

RIGHT WHALE NEWS

The newsletter of the Southeastern U.S. Implementation Team for the Recovery of the Northern Right Whale and the Northeast Whale Implementation Team

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Canadian Recovery Plan for Endangered Right Whales Ready for Review

The draft "Canadian Recovery Plan for the North Atlantic Right Whale" was released on May 12 for public comment. The plan was prepared by a team co-chaired by Jeremy Conway of the Canada Department of Fisheries and Oceans and Catherine Merriman of the World Wildlife Fund-Canada. Copies of the draft plan can be obtained in English or French from:

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Comments on the plan are due by June 11. The Executive Summary of the draft plan follows.

Executive Summary, Draft Canadian Recovery Plan for the North Atlantic Right Whale

The population of North Atlantic right whales (*Eubalaena glacialis*) off the east coast of North America has been the subject of intensive research for the last 20 years. Numbering only a few hundred individuals (300-350), this population is recognized as one of the most critically endangered populations of large mammals in the world. Indices of abundance and reproductive success suggest that the population is essentially stationary, with no evidence of a substantial increase or decrease in numbers in recent years.

Preparation of this Canadian right whale Recovery Plan was a collaborative effort co-sponsored by the Department of Fisheries and Oceans and World Wildlife Fund-Canada. Participants included agency representatives, scientific experts, and representatives of the fishing, shipping, and tourism ("whale-watching") industries in the Maritimes. The North Atlantic Right Whale Recovery Plan is intended as a blueprint for action by Canadians to

improve the species' chances of survival and recovery.

The overall goal is for the whale population to reach an interim target size of 1200 individuals, after which time its endangered status might be reconsidered. It will almost certainly take more than 20 years for the population to grow to 1200. In the meantime, the Recovery Plan should be re-evaluated at intervals of no more than ten years. The principal immediate threat to the western North Atlantic right whale population is thought to be the mortality resulting from ship strikes. Another clearly defined threat is entanglement and entrapment in fishing gear. Thus, the main objectives of the Recovery Plan are to reduce the frequency with which right whales are struck by vessels and to reduce the incidence of entanglement or entrapment in fishing gear. Additional objectives are to minimize disturbance from human activities, reduce exposure to contaminants, and ensure that necessary population monitoring and research are conducted.

Four general recommendations are included in the Plan, as follows: (1) that an Implementation Team be established within six months after the Plan is published, (2) that the capacity and resources within the Department of Fisheries and Oceans to deal with large-whale issues be increased immediately, (3) that the Canadian government, the private sector in Canada, and Canadian non-governmental organizations commit themselves to providing adequate long-term funding for needed public education, research, and conservation programs, and (4) that the Government of Canada build on recent initiatives to consult and coordinate with relevant U.S. agencies and international bodies.

A further forty-two specific recommendations are made under each of five headings (strategies), and these can be summarized as follows:

A. Reduction of vessel collisions

In the absence of a technical solution to the problem of vessel collisions with whales, the only available ameliorative options are governmental regulations to reduce and minimize the probability of collisions, and voluntary efforts by those who operate vessels at sea. A crucial first step is to analyze the available data on right whale movements and distribution to determine whether, and how, changed routing of vessel traffic would reduce the risk of collisions. Such analyses need to be carried out for both the Bay of Fundy and Roseway Basin, the two well-known summering grounds of western North Atlantic right whales. More research is needed on how right whales detect and respond to oncoming vessels. Programs to educate mariners about the problems facing right whales need to be expanded, refined, and updated regularly. Advisories concerning right whale conservation areas should be posted on the internet and on marine charts of eastern Canada. The existing warning and reporting system for right whales in the Bay of Fundy needs to be maintained and perhaps expanded to other areas of eastern Canada where it could benefit right whales.

B. Reduction of the Impacts of Encounters with Fishing Gear

This strategy can be addressed both by reducing the seriousness of encounters once they

occur and or by taking steps to prevent encounters in the first place. The first of these approaches requires the establishment of a network to notify authorities when a whale is entangled or entrapped, and the development of a response capability to disentangle or release whales from fishing gear. For the latter, caches of equipment and teams of trained personnel need to be situated at strategic locations, pending notification of an entanglement or entrapment event. Fishermen need to be encouraged and assisted in their voluntary efforts to reduce the frequency of interactions between right whales and fishing operations. Careful consideration should be given to the need for time and area fishing closures that will reduce the amount of overlap, in time and space, between fishing gear and right whales. Any initiative to expand the use of gear known to be a problem for right whales into right whale feeding areas should be subject to review in advance. This should include an assessment of risk and a search for management options that accommodate the interests of both the fishermen and the whales. Investigations should continue into ways of modifying gear to reduce the incidence and severity of entanglements and entrapments.

