Bay of Fundy Field Season, 2007
As The Policy Wheel Turns (Or Not)
It is the Right Time to do the Right Thing for the Right Whale:
A Letter of Opinion
A Lesson from the Primal Ocean:
Right Whales in the Auckland Islands
North Atlantic Right Whale Consortium 2007 Annual Meeting
Mortalities and Serious Injuries
My First Days as a Right Whale Researcher
2007 Mother/Calf Update
The Roseway Basin “Area To Be Avoided” Makes Canadian Waters Safer for Right Whales
South African Journey
Sponsorship Update
Help Us Name a Whale!

From the Editor
Dear Right Whale Sponsors,

We would like to apologize for this “fall” newsletter coming to you about three months later than planned. We hope it didn’t cause any inconvenience, especially for teachers who use a whale sponsorship as a teaching tool and were hoping it would arrive before the Christmas break. The right whale sponsorship newsletter is written and edited entirely by the researchers, and occasionally, that can have its drawbacks! Autumn is a busy time of year for us: We return from the Bay of Fundy and immediately begin post-field season report writing and data analysis. We prepare for the annual Right Whale Consortium meeting (always held in early November). The southeast aerial surveys that start up December 1 are in final planning stages. This year, in addition to all of that, we also had the October wedding of our usual editor, Lindsay Hall Cooper (Congratulations, Lindsay!), and the preparations for the big marine mammal conference in South Africa. For those reasons and more, this newsletter is late. And although the spring newsletter may have fewer articles, we will make every effort to get it out to you in mid-May.

Marilyn Marx

Bay of Fundy Field Season, 2007

By Philip Hamilton

It is hard to believe, but the right whale research project completed its 28th field season in the Bay of Fundy this year. The value of such a long, uninterrupted time series cannot be over stated. One of the goals of our work is to monitor the vital rates of this population and detect any significant changes over time. Often we are stymied in doing this because of changes in survey effort, asking ourselves, “Did this change really happen to the population, or is it because we increased or decreased our effort in the area?” The Bay of Fundy is one area where such questions can be answered.

We had a successful season this year. Six full time researchers returned to the station in Lubec, Maine along with a new researcher (see My First Days...), two short-term researchers, and three volunteers (only one of them new to right whale team). Our first day on the water was August 1 and our last day was September 30. We sighted between 20 and 40 right whales each day with a peak on September 17, when we sighted more than 70 different whales. A particularly important effort in the Bay of Fundy is to identify the calves of the year, both photographically and genetically, while they are still with their mothers. This year, 14 of the 22 known mothers were sighted in the Bay of Fundy. One of them, Picasso (Catalog #2611), was seen just once and no calf was near her. It is not uncommon for mothers and calves to separate for a few hours in the Bay, so we don’t know if her calf survived the long migration from Florida or not. Another mother, Derecha (Catalog #2360), showed up with her very small calf (see Mother/Calf Update).
Bay of Fundy Field Season 2007
Continued from page 1

Seeing this calf allowed us to solve an unusual puzzle. A mother and calf right whale had been seen off the Florida/Georgia coast in July for the first time in history. The photographs of the mother were useless for individual identification, but the calf had some unusual growths on it back. Good photographs of these same growths on the calf in the Bay of Fundy allowed us to identify the pair in the July sighting. These growths look like callosity tissue (the bumps that are always confined to the head) and it will be interesting to see if they persist over time. Everything about this calf seems to be unusual! By the end of the season, we had collected photographs and skin samples from all the calves in the Bay, allowing for paternity assessments and future identifications.

Besides mothers and calves, we had a couple of sightings of unusual whales during the field season. One was a whale named Tips (Catalog #1124), an adult male with white fluke tips who has some long gaps in his sighting history. He disappeared for nine years in the 1990s and had only been seen three times in the Bay of Fundy since 1984! On August 10, we found this whale alone on the eastern side of the Bay behaving very oddly. He was blowing long bubble streams and charging through the water at high speeds. Even though he was first sighted in 1980, we had never collected a skin sample from him until that day. The genetic information in that sample will be very interesting. A recent paper by Dr. Tim Frasier found that an unexpectedly large number of the fathers in the population have not been genetically sampled, leading to the speculation that there may be more whales out there than we think. Could Tips be one of the “missing” fathers? After collecting the sample, we put a hydrophone in the water and heard Tips making song-like sounds. Right whales have a wide repertoire of sounds and those he made that day are ones we rarely hear. What was he doing miles away from all the other whales, yet displaying both visually (with bubbles) and vocally? That was the only sighting of Tips for the season; where he headed next is unknown.

The second unusual sighting was of the adult female Catspaw (Catalog #1632). Catspaw was sighted far removed from all other whales, just as Tips had been. On September 4, as we were heading to the concentration of whales in the middle of the Bay, we caught the glint of something way to the northwest. Although we were unsure if it was a whale, we followed our intuition and turned to head in that direction and eventually found Catspaw. Similar to Tips, Catspaw disappeared for 12 years from 1988 to 2000. She had only been seen in the Bay of Fundy a few times during the years when she was accompanied by a calf. Like Tips, this was Catspaw’s only sighting in the Bay this season. Given her calving cycle, we suspect that she may have been pregnant during our sighting of her, but we will wait for Monica Zani, the Aquarium’s survey team leader in the southeast U.S., and the rest of the survey teams on the calving ground to report back to us. Where whales like Tips and Catspaw go during their long sighting absences remains one of the wonderful mysteries of this population.

It was a relatively quiet season as far as right whale emergencies go. It seems almost every season, a newly entangled right whale or a carcass is discovered. This year we had no deaths, only one entangled whale (Catalog #2029, first seen entangled in March 2007), and one animal seen free of fishing gear for the first time. We sighted #2029 on September 18 at 10:14 in the morning. She still had lines coming out of her mouth and wrapping around her back. The Campobello Whale Rescue Team was called and was on the scene within two hours—impressive timing, given that they were in the middle of a meeting at the time. On their first approach, they were able to cut one of the two lines over her back. After that, the whale became evasive and was soon lost in the crowd of other whales in the area. She has not been sighted since and we are eager to see how the one cut may have shifted the rest of the lines around her. The gear-free whale, Catalog #1403, had not been identified during its entanglement in September 2006 because only photographs of the tail were collected at the time. Luckily, the scars on the tail could be matched up to the healed scars on #1403 photographed in 2007, and another mystery was solved. This adult male has a deep cut in the top of his head, but the wounds appear to be healing. (To see a photo of #1403, and perhaps give it a name, go to Help Us Name a Whale in this newsletter.)

