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Senior Scientist

Marine Conservation Medicine & Ocean Health
Edgerton Research Laboratory
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PROFESSIONAL EXPERIENCE:

- 2008-present Senior Scientist**
Marine Conservation Medicine
Research Department
New England Aquarium
Boston, Massachusetts
- 2000-2007 **Senior Conservation Fellow**
Global Marine Programs
New England Aquarium
Boston, Massachusetts
- 1998-2000 **Science Director, Center for Conservation Medicine**
Assistant Professor, Department of Environmental and Population Health
Tufts University School of Veterinary Medicine
North Grafton, Massachusetts
- 1996-2001 **Senior Fellow**
Wildlife and Contaminants Program
World Wildlife Fund
Washington, D.C.
- 1994-1996 **Conservation Scientist**
Wildlife and Contaminants Program
World Wildlife Fund
Washington, D.C.
- 1993-1994 **Director, Primate Operations - Miami**
Charles River Laboratories
Wilmington, Massachusetts
- 1991-1993 **Primate Veterinarian**
Charles River Laboratories

Wilmington, Massachusetts

- 1987-1990 **Co-chair Primate Medicine/Research Fellow in Comparative Pathology**
New England Regional Primate Research Center/Harvard Medical School
Southboro, Massachusetts
- 1985-1987 **Private Veterinary Practice**
Boston, Massachusetts

ACADEMIC APPOINTMENTS:

- 2006-2009 **Adjunct Graduate Faculty**
Department of Biology and Marine Biology
University of North Carolina Wilmington
Wilmington, North Carolina
- 2000-2002 **Clinical Assistant Professor**
Department of Environmental and Population Health
Tufts University School of Veterinary Medicine
North Grafton, Massachusetts
- 1999-2000 **Research Fellow**
Conservation Department/Edgerton Research Laboratory
New England Aquarium
Boston, Massachusetts
- 1990-1998 **Clinical Assistant Professor**
Department of Medicine, Tufts University School of Veterinary Medicine
North Grafton, Massachusetts
- 1990-1991 **Affiliated Scientist**
New England Regional Primate Research Center, Harvard Medical School
Southboro, Massachusetts
- 1989-1991 **Visiting Scientist**
Division of Comparative Medicine, Massachusetts Institute of Technology
Cambridge, Massachusetts

EDUCATION:

- 1974-1976 University of New Hampshire-Durham
Pre-veterinary Medicine
- 1978-B.S. University of Wisconsin-Madison
Natural Sciences

1984-D.V.M. Tufts University School of Veterinary Medicine
Doctor of Veterinary Medicine

POST DOCTORAL TRAINING:

Internship:

1984-1985 Internship in Small Animal Medicine and Surgery
Angell Memorial Animal Hospital, Boston, Massachusetts

Research Fellowships:

1982-1983 Public Health Service Summer Research Fellowship
Institute of Primate Research, Kenya, E. Africa

1990-1991 Research Fellow in Comparative Pathology
New England Regional Primate Research Center, Harvard Medical School
Southboro, Massachusetts

GRADUATE COMMITTEES

2006-2008 Luis Leandro
MSc. Candidate
Grice Marine Laboratory
College of Charleston
Charleston, South Carolina

2006-2008 Zachary Swaim
MSc. Candidate
Department of Biology and Marine Biology
University of North Carolina Wilmington

LICENSURE AND CERTIFICATION:

1984 Massachusetts Veterinary License
1984 USDA Federal Accreditation
2004 Certified Conservation Detector Dog Handler

AWARD AND HONORS:

1981 Davis-McClure Microscope Award
1984 Student Research Day Award
1984 American Association of Feline Practitioners Senior Student Award
1995 National Association of Physicians for the Environment Commendation

- 1997 Society of Technical Communications Florida Chapter Merit Award for
“Chemically- Induced Alterations in Functional Development and
Reproduction of Fishes.”
- 2001 Theater Surface Combatants Team Award for Excellence
- 2007 #10 of the “Ten Worst Jobs in Science”, Popular Science

ACADEMIC COMMITTEES:

- 1988 Committee member: Institutional Animal Care and Use Committee, New
England Regional Primate Research Center/Harvard Medical School
- 1990 Committee member: Pre-veterinary Student Advisory Committee, Harvard
University
- 1998 Dean’s Task Force on Environmental and Population Health, Tufts
University School of Veterinary Medicine
- 1998 Search Committee for Chair, Department of Environmental and
Population Health, Tufts University School of Veterinary Medicine
- 1998-2000 Advanced Education Committee, Tufts University School of Veterinary
Medicine
- 1998-2000 Tufts Institute for the Environment, Steering Committee, Tufts University
- 1999 Search Committee for International Programs, Tufts University School of
Veterinary Medicine.