C. Reduction of Disturbance from Human Activities

"Disturbance" is recognized as a potential source of risk to right whales, yet it is ill-defined and therefore difficult to measure, evaluate, and ameliorate. Given the population's small size and precarious status, however, it is important to use a precautionary approach in assessing the risks associated with disturbance. The federal Marine Mammal Regulations (under the Fisheries Act) should be more explicit in defining disturbance so that appropriate management measures can be taken. The characteristics and zones of influence of acoustic deterrent devices used in eastern Canadian waters to protect fisheries and aquaculture from marine mammal depredations should be reviewed, and, if necessary, guidelines for the use of these devices should be developed to prevent serious effects on right whales. Activities that produce loud underwater sounds should be subjected to a stringent assessment process, with specific reference to right whales, and such activities should be regulated appropriately. One or more areas of right whale habitat should be given consideration as "Areas of Interest" under the Marine Protected Areas Program of the Oceans Act. Efforts need to be made to ensure, whether through voluntary adherence to a "code of ethics," or through amendment of the Marine Mammal Regulations, that people operating vessels in the vicinity of right whales, and in particular "whale-watchers," behave cautiously and respectfully toward the animals. Similarly, research activities that involve disturbance of right whales need to be subject to a rigorous review process that incorporates awareness of research activities being conducted both inside and outside Canadian waters (particularly in the United States).

D. Reduction of Exposure to Contaminants and Habitat Degradation

Like all other organisms living along the highly developed east coast of North America, right whales have long been exposed to a wide array of contaminants, and their ecosystem has been altered in many ways by the human presence. Although it is generally not possible to link causes and effects in a definitive manner, a working assumption of the Recovery Team was that pollution and degradation of habitat constitute risks to the right whale

population, and therefore that precautionary measures should be taken. Spills of oil and other toxic substances in areas used by right whales must be prevented, and an emergency-response protocol must be in place to deal with spills that nevertheless occur. Human activities with the potential to contribute to acute or chronic contamination of the marine environment, or that are likely to affect salinity or circulation in the Bay of Fundy and Gulf of Maine, need to be carefully assessed and regulated, with explicit attention given to the potential impacts on right whales and their habitat. However difficult, it is necessary to take into account cumulative impacts (exposure to multiple stressors) while assessing the implications of any single project or activity expected to affect right whales or their habitat. It is particularly important that the Department of Defense, in close consultation with the Department of Fisheries and Oceans, take measures to make sure that military exercises do not have a deleterious effect on right whales. Decisions related to coastal zone development, including aquaculture, should incorporate consideration of potential effects on right whales. "Forage" fisheries that could affect the food supplies of right whales should not be allowed to begin.

E. Population Monitoring and Research

There are many important gaps in knowledge about the western North Atlantic right whale population, and there is an ongoing need for population monitoring and research. The Recovery Plan includes 14 specific recommendations under this heading. Above all else, it is critical that the program of annual surveys, involving photo-identification and biopsy sampling, be continued for the foreseeable future. This program provides a base of information and awareness on which much of the rest of this Recovery Plan rests.

NMFS 1998 Stock Assessment Paints Bleak Picture for Right Whales

The Marine Mammal Protection Act Amendments of 1994 require the National Marine Fisheries Service (NMFS) and the U. S. Fish and Wildlife Service to generate stock assessment reports for marine mammals in the U. S. Exclusive Economic Zone. In February 1999, the NMFS released updated 1998 assessments for Atlantic stocks of marine mammals including the right whale (Waring et al., 1999; see Scientific Literature and Reports section for complete citation).

Among the changes from previously published stock assessments is updated information on human interactions ñ both ship strikes and fisheries ñ with right whales. The responsibility for the 1993 mortality of a right whale due to fishing gear was changed from the pelagic driftnet fishery to the lobster fishery.