We continued to collaborate with a number of other researcher groups. Skin samples were collected and sent to Dr. David Rotstein at the University of Tennessee for analysis of skin lesions, Drs. Tim Frasier and Brad White at Trent University in Canada for genetic analyses, and Dr. John Wise at the University of Southern Maine for cell culturing and pollutant exposure testing. Fecal samples were collected for Dr. Rosalind Rolland at the New England Aquarium for her ongoing work (see Newsletter Volume 16, No. 1) and for Zachary Swaim at the University of North Carolina, who is conducting a physiological assay on waxy ester
North Atlantic Right Whale Consortium 2007 Annual Meeting

By Heather Pettis

The 2007 Annual Meeting of the North Atlantic Right Whale Consortium was held at the New Bedford Whaling Museum in New Bedford, Mass., on November 7 and 8. The Consortium was formed in 1986 and is comprised of individuals and organizations active in right whale research and management activities. The mission of the North Atlantic Right Whale Consortium is to ensure the long-term conservation and recovery of right whales in the North Atlantic. Members of the Consortium are committed to the coordination and integration of the wide variety of databases and research efforts related to right whale conservation to relevant management groups. This year, more than 220 individuals representing research and educational institutions; local, state and federal government agencies; shipping and fishing industries; whale watch companies and conservation organizations were in attendance. We continue to be thrilled with the increasing support and interest in the Annual Meeting, because it indicates a continued commitment to protecting this endangered species.

The agenda for the two-day event included 38 presentations and covered a wide variety of topics, including population biology and distribution, acoustics, health and physiology, management updates, shipping and entanglement conflict and mitigation, and genetics. Several researchers from the New England Aquarium's Right Whale Research Project presented at the meeting. Dr. Moira Brown presented the Annual Right Whale Report Card, which aims to summarize the status of right whales. The report card includes updates on the status of the population, mortalities and entanglement events, and a summary of current management and research efforts. The report card is available on the Right Whale Consortium website: www.rightwhaleweb.org. Other presentations by New England Aquarium right whale researchers included The North Atlantic Right Whale Catalog Update by Philip Hamilton, Visual Assessment of North Atlantic Right Whale Health and its Relationship to Reproduction by Heather Pettis, Visual Assessment of Health and Human Impacts for Eubalaena australis at the Auckland Islands by Dr. Rosalind Rolland, Science Based Conservation: Moving Ships in Atlantic Canadian Waters to Protect Right Whales by Dr. Moira Brown, and Predicting Lethality from Gear and Vessel Trauma in North Atlantic Right Whales and The Impact of Increasing Line Strength on Entanglement Scarring Severity in North Atlantic Right Whales by Amy Knowlton.

The importance of the Annual Meeting to the right whale research community cannot be overstated. It brings together people committed to right whale conservation to share their work, form new collaborations and brainstorm innovative ways to work towards a common goal: conserving and managing the North Atlantic right whale population. Overall, the Annual Meeting of the North Atlantic Right Whale Consortium was a tremendous success. It infused all in attendance with a renewed sense of excitement and commitment to continue efforts to ensure that the North Atlantic right whale population lives on. We would like to extend a special thank you to the New Bedford Whaling Museum staff, whose assistance in organizing and running the meeting was much appreciated!

Heather M. Pettis, Associate Scientist

Heather earned her B.S. from Bates College in 1997 and her Master's in Marine Biology from Boston University's Marine Program in 2001. She joined the Right Whale Research Program full time in 2000. She currently serves as the Secretary of the North Atlantic Right Whale Consortium. In addition to her work at the Aquarium, Heather teaches biology and marine biology at a private school in New Hampshire. Her research interests include population biology and health condition of right whales and its effects on reproductive and population dynamics.

Philip Hamilton, Research Scientist

Philip Hamilton began his whale research career in 1986 at the Provincetown Center for Coastal Studies in Provincetown, MA. He joined the Right Whale Program at the Aquarium in 1989 where he now manages the Photo-identification Catalog. In addition to right whale research, he has also participated in several humpback whale studies. He did his masters work investigating right whale associations at the University of Massachusetts at Boston. In recent years, he has been designing the DIGITS software used to manage right whale images and data.

Digestion and lipid components of right whale feces. Sightings were reported to Fundy Traffic to be relayed to ships entering the Bay and to the National Marine Fisheries Service for their right whale sightings advisory system (http://rwhalesightings.nefsc.noaa.gov/).

As with any field project, not all went smoothly during the field season. The R/V Nereid had an alternator problem that took longer to fix than anticipated. The precious week lost was made a bit more bearable knowing that, due to poor weather, we only lost a few days at sea. And at the field station, the Internet connection continued to be troublesome. Slow Internet is a new fieldwork hardship that we didn't face in the days of slides, pencils and paper. Now with six or eight of us using our on-line database, slow Internet lowers our productivity and is just plain frustrating! So we developed a schedule for computer use and a few of us spent time at the new library in Lubec, where fast wireless was greatly appreciated. Given how difficult fieldwork can be, these were relatively minor set backs and we count ourselves fortunate for the relative ease of the season.

By the time we started packing up the field station, we had completed a total of 21 systematic surveys covering more than 3,000 km. We had collected more than 600 sightings of at least 126 different whales. We made our migration south in the beginning of October, and some of us continued on to Florida in December. Now, during the calving season, is when we learn which of the whales in the Bay of Fundy were pregnant when last we saw them. And the cycle continues...
The Roseway Basin “Area To Be Avoided” Makes Canadian Waters Safer for Right Whales

By Moira W. Brown

Too often over the past couple of decades right whale biologists would receive a call, usually from a mariner, with the report of a dead whale. The immediate emotions are pulled in two directions. We are sad and discouraged at the prospect of another right whale lost. But quickly the biologist kicks in: Is it really a right whale? If so, we need to get the whale ashore and assemble a team to carry out a necropsy to find out why it died.

One recent such call came on September 3, 2006. Carl Boudreau, a Canadian fishery officer on board the Fisheries and Oceans (DFO) patrol boat Geliget had spotted a carcass in the inner Bay of Fundy. Carl knew his whales well so when he said it was a right whale, we had no doubt. He had secured a rope around the tail; the huge whale was in tow and the boat making headway toward shore. It was slow going and would take several hours to get to the closest port, Yarmouth, Nova Scotia.

While the crew on the patrol boat towed the whale, we got to work on the phone. The first call was to Jerry Conway, marine mammal advisor for DFO based in Dartmouth, Nova Scotia. He agreed to share the costs of recovering the whale, find a location for the necropsy, and arrange for heavy machinery operators to be on hand to take the towline from the patrol boat crew and drag the whale above the high tide line. The nearest suitable location to Yarmouth was Kelley’s Cove.

The second call was to Dr. Michael Moore of the Woods Hole Oceanographic Institution. Dr. Moore is a veterinarian and a whale biologist who has led, in his own words “too many necropsies of right whales.” He and his team carry out medical exams to look for clues to suggest why a whale died. Michael was immediately available. He and his team grabbed their gear and hit the road for the long drive and ferry ride from Bar Harbor, Maine, to Yarmouth. The goal was to get the whale ashore and the necropsy team in place to start their examination the next day.

The necropsy revealed that this 48-foot-long female right whale had many broken vertebrae and a large bruise. She had been hit by something hard on one side, and the mostly likely culprit to cause the fractures of 16 vertebrae was a large vessel. Drift analysis suggested, and we were able to confirm that it was indeed the same whale. This incident and the results of the necropsy were part of the justification that generated the momentum for greater protection for right whales on Roseway Basin...

