

RIGHT WHALE NEWS

The Newsletter of the Southeastern United States Implementation Team for the Recovery of the Northern Right Whale and the Northeast Implementation Team

Volume 6 Number 4 November 1999

Congress Appropriates Record \$4.1 Million for Right Whale Research

Concern over recent right whale deaths caused by ship strikes and entanglements in fishing gear has prompted the U.S. Congress to include a record \$4.1 million for right whale research in Fiscal Year 2000. The appropriations will go to the National Marine Fisheries Service (NMFS). The allocation is contained in the Commerce, Justice, State and the Judiciary appropriations bill.

The Senate Appropriations Committee Report records the expectation that NMFS will continue its right whale research and focus on much needed gear modification studies. The committee also expresses concern that strikes by large vessels have resulted in right whale fatalities, and directs the NMFS to work with the Coast Guard and the Navy to reduce strikes in whale habitat areas.

The Senate committee expects NMFS to fund: \$750,000 for gear modification research, \$1,150,000 for early warning surveys and acoustic studies, \$600,000 for habitat monitoring and population studies, \$450,000 for reproductive research and \$650,000 for tagging studies. The NMFS also is directed to make \$250,000 available to the National Fish and Wildlife Foundation for large whale studies consistent with Title IX of the National Whale Conservation Fund Act (Public Law 105-277; see *Right Whale News* 5 (3):3 for background information on this fund; see last item in this newsletter for information on how to access back issues). The House concurred with the Senate committee's funding allocations.

As always, many people deserve credit and thanks for this record appropriation. Particularly deserving is Senator Judd Gregg (R-NH), chair of the Senate Appropriations Subcommittee on Commerce, Justice, State and the Judiciary. He included the \$4.1 million request in the budget. Senator Gregg noted that "these funds will help develop critical research information that can be used to protect the northern right whale species. I view this research as a proactive step to find ways for the shipping and fishing industries to co-exist with right whales." Senator Gregg also led the effort to create the National Whale Conservation Fund in 1998.

Gill Net Entanglement Results in Second Right Whale Death of 1999

A second right whale is known to have died this year. This death was the result of an entanglement in 7 inch mesh gill net fishing gear. The first, Staccato, was struck and killed by a ship in April (see *RWN* 6 (2):5). This whale, an adult female known by its catalog number, #2030, was first seen as a juvenile in June 1990 in Massachusetts Bay. On May 10 this spring, a NMFS plane crew spotted her in the Great South Channel off Massachusetts with multiple strands of rope line and netting wrapped three times around her body. The whale was not sighted again until September 2, when she was seen in the Bay of Fundy by a Center for Coastal Studies (CCS) plane crew. The following day, a rescue effort was attempted, led by Dave Mattila, Stormy Mayo and Ed Lyman of CCS. Two of the body wraps were cut but a third remained, embedded in a large wound on the animal's back. A radio tag was attached and

tracked #2030's movements in the waters between Grand Manan Island and the southwestern tip of Nova Scotia over the next two weeks. Another rescue was also attempted by the CCS team on September 14 and 15. On September 15, #2030 started her journey south. By September 22, she was off Cape Cod; on September 24, the last satellite reading placed her in the New York shipping lanes off New Jersey. On October 20, the Marine Mammal Stranding Network Coordinator for New Jersey reported a dead, entangled whale off Cape May. It was #2030. The U.S. Coast Guard towed the decomposing carcass to the Coast Guard station at Cape May. There, a necropsy was performed under the leadership of David St. Aubin of the Mystic Aquarium, Dave Mattila of CCS and Lisa Conger of the New England Aquarium. They found a line wrapped twice around one flipper, arching across the shoulder, and wrapped once again around the other flipper. The line had moved deeper into the whale, pulling back many feet of blubber.

This second right whale death far exceeds the officially determined potential biological removal of 0.4 right whales per year. The deaths of Staccato and #2030 will be taken into account in the annual update of population status and trends. The NMFS intends to reconvene the Atlantic Large Whale Take Reduction Team, probably in late January, to begin discussions of methods to improve the Take Reduction Plan. They also will convene the Gear Advisory Group to consider new gear improvements. Whether any regulatory changes can be implemented in time for next spring's fishing season off Massachusetts remains an open question.

