAA GC/CS	Total
Total Received	2,505	2295	674	1,732	482	216	**7,904**
Disentanglement Contingency	0	30	0	10	0	0	40
Aerial surveys (non-state cooperative funded)	236[1] (80[2])	0	0	166	0	0	402
NMFS salaries [3] (Full time equivalents and contracts)	1,473	1,065	254	264	303	187	3,546
Shipping Industry Liaison, Fishery Liaison, Critical Habitat Technical Support (contracts)	0	0	0	103	0	0	103
Take Reduction Team travel support and vertical line model development	0	250	0	0	0	0	250
Habitat studies	(21[2])	0	0	0	0	0	(21[2])
State cooperative funding (including funds for aerial surveys, habitat research, disentanglement, recovery implementation, and enforcement)	0	650	0	1,146	0	0	1,796
Vessel strike reduction	0	0	0	0	174 (75[2])	0	174 (75[2])
Whale detection technologies	0 (491[2])	0	403	0	0	0	491(512[2])
Sightings database / Photo-ID catalog	363						363
Travel and Misc. Administrative costs	433	300	17	43	5	29	827

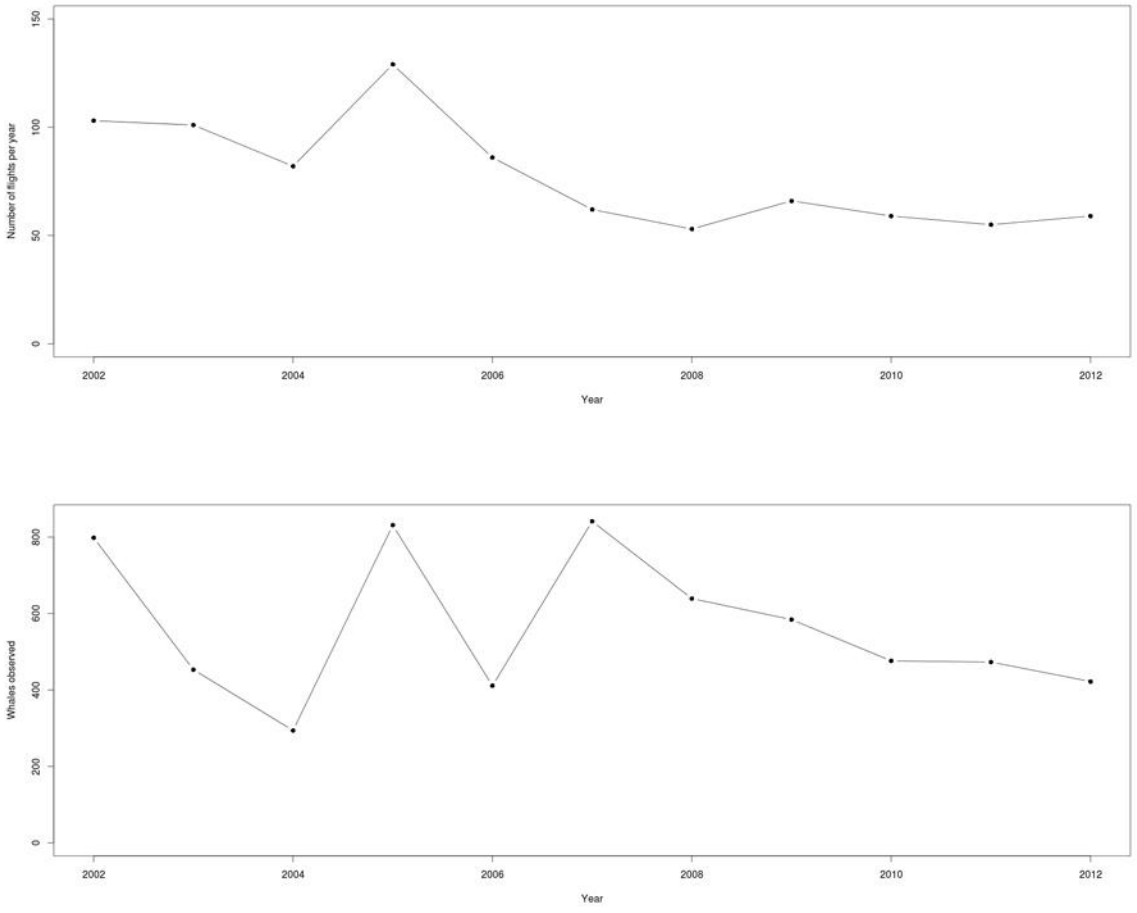
[1] Aircraft fees and contract labor for surveys only
[2] Right whale funding from other sources and not paid for from NMFS right whale funds.
[3] Includes salaries, benefits, awards and additional administrative cost.