Roseway Basin—a place where right whales feed and socialize in the summer and fall—is located about 30 nautical miles south of Cape Sable Island, Nova Scotia, and is one of two conservation areas for right whales in Atlantic Canada.

The second is located in the Bay of Fundy, a summer and fall nursery area and feeding habitat. The conservation area designation by the Canadian government in 1993 provided recognition but no actual protection to the whales inside the area boundaries, and vessel traffic was not excluded from the areas.

Although vessel strikes are the leading cause of right whale mortality from human activities, there are solutions that will provide right whales with protection from such encounters. The relocation of the Bay of Fundy shipping lanes is recent example of that, and a female calf named Calvin provided the impetus. In 1992, she was orphaned when her mother died as the result of a vessel strike in the Bay of Fundy; that event began an effort to keep ships from crossing the conservation area. Ten years later, in 2002, the International Maritime Organization (IMO) adopted an amendment to the existing shipping lanes. Implemented by Transport Canada in July 2003, the measure directed large vessel traffic around the aggregation of right whales reducing the probability of a vessel/whale interaction by 90 percent.

After the success in the Bay of Fundy, we turned our attention to Roseway Basin. Canada’s proposal for an Area to be Avoided (ATBA) on Roseway Basin was the culmination of the work of many researchers at several institutions. The process began with right whale sighting data collected in Canadian waters since the early 1980s, primarily by the New England Aquarium. Data crunching by Bob Kenney at the University of Rhode Island and Christopher Taggart and Angelia Vanderlaan at Dalhousie University aided the effort. Their analyses of shipping routes and right whale

Why ship strikes?

Vessel strikes are the leading known cause of right whale mortality from human activities. The behavioral characteristics, habitat preferences and even the shape of right whales make them especially vulnerable to being struck by vessels. Right whales are black in color, have a broad back and no dorsal fin. Their low profile and dark coloration make them difficult for mariners to see, especially in rough seas and at night. They also move slowly and spend extended periods at or near the surface. Typical behavior includes resting at the surface (or “logging”), social activity including courtship, skim feeding, which refers to swimming slowly at or near the surface as they filter zooplankton from the water, and nursing their young. They appear to be slow to respond to approaching vessels, which makes them vulnerable to strikes, especially by fast-moving vessels. This vulnerability, combined with their near-coastal preference, makes right whales one of the species most prone to collisions with vessels.
This figure summarizes fifteen years of dedicated efforts between Aquarium researchers and the Canadian government to increase mariner awareness of right whales in Atlantic Canadian waters. The two right whale conservation areas were designated in 1993, the Bay of Fundy shipping lanes were relocated east of the conservation area in 2003 and the Area to be Avoided will take effect in May 2008.

Illustration / Kerry Lagueux

sightings in the area indicated that, with the declaration of an ATBA, the probability and risk of vessel collisions with right whales could be significantly reduced with minimal disruption to ship routes. Based on Canadian vessel reporting systems, it has been estimated that a minimum of 1,700 ships navigate in and around the Roseway Basin area annually, and that many of the vessels are bound to or from ports in Halifax, Nova Scotia; Saint John, New Brunswick; the United States; the United Kingdom; Russia; Belgium; Norway and other European destinations. The traffic pattern generally reflects the Great Circle route from Europe and the east coast of North America.

In April 2007, the proposal for an ATBA designation south of Nova Scotia was submitted to the IMO by Transport Canada and had a great deal of support from Canadian industry, including Irving Oil and Atlantic Pilotage, government agencies such as Transport Canada, Fisheries and Oceans Canada and Canadian Marine Advisory Council, scientists from the National Marine Mammal Peer Review Committee of DFO and the Canadian Right Whale Recovery Team. Special accolades are due to Lindy Johnson of NOAA for garnering support from the U.S. delegation to IMO.

On October 7, 2007 the IMO adopted Canada’s proposal to designate 980 square nautical miles of Roseway Basin as an Area to be Avoided. That means that vessels of 300 gross tons and above will be recommended to steer clear of the area from June 1 to December 31. The measure goes into effect on May 1, 2008, and while the ATBA will be recommended rather than mandatory, it is anticipated that the marine community will heed the recommendation and give way to the whales. There is always an option to return to IMO to seek mandatory measures if the recommended ones are not sufficient.

The 2007 IMO adoption of the Roseway Basin ATBA and the 2003 IMO amendment to the Bay of Fundy shipping lanes were examples of how Aquarium researchers and their collaborators are working with corporations and government to not only develop but, most importantly, implement conservation measures for right whales that will promote recovery and last well beyond our lifetimes. What does this mean for right whales in Canadian waters? It means that the calves, like Calvin’s first calf born in Florida waters in 2005, will have a safer haven in the Bay of Fundy in which to fatten and grow. And on Roseway Basin, adult right whales will have a safer place to engage in the activities that result in more calves.
Mortalities and Serious Injuries

By Amy Knowlton

Each year the right whale research community collects and analyzes photographs of right whales to determine the status of the population and the level of human-related interactions. Each year we hope not to witness any dead or injured animals in this beleaguered population. Sadly, in the past 22 years of our nearly 30 year Right Whale Research Program, we have never enjoyed such a year. Right whales living in this urban part of the ocean, the eastern U.S. and Canadian seaboard, are constantly faced with threats. Vessel strikes by both large and small vessels can lead to either instantaneous death, sub-lethal propeller cuts, or broken bones that can sometimes result in fatal infection. Fixed fishing gear, both pot gear (used primarily for lobster fishing) and gillnet gear, is so prevalent throughout their range that right whales and other large whales routinely get entangled in these myriad lines, sometimes resulting in tight wraps around their head, body, flippers or tails. These severe entanglements can lead to chronic and debilitating situations for these animals and, unless disentangled (a dangerous and not always successful endeavor), these unfortunate animals simply disappear, likely experiencing a slow and painful death.

Sadly, 2007 was a year with continued mortality and injury to this species. Three mortalities were documented for the year (plus a fourth on December 30, 2006). First was the death of Catalog #3508 in December 2006. This two-year-old male had 20 propeller cuts along his head and body that likely caused instant death. On January 25, 2007, a newborn calf was found near Ponte Vedra Beach, Fla., that likely died from complications during birth. On March 25, one of our older animals, a 26-plus-year-old male, Catalog #1424, was found floating in the Gulf of Maine. Although this animal had been entangled since 2002, he seemed to be in robust condition when last sighted alive in September 2005. However, the rope that still wrapped tightly around his rostrum (upper jaw) may have led to his demise if infection set in. Unfortunately, despite numerous attempts, the carcass could not be retrieved and the ultimate cause of death could not be determined. The last known mortality of the year was documented on March 31, 2007, off of North Carolina. The animal was a male calf of the year and, though no fishing gear was found on the carcass, he had evidence of entanglement interaction that likely led to his death.