PROFESSIONAL AFFILIATIONS:

- 2004-present Massachusetts Veterinary Medical Association
- 1999-present Marine Mammal Society
- 1995-present Wildlife Disease Association
- 1984-present American Veterinary Medical Association

JOURNAL REVIEWER

Marine Mammal Science
Journal of Cetacean Research and Management

SELECTED PROFESSIONAL ACTIVITIES:

Organizing Committee: “Strategic Planning for the Development of a Collaborative
Disease Center for Marine Mammals.” Marine Mammal Commission Workshop, May
19-20, 2008, Calistoga, CA.

Invited Presentation/Participant: “Large Whale Health Assessment.” Cascadia
Research Collaborative, Olympia, Washington, December 7-8, 2006.

Invited Participant: “Review of the Right Whale Research Program.” Marine Mammal
Commission, Wood’s Hole, Massachusetts, 2006.

Invited Participant: “Large Whale Immobilization Workshop.” Woods Hole Oceanographic Institution, Woods Hole, Massachusetts, February 7-8, 2006.

Organizing Committee/Host: “Bowhead/Right Whale Comparative Health and Physiology Workshop.” New England Aquarium, Boston, Massachusetts, March 25-26, 2003.

Board Member: North Atlantic Right Whale Consortium, 2000-2003.

Chair, Steering Committee: Workshop on “Causes of Reproductive Failure in North Atlantic Right Whales: New Avenues of Research.” Marine Biological Laboratories, Woods Hole, Massachusetts, April 26-28, 2000.

Steering Committee: “A Workshop on Large Whales Medical Intervention-Indications and Technology Development.” Woods Hole Oceanographic Institution, Woods Hole, Massachusetts, February 7, 2000.

Invited Participant: “Workshop to Assess the Physiological Effects of Tagging on North Atlantic Right Whales and to Develop Recommendations for Future Studies.” New England Aquarium, Edgerton Research Laboratory, Boston, Massachusetts, October 23, 1999.

Invited Participant: The Precautionary Principle Project. Lowell Center for Sustainable Production, University of Massachusetts-Lowell, Boston, Massachusetts, July 21, 1999.

Invited Participant: NOAA Strategic Planning Workshop: A Vision for 2005. National Oceanic and Atmospheric Administration, United States Department of Commerce, February 17-18, 1999.

Advisor: Marine Ecosystems-Emerging Diseases as Indicators of Change. Health Ecological and Economic Dimensions (HEED) of Global Change Program. Paul R. Epstein (PI), Center for Health and the Global Environment, Harvard Medical School, 1998.

Invited Participant: Marine Mammals and Persistent Ocean Contaminants: Identification and Determination of the Most Effective Means for Resolving Critical Uncertainties. Marine Mammal Commission Workshop, Keystone, Colorado, October 12-15, 1998.

Steering Committee: Endocrine Disruption in Invertebrates: Endocrinology, Testing and Assessment. Joint OECD/Society of Environmental Toxicology and Chemistry Workshop, Netherlands, December 12-15, 1998.

Invited Participant: Sub-lethal Effects of Cholinesterase-Inhibiting Pesticides on Wildlife: Synthesizing the Evidence. Manomet Center for Conservation Sciences, Plymouth, Massachusetts, March 24-25, 1998.

Invited Participant: Amphibian Deformities in New England Workshop. Regional EPA, Lexington, Massachusetts, February 18, 1998.

Member: U.S. EPA Federal Environmental Laboratory Advisory Board, 1995-1996.

Organizer: Chemically-Induced Alterations of Functional Development and Reproduction in Fishes. Wingspread Conference Center, Racine, Wisconsin, July 21-23, 1995.

Invited Participant: Ecological Effects of Endocrine Disruptors Workshop. U.S. Environmental Protection Agency, Duluth, Minnesota, June 12-14, 1995.

Invited Participant: Workshop on Testing and Screening Technologies for the Review of Chemicals in Commerce. Office of Technology Assessment, Washington, D.C. April 24-25, 1995.

Organizing Committee and Rapporteur: Endocrine Disruptor Research Needs Workshop. U.S. Environmental Protection Agency, Raleigh, NC. April 10-13, 1995.