Marine Mammal Commission Recommends

Additional Gill Net Restrictions and Flexible Management

Even before the recent death of right whale #2030, the Marine Mammal Commission (MMC) had been recommending stricter regulation of gill net use in the Great South Channel, one of the right whale's critical habitats off Cape Cod, Massachusetts. In an October 1 letter to Penny Dalton, NOAA's Assistant Administrator for Fisheries, MMC Executive Director John Twiss noted that during a two-week period in May, three right whales were seen entangled in fishing gear in the Great South Channel: in addition to #2030, two other whales were entangled in lines and buoys from gill net gear. These entanglements, combined with other factors such as untended gillnets and the difficulties of disentangling whales, led MMC to the conclusion that stronger measures are needed to prevent right whales from becoming entangled. The MMC strongly recommended that the National Marine Fisheries Service take immediate steps before the spring of 2000 - to prohibit gillnet fishing in the spring throughout the entire Great South Channel right whale critical habitat, and to consider creating a buffer adjacent to the western boundary of the designated critical habitat. The MMC also recommended that the NMFS develop, as part of its Atlantic Large Whale Take Reduction Plan, provisions to promptly suspend gillnet and lobster fishing in any area where a concentration of right whales is found feeding and to maintain that closure until it is determined that whales have left the area. This concept of flexible management was first suggested by Stormy Mayo of the Center for Coastal Studies during earlier Take Reduction Team meetings, but was not adopted by NMFS.

Dave Mattila Garners Environmental Hero Award from NOAA

David Mattila, senior scientist with the Center for Coastal Studies since 1980, has received an Environmental Hero Award from the National Oceanic and Atmospheric Administration. Dave often leads the Center's efforts to disentangle right whales, including the attempts to disentangle whale #2030.

He is director of population studies at the Center and maintains the database on individually identified humpback whales.

The Eubalaena Award for Right Whale Disentanglements

The Canadian Wildlife Foundation has announced the creation of the Eubalaena Award for the winners of an international competition for innovative developments in reducing or eliminating the problem of fishing gear entanglements in right whales. The contest solicits creative and practical engineering solutions to disentangle whales already caught, to eliminate entanglements or to reduce fatalities from entanglements. Researchers, students, industry and inventors from the fields of engineering, chemistry and fishery technology are especially invited to apply.

The competition will be in two stages. A brief proposal will be due by February 28, 2000, describing the invention, outlining its function and providing a budget for the construction of a prototype. Up to ten proposals will be selected by an international panel of judges and funds for prototype development will be awarded. Final judging of the prototypes will occur on July 15, 2000. Three monetary awards will be given: one in engineering, one in chemistry/fishery technology and one in an open category to encourage notions that do not fit into traditional academic disciplines. For further information on the competition and the award, contact Sarah Haney at the Canadian Wildlife Foundation, fax 902-857-1124.

Cape Cod Canal Closed Briefly to Protect Right Whale

The U.S. Coast Guard recently notified the U.S. Army Corps of Engineers' Canal Control of the presence of a right whale near the Cape Cod Bay side of the Cape Cod Canal. The Canal Control closed the canal for about 45 minutes until the right whale moved away from the channel.

Proposed High Speed Ferry between Boston and Provincetown: Jeopardy for Right Whales?

A draft application is expected to be filed shortly with the U.S. Army Corps of Engineers for a permit for the reconstruction and enlargement of a pier at Provincetown, Massachusetts. The pier is to be used to berth a high-speed ferry that would run between Provincetown and Boston either through or near right whale critical habitat in Cape Cod Bay. When the permit is filed, the National Marine Fisheries Service is expected to enter into consultations with the Corps of Engineers under the provisions of Section 7 of the Endangered Species Act. The consultation would consider whether the ferry operation will jeopardize the recovery of the right whale.