The assessment for the western North Atlantic stock of the northern right whale includes information on (1) stock definition and geographic range; (2) population size ñ the minimum population size estimate is 295 animals; (3) current and maximum net productivity rates ñ the population growth rate is estimated at a maximum of 2.5% and recent analysis suggests

that the calving interval is increasing; (4) potential biological removal \hat{n} for the right whale, PBR remains at 0.4; (5) annual human-caused serious injury and mortality \hat{n} estimated at 2.3 per year for 1991-96, with non-observed fishery impacts contributing 1.0 and ship strikes 1.3; (6) status of stock \hat{n} the northern right whale remains endangered; and (7) references.

Copies of the 1998 Stock Assessment may be obtained from the Protected Species Branch, Northeast Fisheries Science Center, NMFS, 166 Water Street, Woods Hole, MA 02543-1026. Note that there are several significant changes that should be made to Table 1 of the 1998 report. On page 9, the caption should read "Summarized records of confirmed, human-caused mortality and serious injury" and on page 10, an entry for 3/9/96 should be added, reading "mortality, beached/ adult male #2220/ Cape Cod/ ship strike primary, entanglement secondary/ slice in back, lobster gear" (G. Waring, pers. comm., 5/14/99).

The draft 1999 Stock Assessment Reports are expected to be released on May 25 or 26 in the *Federal Register*. The report will be posted on the NMFS web site at:

http://www.nmfs.gov/prot_res/mammals/sa_rep/sar.html

Ship Strike Kills Staccato off Cape Cod

A whale survey team from the Massachusetts Division of Marine Fisheries discovered a dead right whale in Cape Cod Bay on April 20. Scientists from the Center for Coastal Studies towed the carcass to the beach at Wellfleet before dawn on April 21 for a necropsy. The right whale turned out to be Staccato, a 45-foot long adult female at least 30 years old. She was first identified in 1974 and since then had produced at least six calves, making her one of the most productive right whales in the western North Atlantic.

The necropsy was performed by Dr. David St. Aubin of the Mystic Aquarium and a team of some 40 participants from the New England Aquarium, the National Marine Fisheries Service, the Center for Coastal Studies, Woods Hole Oceanographic Institution, the University of Connecticut and a group of high school students from Triton High School. The Massachusetts Environmental Police, the National Park Service, Wellfleet town officials and the Commonwealth of Massachusetts also were involved in the effort.

The necropsy and subsequent analysis led to the conclusion that Staccato had been struck and killed by a ship. The animal's lower jaw and parts of five vertebrae had been fractured and hemorrhaging had occurred in the muscle tissue. The whale also appeared to have suffered from both acute and chronic disease. The New England Aquarium will issue a final report on the results of the necropsy.

Southeast Regional Subgroup of ALWTRT Meets

with Southeast Gillnet Fishers

At its October 1998 meeting, members of the Southeastern U.S. Implementation Team for the Recovery of the Northern Right Whale expressed concern about the potential impact of

gillnet fisheries in the southeast on right whales. The team voted unanimously to send a letter to the National Marine Fisheries Service expressing the concern and urging the NMFS to look at ways to reduce the potential for take.

One of the results of this expression of concern was the NMFS convening of a meeting between southeast gillnet fishers and southeastern members of the Atlantic Large Whale Take Reduction Team in Port Canaveral on May 5 to learn about the different types of gillnet fisheries in the southeast and the types of gear they use. The information obtained will be used in future deliberations of the ALWTRT.

Watching Right Whales Still Illegal

The Northeast Region of the National Marine Fisheries Service has issued new operational guidelines for vessels engaging in whale watching in the northeast region. The new guidelines create a two-mile radius awareness zone from any observed whale and recommend specific speed limits and other precautionary measures to take within the zone. The posting of a dedicated lookout to keep track of all whales in the area is also recommended. The U. S. Coast Guard Auxiliary will be monitoring the effectiveness of the guidelines to help the NMFS determine if additional protective measures such as regulations are needed to prevent harassment or injury to whales.

The new guidelines make it clear that watching right whales is still illegal under both federal and state (Massachusetts) regulations. Approaching a right whale within 500 yards is prohibited. Any vessel finding itself within the 500-yard buffer zone created by a surfacing right whale must depart immediately at a safe slow speed. The only vessels allowed to remain within 500 yards are vessels with appropriate research permits, commercial fishing vessels in the act of hauling back or towing gear, or any vessel given prior approval by NMFS to investigate a potential entanglement.