Invited Member: U.S. EPA Dioxin Reassessment Policy Forum. U.S. Environmental Protection Agency, Washington, D.C. November 1994-September 1995.

Invited Participant: SETAC Chemical Ranking and Scoring Workshop. Society for Environmental Toxicology and Chemistry, Destin, FL. February 12-16, 1995.

Invited Attendee: Air Pollution Impacts on Body Organs and Systems. National Association of Physicians for the Environment, Washington, D.C. November 18, 1994.

Invited Scholarship Attendee: Dioxin Risk Assessment Science and Policy Issues. Rifkin and Associates Environmental Consultants, Washington, D.C. October 20-21, 1994.

Moderator: The Conference on the Psychological Well-being of Captive Primates. Harvard Medical School, Boston, Massachusetts. September 17-18, 1988.

PUBLICATIONS:

Peer Reviewed Book Chapters and Reports

Kraus SD and **Rolland RM**. 2007. Right whales in the urban ocean. In: Kraus, SD and Rolland, RM (eds.). *The Urban Whale: North Atlantic Right Whales at the Crossroads*. Harvard University Press, Cambridge, Massachusetts.

Rolland RM, Hunt KE, Doucette GJ, Rickard LG, Wasser SK. 2007. The inner whale: hormones, biotoxins and parasites. In: Kraus SD and Rolland RM, (eds.). *The Urban*

Whale: North Atlantic Right Whales at the Crossroads. Harvard University Press, Cambridge, Massachusetts.

Rolland RM, Hamilton PK, Marx MK, Pettis HM, Angell CM, Moore MJ. 2007. External perspectives on right whale health. In: Kraus SD and Rolland RM,(eds.). *The Urban Whale: North Atlantic Right Whales at the Crossroads*. Harvard University Press, Cambridge, Massachusetts.

Kraus SD and **Rolland RM**. 2007. The urban whale syndrome. In: Kraus SD and Rolland RM,(eds.). *The Urban Whale: North Atlantic Right Whales at the Crossroads*. Harvard University Press, Cambridge, Massachusetts.

Ludwig JP, Summer LC, Auman HJ, Gauger V, Bromley D, Flint E, Giesy JP, **Rolland R**, Colborn T. 1997. The roles of fishing by-catch and contaminants in recent population changes of black-footed and Laysan albatrosses of the North Pacific. In: Robinson G and Gales R (eds). *Albatross Biology and Conservation*. Surrey Beatty and Sons, Chipping Norton, pp 225-238.

Kavlock RJ, Daston GP, DeRosa C, Fenner-Crisp P, Gray LG, Kaatter S, Lucier G, Luster M, Mac M, Maczka C, Miller R, Moore J, **Rolland R**, Scott G, Sheehan D, Sinks T, Tilson HA. 1996. Research needs for assessment of health and environmental effects of endocrine disruptors: A report of the US EPA sponsored workshop. Environmental Health Perspectives, Volume 3, Supplement 4.

Book Chapters, Reports, Technical Documents

Rolland RM, Kraus SD, Wasser SK, Hunt KE, Doucette G, Ballweber, L, Panuska C, Gillett R, White B. 2007. Studies of Reproductive Failure and Health in North Atlantic Right Whales. Final Report to the National Marine Fisheries Service Contract no. DG133F04CN0056.

Rowles T, Bradford LA, Calambokidis J, Falcone EA, Gabrielle CM, Gaydos JK, Krahn MM, Mattila DK, Norberg B, Raverty S, Robbins J, Rojas-Brachos L, **Rolland RM**, Rosa C, Rotstein DS, Urban J, Weller DW, Yamaguchi Manami. 2007. Draft report of the NOAA Large Whale Health Assessment Workshop held in Olympia, Washington on 8-9 December 2006. International Whaling Commission Document SC/59/DW2.

Pettis HM, **Rolland RM**, Hamilton PK, Knowlton AR, and Kraus SD. 2006. Visual assessment of North Atlantic right whale (*Eubalaena glacialis*) health and its relationship to reproduction and survival. Final report submitted to National Marine Fisheries Service. Contract #NAO3NMF4720464.

O'Hara TM, **Rolland RM**, Reeves RR (eds.). 2003. Bowhead/Right Whale Comparative Health and Physiology Workshop. Report of a Workshop held March 25-26, 2003, New England Aquarium, Boston, Massachusetts.