The jeopardy opinion may ultimately depend on the results of research on ship strikes of whales worldwide being conducted by David Laist of the Marine Mammal Commission and Amy Knowlton of the New England Aquarium.

NMFS to Publish Notice of Proposed Whale Watching Regulations

The National Marine Fisheries Service is expected to publish an Advance Notice of Proposed Rulemaking for whale watching in the northeast. The notice will appear in the *Federal Register* after the Office of Management and Budget has cleared it. The notice will ask for comments and ideas on what should be proposed. If the NMFS decides that regulations are needed, they will proceed with a Proposed Rulemaking Notice in the *Federal Register*. It is anticipated that any rulemaking would be completed in time for implementation during the spring 2000 whale watching season. The 500-yard minimum distance rule for right whales is not expected to change ñ but that depends on what comments are submitted.

"Cetacean Shield" to Protect Whales on Stellwagen Bank

The U.S. Coast Guard and the Stellwagen Bank National Marine Sanctuary have formalized their working relationship in the area of whale protection. The agreement, called Cetacean Shield, was three years in the making. It covers surface vessel patrols and air surveillance and has been described as "taking the guesswork out" of the relationship between the two agencies.

Southeastern U.S. Highlights

- The Southeastern U.S. Implementation Team for the Recovery of the Northern Right Whale welcomed several new team members at its recent meeting. Lieutenant Commander David Cinalli of the U. S. Coast Guard, Ken Conley of the U.S. Navy and Steve Lariviere of the Georgia Ports Authority join the team. Contact information for the three new members is:

- **LCDR David A. Cinalli**, Commander, Coast Guard District Seven, 909 S. E. 1st Ave., Brickell Plaza Building, Miami, FL 33131

Ken Conley, N46E4, Natural Resources Specialist, Commander, Navy Region Southeast, Jacksonville, FL 32212. Tel. 904-542-8070. Fax 904-542-2414. E-mail: conleyk@jaxm.navy.mil

Steve Lariviere, Director of Port Planning and Harbor Development, Georgia Ports Authority, P. O. Box 2406, Savannah, GA 31402. Tel. 912-964-3935. Fax 912-965-2368. E-mail: slariviere@gaports.com

For an up-to-date list of all team members, contact Barb Zoodsma, Team Chair, at 912-264-7218. E-mail: Barb_Zoodsma@mail.dnr.state.ga.us

- The Jacksonville Port Authority has agreed to provide funds for pagers during the next calving season. The pagers will link the U.S. Navy's Whale Fusion Center at FACSFACJAX with Early Warning System observers, the U.S. Coast Guard, the Georgia Department of Natural Resources, the Florida Fish and Wildlife Conservation Commission, harbor pilots and many others.
- Cyndi Thomas of the Florida Fish and Wildlife Conservation Commission and Vice Chair of the Southeastern Team has recommended that because 28 percent of right whale sightings in Florida occur outside the critical habitat boundary, there is a need to expand the southern and eastern edges of the boundary.
- Barb Zoodsma reported that the Georgia Department of Natural Resources will have a new twin-engine plane with high wings with which to watch for whales this coming season. The plane includes a number of enhancements such as data ports linking GPS and on-board computers.

Northeast Implementation Team Meets

The Northeast Implementation Team met in Boston on October 20. The team consists of 18 members appointed by the National Marine Fisheries Service's Assistant Administrator for Fisheries. The appointments are either of individuals or agencies (which name their own representatives). The team established an executive committee consisting of the team's officers and its liaison with the NMFS. Tom French of the Massachusetts Division of Fish and Wildlife serves as chair. Tom Fetherston of the U.S. Navy was elected vice chair (replacing Brad Barr), and Joe Pelczarski of Massachusetts Coastal Zone Management serves as secretary. Sal Testaverde is the NMFS liaison.

The team is also supported by eleven technical advisors; at the meeting, Moe Brown of the Center for Coastal Studies was elected a new member of the technical advisors.

Chairman French noted that the revised recovery plan for the northern right whale was in progress, with reports saying "it's moving, it's coming, it's not here yet." The team decided that its work would proceed on the basis of the existing recovery plan (NMFS, 1991) until the revised edition has been completed.