In addition to these mortalities, three animals were documented with serious injuries from either entanglement or vessel strike. Catalog #2029, a reproductively active adult female, was first documented in March 2007 off of Cape Cod, Mass., with numerous lines wrapped around her head, body and flippers. She was seen again in September in the Bay of Fundy at which time a disentanglement response was mounted (see Bay of Fundy Field Season, 2007). The rescue team was able to cut only one of the entangling lines, but because she has not been seen again, we do not know her fate. Caterpillar (Catalog #3503), a two-year-old female, was seen in March 2007 off of Cape Cod with a series of propeller cuts in her right flank. When she was seen a few months later in the Bay of Fundy the wounds appeared to be healing, but risk of infection is still a major concern as the cuts were deep and into the muscle. Finally, a one-year-old, the 2006 calf of Catalog #1503, had a portion of her right fluke severed by a vessel. Again, risk of infection is of concern.

One day, if more protective measures are put in place (see As The Policy Wheel Turns), we may see a year (or, ideally, many years) in which no right whales are injured or killed as a result of human activity. That will truly be cause for celebration!

Amy Knowlton, Research Scientist

After graduating with a bachelors’ degree in Geography from Boston University in 1982, Amy began as a part-time volunteer with the Right Whale Program in 1983. She became a full-time employee in 1988. She holds a Masters degree in Marine Policy from the University of Rhode Island with a focus on shipping regulations and protection of right whales from ship strikes. She has a strong interest in meshing science with policy to help develop effective protection measures for right whales.

2007 Mother/Calf Update

By Lindsay Cooper

In the previous volume of Right Whale Research News (Volume 16, No. 1, May 2007), we reported that the total number of calves born during the winter calving season was 20. We are very pleased to announce that two more calves were sighted since then!

On June 2, 2007, the research team aboard the NOAA ship Albatross IV, working in the Great South Channel (GSC), sighted Derecha (Catalog #2360) with a small calf beside her. The sighting
is unique because it took place relatively late in the year in a northern habitat (almost all mothers with calves of the year are first sighted on the calving ground), and also because the calf looked to be about the same size as newborn calves in the southeast during the winter. Could Derecha have given birth in northern waters? The NOAA team that sighted her in GSC, along with Aquarium right whale researchers, believes it’s possible. They presented their theory at the 2007 Right Whale Consortium Annual Meeting (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; M.F. Baumgartner) and hope to publish their findings soon. We will keep you updated.

Derecha’s strange story doesn’t end there. Her next sighting, in July, gave us another surprise: she and her calf were photographed off Florida! It was the first time a mother/calf pair had ever been seen on the southeast calving ground in summer, and it was approximately four months after the other mothers of the year had left to head north! This is Derecha’s second calf and it appears that this mother likes to think outside of the box when it comes to child-rearing. Some may recall from previous newsletters that Derecha took her 2004 calf (Catalog #3460) into the Gulf of Mexico, a place rarely visited by right whales.

The other new mother for the year was first sighted with a calf on July 3, 2007. The pair was sighted east of Stellwagen Bank, which sits at the mouth of Massachusetts Bay. The mother was identified as Catalog #2912. Not only was she a new mother for the 2007 season, but this was her very first calf. Upon reviewing images from the southeast calving ground, we found that she had been sighted by the Aquarium’s aerial survey team in February but did not have a calf with her at that time. It is unclear where and when the calf was born, but both mother and calf did arrive safely in the Bay of Fundy and were sighted by the Aquarium team on August 28.

The addition of these two calves brings the total 2007 calf count up to 22. We hope the 2008 calving season is just as productive!

Lindsay Hall Cooper, Assistant Scientist

Lindsay earned a B.S. in Biology from Allegheny College in 2002. She has worked as a research assistant and as an aerial and shipboard observer on marine mammal surveys. She joined NEAQ as an aerial observer in 2002. Lindsay is currently the Right Whale Program’s data coordinator. In addition to cataloging contributed photographs of right whales, she has a strong interest in right whale education projects, and entanglement scar analysis. She coordinates the Sponsorship Program and is the editor of Right Whale Research News.

South African Journey

By Amy Knowlton

To be at sea with right whales is perhaps a favorite place for all of us, but occasionally we get to far off lands as well. Last fall, four members of our team traveled to Cape Town, South Africa to represent the New England Aquarium at the 17th Biennial Marine Mammal Conference. It was held from November 29 through December 3, 2007, with numerous workshops preceding the first day. This conference is broad in scope, and covers science and policy related to cetaceans, pinnipeds and sirenians. It was the first time the Biennial Conference was held in the southern hemisphere, and although attendance was lower than at previous Biennials in the U.S. and Canada, the number of countries represented expanded substantially, which was considered positive news.

The presentations given by members of the right whale team attest to the breadth and depth of the research carried out here. We had three abstracts accepted for oral presentation, led a symposium on long-term studies, and presented at a workshop about digital photography. Below are the titles and lead author of each of the papers presented, as well as details about the symposium and workshop:

Oral Presentations:

- **Health assessment of North Atlantic right whales using fecal samples**, by Rosalind Rolland
- **The impact of increasing line strength on entanglement scarring severity in North Atlantic right whales** (Eubalaena glacialis), by Amy Knowlton
- **The Gulf of St. Lawrence: another nursery for western North Atlantic right whales?** by Yan Guilbault

Special Evening Symposium:

- **Long-Term Studies of Individually Identified Cetaceans**, organized by Scott Kraus, who also presented our workshop:
- **Provided a detailed overview of our photo-identification program, Digital Image Gathering and Information Tracking System (DIGITS)**, by Amy Knowlton and Yan Guilbault on behalf of Philip Hamilton

Workshop on Recent Advances in Digital Techniques:

- **Provided a detailed overview of our photo-identification program, Digital Image Gathering and Information Tracking System (DIGITS)**, by Amy Knowlton and Yan Guilbault on behalf of Philip Hamilton

Since a trip to South Africa is a rare opportunity, we all took some vacation time either before or after the conference to see sights such as Table Mountain, southern right whales from the shores of Hermanus Bay, and amazing wildlife at Kruger National Park. It is truly a beautiful country, and we consider ourselves very fortunate that our jobs take us to such unusual places in the world!

Amy Knowlton, Research Scientist

After graduating with a bachelor’s degree in Geography from Boston University in 1982, Amy began as a part-time volunteer with the Right Whale Program in 1983. She became a full-time employee in 1988. She holds a Masters degree in Marine Policy from the University of Rhode Island with a focus on shipping regulations and protection of right whales from ship strikes. She has a strong interest in meshing science with policy to help develop effective protection measures for right whales.
My First Days as a Right Whale Researcher

By Jonathan Cunha

Last spring, after volunteering at the New England Aquarium's Right Whale Research Program's office in Boston, I was invited to join the team for their annual Bay of Fundy field season. It was my first time working with the Aquarium team in the field and my first time seeing a right whale ever! I had heard the stories of how beautiful and tranquil the Bay of Fundy is, but I never believed them all to be true until I saw it for myself.