Update from the NEFSC

Within the National Marine Fisheries Service, the Northeast Fisheries Science Center in Woods Hole, Massachusetts, has the largest program and largest share of the Congressionally-appropriated right whale research funds (refer to spending plan on page 4). On 5 October, *Right Whale News* visited with Michael Simpkins, Branch Chief, and Peter Corkeron, Large Whale Team Leader, at the Protected Species Branch. The focus was on the current status of right whale research—particularly in light of challenges and uncertainty with funding and resources. The challenges indeed exist and will likely continue, but the results were reassuring.

As the FY12 funding was initially presented, it appeared that support for right whale research and aerial surveys would be reduced. Staff at the NEFSC was able to successfully make the case to the agency as to the importance of these efforts, and funding was largely restored to previous levels. In addition, to strengthen the effort in a complementary way, acoustic pop-up buoys were deployed on Georges Bank, and additional vessel-based surveys and research were conducted. As a result, the number of right whale survey flights remained similar to previous years, and the initial shortfall was addressed.

Figure 2. Number of right whale survey flights (upper panel) and number of right whales observed (lower panel) during the past 10 years (Source: NEFSC/NOAA).



To learn more about the NEFSC/NOAA right whale research program, go to:

NEFSC right whale/Sighting Advisory System (SAS) site (very complete and very interesting):
http://www.nefsc.noaa.gov/psb/surveys/SASInteractive2.html

NEFSC right whale/large whale reports, scroll down through this list:
http://www.nefsc.noaa.gov/publications/crd/

Oceanographic conditions off the Northeast – an important dimension:
http://www.nefsc.noaa.gov/publications/crd/crd1220/

Review of National Research and Conservation Priorities

A new initiative has been announced by the Marine Mammal Commission, which plans to meet with officials from the National Marine Fisheries Service in each of the Service's six regions. The purpose of each meeting will be to identify the most pressing marine mammal research and management needs in each region. The Commission will use that information to help it develop a set of national priorities for guiding federal conservation efforts for marine mammals.

The first meeting was held on 7 August 2012 in the National Marine Fisheries Service's Northeast Region. The next meeting will be held in the Southeast Region in the spring. *Right Whale News* will post the meeting date and location when it becomes available. Additionally, interested parties can periodically check the Commission's website (www.mmc.gov). Notices of meetings will also be published in the Federal Register.

Throughout the process, members of the public are invited to attend the meetings and to provide comments concerning priority issues. Those unable to attend meetings may submit comments in writing. Written comments should be sent to Timothy J. Ragen, Executive Director, Marine Mammal Commission, 4340 East-West Highway, Room 700, Bethesda, Maryland 20814.

Recall that the Commission conducted a review in 2006, as part of a Congressional directive to assess the effectiveness of protection programs for the most endangered marine mammals in U.S. waters. The "*Report of the North Atlantic Right Whale Program Review*," is available from the Commission. A number of recommendations are provided that may be relevant to the present initiative. The report is available at www.mmc.gov under the reports tab.

Whale Camp

Contributed by Lynna Kaucheck, Environmental Science Instructor,
Whale Camp/Fundy Marine Science Institute

Dennis and Orma Bowen first came to Grand Manan Island in 1981. They immediately recognized that the foggy little island located at the mouth of the Bay of Fundy had the potential to be an extraordinary classroom. Dennis decided to create an experiential, adventure-based program that brought elements of a traditional curriculum together with a hands-on, activity-based examination of the life processes in the Bay of Fundy and by extension, on the planet. The Bowens returned the following year bringing with them a group of students to the first "Whale Camp."