The team discussed the need to expand coverage of whale recovery issues in the mid-Atlantic. At present, the Northeast Implementation Team covers the region from Maine to Virginia and concerns itself with both humpback and right whales. The Southeast U.S. Implementation Team covers Florida and Georgia and invites representatives from South Carolina to its meetings; the Southeast team only addresses right whale recovery issues. Thus, both a geographic gap and a species gap exist. With increasing knowledge of whale issues in the mid-Atlantic, including migratory routes, ship traffic and fishing gear conflicts, the need to fill these gaps is becoming more apparent.

Gulf of Maine Online Forum Discusses Entanglements

The Gulf of Maine Council on the Marine Environment is asking: "What do you think?" in its on-line forum at www.gulfofmaine.org/cgi-bin/forum.cgi. They want to know what should be done to prevent whales from becoming entangled in fishing gear in the Gulf of Maine.

The Council was established in 1989 by the governments of Nova Scotia, New Brunswick, Maine, New Hampshire and Massachusetts to foster cooperative actions within the Gulf watershed. For further information on the Council, consult their web page at www.gulfofmaine.org

IWC Workshop Examines Status and Trends in Western North Atlantic Right Whales

The International Whaling Commission (IWC) held an international workshop on Status and Trends in Western North Atlantic Right Whales October 24 ñ 27.. The workshop arose from an IWC recommendation following the Comprehensive Assessment of Right Whales Worldwide, held in South

Africa in March 1998. This latter meeting (and the subsequent review of its results by the full IWC Scientific Committee) had expressed considerable concern regarding the North Atlantic population, and had noted that resolution of its status was urgently required.

The workshop was hosted by the Northeast Fisheries Science Center in Woods Hole. Its aim was to review all available information and analyses on this population and to conduct what amounted to a comprehensive assessment. The meeting was attended by 31 invited participants from the fields of right whale biology, genetics and population modeling. Overall, workshop participants were remarkably unified in their conclusion that survival in western North Atlantic right whales has declined, and intervals between births intervals have increased in recent years.

Although there was some disagreement regarding the extent of these problems, all of the presented work (from both modeling and more direct analyses of data) was in broad agreement about the status of the population. The workshop emphasized that the evidence for a serious impairment in this stock was compelling, and that there was no need to wait for further research before taking management actions to reduce anthropogenic mortality.

A list of recommendations was developed for both research and management needs. The full report of the meeting will be completed in the near future, but will remain confidential until it has been reviewed by the IWC's Scientific Committee.

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Brazilian Right Whale Project: A Clarification

editor's note: A brief note in the previous issue of Right Whale News resulted in requests from both Jose Truda Palazzo, Jr., Coordinator of the Brazilian Right Whale Project, and Manuel C. Strauch, Communications Assessor of Instituto Sea Shepherd Brazil, to clarify the relationship between the two organizations. The editor regrets the misunderstandings generated by the previous note.

The Brazilian Right Whale Project is a research/conservation initiative undertaken by the International Wildlife Coalition/Brazil which was initiated in 1982 thanks to the efforts of a group of Brazilian volunteers. During its many years of activities, during which we developed long-term research and achieved a high degree of recognition and participation in policymaking for the conservation of this species in Brazil, we have never had any affiliation with the Sea Shepherd Conservation Society or any of its branches.

During 1999, we were approached by Sea Shepherd regarding their interest in promoting a volunteer support program for the Right Whale Project, which was supposed to be initiated in 1999/2000. In no way was this accepted or understood to mean that Sea Shepherd would have any direct participation or interference with our long-term work, nor taking any credit by the efforts of researchers who were never, and had no intention whatsoever to be, directly affiliated with that institution.

Jose Truda Palazzo, Jr., Coordinator
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Sea Shepherd did not inaugurate Project Right Whale. Projeto Baleia Franca has existed since 1982. Instituto Sea Shepherd Brazil was inaugurated only this year. We are beginning some actions together but we are not Project Right Whale.