Reeves RR, **Rolland RM**, Clapham PJ.(eds). November 2001. Causes of Reproductive Failure in North Atlantic Right Whales: New Avenues of Research. Report of a Workshop held 26-28 April 2000, Falmouth, Massachusetts. Northeast Fisheries Science Center Reference Document 01-16. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Northeast Fisheries Science Center, Woods Hole, Massachusetts.

Multiple Stressors in Ecological Assessments: Proceedings from the Pellston Workshop on Multiple Stressors in Ecological Risk and Impact Assessment, 13-18 September 1997, Pellston, Michigan. 1999. Society of Environmental Toxicology and Chemistry.

Marine Mammals and Persistent Ocean Contaminants. 1998. Proceedings of a workshop held in Keystone, Colorado, October 12-15, 1998. Marine Mammal Commission, Washington, D.C.

Chemical Ranking and Scoring: Guidelines for Relative Assessments of Chemicals. 1995. Society of Environmental Toxicology and Chemistry.

Rolland R. Fact Sheet: 1994. Emergency preparedness for large primates. *AVMA Disaster Preparedness and Response Guide*.

Rolland R, A prescription for psychological well-being. 1991. In: Novak M, Petto A (eds.) *Through the Looking-glass; Perspectives on the Psychological Well-being of Captive Primates*. American Psychological Association Monograph Series, p.129-134.

Peer Reviewed Books/Journal Supplements Edited

Kraus SD and **Rolland RM**. 2007. *The Urban Whale: North Atlantic Right Whales at the Crossroads*. Harvard University Press, Cambridge, Massachusetts.

Rolland RM, Gilbertson M, Peterson R (eds.). 1997. *Chemically-Induced Alterations in Functional Development and Reproduction of Fishes*. SETAC Press, 194pp.

Rolland RM, Gilbertson MR, Colborn TC, editors. 1995. Environmentally-Induced Alterations in Development: A Focus on Wildlife. *Environmental Health Perspectives* volume 3, supplement 4.

Peer Reviewed Publications

Browning CL, **Rolland RM**, Kraus SD. In preparation. Upper and lower bounds of annual calf and perinatal mortality in North Atlantic right whales (*Eubalaena glacialis*). *Marine Mammal Science*.

Gillett RM, Frasier TR, **Rolland RM**, White BN. In preparation. Molecular identification of individual North Atlantic right whales (*Eubalaena glacialis*) using free-floating feces. *Conservation Genetics*.

Leandro L, **Rolland RM**, Roth PB, Lundholm N, Wang Z, Doucette GD. Submitted Exposure of the North Atlantic right whale *Eubalaena glacialis* to the marine algal biotoxin, domoic acid. *Marine Ecology Progress Series*.

Swaim ZT, Westgate AJ, Koopman HN, **Rolland RM**, and Kraus SD. 2009. Lipid metabolism by right whales: using fecal samples to assess assimilation of copepod triacylglycerols and wax esters. *Endangered Species Research* 6:259-271.

Gillett RM, White BN, **Rolland RM**. 2008. Quantification and genetic profiling of DNA isolated from free-floating feces of the North Atlantic right whale (*Eubalaena glacialis*). *Marine Mammal Science* 24 (2):341-355.

Rolland RM, Hamilton PK, Kraus SD, Davenport B, Bower RM, Wasser SK. 2006. Faecal sampling using detection dogs to study reproduction and health in North Atlantic right whales (*Eubalaena glacialis*). *Journal of Cetacean Research and Management* 8(2):121-125.

Hunt KE, **Rolland RM**, Kraus SD, Wasser SK. 2006. Analysis of fecal glucocorticoids in the North Atlantic right whale (*Eubalaena glacialis*). *General and Comparative Endocrinology* 148:260-272.

Doucette GJ, **Rolland RM**, Cembella AD, Martin JL, Michaud J, Cole TVN. 2006. PSP toxins in North Atlantic right whales (*Eubalaena glacialis*) and their zooplankton prey in the Bay of Fundy, Canada. *Marine Ecology Progress Series* 306:303-313.

Kraus SD, Brown MW, Clark CW, Hamilton PK, Kenney RD, Knowlton AR, Landry,S, Mayo CA, McLellan WA, Moore MJ, Nowacek DP, Pabst DA, Read RJ, **Rolland RM**. 2005. Response to Sayles and Green. *Science* 310:1616-1618.