The Bowens hail from Cheyney, Pennsylvania, where they reside when they aren't on Grand Manan. Orma recently retired after teaching for 39 years. Dennis taught for 16 years and was the Director of Curriculum at a private school near Philadelphia before creating the Whale Camp.

I first came to Whale Camp in the summer of 2003, and have returned every year since then except for one. Like most adventurers who come to Whale Camp, I came for the whales, but I return year after year because of everything else the Bay of Fundy has to offer.

Over the years the Whale Camp program has evolved, and today the Fundy Marine Science Institute, which consists of The Whale Camp and The School of Fundy, offers programs for learners of all ages. They offer one-, two-, and three-week programs for learners ages 10-17. The camp also offers a two-week course for college credit, a family program, and a special three-week program for authors and artists, as well as special programs for schools that would like to bring whole classes to the camp.

The camp holds as many as 65 learners at a time, has a staff of 4-8 Environmental Science Instructors, and both a girl's and a boy's Outdoor Recreation and Dorm Instructors. The facilities consist of a kitchen/dining hall, girls dorm, boys dorm, and staff house, as well as access to the beach (when the tides are out, that is).

Learners experience programs in marine mammal biology, geology, ornithology, tidal ecology, stream and pond ecology, bog ecology, forestry, culture and fisheries of the Canadian Maritimes and charting, all while exploring the island classroom. Whether learners are out at sea searching for whales, slogging through the bog, or exploring tide pools, everything is hands-on and inquiry-based. Group team-building, metaphoric learning and self-reflection are essential elements of the Whale Camp experience.

Learners participate in long-term bio-monitoring projects. They are also able to design and implement their own short-term research projects, including: data collection, data analysis, and project evaluation.

Grand Manan Island,
home of the Whale Camp and
the Fundy Marine Science Institute

Liz Hauck, Lititz, Pennsylvania, attended Whale Camp for two years, as a 13- and 14-year-old. Her comment, "I recommend highly. It was exactly what I was looking for. It was great to be with other people who shared my interests--nature and the outdoors."

I would be remiss if I didn't mention the food at Whale Camp. Whale Camp has its own garden that provides delicious ingredients for the salads served at dinner. The kitchen staff is the finest around and the home-style cooking they serve up is the best cure for any homesick camper.

The Whale Camp strives to provide an once-in-a-lifetime experience while building confidence in learners and providing an opportunity to develop a closer relationship with the natural world. As Dennis puts it, he wants the students to come away with a better understanding and appreciation of life and their connection to the universe.

Grand Manan and Whale Camp are home to me now. I can't imagine not spending part of my summer there. I feel privileged to be able to share the island and the whales with those who are eager to learn.

As I board the ferry for the last time each summer I start counting down the days until I return home to Grand Manan and Whale Camp—hoping each year that more right whales and more learners return than the year before.

For more information: www.whalecamp.com

Calendar

15 October 2012. SEUS Right Whale Forum, Guana-Tolomato-Matanzas National Estuary Reserve, Ponte Vedra, Florida, 9:00 a.m. to 4:30 p.m. For further information, contact Tom Pitchford, tom.pitchford@MyFWC.com.

16 October 2012. Southeast U.S. Right Whale Recovery Plan Implementation Team meeting, Guana-Tolomato-Matanzas National Estuary Reserve, Ponte Vedra, Florida. As in the previous meetings, the meeting will be closed to the public. For further information, contact Barb Zoodsma, barb.zoodsma@noaa.gov.

13-14 November 2012. Annual Meeting of the North Atlantic Right Whale Consortium, New Bedford Whaling Museum, New Bedford, Massachusetts. Website: www.narwc.org

17 November 2012. 4th Annual Right Whale Festival, Seawalk Pavilion, Jacksonville Beach, Florida. Website: rightwhalefestival.org.