Manuel C. Strauch, Communication Assessor
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Tangled in the Bay: The Story of a Baby Right Whale

Deborah Tobin, Public Education Coordinator for East Coast Ecosystems, has written a book for children about Pasha, a baby right whale entangled in a fishing net in the Bay of Fundy. The story describes the rescue effort by a team that includes a researcher/narrator; a local fisherman, Roy; an airplane pilot, Jack; the Canadian Coast Guard, and disentanglement experts David and Stormy. (In a postscript to the story, team members are identified as real people: Deborah Tobin, Jack Smith, and David Mattila and Charles "Stormy" Mayo of the Center for Coastal Studies in Provincetown, Massachusetts, who have been disentangling whales since 1984.)

The book is written for an adult to read aloud to a child, with dramatic and accurate illustrations by Jeffrey C. Domm. The book's postscript contains information on right whales that adults can use to supplement the disentanglement story and answer an inquisitive child's questions on what a right whale looks like, how individual whales are identified, where they go, why they are in danger and current threats. The book, *Tangled in the Bay: The Story of a Baby Right Whale*, is the first of a series, Natural Heroes, to be published by Nimbus Publishing Limited of Halifax, Nova Scotia, that explores for children the work of scientists, naturalists, researchers and everyday people who care enough about endangered animals to take action.

Tangled in the Bay may be ordered from Nimbus Publishing Limited, P. O. Box 9301, Station A, Halifax, NS B3K 5N5, Canada; 902-455-4286. The ISBN number is 1-55109-259-X.

The Right Whale Film Premiers

A new film on right whales had its premier showing on October 22, following the Right Whale Consortium meeting in Boston. The hour-long film was directed by Rick Rosenthal and is a production of BBC Animal Planet Corporation. The film features extensive underwater and surface footage of southern right whales off Peninsula Valdez in Argentina, including a calf with the coloration of a Dalmatian dog. Behaviors shown include tail sailing, mating and reactions to being fed on by kelp gulls. There is some footage of northern right whales, including Staccato being measured by Stormy Mayo, (see *Right Whale News*, 6(2):5), archer Chris Slay taking biopsy samples, U.S. Navy operations (the Right Whale Fusion

Center at FACS/FACJAX and Trident submarines), the recovery of a dead calf in the southeast by the U.S. Coast Guard, the New England Aquarium and others, and plankton in Cape Cod Bay. The film notes that "the southern right whale is recovering; for the northern right whale, time is running out. It is the right whale to rescue." The film is now being broadcast on the Discovery Channel. For broadcast information, consult www.animalplanet.com

East Coast Ecosystems Provides Wheelhouse Card on the Whale Emergency Network

East Coast Ecosystems, a Canada-based nonprofit research organization, has produced a color brochure on the Whale Emergency Network to be displayed in the wheelhouses of ships transiting whale habitats. The brochure describes what to look for, what to expect and what to do. ECE's toll-free emergency number in Canada, 1-888-854-4440, and the Canadian Coast Guard's VHF channel 16 are prominently displayed. For copies or for further information, contact Deb Tobin at ECE, P. O. Box 36, Freeport, Nova Scotia BOV 1B0, Canada; 902-839-2962.

Ocean Society Offers Marine Education Program Modules on Right Whales

Dave Mattingly, president of The Ocean Society, has announced that four modules of their acclaimed Marine Education Program will be available nationwide for the 1999-2000 school year. The four elements, all on right whales, consist of (1) marine education, (2) the national marine education awards, (3) naming the whale and (4) the right whale guardian. These modules have been developed in cooperation with the New England Aquarium. For further information, contact Margaret Olsen, Director of Education at The Ocean Society, 441 Ridgewater Drive, Marietta, GA 30068; 770-977-1838.