The whale watching guidelines were developed by the Whale Watch Advisory Group, consisting of representatives of the whale watching industry, state and federal agencies, academic research institutions and other interested groups and individuals. The group was established by the Northeast Implementation Team and the NMFS. The team approved the operational procedures on April 6.

New NAVTEX Repeater to End Transmission Gap

Right whale sightings from Early Warning Systems observers in both the southeast and northeast depend on the U.S. Coast Guard's NAVTEX electronic broadcast system to get appropriate cautionary messages to ship operators. Until now, there has been a gap in the geographic area covered by the broadcasts: the northern approach to the critical habitat area off the Georgia coast. Now, thanks to the Coast Guard, a tower has been erected near

Savannah that will serve as a repeater for the signal. Broadcast coverage should now be complete.

Southeast Team Seeks Funds for Pagers

The Southeastern U.S. Implementation Team for the Recovery of the Northern Right Whale is seeking funds to pay for pagers for the 1999-2000 calving season. The pagers provide a vital link between the aerial survey teams who spot right whales; FACSFACJAX, the U.S. Navy's northern right whale fusion center and disseminator of the sightings; and those who need to know about sightings, including various operations of the U.S. Navy, Corps of Engineers and Coast Guard (including NAVTEX broadcasts), harbor pilots associations, Florida and Georgia natural resource agencies and the NMFS. Twenty-three pagers were distributed for the 1998-99 season, thanks to the support of the Florida Department of Environmental Protection (FDEP). More will be needed for next season if commercial gillnet fishermen are also to receive notices. The total cost for the pagers is an estimated \$1500. Anyone who has suggestions for a source of funds should contact Cyndi Thomas, team vice-chair, at the FDEP, 904-448-4300, ext. 229 or e-mail: thomas_ct@jax1.dep.state.fl.us

Navy May Select Onslow Bay off North Carolina for Shallow Water Training Range

The U.S. Navy is considering several sites off the east coast of the United States for development and deployment of a training range for anti-submarine warfare. The range will involve the use of active acoustics. The most promising site appears to be Onslow Bay off North Carolina although sites off Virginia, South Carolina and Massachusetts are also being considered. An environmental impact statement is being prepared and a draft should be ready for review in late summer. The public comment period will be in the fall. For additional information, contact Jerry Wallmeyer at 904-542-5216; e-mail: njnw5@navtap.navy.mil

People on the Move

Brad Barr, a founding member of the Northeast Implementation Team, its current vice chair, and one of the team's driving forces, has left the helm of the Stellwagen Bank National Marine Sanctuary to become senior policy analyst at the NOAA Marine Sanctuaries Division's Woods Hole Policy and Planning Office. He will help the national program office assess threats to marine resources in all 12 Sanctuaries and develop policies to address those threats. A search is underway to replace Brad at the Sanctuary. The new Sanctuary manager also will replace Brad on the Implementation Team. Brad leaves the team, "feeling pretty good about what we have been able to accomplish. While it hasn't been as much as we may have liked, like the dancing bear, it's not that it dances well but that it

dances at all." Brad can now be reached at the WHPPPO, c/o USGS, 384 Woods Hole Road, Woods Hole, MA 02543; tel. 508-457-2234; fax 508-457-2310; e-mail: brad.barr@noaa.gov. **Lt. Terry Bisard** of the U. S. Navy's Submarine Group 10 and a member of the Southeastern U. S. Implementation Team is leaving Kings Bay for department head training in Groton, Connecticut, followed by a boat assignment in the southeast. He will be replaced on the team by **Lt. Corey Brown**, who can be reached at 912-673-2001, ext. 8373; e-mail: n32@csg10.subasekb.navy.mil. **Kristi Schumacher** has joined the Florida Department of Environmental Protection to help prepare a pilot GIS system for right whales using data from the southeast for 1992-98 (see *Right Whale News* 5(4):9 for background on this GIS initiative). Her e-mail address is: schumacher_k@fmri.usf.edu

Letter to the Editor -

Coast Guard Remains Committed to Right Whale Protection

By Lieutenant Robert L. Clarke, Jr.

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I am writing to address a possible misconception that the Coast Guard is not living up to its responsibilities to protect the northern right whale. To the contrary, for years the Coast Guard has been committed to participating in efforts to save the northern right whale from extinction. We have a comprehensive plan in place to ensure our own operations are conducted to minimize our risk of interactions. We participate in efforts to reduce commercial vessel ship strikes and fishing gear entanglements. We help other agencies enforce regulations and conduct operations to reduce right whale mortality. Finally, the Coast Guard uses its authority to enact regulations and policy to help protect right whales.