Scientific Literature and Reports

Allen, J.K., M.L. Peterson, G.V. Sharrard, D.L. Wright, and S.K. Todd. 2012. Radiated noise from commercial ships in the Gulf of Maine: Implications for whale/vessel collisions. Journal of the Acoustical society of America 312(3):EL229-EL235.

Benjamins, S., W. Ledwell, J. Huntington, and A. R. Davidson. 2012. Assessing changes in numbers and distribution of large whale entanglements in Newfoundland and Labrador, Canada. Marine Mammal Science 28(3):579-601.

Best, B.D., P.N. Halpin, A.J. Read, E. Fujioka, C.P. Good, *et al*. 2012. Online cetacean habitat modeling system for the US east coast and Gulf of Mexico. Endangered Species Research 18(1): 1-15.

Carroll, E. L., S. J. Childerhouse, M. Cristie, S. Lavery, N. Patenaude, A. Alexander, R. Constantine, D. Steele, L. Boren, and S. C. Baker. 2012. Paternity assignment and demographic closure in the New Zealand southern right whale. Molecular Ecology 21(16):3960-3973.

Churchill, M., A. Berta, and T. Demere. 2012. The systematics of right whales (Mysticeti: Balaenidae). Marine Mammal Science 28(3):497-521.

Fazio, A., M. Bertelliotti and C. Villanueva. 2012. Kelp gulls attack southern right whales: a conservation concern. Marine Biology 159(9):1981-1990.

Keller, C., L. Garrison, R. Baumstark, L.I. Ward-Geiger, and E. Hines. 2012. Application of a habitat model to define calving habitat of the North Atlantic right whale in the southeastern United States. Endangered Species Research 18(1): 73-87.

Klinck, H., S.L. Nieukirk, D.K. Mellinger, K. Klinck, H. Matsumoto, *et al*. 2012. Seasonal presence of cetaceans and ambient noise levels in polar waters of the North Atlantic. Journal of the Acoustical Society of America 132(3): EL176-EL181.

Leduc, R.G., B.L. Taylor, K.K. Martien, K.M. Robertson, R.L. Pitman *et al*. 2012. Genetic analysis of right whales in the eastern North Pacific confirms severe extirpation risk. Endangered species Research 18(2): 163-167.

Lundquist, D., M. Sironi, B. Würsig, V. Rowntree, J. Martino, and L. Lundquist. In press. Response of southern right whales to simulated swim-with-whales tourism at Península Valdés, Argentina. Marine Mammal Science, doi 10:1111/j.1748-7692.2012.00583.x

Martien, K.M. Robertson, R.L. Pitman *et al*. 2012. Genetic analysis of right whales in the eastern North Pacific confirms severe extirpation risk. Endangered species Research 18(2): 163-167.

Malakoff, D. 2010. A push for quieter ships. Science 328(5985):1502-1503.

Miller, C. A., P. B. Best, W. L. Perryman, M. F. Baumgartner and M. J. Moore. 2012. Body shape changes associated with reproductive status, nutritive condition and growth of right whales, *Eubalaena glacialis* and *E. australis*. Marine Ecology–Progress Series 459:135-156.

Moore, M.J. and J.M. VanDerHoop. 2012. The painful side of trap and fixed net fisheries: Chronic entanglement of large whales. Journal of Marine Biology, Article ID 230653. 4pp.

Moore, M., R. Andrews, T. Austin, J. Bailey, A. Costidis *et al.* In press. Rope trauma, sedation, disentanglement, and monitoring-tag associated lesions in a terminally entangled North Atlantic right whale (*Eubalaena glacialis*). Marine Mammal Science DOI:10.1111/j.1748-7692.2012.00591.x

Morano, J. L., A. N. Rice, T. J. Tielens, B. J. Estabrook, A. Murray, B. L. Roberts and C. W. Clark. 2012. Acoustically detected year-round presence of right whales on an urbanized migration corridor. Conservation Biology 26(4):698-707.