Right Whales Sighted off Norway and Gabon

Marilyn Marx reported at the recent Right Whale Consortium meeting that Nils Ø in of the Institute of Marine Research in Bergen, Norway, sighted a northern right whale in Kvaenangen Fjord on the Nordkapp (north cape) of Norway (approximately 69° 57'N, 21° 38'E) on several occasions in September and October, 1999. Photos taken of the animal have led to its identification as "Porter" (#1133), a male first seen in 1981 in the western North Atlantic and last seen in the Great South Channel on May 23, 1999. The distance between the Great South Channel and the Nordkapp region of Norway is about 2400 nautical miles. The last time a northern right whale was recorded from Norwegian waters was a take in 1926. Seven other right whales have been seen in the eastern North Atlantic in recent years (1964-1995). The sighting of the same right whale in both the western and eastern North Atlantic may alter the hypothesis that the western and eastern North Atlantic stocks comprise two separate populations of the northern right whale.

A second unusual sighting also raises questions about thermal or other barriers between southern and northern right whales, which most scientists consider separate species: *Eubalaena australis* and *E. glacialis*. Marilyn Marx reported that Jim Darling had sighted a right whale in the waters off Gabon on the west coast of Africa at about latitude one degree south of the Equator. At press time, it was not known whether this whale was a northern or southern right whale.

The North Atlantic Right Whale Consortium "Deconstructs" Its Organization

The purpose of the North Atlantic Right Whale Consortium is to hold scientific meetings and publish the results, increase collaborations among scientists, provide scientific information in support of the conservation of right whales and facilitate the exchange of information. Recently, the board of the Consortium decided to "deconstruct" the organization by opening the membership to all, allowing anyone who attends the annual meeting to vote and eliminating the payment of dues. The board and officers will continue and will be elected by the members present at the annual meeting to staggered three-year terms. Elected at this year's Consortium meeting were Scott Kraus (New England Aquarium) to serve as chair for the next two years, Amy Knowlton (New England Aquarium) to serve as vice chair for two years, Marilyn Marx (New England Aquarium) to serve as secretary-treasurer for three years and Deb Tobin (East Coast Ecosystems) to serve as public information officer for one year. Elected to serve on the board were Phil Clapham (National Marine Fisheries Service), Moe Brown (Center for Coastal Studies), Michael Moore (Woods Hole Oceanographic Institution), Brad White (McMaster University), Robert Kenney (University of Rhode Island), Laurie Murison (Grand Manan Whale and Seabird Station) and Stormy Mayo (Center for Coastal Studies).

Papers Presented at 1999 Right Whale Consortium Meeting

On October 21 and 22, over 110 people attended the 1999 Right Whale Consortium meeting and heard presentations on a wide range of topics related to right whale research, especially in the western North Atlantic. In combination, the papers provided an overview of current research on the population. The New England Aquarium hosted the event, and Scott Kraus served as master of ceremonies. The Massachusetts Environmental Trust provided financial support.

Listed below are the authors and titles of papers presented at the meeting. An asterisk (*) precedes papers included in the Consortium Abstracts. Copies of the abstracts are available for \$5.00 from Marilyn Marx, Consortium Secretary-Treasurer, New England Aquarium, Central Wharf, Boston, MA 02110. Please make checks payable to the New England Aquarium.

Population Biology

- * Knowlton, A. R. and S. D. Kraus. Serious injury and mortality of right whales: 1999.
- * Kraus, S. D. and P. Hamilton. North Atlantic Right Whales Reproduction: 1999.
- * Hain, J. Heterogeneity, sampling, presumed mortality, and population parameters.
- * Fujiwara, M., H. Caswell and S. Brault. Stage-structured demography of the North Atlantic right whale: Part 1: Estimation, model selection, and inference.
- * Caswell, H., M. Fujiwara and S. Brault. Stage-structured demography of the North Atlantic right whale: Part 2: Projection matrices, trends in vital rates, and population growth.

Brault, S. Results of the Woods Hole Workshop on Right Whale Demography, Sept. 19-21, 1999.

1999 Surveys

Slay, C. Southeastern U.S. Early Warning Surveys.