Preparations for the field season began in June with meetings in which we discussed schedules, equipment, logistics, the field station, etc. Checklists were drawn up and researchers were assigned various tasks: inspect the safety equipment, gather permits together, check all cameras andhydrophones, compile contact information for other research groups and more. In early July, with anticipation building, we started packing up the office, including computers, printers, light tables and office supplies. Lubec, Maine is pretty far from anywhere, so everything we need, we have to take ourselves. Boxes were piled everywhere! One by one, the researchers' small cars were loaded up with as much stuff as possible with some space remaining for their own personal gear—not only clothes, but bedding, pillows, towels, etc.

With my car packed and bulging, I set out from Boston for the long drive to Lubec, the easternmost point in the U.S. After an 8-hour drive, I finally arrived at the right whale research station shortly after 10 p.m. The anticipation of getting there and getting on the boat had made my drive seem more like 16 hours! I stood outside staring at a gigantic white house, wondering if I was in the right place. I wandered around looking in the windows hoping to see someone familiar. At the third window, I saw a face eerily illuminated by a computer screen. Startled at first, I jumped back, then quickly realized that it was Philip Hamilton, hard at work analyzing data. I knew then that I was in the right place. I was shown to my room, which was dubbed "the closet" because of its tiny size. The next day, I upgraded to a room in the attic, which is better than it sounds. This room was much more private and about the size of my first Boston apartment.

My first day out on the water was August 22. The expectation of the coming day woke me up at 4:30 a.m., but soon after there was a quiet knock on my door and Moe Brown's voice saying, "We're good to go." The kitchen was already bustling with activity when I came down—some people were eating breakfast, some were washing their dishes and others were beginning to pack the cooler and canvas bags with the day's food. It was a sight I was not expecting to see so early in the morning! When breakfast was finished, we loaded up the truck with the research equipment—the cameras, biopsy sampling gear, video camera, computer and the most important piece of equipment: the food cooler.

Finally, about an hour after Moe's wake-up knock, I was stepping aboard R/V Nereid for my first day on the water! As we left the dock, Monica Zani gave me a safety orientation, pointing out the life raft, fire extinguishers, emergency beacon and the marine radio. It was a calm day on the water. I watched the sun rise as we made our way past Grand Manan Island and into the lower Bay of Fundy.

It was such a memorable day! I saw a surface-active group (SAG) form right before my eyes. A mother (Catalog #1911) was swimming towards her calf and was joined by five other whales. Before I knew it, we were surrounded by seven right whales! Then, I collected my first of what would be two fecal samples, from which we can learn about the whale's health and reproductive status. I felt like a real scientist: on a boat in the middle of the Bay of Fundy collecting whale poop. Despite the horrific stench, it was an exciting experience.

The climax of that first day came when we had a curious approach. We sighted a whale that appeared to be playing in a patch of seaweed. The whale was rolling around, posturing (simultaneously lifting its head and tail above the surface of the water) and opening and closing its mouth. Since it was a calm day, we shut down Nereid's engine so we could quietly observe it from a distance. The whale eventually noticed our boat and began to approach us. We did not want to startle or harm the curious creature by turning on our engine, so we continued to sit still while it circled us. It soon realized that, despite our size, we were not another whale, and it swam off.

Throughout the season, we had a constant ingress and egress of researchers from organizations like IFAW (International Fund for Animal Welfare), University of Southern Maine and the Provincetown Center for Coastal Studies. I was able to meet so many researchers and naturalists who shared my interests. Because Lubec is remote, our social gatherings were comprised of games of soccer and volleyball and group dinners of gargantuan proportions. We owe a lot to our chefs, Claudia Tomsa, Keven Ring and Maryann Malarkey, for cooking for such large and diverse crowds.

I had an unforgettable experience these past two months and learned a lot about these fascinating creatures. I'm already looking forward to doing it all over again next summer! But in the meantime, I'll be following the right whales to Florida, where I'll be an observer on the aerial surveys that help protect mothers and their newborn calves from dangerous ship encounters. I look forward to telling you all about my adventures in the southeast in our next newsletter!

Jonathan Cunha, Research Assistant

Jonathan joined the right whale team in
Surface Active Group (SAG)

One of the terms we frequently use when describing right whale behavior is surface active group (SAG). A SAG has a fairly broad definition—two or more whales within a body length interacting at the surface—but typically, the SAG is comprised of one female and a number of males competing with each other in order to mate with her. Some SAGs are extremely active, with a lot of rolling and white water (see photo below), whereas others are more sedate. The number of animals in a SAG can range from two or three to more than 40! For years researchers presumed that the primary reason for a SAG was mating. However, conception is thought to take place in the winter (since gestation is about 12 months and right whales usually give birth between December and February), yet SAGs occur year round. Recent analyses of the composition and seasonality of these SAGs indicate that actually only about half of them include females able to reproduce. Thus, SAGs are not just for mating purposes. Some have been documented to be all male, or all female, or all youngsters. Our colleague, Dr Susan Parks from Woods Hole Oceanographic Institution, wrote a paper about SAG behavior in collaboration with Aquarium researchers (see below). She hypothesizes that, in addition to conception, SAGs may serve a variety of different roles including practice, play and social bonding. Studying the behavior of marine mammals such as right whales is much more difficult than that of terrestrial species, because we get just a glimpse of these animals when they're at the water’s surface. But the long-term photo-identification aspect of the Aquarium’s program has enabled researchers to answer some very basic and important questions.


---

A typically boisterous multi-whale Surface Active Group (SAG) in the Bay of Fundy.

Photo / New England Aquarium

---

**Right Whale Research News**

---

A Lesson from the Primal Ocean: Right Whales in the Auckland Islands

By Roz Rolland and Scott Kraus

The sub-Antarctic Auckland Islands 300 miles south of New Zealand are a World Heritage Site, noted for their isolation, rugged beauty, rough weather and rich biological diversity. Many ships have met their end along the shores of these islands, and even today there are caches of food and supplies maintained on the islands for shipwrecked sailors. This isolation has also led to a remarkable assemblage of wildlife that is relatively undisturbed by human activities, including species that are found nowhere else in the world. Among the endemic species (found only here) are flightless teals, Hooker's sea lions, red-crowned parakeets and the Auckland Island rail. The Auckland Islands are also home to several of the largest albatross and yellow-eyed penguin colonies in the world. Of great interest to us was the population of southern right whales (Eubalaena australis) found around the Auckland Islands during the southern hemisphere winter.