Ensuring our own Operations Pose Minimal Risk. The Coast Guard is a seagoing service. In order to save lives, enforce fisheries regulations, prevent smuggling, provide pollution response, interdict migrants, and perform countless other duties, we must operate vessels at sea. Often, we are required to operate them in areas where endangered and threatened species exist. We recognize this and, in order to minimize the impact of our operations on threatened and endangered species in the Atlantic Ocean, the Coast Guard enacted the Atlantic Protected Living Marine Resources Initiative (APLMRI) in December of 1996. Among other things, the APLMRI establishes the following guidelines for Coast Guard operations:

- During non-emergency transits of critical habitats and high-use areas, our vessels are required to operate at speeds that allow lookouts to see and report whales (and other protected species) in a timely manner to allow vessels to reduce the potential for strikes.
- Whenever our vessels are in critical habitats, areas of known whale concentrations, or within 20 nautical miles of shore, they are required to post lookouts qualified to identify right whales (and other protected species).
- When whales are sighted, our vessels are required to either increase distance from the whale or allow the whale to successfully evade our vessel.
- Our vessels are required to maintain a minimum distance of 500 yards from right whales and 100 yards from all other whales. In addition, Coast Guard vessels are required to treat any large whale as a right whale until positively identified.
- All our vessels are required to submit right whale sighting reports to the appropriate sighting advisory/early warning system.

Efforts to Reduce Commercial Vessel Strikes and Fishing Gear Interactions.

The Coast Guard has been an active participant in efforts to reduce right whale ship strike and fishing gear mortality. Our efforts include:

- Membership in the Northeast Implementation Team, the Southeast Implementation Team, the Ship Strike Sub-Committee, the Large Whale Take Reduction Team, and the Whale Watch Advisory Group.
- In concert with the National Marine Fisheries Service, development and implementation of the Mandatory Ship Reporting (MSR) system, which will provide merchant vessels approaching critical habitats with right whale location information and advise them on how to reduce the risk of ship strikes.
- Attendance of U.S./Canada governmental meetings, the Whale Watch Ethics Forum, and Right Whale Consortium meetings.
- Distribution of over 800 educational pamphlets about reducing the risk of ship strikes to merchant vessel operators during inspections of all U.S. and foreign merchant vessels and commercial fishing vessels.
- Employing the Coast Guard Auxiliary to accompany whale watch tours and patrol National Marine Sanctuaries.

Helping Other Agencies.

The Coast Guard dedicates a significant amount of resources and, when possible, dedicates a significant amount of operating hours toward helping other agencies and organizations reduce right whale mortality. Examples include:

- Making over 1,100 emergency broadcasts that relay right whale sighting information to ships at sea.
- Providing logistical support, surveillance, safety standby, and training exercises for whale disentanglement operations.

- Assisting in over 50 actual disentanglements since 1994.
- Providing \$160,000 annually to fund surveillance flights in the northeast and southeast critical habitats.
- Providing \$5,000 to help fund an educational video for commercial vessel operators.
- Enforcing the Atlantic Large Whale Take Reduction Plan fixed fishing gear closure areas.
- Providing Mandatory Ship Reporting system technical expertise, contract administration, and funding (\$125,000 for development and \$95,000 for annual operating expenses).

Enacting Regulations and Policy.

The ability of the Coast Guard to enact regulations and public policy governing protection of right whales depends on the authority we have under the laws of the United States. The authority for the Coast Guard to regulate vessel movement is not as great as many people believe and, in many cases, does not extend beyond 12 miles from shore. In areas where we have the authority, the Coast Guard has acted to help protect the northern right whale. Two examples include:

- Implementing the International Maritime Organization approved Mandatory Ship Reporting system.
- Incorporating questions on right whale identification, approach regulations, and Coast Pilot information into merchant mariner license examinations.

The Coast Guard is firmly committed to living up to its responsibilities to help protect the endangered northern right whale and other threatened and endangered species. We are also committed to supporting the efforts of others. While we may not always be in a position to provide a cutter or aircraft to respond to a marine mammal incident, we will continue to do what

we can to be part of the team effort to protect the northern right whale.

