

HEATHER M. PETTIS
Associate Scientist
Anderson Cabot Center for Ocean Life at the New England Aquarium
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Employment

2002-Present **Associate Scientist**, New England Aquarium, Boston, MA
1997-Present **Instructor in Biology and Marine Biology**, Phillips Exeter Academy, Exeter, NH
1999-2002 **Research Assistant**, Edgerton Research Laboratory, New England Aquarium, Boston, MA
2002 – 2010 **Dean of Summer Session**, Phillips Exeter Academy, Exeter, NH
1999, 2000 **Right Whale Aerial Observer**, National Marine Fisheries Service, Woods Hole, MA
1996 **Research Intern**, Mote Marine Laboratory, Sarasota, FL

Education

1998-2001 Boston University Marine Program, Woods Hole, MA
Masters in Biology
1993-1997 Bates College, Lewiston, ME
B.S. Honors in Biology, Magna Cum Laude
1989-1993 Choate Rosemary Hall, Wallingford, CT

Peer Reviewed Book Chapters and Publications

Pettis, H.M., Rolland, R.M., Hamilton, P.K., Knowlton, A.R., Burgess, E.A., Kraus, S.D. (2017). Body condition changes arising from natural factors and fishing gear entanglements in North Atlantic right whales *Eubalaena glacialis*. *Endangered Species Research*, 32, 237-249.

Rolland, R.M., Schick, R.S., **Pettis, H.M.**, Knowlton, A.R., Hamilton, P.K., Clark, J.S., Kraus, S.D. 2016. Health of North Atlantic right whales *Eubalaena glacialis* over three decades: from individual health to demographic and population health trends. *Mar Ecol Prog Ser* 542:265-282

Schick, R.S., Kraus, S.D., Rolland, R.M., Knowlton, A.R., Hamilton, P.K., **Pettis, H.M.**, Thomas, L., Harwood, J. and Clark, J.S., 2016. Effects of model formulation on estimates of health in individual right whales (*Eubalaena glacialis*). In *The Effects of Noise on Aquatic Life II* (pp. 977-985). Springer New York.

Moore, M.J., Garron, M., Hall, L., Henry, A., Landry, S., **Pettis, H.M.**, Robbins, J., Rotstein, D. van der Hoop, J.M, and Mattila, D. Chronic entanglement trauma of pinnipeds and cetaceans in Moore, M. J., van der Hoop, J. M., Barco, S. G., Costidis, A. M., Gulland, F. M., Jepson, P. D., Moore, P.D., Raverty, S.A. and McLellan, W. A. 2013. Criteria and case definitions for serious injury and death of pinnipeds and cetaceans caused by anthropogenic trauma. *Diseases of Aquatic Organisms* 103:229-264.

Schick, R. S., Kraus, S. D., Rolland, R. M., Knowlton, A. R., Hamilton, P. K., **Pettis, H. M.**, Kenney, R.D. and Clark, J. S. 2013. Using Hierarchical Bayes to Understand Movement, Health, and Survival in the Endangered North Atlantic Right Whale. *PloS one*, 8(6), e64166.

Fortune, S.M.E., Trites, A.W., Perryman, W.L., Moore, M.J., **Pettis, H.M.**, Lynn, M.S. 2012. Growth and rapid early development of North Atlantic right whales (*Eubalaena glacialis*). *Journal of Mammalogy* 93(5):1342-1354.

Knowlton, A.R., Hamilton, P.K., Marx, M.K., **Pettis, H.M.**, Kraus, S.D. 2012. Monitoring North Atlantic right whale *Eubalaena glacialis* entanglement rates: A 30 year retrospective. *Marine Ecology Progress Series*. Vol. 466: 293-302.

Moretti, D., DiMarzio, N., Morrissey, R., Mellinger, D. K., Heimlich, S., and **Pettis, HM**. 2008. Overview of the 3rd International workshop on the detection and classification of Marine Mammals using passive acoustics. *Canadian Acoustics*, 36(1), 7-11.

Rolland, RM, Hamilton, PK, Marx, MK, **Pettis, HM**, Angell, CM, Moore, MJ. 2007. External perspectives on right whale health. Pages 273-309 in: Kraus, SD and Rolland, RM (eds.). *The Urban Whale: North Atlantic Right Whales at the Crossroads*. Harvard University Press, Cambridge, Massachusetts.

Pettis, H.M., R.M. Rolland, P.K. Hamilton, S. Brault, A.R. Knowlton, and S.D. Kraus. 2004. Visual health assessment of endangered North Atlantic right whales (*Eubalaena glacialis*) using photographs. *Can. J. Zool.* 82: 8-19.

Selected Professional Activities

Invited Presentation: Visual Health Assessment in North Atlantic Right Whales: History, Process and Applications. Southern Resident Killer Whale Health Assessment Workshop, March 27-28, 2016, Seattle, Washington.

Organizing Committee/Host: “3rd International Workshop on Detection and Localization of Marine Mammals using Passive Acoustics” July 24-26, 2007, Federal Reserve, Boston, Massachusetts.

Invited Presentation: Visual health assessment of right whales. Bowhead/Right Whale Comparative Health and Physiology Workshop, March 25-26, 2003, New England Aquarium, Boston, Massachusetts.

Invited Presentation: Visual health assessment of right whales. Gray Whale Health and Reproductive Assessment: From Individuals to the Population Level, April 8-9, 2003, Marin Headlands, Sausalito, California.

Grants Awarded

- 2016-2018 Monitoring health impacts of injured North Atlantic right whales. Three year grant of \$45,000 awarded from the Volgenau Foundation
- 2016 Visual health assessment of North Atlantic right whales update for 2014 sightings. \$40,173 awarded from the National Marine Fisheries Service
- 2016 North Atlantic Right Whale Consortium operation, \$15,000 from the Island Foundation
- 2015 Visual health assessment of North Atlantic right whales for 2013 sightings. \$39,003 awarded from the National Marine Fisheries Service
- 2015 North Atlantic Right Whale Consortium operation, \$15,000 from the Island Foundation
- 2013-2015 Monitoring health impacts of injured North Atlantic right whales. Three year grant of \$70,020 awarded from the Volgenau Foundation
- 2012-2014 North Atlantic Right Whale Consortium operation. \$13,000/yr from the Island Foundation
- 2009-2011 North Atlantic Right Whale Consortium operation. Three year grant for \$36,000 from the Island Fndtn.
- 2011 Real time visual health assessments of North Atlantic right whales. \$17,864 awarded from the National Marine Fisheries Service
- 2011 Assessment of body condition changes in North Atlantic right whales. \$7,286 awarded from the National Marine Fisheries Service
- 2008 Photo-identification field work in the Bay of Fundy. \$25,000 awarded from the Royal Caribbean Ocean Fund
- 2008 Visual health assessments of entangled and injured right whales to support disentanglement efforts. \$7,671 subcontract through Center for Coastal Studies.
- 2007 Planning and facilitating international acoustics meeting for the Office of Naval Research. Analyses of data presented at acoustics meeting and preparation of Special Issue of Canadian Acoustics. \$31,834
- 2003 Assessing North Atlantic right whale health and its effects on reproduction and survivorship. \$23,914 awarded from the National Marine Fisheries Service.

Awards and Honors

1995-1996 Howard Hughes Medical Institute Grant
1996-1997 Hoffman-Mellon Research Grant
1998-2000 Jane Demaree Scholar
1999-2000 Leopold Schepp Scholar
1999-2000 Lerner Gray Marine Research Grant

Professional Affiliations and Qualifications

Society for Marine Mammalogy
NAUI certified