We joined a National Geographic Society (NGS) expedition to the Auckland Islands in the summer of 2007. Brian Skerry and Douglas Chadwick of NGS organized the expedition to obtain underwater photographs of right whales and to compare this isolated population to the one that lives in the urbanized North Atlantic. In order to assess the health of, and human impacts on, these remote whales, we applied photographic methods that had been developed to study the health of North Atlantic right whales based on body and skin condition. We also analyzed photographs for evidence of scarring from entanglements in fishing gear and propeller marks from encounters with ships. The rest of the research team included colleagues from Oregon State University (Scott Baker), the University of...
As The Policy Wheel Turns (Or Not)

By Amy Knowlton

The question that the right whale community constantly grapples with and focuses much of our efforts on is how to prevent right whale mortalities and serious injuries from occurring. Nearly all such deaths and injuries are related to human activities in right whale habitats. With a population numbering fewer than 400 animals and legislative mandates that require protection of this endangered species (U.S. Marine Mammal Protection Act of 1972, U.S. Endangered Species Act of 1973, and the Canadian Species at Risk Act 2003), finding ways to mitigate these impacts and then ensure that measures are put in place by government agencies is a lengthy, complicated and often frustrating process. In the past year, there have been some successes, but some confounding problems remain despite a huge level of effort.

In the U.S., the National Marine Fisheries Service (NMFS), a branch of the National Oceanic and Atmospheric Administration, is responsible for protecting right whales and other marine mammal species. In Canada, the Department of Fisheries and Oceans (DFO) plays a similar role. New England Aquarium researchers and the entire right whale community work closely with NMFS and DFO to provide scientific information about the status of the species and the problems the whales face that impede their recovery. Many staff members at NMFS and DFO have been working diligently in recent years to develop and try to implement sound policies for mitigating those problems.

In regard to fishing gear, NMFS had some success on two fronts. In June 2007, NMFS passed a final rule closing the southeast U.S. calving ground to gillnetting during the calving season. This rulemaking occurred after the death of a calf from a gillnet entanglement in January 2006. In October 2007, NMFS passed a final rule primarily mandating that pot and gillnet fishermen use sinking groundline (instead of floating groundline) between each pot and between the gillnet and the holding anchors. This change in groundline buoyancy is considered to be critical in reducing whale entanglement, because it removes potentially entangling lines from the water column and keeps those lines on the bottom out of harms’ way. This rule passed only after a lawsuit was filed by two non-governmental organizations (NGO), The Humane Society of the United States and The Ocean Conservancy, against NMFS. The suit demanded that the final rule, which had been delayed several years by the behind-the-scenes lobbying of fishing industry representatives opposed to it, be published. The judge recognized that political maneuverings were keeping a strong, well-reasoned policy from seeing the light of day and mandated that the rule go forward. By October 2008 most fishermen within the Gulf of Maine will be required to use sinking groundline on a year-round basis, a change that should dramatically reduce the chance of entanglement for all large whales.

However, even with these successes, there are still serious problems that need to be addressed, including mitigating the entanglement risk posed by vertical lines leading from the surface buoys to the ocean floor and developing and implementing similar gear modifications for Canadian waters. Details about all U.S. regulations related to large whale entanglements can be found at http://www.nero.nmfs.gov/whaletrp.

On the ship-strike front, the situation has seen both highs and lows in terms of success. In Canada, efforts between the Aquarium and Dalhousie University researchers, in collaboration with DFO and Transport Canada, resulted in a major success: Roseway Basin, one of two major right whale habitats in Canadian waters, was declared a seasonal, recommended Area To Be Avoided after winning adoption from the International Maritime Organization in October 2007 (see The Roseway Basin… article for the details). Between this new measure and the relocation of the shipping lanes in the Bay of Fundy in 2003, Canada has taken significant steps in protecting right whales from vessel traffic.

On the U.S. side, this process has not gone quite as smoothly, though there were some positive changes to reduce risk. In July 2007, the shipping lane outside the port of Boston was shifted 12 degrees to the north to move ship traffic away from large whale hotspots found on Stellwagen Bank (just off the tip of Cape Cod), which at times includes right whales. Another positive change was the implementation of recommended routes off the southeast U.S. and in Cape Cod Bay to encourage vessel traffic to minimize their transit distance through right whale critical habitats.

Both of those changes will reduce ship strike risk to some degree. However, one regulation that could have a tremendous benefit to right whales, the implementation of speed restrictions throughout their range, has been stalled at the White House level with no explanation for the delay. After many years of meetings with industry representatives, internal meetings within NMFS and interagency meetings within the federal government, NMFS developed a sound ship strike prevention strategy based on good science and well-formulated policy. A proposed rule was published in June 2006, and after the review of public comments, NMFS submitted a final rule to the Office of Management and Budget (OMB), a federal agency, for approval in February 2007. Typically OMB has 90 days to review the rule and provide approval, or send it back for changes in an open, public process. Although we are not privy to the internal workings of this agency and their discussions with NMFS, it is our understanding that, because of pressure from the shipping industry, OMB elevated this rule to the White House level. There it remains in secrecy with no explanation of when, or if, it will be released. It is a complete violation of the democratic process, yet we are powerless to do anything to change it. The pleas of many, including staff members of the NMFS, national and international NGOs and research scientists, to get this rule released
have fallen on deaf ears. For further information about all of these U.S. changes and to monitor progress on the speed restriction rule, visit http://www.nero.noaa.gov/shipstrike/.

We encourage anyone concerned about the fate of right whales to contact their senators and congresspersons and ask them to ensure that protective measures for right whales are implemented expeditiously. To contact your federal representatives, go to www.congress.org for their contact information.

Amy Knowlton, Research Scientist
After graduating with a bachelor's degree in Geography from Boston University in 1982, Amy began as a part-time volunteer with the Right Whale Program in 1983. She became a full-time employee in 1988. She holds a Masters degree in Marine Policy from the University of Rhode Island with a focus on shipping regulations and protection of right whales from ship strikes. She has a strong interest in meshing science with policy to help develop effective protection measures for right whales.

It is the Right Time to do the Right Thing for the Right Whale: A Letter of Opinion

By Scott Kraus

The North Atlantic right whale needs our help. Large and rotund, with an upside-down appearance, right whales do not have the sleek gracefulness of fin whales or the playful demeanor of humpbacks. And since the U.S. banned whale watching of this species more than ten years ago, there has been no opportunity for the public to see right whales. But North Atlantic right whales have a place in history unequalled by any other species and they need public support to survive.

More than a thousand years ago, the presence of right whales near shore meant a huge bounty to anyone lucky enough to kill one. Thus, whale hunting was born. Since that time, whaling history has been a legacy of mismanagement, poor science and sequential near-extinctions of all the large whale species. Some whale species have rebounded, but only a tiny group of North Atlantic right whales survived. Today, that group numbers fewer than 400 animals, and its future is grim without intervention to reduce deaths caused by humans. Although whaling for right whales ceased in the early 1900s, ships traveling along the Eastern Seaboard accidentally kill at least two to four right whales each year. While these numbers appear to be low, the deaths are mostly females, and in this small population, killing mothers means fewer calves and pushes the species closer to extinction.

This hasn’t gone unnoticed. NOAA’s National Marine Fisheries Service (NMFS) is well aware that this species’ survival is at stake, and last year issued a proposed rule to slow ships regionally as right whales move with the seasons along the East Coast, from Florida to Maine. NMFS did an impressive job of evaluating the many scientific papers that supported such a rule and performed a comprehensive analysis of the cost effects for shipping companies.