Mussoline, S. E., D. Risch, L. T. Hatch, M. T. Weinrich, D. N. Wiley, M. A. Thompson, P. J. Corkeron and S. M. Van Parijs. 2012. Seasonal and diel variation in North Atlantic right whale up-calls: implications for management and conservation in the northwestern Atlantic Ocean. Endangered Species Research 17(1):17-26.

Pendleton, D.E., P.J. Sullivan, M.W. Brown, T.V.N. Cole, C.P. Good *et al*. 2012. Weekly predictions of North Atlantic right whale *Eubalaena glacialis* habitat reveal influence of prey abundance and seasonality of habitat preferences. Endangered Species Research 18(2): 147-161

Rayment, W., A. Davidson, S. Dawson, E. Slooten and T. Webster. 2012. Distribution of southern right whales on the Aukland Islands calving ground. New Zealand Journal of Marine and Freshwater Research 46(3):431-437.

Rolland, R. M., S. E. Parks, K. E. Hunt, M. Cassellote, P. J. Corkeron, D. P. Nowacek, S. K. Wasser and S. D. Kraus. 2012. Evidence that ship noise increases stress in right whales. Proceedings of the Royal Society of London, Series B, Biological Sciences 279(1737):2363-2368.

Rosas, C. L., M. N. Gil and M. M. Uhart. 2012. Trace metal concentrations in the southern right whale (*Eubalaena australis*) at Península Valdés, Argentina. Marine Pollution Bulletin 64(6):1255-1260.

Silber, G. K., J. D. Adams and S. Bettridge. 2012. Vessel operator response to a voluntary measure for reducing collisions with whales. Endangered Species Research 17(3):245-254.

Silva, M. A., L. Steiner, I. Cascão, M. J. Cruz, R. Prieto, T. Cole, P. K. Hamilton and M. Baumgartner. 2012. Winter sighting of a known western North Atlantic right whale in the Azores. Journal of Cetacean Research and Management 12(1):65-70.

Stafford, K.M., S.E. Moore, C.L. Berchok, O. Wiig, C. Lydersen *et al*. 2012. Spitsbergen's endangered bowhead whales sing through the polar night. Endangered Species Research 18(2):95-103.

Stirling, I., and A.E. Derocher. 2012. Effects of climate warming on polar bears: A review of the evidence. Global Change Biology 18(9): 2694-2706.

Stegemann, E., and B. Fonda. 2010. A guide to whales of New York. New York State Conservationist 65(1):14-21.

Storr, K. 2012. ScienceShot: Who's your whale daddy? Science Now (southern right whale). http://news.sciencemag.org/sciencenow/2012/06/scienceshot-whos-your-whale.dadd.html?ref=hp.

Van der Hoop, J.M., M.J. Moore, S.G. Barco, T.V.N. Cole, P.Y. Daouset, *et al*. 2012. Assessment of management to mitigate anthropogenic effects on large whales. Conservation Biology doi 10.1111/j.1523-1739.2012.01934x.

Wade, P.R., R.R. Reeves, and S.L. Mesnick. 2012. Social and behavioural factors in cetacean responses to overexploitation: Are odontocetes less "resilient" than mysticetes? Journal of Marine Biology, Article ID 567276. 15pp.

Walkusz, W., W.J. Williams, L. Harwood, S. Moore, B. Stewart, and S. Kwasniewski. 2012. Composition, biomass and energetic content of biota in the vicinity of feeding bowhead whales (*Balaena mysticetus*) in the Cape Bathurst upwelling region (south eastern Beaufort Sea). Deep Sea Research Part I: Oceanographic Research Papers 69: 25-35.

Wallmo, K. and D.K. Lew. 2012. Public willingness to pay for recovering and downlisting threatened and endangered marine species. Conservation Biology 26(5):830-839.

Whitehead, H. and D. Lusseau. 2012. Animal social networks as substrate for cultural behavioural diversity. Journal of Theoretical Biology 294(1):19-28.

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.

The current and back issues of *Right Whale News* published between 1994 and 2012 are available at the North Atlantic Right Whale Consortium website, www.narwc.org—under 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.