- * Marx, M. and M. Brown. Surveillance and monitoring of right whales in Cape Cod Bay: 1999.
- * Gerrior, P. Offshore right whale sighting advisory system flights ñ1999.
- * Cole, T. Aerial surveys for right whales (*Balaena glacialis*) in offshore waters of New England, March - June, 1999.
- * Knowlton, A., P. K. Hamilton, S. D. Kraus and M. W. Brown. New England Aquarium right whale research and conservation in the Bay of Fundy: 1999.
- * Tobin, D. and M. Brown. Surveys for right whales in the waters of Atlantic Canada: 1999.
- * Clapham, P. and T. Cole. Surveys for right whales and other mysticetes on the Scotian shelf, summer 1999.

Distribution Information and GIS Analyses

- * Thomas, C. T. Aerial surveys of the coastal waters of Florida to monitor occurrence of the northern right whale (*Eubalaena glacialis*), 1998-1999.
- * Wagner, S. A. and J. J. Bisagni. Correlation between the spatial and temporal variability of a tidal mixing front and distribution of the North Atlantic right whale, *Eubalaena glacialis*, in Great South Channel, Gulf of Maine.
- * Weinrich, M. T., R. D. Kenney and P. K. Hamilton. Right whales (*Eubalaena glacialis*) on Jeffreys Ledge: A habitat of unrecognized importance?
- * Marx, M., N. Ø ien and K. O. Jacobsen. Observation of a right whale in Norway.

Habitat

- * Baumgartner, M. Characterizing right whale habitat on the Scotian Shelf and in the Lower Bay of Fundy.
- * Mayo, C. The development and application of standards for assessing the quality of right whale habitat.

Food Limitation

- * Moore, M. and C. Miller. Blubber thickness in northern and southern right whales.
- * Kenney, R. D., C. A. Mayo and H. E. Winn. Migration and foraging strategies at varying spatial scales in western North Atlantic right whales.

* Finzi, J., C. Mayo, E. Lyman and M. Brown. The influence of prey patch structure on the distribution of right whales.

Genetics

* White, B., R. Waldick, C. Tomlinson, M. Brown, P. Hamilton, A. Knowlton, C. Slay and S. Kraus. The status of the North Atlantic right whale as determined from genetic data.

* Brown, M., S. L. Cumbaa and B. N. White. Zooarchaeological and molecular perspectives on Basque whaling in 16th century Labrador.

Human Caused Mortality and Mitigation

Collisions with Ships

* Russell, B. and A. Knowlton. Activities of the ship-strike sub-committee of the Northeast Implementation Team.

* Brown, M., R. D. Kenney, J. B. Ring and A. R. Knowlton. Assessing and reducing the risk of collisions between North Atlantic right whales and vessels in Canadian waters.

Slay, C. and S. Swartz. VHF radio tracking of a right whale cow and calf in the calving Grounds.

* Hain, J. Shore-based monitoring in SE US critical habitat.

Acoustics and Behavior

* Goudey, C. and K. Ekstrom. Field tests of a right whale acoustic detection buoy.

* Vanderlaan, A., A. Hay, F. Desharnais and C. T. Taggart. Characterization of underwater vocalizations recorded in the presence of North Atlantic right whales in the Bay of Fundy.

* Johnson, M., P. Tyack, A. Shorter, J. Partan and D. Nowacek. A digital acoustic recording tag for studying the response of right whales to sound.

* Nowacek, D. P., M. P. Johnson, N. Biassoni, R. McLanagan, A. Moscrop, S. Brown, J. Matthews, O. Boisseau, S. Parks, J. Partan, A. Shorter, D. Allen and P. Tyack. Preliminary results from a digital archival tag of acoustic and behavioral activity of northern right whales, *Eubalaena glacialis*, in the Bay of Fundy.

* Parks, S., S. Kraus and P. Tyack. Playbacks of surface active group vocalizations to North Atlantic right whales in the Bay of Fundy.

Tyack, P. Acoustic playbacks and tags.

* Clark, C. W. The application of autonomous seafloor acoustic recorders for monitoring right whales.

Entanglements in Fishing Gear

* Salvador, G. Large whale take reduction plan gear research.

New Techniques

* Moore, M. and C. Miller. A new perspective on the length and girth of right whales.

* Leaper, R. and H. Clyne. Evaluation of the potential for vessels to take avoiding action in response to sightings of right whales, based on results from a simple simulation.