Standing in opposition to NMFS is the World Shipping Council (WSC), a trade association that represents all of the major liner shipping companies serving the U.S. The WSC sent a letter to the Office of Management and Budget (OMB) claiming that the rule would not protect right whales. However, the council also stated that, “…we would have no objection to the proposed regulations if we believed that there was a reasonable probability that those regulations… would protect right whales.”

Scientists who have reviewed the WSC letter have responded vigorously: the WSC selectively chose data to support their point of view, failed to do appropriate analyses on the existing data, misrepresented findings and incorrectly interpreted most of the scientific papers that supported the rule. Remarkably, their primary thesis appears to be that speed does not kill, a conclusion that flies in the face of common sense, school zone legislation and the laws of physics. (If your windshield hits a bug at 5 mph, it is likely to bounce off and fly away – but we all know what happens at 30 mph.) The same laws apply to right whales: the faster the speed, the greater the probability of death from a collision with a ship. Even more remarkable, the OMB and the White House found something in the WSC arguments that caused them to indefinitely stall the process on this rule for a year, although they have yet to share those findings with the world.

It is the right time for OMB and the White House to do the right thing for the right whale. Slowing ships down as they enter the coastal waters of the U.S. will save right whale lives and help the population grow. The science supporting the coastal slowing of ships is outstanding. The costs for the shipping industry are a tiny percentage of their business. And the WSC agreed to do it if it would work. Right whales represent a line in the sand for endangered ocean species. The OMB should support NOAA and NMFS efforts to slow ships down, so that right whales can move away from that line, over which lies the path to extinction.
A Lesson from the Primal Ocean: Right Whales in the Auckland Islands

Continued from page 9

Otago (Simon Childerhouse) and the University of Tasmania (Glenn Dunshea), who were conducting population assessments using genetics and photo-identification. Our research vessel for the expedition was the 82-foot, steel-hulled ketch Evohe, owned and captained by the very capable Steve Kafka. The team was rounded out by an extraordinarily experienced ship’s crew from New Zealand: Allison, Murray, Matt and Kellie, who fed us (too) well, sailed us safely through the roaring forties and aided our research in countless ways.

Moments after the Evohe dropped anchor in Sandy Bay on the first day, our world view shifted. More than a dozen right whales mobbed the boat, circling almost within arms’ reach around our hull for several hours. Amongst the whales darted yellow-eyed penguins, while overhead flew pterodactyl-like giant petrels. We responded with a frenzy of activity, grabbing cameras, clipboards and diving gear to document our greeting party. Neither of us had experienced anything like this in our many decades of wildlife research. Unlike their northern cousins, these whales were not afraid of humans and ships, and they turned out to be remarkably curious. While our routine scientific method in the North Atlantic is to find and approach right whales to take photographs and samples, here the whales approached us. In fact, we were able to collect much of our data from the deck of the Evohe at anchor as whales conveniently swam around to check us out.

In addition to their curiosity, there were other striking differences between these whales and the North Atlantic right whales. More than 10 percent of whales in the Auckland Islands had large white patterns or grey mottling on their black bodies (similar to a pinto or Appaloosa horse). In addition, we saw no evidence of the skin lesions that have been prevalent in the North Atlantic whales in some years. Finally, in the span of just a few hours we encountered 25 calves, more calves than we see in an entire year in the North Atlantic. Because we lived among the whales night and day aboard the Evohe, we also saw and heard things we had never experienced before. During the night we felt the boat tremble as whales rubbed against our anchor chain. Early one morning the Evohe’s depth sounder alarm was triggered by the whales as they snuggled up to the bottom of the ship. Glenn deployed a hydrophone one night and recorded sounds from a courtship group that were unlike any right whale vocalizations we had heard before. It was about as close as we will ever get to living in the whales’ world.

The most amazing contrast was that we found almost no evidence of human impacts in this population. While about 75 percent of whales in the North Atlantic bear scars from entanglements in fishing gear, none of the Auckland Islands whales were scarred. About eight percent of North Atlantic right whales show scars from encounters with boats and ships. Out of more than 300 sightings, only a single whale had propeller marks in the Auckland Islands. Similarly, our health assessments found all of the whales we encountered to have excellent body and skin condition. In fact, we had never seen such fat, sleek, black right whales.

The big lesson from this expedition was that we did not previously understand what an undisturbed, healthy right whale population looked like or how it behaved. The baseline for North Atlantic studies has been whales that have been affected by human activities for centuries. It took a voyage to a group of right whales in a very remote part of the world to give us a new perspective on our research subjects. This is what right whales should look like!

Scott Kraus, Vice President for Research, New England Aquarium.

Dr. Kraus received his B.A. from College of the Atlantic, his M.S. in biology from the University of Massachusetts, and a Ph.D. from the University of New Hampshire. He has published over 50 scientific papers on cetacean biology and conservation, and is adjunct faculty at Univ. of Mass. at Boston and the University of Southern Maine. Kraus’ recent research is increasingly focused on conservation issues faced by endangered species and habitats, and the difficulties of identifying what animals need to survive in an increasingly urban ocean.

Rosalind M. Rolland, Senior Scientist

Roz is a veterinarian by training, and she received her DVM degree from Tufts University in 1984. She spent several years working with primates both in Africa and in the U.S., then joined the World Wildlife Fund as a Conservation Scientist where she studied the effects of environmental contaminants on wildlife populations. Before joining the New England Aquarium, Roz was Science Director of the Center for Conservation Medicine at Tufts Veterinary School. Her current research interests include development of methods to study reproduction and to evaluate health in right whales.

To read the Auckland Islands expedition blog, visit www.neaq.org/expeditions. Watch for the National Geographic Magazine article on right whales coming out in 2008.
**Whales you can sponsor**

**Who’s Who?**

**Calvin** (female born in 1992)

Calvin was orphaned at the very early age of 8 months. She went on to survive an entanglement and, on December 30, 2004, she was sighted with her first calf. She is named for the comic strip character from Calvin and Hobbes because she exhibited similar traits to the youngster in the comic—cleverness, persistence, friskiness and the strength to survive.

**Shackleton** (male born in 1994)

Named after the intrepid Antarctic explorer, Shackleton caused quite a commotion when he ventured up the Delaware River to Camden, NJ. During this adventure he was struck by a tug boat, but he survived his ordeal and is now seen regularly on the Bay of Fundy feeding grounds.

**Phoenix** (female born in 1987)

Phoenix is a mother and grandmother. In 1997 she was entangled in fishing gear but managed to escape. She was named for the mythical bird that burned but rose from the ashes. Phoenix has survived a serious entanglement and “returned” from almost certain doom with only a distinctive lip scar to show for her two-year ordeal.

**Snowball** (an adult male)

Snowball got his name from a unique scar above his left lip that resembles a big white snowball. We do not know what caused this scar, but it does make him easy to identify, even from a distance. Snowball has been seen in habitats where only a few right whales are documented yearly, such as Jeffrey’s Ledge off the coast of New Hampshire and in the waters off Long Island.