Kraus SD, Brown MW, Caswell H, Clark CW, Fujiwara M, Hamilton PK, Kenney RD, Knowlton AR, Landry,S, Mayo CA, McLellan WA, Moore MJ, Nowacek DP, Pabst DA, Reed RJ, **Rolland RM**. 2005. North Atlantic right whales in crisis. *Science* 309:561-562.

Hughes-Hanks JM, Rickard LG, Panuska C, Saucier JR, O'Hara TM, Dehn L, **Rolland RM**. 2005. Prevalence of *Cryptosporidium* and *Giardia* Spp. in five marine mammal species. *Journal of Parasitology* 91(5):1225-1228.

Rolland RM, Hunt KE, Kraus SD, Wasser, SK. 2005. Assessing reproductive status of right whales (*Eubalaena glacialis*) using fecal hormone metabolites. *General and Comparative Endocrinology* 142:308-317.

Pettis HM, **Rolland RM**, Hamilton PK, Brault S, Knowlton AR, Kraus SD. 2004. Visual health assessment of endangered North Atlantic right whales (*Eubalaena glacialis*) using photographs. *Canadian Journal of Zoology* 82:8-19.

Fort DJ, Rogers RL, Paul RR, Miller MF, Clark P, Stover EL, Yoshioko J, Quimby F, Sower SA, Reed KL, Babbitt KJ and **Rolland RM**. 2001. Effects of pond water, sediment, and sediment extract samples from New Hampshire, USA, on early *Xenopus* development and metamorphosis: comparison to native species. *Journal of Applied Toxicology* 21:199-209.

Johnson LD, Ausman LM, **Rolland RM**, Chalifoux LV, Russell RG. 2001. Campylobacter enteritis and diarrhea in captive cotton-top tamarins (*Saguinus oedipus*) during the first year of life. *Comparative Medicine* 51(3):257-261.

Rolland RM. 2000. Ecoepidemiology of pollution effects on reproduction and survival of early life stages in teleosts. *Fish and Fisheries* 1:41-72.

Rolland RM. 2000. A review of chemically-induced alterations in thyroid and vitamin A status from field studies of wildlife and fish. *Journal of Wildlife Diseases* 36(4):615-635.

Colborn T, Smolen M, **Rolland R**. 1998. Environmental neurotoxic effects: the search for new protocols in functional teratology. In: Colborn T, vom Saal F, Short P (eds.). Environmental Endocrine-Disrupting Chemicals: Neural, Endocrine and Behavioral Effects. *Toxicology and Industrial Health* 14(1/2):9-23.

Rolland RM, Chalifoux LV, Snook SS, Ausman LA, Johnson LD. 1997. Five spontaneous deaths associated with *Clostridium difficile* in a colony of cotton-top tamarins (*Saguinus oedipus*). *Laboratory Animal Science* 47:472-476.

Colborn T, Smolen M, **Rolland R**. 1996. Taking a lead from wildlife. *Neurotoxicology and Teratology* 18(3): 235-237.

Rolland R, Hausfater G, Marshall B, and Levy S. 1985. Antibiotic - resistant bacteria in wild primates; increased prevalence in baboons feeding on human refuse. *Applied and Environmental Microbiology* 49:791-794.

NEWSLETTERS:

Rolland RM and Kraus SD. 2007. *A lesson from the primal ocean: right whales in the Auckland Islands*. Right Whale Research News, volume 16 (2), Fall 2007.

Rolland RM. 2007. *Right whales, detection dogs and the urban ocean*. Right Whale Research News, volume 16, no. 1, May 2007.

Browning CB and **Rolland RM**. 2005. *The scoop on poop*. Right Whale Research News, Fall 2005.

Rolland RM. 2000. *Investigating reproductive dysfunction in the western North Atlantic right whale: measuring steroid hormones in fecal samples from free-ranging whales*. Right Whale Research News, 2000.

POPULAR PRESS, BOOK REVIEWS, RADIO AND WEBSITES:**Book Reviews**

Kraus SD and Rolland RM. *The Urban Whale: North Atlantic Right Whales at the Crossroads*. Thomas J. O'Shea. Journal of Mammalogy 89(5):1328, 2008.

The Urban Whale Review. Stephen Eddy. Northeast Naturalist 2007.

The Urban Whale: North Atlantic Right Whales at the Crossroads. Bernd Wursig. Quarterly Review of Biology, 2007.

Whale wrongs. Richard Ellis. Times Literary Supplement, September 28, 2007, London, UK.

The Urban Whale: North Atlantic Right Whales at the Crossroads. Mason Weinrich. Marine Technology Society Journal, Vol. 41, No. 1, Spring 2007.