* Nuzzolo, P. and C. Finch. Seasonal whale patrol system (SWPS).

Goodyear, J. Multi-sensor telemetering VHF/SAT tags.

Plans for 2000

* Moore, M. The *Rosita* project.

Clapham, P. and B. Russell. Solutions Workshop Series.

Slay, C. Tagging.

White, B. and M. Brown. Genetics.

Rolland, R. Contaminants and reproductive cycles.

* Moore, M., A. Stamper and S. Kraus. Large whale medical intervention - strategies for developing technology and approaches.

Haney, S. The Eubalaena Conservation Award - an international competition for innovative solutions to the entanglement problem.

Scientific Literature and Reports

Bannister, J. L. and L. A. Pastene. 1999. First record of movement of a southern right whale (*Eubalaena*

australis) between warm water breeding grounds and the Antarctic Ocean, south of 60° S. Marine Mammal Science 15 (4): 1337 ñ 1342.

Corkeron, P. J. and R. C. Conner. 1999. Why do baleen whales migrate? Marine Mammal Science 15 (4): 1228 1245.

Gendron, D., S. Lanham and M. Carwardine. 1999. North Pacific right whale (*Eubalaena glacialis*) sighting south of Baja California. Aquatic Mammals 25 (1): 31 ñ 34.

Katona, S. K. and S. D. Kraus. 1999. Efforts to conserve the North Atlantic right whale. In: Twiss, J. R. Jr. and R. R. Reeves. 1999. Conservation and Management of Marine Mammals. Smithsonian Institution Press. 496 pp.

Kraus, S. and M. Marx, eds. 1999. Right Whale Consortium Abstracts 1999. New England Aquarium, Boston, MA. For availability, see article on page 10.

Moore, M. J., S. D. Berrow, B. A. Jensen, P. Carr, R. Sears, V. J. Rowntree, R. Payne and P. K. Hamilton. 1999. Relative abundance of large whales around South Georgia (1979-1998). Marine Mammal Science 15 (4): 1287 ñ 1302.

Perryman, W. R. Brownell, Jr., and D. DeMaster. 1999. Priority list for conservation of marine mammal stocks: North Pacific right whale. Marine Mammal Society Newsletter 7 (3): 1 ñ 2.

Reynolds, J. E. III and S. A. Rommel. 1999. Biology of Marine Mammals. Smithsonian Institution Press. 600 pp.

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Calendar of Events

January 26, 2000: Next meeting of the Northeast Implementation Team. Location to be determined. For further information, contact Sal Testaverde at NMFS, 978-281-9368, e-mail: salvatore.testaverde@noaa.gov

February 28, 2000: Deadline for submitting proposals for the Eubalaena Disentanglement Award. See article on page 3 for details.

May 4 and if needed, May 5, 2000: Next meeting of the Southeastern U.S. Implementation Team for the Recovery of the Northern Right Whale. Location to be determined. For further information, contact team chair Barb Zoodsma at 912-264-7218; e-mail: Barb_Zoodsma@mail.dnr.state.ga.us

Right Whale News

Right Whale News is the newsletter of the Southeastern U.S. Implementation Team for the Recovery of the Northern Right Whale and the Northeast Whale Implementation Team. The editor is Hans Neuhauser. The editorial board consists of Bill Brooks, Moe Brown, Scott Kraus, Mike Payne, Sigrid Sanders and Jerry Wallmeyer.

The Grayís Reef National Marine Sanctuary, the Massachusetts Environmental Trust, the Southeast Regional Office of the National Marine Fisheries Service and the Northeast Whale Implementation Team have underwritten the costs of *Right Whale News*. Thanks to their support, *Right Whale News* is published quarterly and is distributed free of charge.

An **index** of the first five years of *Right Whale News* (1994-1998) has been prepared and is available along with current and **back issues** on the Internet, thanks to Alex Score and the Gray's Reef National Marine Sanctuary. There is a **new web site** for back issues of *Right Whale News*. The web site address is now: <http://www.graysreef.nos.noaa.gov/rightwhalenews.html>

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