**Piper** (an adult female)

Piper was first seen in 1993 and at the time was already at least two years old. She was named for a scar on her flank that looks like a small airplane, like the popular Piper Cub. She had been entangled twice in a 12-year period, but was seen in April 2005 free of gear. She was sighted with her first calf in January 2006.

**Starry Night** (an adult male)

The many white scars and dots on this whale’s black body reminded researchers of the night sky, so they named him Starry Night. He is frequently seen in courtship groups and, with the development of new genetic techniques, we may soon know which calves he has fathered.
Thank you!

For your generous support of our Right Whale Research Program.
If your sponsorship has expired (check the bottom of your certificate), please consider an additional donation or pass this form on to an interested friend.

Thanks again for your support!
For more information visit www.neaq.org/rwcatalog

---

Yes, I would like to sponsor a Right Whale:
- Calvin
- Phoenix
- Starry Night
- Shackleton
- Piper
- Snowball

<table>
<thead>
<tr>
<th>Benefit</th>
<th>45</th>
<th>75</th>
<th>125</th>
<th>250</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 4x6 photo and certificate</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>A composite drawing and sighting map for your whale</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Right whale information packet</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>One year subscription to Right Whale Research News (biannual newsletter)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Choice of Disappearing Giants* or T-shirt^</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disappearing Giants and T-shirt</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T-shirt and signed copy of The Urban Whale**</td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

*By Scott Kraus and Kenneth Mallory, hardcover, 48 pages
** Edited by Scott Kraus and Roz Rolland, hardcover, 543 pages
^ Available in small, medium, large and x-large

Enclosed is my donation of
- $45
- $75 (book or T-shirt)
- $125
- $250

T-shirt size: S M L XL

Recipient’s name as it should appear on sponsorship certificate (please print).

Yes, I would like to make an additional tax-deductible contribution to support the Right Whale Research Program? Amount Enclosed: ____________

Is this a gift?  o Yes  o No
If yes, please complete the following:
Recipient’s name: ____________________________
Address: ____________________________
City, State, Zip, Country: ____________________________
Telephone: ____________________________
Email: ____________________________

Please mail the sponsorship package to: Me o Gift Recipient o

---

Payment Information
Total amount enclosed: $ ____________

Please make checks payable to the New England Aquarium

To make a contribution by phone, please call 617-973-6582.
Please mail completed form to: Right Whale Research Program
New England Aquarium, Central Wharf, Boston, MA 02110

Or, please charge to:
Mastercard o  Visa o  American Express o  Discover o
Account number: ____________________________ Exp. Date: ____________
Name on credit card: ____________________________
Signature: ____________________________
Sponsorship Update

By Jonathan Cunha

Thank you for sponsoring a right whale! Your support helps us continue our mission to protect this critically endangered species. The right whale team has been busy monitoring the population by analyzing and cataloging photographs taken during the recent field seasons. We have some news to report on three of our six sponsored whales: Shackleton (Catalog #2440), Phoenix (Catalog #1705) and Starry Night (Catalog #1028). We have also included a map of the sponsored whales sighted over the past season to help you visualize their movements.

As we reported in our May issue, we rotated Phoenix into our sponsorship program. We are happy to announce that Phoenix gave birth to her third calf in 2007. The New England Aquarium aerial survey team sighted mother and calf in the waters off Florida last January 29. The pair were also sighted in the Bay of Fundy a few times: twice in August and once more in September. Phoenix appeared to be a very protective mother—each time our research vessel approached the pair, they avoided us.

Thanks to the Provincetown Center for Coastal Studies (PCCS), we can report that Shackleton was sighted last spring in Massachusetts waters. On March 26, the PCCS aerial survey team sighted him in a Surface Active Group (SAG) with four other whales in the Great South Channel, and on March 31, Shackleton was photographed in a nine-whale SAG in Cape Cod Bay.

Up in the Bay of Fundy, the right whale research team sighted Starry Night, an adult male that had not been seen in more than a year. Starry Night was sighted twice; the first time, on September 10, was merely a brief glimpse, just long enough for the researchers to take a few confirming photos. On September 19, he was sighted in a SAG with 13 other whales. He stayed in the group for over an hour!

Neither Calvin (Catalog #2223), Piper (Catalog #2320) nor Snowball (Catalog #1131) have been identified since our last newsletter. However, this does not necessarily mean that they were not sighted. Photographs are continually being submitted to the Catalog, and sometimes we don’t identify the whales in those photos until several months after a field season is complete. We will keep you updated on our progress and on the whereabouts of the sponsored whales in future issues of Right Whale Research News.

We would like to thank all of the individuals, organizations and institutions that support our mission by sponsoring a right whale. Our success in the conservation and protection of such a critically endangered species is largely due to your generous contributions!

Jonathan Cunha, Research Assistant

Jonathan joined the right whale team in November 2006 as a part-time intern. He started working full-time in August 2007 during the Bay of Fundy field season. He works on photo-analysis and matching whales to the Catalog. He recently earned a B.S. in Marine Science from Suffolk University, Boston. His research interests include social behaviors, marine ecology and conservation.

Help Us Name a Whale!

As you read our newsletter, you may wonder why some right whales have a name and others only have a catalog number. When a whale is incorporated into the North Atlantic Right Whale Catalog, it is given a four-digit ID number, and the majority of the whales in the Catalog have only that. Occasionally, though, there is a scar or distinctive trait that reminds us of something else, so the whale gets named for that. For example, one of our sponsorship whales is named “Snowball”, for the round white scar on the side of his head. And another of our whales is named “Van Halen” for a guitar shaped callosity pattern (apologies to Eric Clapton).

Since last summer when Catalog #1403 was photographed in the Bay of Fundy with an unusual entanglement scar on his head, we’ve been trying to come up with a name for him. So we’ve decided to open it up to you, the sponsors! Take a look at this photo. What does that scar remind you of? And don’t look only at the big white stripe, but the deep gouge too (and by the way, “Stripe” is already taken—Sorry!). To see the names...
THANK YOU! We would like to thank all of the individuals, organizations and schools that continue to support our research with annual sponsorships and donations. Your support is critical to our work and we appreciate all of your efforts. In the last year, your generous donations have provided these important resources to our project:

- Travel to and participation in implementation team meetings responsible for the recovery of right whales under the Endangered Species Act
- Field supplies in support of field studies and continued updating of the right whale catalog
- Travel and supplies for disentanglement efforts

Help Us Name a Whale!

Continued from page 15

already in use, go to the Catalog website http://www.neaq.org/rwcatalog, click on “Search the Catalog” at the top of the page, then “Search for Individual Whales.” At the next screen you’ll see a “Whale Name” window that you can scroll through.

Send your ideas to rwdata@neaq.org, or to this postal address:
Right Whale Sponsorship Program,
Right Whale Research
New England Aquarium
Central Wharf
Boston, MA 02110

Please write “Naming Contest” on the envelope or in the subject line of the email. The winner will get a right whale T-shirt and be announced in the Spring newsletter!

The right head of Catalog #1403 showing the deep gouge and white scar left from a 2006 entanglement. Photo / New England Aquarium