Right Whales are threatened, but scientists are hopeful. Lee Bumstead. Gulf of Maine Times, Summer 2007.

The Urban Whale: North Atlantic Right Whales at the Crossroads. Arthur H. Westing. Environmental Conservation 34(2). Cambridge, UK. June 2007.

The Urban Whale: North Atlantic Right Whales at the Crossroads. Arthur H. Westing. Brattleboro [VT] Reformer 95(5):21. March 8, 2007.

The Urban Whale: North Atlantic Right Whales at the Crossroads. Mason Weinrich. Right Whale News. February 2007.

Newspapers and Magazines**Upcoming:**

National Wildlife Magazine. 2009. Phil McKenna.
Saltscapes Magazine. Nova Scotia. Darcy Rhyno.

Published:

Muse. February 2009.

Right Whales on the brink on the rebound. Douglas Chadwick. National Geographic Magazine, October 2008.

Mithilfe eines ausgemusterten Drogenspürhunds sammelt Rosalind Rolland im Nordatlantik Wal-Kot. Ihre Forschung soll einer bedrohten Art helfen zu überleben. Sz Wissen 20 December 15, 2007, Munich, Germany.

Whale tales. Georgetown couple discover whale "nirvana" in New Zealand. Julie Kirkwood. Published in: Gloucester Dailey Times, The Salem News, The Eagle-Tribune. August 17, 2007.

The Worst Jobs in Science: #10 Whale-Feces Researcher. Jason Daley. Popular Science, July 2007.

Sniffing out whale's doo-doo. Joe Roman. New Scientist 2583, December 23, 2006

Canine detective has whale of a job. Alison Auld. Canadian Press. Globe and Mail, August 7, 2006. Appeared in major newspapers across Canada (only a few are listed below).

This dog is never all pooped out. Alison Auld. The Patriot Ledger, August 7, 2006.

Excrements de baleine droit devant. Alison Auld. Le Journal de Quebec, August 7, 2007.

Whale-sniffing dog works the poop deck. Alison Auld. The Chronicle Herald (Nova Scotia). August 7, 2007.

Whales' best friend. Kirsten Weir. Gulf of Maine Times. Spring 2007.

Deep doo-doo. Matador Magazine. Munich, Germany. April 2007.

Canines have a nose for conservation. Beth Casper. Statesman Journal (Salem, Oregon). July 11, 2006.

Scent of a whale. Joerg Blech. DER SPIEGEL Magazine, Germany. Summer 2007.

A doggone good whale spotter. Howard Weiss-Tisman. The Brattleboro Reformer, March 31, 2007.

Dog is my copilot. Greg Miller. Science 312: 1853, June 30, 2006.

The scent of a whale. Beth Daley. Boston Globe, June 19, 2006.

Phytoplankton toxins may be inhibiting North Atlantic right whale recovery. Ocean Update, Volume 11, No. 5. June 13, 2006.

Diving into the right whale gene pool. Lonnie Lippsett. Oceanus 44(3): 18-19, December 2005.

Radio and Television Interviews

Here and Now. National Public Radio, WBUR, Boston, MA. July 13, 2007.

Costas Maritime News. CBC Radio, Nova Scotia, Canada. March 21, 2007.

Detector dogs trained to do conservation work. John Stofflet. Evening Magazine. February 2, 2007.

Norwegian Broadcasting Corporation. Are Send Osen. Interviewed January 17, 2007.

CJLS Radio. Gary Nickerson. Halifax, Nova Scotia. Interviewed September 6, 2006.

KRLD CBS Radio. Mike Rogers. Dallas, Texas. Interviewed August 2006.

Selected Websites

Whaling a deadly science. Non-lethal whale research: Science proceeds, but whales survive. WhyFiles, January 17, 2008. <http://whyfiles.org/272whale>.

Tracking dog helps scientists understand fragile whale population. August 2007. <http://new-brunswick.net/new-brunswick/whales/updates72.html>

Dogs that sniff out whale droppings. http://www.compendiumvet.com/PV_3-2.html. June 6 2007.

Trained canines help New England Aquarium researchers by sniffing out fresh whale poop. New England Aquarium, July 2006. <http://www.neaq.org/special.whaledog>.

“Scat dogs” sniff out endangered species feces. Maryann Mott. National Geographic News October 1, 2003. http://news.nationalgeographic.com/news/2003/10/1001_031001_scatdogs.html