Right Whales and the Prudent Mariner

A New Video for Ship Operators

The Northeast Implementation Team has produced a new 15-minute educational video to help persuade ship operators to be prudent mariners with respect to the northern right whale. Produced under the leadership of Bruce Russell and Dr. Sal Testaverde, the video informs viewers of the plight of the right whale, provides advice regarding additional sources of information (such as the Coast Pilot and NAVTEX broadcasts), and notes precautionary measures that ship operators can take to avoid hitting whales. Also included are basic information on the risk of collisions, seasonal and geographic vulnerability, and how to identify a right whale.

Funds for the video were provided by the National Marine Fisheries Service, the Northeast Implementation Team, the International Fund for Animals, the Canadian Department of Fisheries and Oceans, the U. S. Coast Guard, the U. S. Navy, the Gulf of Maine Council on the Marine Environment and the Massachusetts Environmental Trust.

For information on the availability of the video, including versions in French, English and possibly other languages, contact Dr. Testaverde at 978-281-9368; e-mail: salvatore.testaverde@noaa.gov

IWC Discusses Right Whale Distribution, Status and Trends

The International Whaling Commission (IWC) held its annual meeting in Grenada in early May. Phil Clapham of the Northeast Fisheries Science Center, Scott Kraus of the New England Aquarium and others made presentations on northern right whales. Concerns were voiced over the status of the western North Atlantic stock of northern right whales in relation to other whale stocks. The IWC was asked to endorse a recommendation that both the United States and Canada increase, with some urgency, funding for research on ship strikes, fishing gear interactions and reproduction trends. A report of the meeting will eventually be published by the IWC. A more comprehensive report on the meeting is planned for the next issue of *Right Whale News*.

Report from the Calving Ground

The 1998-99 calving season was the lowest on record (since 1980), despite the fact that the aerial survey effort was greater than in any previous season. For the 1998-99 season, there was a total of 35 sightings involving only seven individual right whales off the southeast coast. There were only three cow/calf pairs. The first sighting occurred on December 1, the last on March 23. Most of the sightings occurred in January (21 sightings), December (8) and March (5). The first calf was sighted on December 31. Right whales were not seen as far south as in previous years; the southern-most sighting was 29°34'N. Warmer water temperatures to the south may have been responsible.

(Data from the New England Aquarium, the Georgia Department of Natural Resources, the Florida Department of Environmental Protection and the U. S. Navy).

Radio-tagged Whale Movements in the Calving Ground

May Justify Revisions to Management Protocols

The New England Aquarium, the National Marine Fisheries Service and the Gray's Reef National Marine Sanctuary joined forces earlier this year to place a VHF-radio transmitter tag on an adult female right whale and follow her movements in the calving ground. The

goal of the research was to obtain behavioral and movement information that was not available from existing sightings. "Hopefully what we learn will help develop protection measures for that part of the day when we can't see them," noted Scott Kraus, the Aquarium's Right Whale Research Director.

The tag was attached to the whale (#1612 in the catalog) on January 20 east of Fernandina Beach, Florida. She and her calf were tracked for 44 hours, when tracking was abandoned due to bad weather. The pair were relocated on January 25 and tracked continuously for an additional 96 hours. Tracking was conducted from the *R.V. Jane Yarn*, a converted Navy transport vessel owned and operated by the Gray's Reef National Marine Sanctuary.

The results of the tracking effort suggests that the whale spent approximately 45 percent of the time at the surface and approximately 55 percent below the surface on dives longer than one minute. Mean dive intervals for the whale appeared to increase from approximately 5 minutes to approximately 7 minutes following sunrise. Dives then tended to decrease to approximately 4 minutes in the afternoon and remained around 5 minutes throughout the night. These observations suggest that the sightability of mother/calf pairs in the area of the calving ground most heavily used by both whales and ships may be lower than previously thought. Research team leader Chris Slay noted, "Just because we don't see whales doesn't mean that they are not there and not at risk."

Tracking also revealed that a right whale with a young calf can travel as much as 30 nautical miles in a 24-hour period. This rate may justify modifications to the management protocols for reducing right whale mortality associated with shipping in the calving ground.

(Data and interpretation provided by Chris Slay, New England Aquarium.)

Tagging and Tracking Working Group Formed

At the meeting of the Southeastern U. S. Implementation Team for the Recovery of the Northern Right Whale on 6 May 1999, progress reports on VHF radio tagging and tracking projects were given by Chris Slay and Jim Hain. There was a good deal of interest in this topic, along with questions and discussion. As a result, a tagging and tracking working group was formed to review scientific objectives, methodologies, resources, and issues, and provide

information and guidance to the Team to aid in planning for the future. A report will be prepared, mostly through e-mail exchanges, and provided to the team at the fall meeting on 28 October 1999. Members of the working group are: Jim Hain, Associated Scientists at Woods Hole; Cyndi Thomas, Buddy Powell, and Kipp Frohlich, Florida Department of Environmental Protection; David Laist, Marine Mammal Commission; Wayne McFee, National Marine Fisheries Service; Chris Slay, New England Aquarium; and Jeff Goodyear, HABIT Research, Ltd. (designated from the Northeast Implementation Team). All input,

experience, advice, resources, and technologies are welcomed: contact Jim Hain via e-mail to; jhain@earthlink.net, or to any other member of the group.

Photo-ID Catalog of NE Pacific Right Whales

By James V. Carretta

Southwest Fisheries Science Center

National Marine Fisheries Service

Right whales in the eastern North Pacific have been sighted so rarely that no reliable estimates of population size are available. Recent sightings from the southeastern Bering Sea, Alaska, in 1996 and 1997 have contained multiple whales, and represent the first reliable multiple animal encounters since the 1960s. Given the rarity of right whales in the eastern Pacific, it is important to document sightings with photographs in an effort to identify individual whales from their callosity patterns. The Southwest Fisheries Science Center (SWFSC) of the National Marine Fisheries Service (NMFS) in La Jolla, California, has maintained the Eastern Pacific Right Whale Photo-ID Catalog so since 1992. This catalog contains photographs from at least 14 whale sightings, in which a minimum of 17 whales were seen, and includes photographs taken between 1982 and 1998 from both surface vessels and aircraft from the Bering Sea south to Cabo San Lucas, Mexico, and west to Hawaii. To date, no identifying matches have been found, but only 7 to 10 individuals are readily identifiable by their callosity patterns. Joint aerial surveys run by SWFSC and the National Marine Mammal Laboratory in the southeastern Bering Sea in the summer of 1998 resulted in five sightings of at least three unique individuals identified from aerial photographs. Additional aerial surveys are scheduled for the summer of 1999 and 2000.

We sincerely appreciate the past contributions of right whale photographs and videotape footage received from Diane Gendron, Pam Goddard, Gregory Green, Gerald Joyce, Karen LeFever, Dave Rugh, Dan Salden, Jim Scarff, Janice Waite and Kate Wynne.

Questions regarding the catalog, submission of photographs or videotape, or sightings reports of Pacific right whales should be directed to any of the following researchers at Southwest Fisheries Science Center, National Marine Fisheries Service, P. O. Box 271, La Jolla, CA 92038: Robert Brownell, Jr. (619-546-7165; e-mail: Robert.Brownell@noaa.gov), Jim Carretta (546-7181; Jim.Carretta@noaa.com) or Wayne Perryman (546-7014; wperryman@caliban.ucsd.edu).

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Calendar of Events

June 11: Deadline for the submission of comments on the draft Canadian Recovery Plan for

the North Atlantic Right Whale. See articles starting on page 1 for additional details.

June 23: Next meeting of the Northeast Implementation Team. Location to be determined. For further information, contact Dr. Sal Testaverde at 978-281-9368; e-mail: salvatore.testaverde@noaa.gov

October 21 ñ 22: North Atlantic Right Whale Consortium annual meeting. New England Aquarium, Boston, MA. For more information, contact Marilyn Marx, consortium secretary, at 617-973-6584; e-mail: mmarx@neaq.org

October 28 and if needed, Oct. 29: Fall 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

November 27 ñ 28: Pre-conference workshops, Society for Marine Mammalogy 13th Biennial Conference on the Biology of Marine Mammals, Maui, Hawaii.

November 28 ñ December 3: Society for Marine Mammalogy 13th Biennial Conference, Maui, Hawaii. For further information, contact the Society at their web site: <http://pegasus.cc.ucf.edu/~smm>

May 4 and if needed, May 5, 2000: Spring 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 both 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.

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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. Telephone 706-546-7507. Fax 706-613-7775. E-mail: gepi@ix.netcom.com

A number of complaints about the accuracy of an article published in the Winter, 1999 issue of *Right Whale News* prompts the editor to issue a disclaimer regarding any authored article that appears in this newsletter.