

COMMITTEE ON NATURAL RESOURCES
114th Congress Disclosure Form
As required by and provided for in House Rule XI, clause 2(g)(5)

House Committee on Natural Resources, Subcommittee on Energy and Mineral Resources on Tuesday, July 14, 2015, at 10:00 a.m., in Room 1324 Longworth House Office Building at an oversight hearing titled “*The Fundamental Role of Safe Seismic Surveying in OCS Energy Exploration and Development.*”

For Individuals:

Name: Douglas Paul Nowacek

Address: [REDACTED]

Email Address: [REDACTED]

Phone Number: [REDACTED]

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For Witnesses Representing Organizations:

Name:

Name of Organization(s) You are Representing at the Hearing:

Business Address:

Business Email Address:

Business Phone Number:

* * * * *

For Nongovernment Witnesses ONLY:

1. Please attach/include current curriculum vitae or resume.
2. Please list any federal grants or contracts (including subgrants or subcontracts) related to the subject matter of the hearing that were received in the current year and previous two calendar years by you or the organization(s) you represent at this hearing, including the source and amount of each grant or contract.

Title: LTER Palmer, Antarctica (PAL): Land-Shelf-Ocean Connectivity, Ecosystem Resilience and Transformation in a Sea-Ice Influenced Pelagic Ecosystem

Source: National Science Foundation

Program: DEB - Long Term Ecological Research

POP: 9/1/14 – 8/31/20

Award Amount: \$6,761,997 Per-mos/yr: 0.25 summer/year

% of Effort: 1%

Title: Delphinid Cetaceans: Quantifying Behavioral Ecology and Response to Predators Using a Multi-Species Approach

Source: Strategic Environmental Research and Development Program (SERDP); SON #: SISON-11-02

Award amount: \$1,847,170.00 Per-mos/yr: 1 summer/year

POP: 3/1/11-12/28/15

Title: A moored system for understanding the temporal variability of prey fields of deep diving predators off Cape Hatteras and response to Gulf Stream fronts

Source: Defense Universities Research Instrumentation Program (DURIP)

Award Amount: \$421,450 Per-mos/yr: 0 POP: 6/15/13-9/30/14

Title: Tagging and tracking of endangered North Atlantic right whales in Florida waters

Source: Naval Command and Facilities Atlantic

Program: HDR MASTER AGREEMENT NO.: CON-005-4394-016 POP: 7/8/13-8/30/15

Award Amount: \$289,266 Per-mos/yr: 1 summer/year % of Effort: 5%

Title: Studies to Inform the Delineation of Wind Energy Areas

Source: BOEM via University of North Carolina sub-award,

Program: BOEM Renewables POP: 2/1/15-1/31/16

Award Amount: \$15,000 Per-mos/yr: 1 summer/year % of Effort: 5%

3. Please list any contracts or payments originating with a foreign government related to the subject matter of the hearing that were received in the current year and previous two calendar years by you or the organization(s) you represent at this hearing, including the amount and country of origin of each contract or payment.

I have received honoraria for serving on the Western Gray Whale Advisory Panel (WGWAP), convened by the International Union for the Conservation of Nature (IUCN), which is based in Gland, Switzerland. The amount of this honorarium varies year to year with the number of days spent on the project.

CURRICULUM VITAE

DOUGLAS PAUL NOWACEK

Repass-Rodgers Chair of Marine Conservation Technology
University Associate Professor
Division of Marine Science and Conservation, Nicholas School of the Environment
&
Department of Electrical and Computer Engineering, Pratt School of Engineering
Duke University



PERSONAL INFORMATION:

Born: 11 November, 1968, Cleveland, Ohio

Citizenship: U.S.

Marital Status: Married to Stephanie Nowacek, 06 December 1997

EDUCATION:

B.A. Ohio Wesleyan University, Delaware, Ohio; Zoology; *summa cum laude* & Phi Beta Kappa (1991)

Ph.D. Woods Hole Oceanographic Institution & Massachusetts Institute of Technology, Biological Oceanography (1999)

Dissertation Title:

Sound use, sequential behavior, and ecology of foraging bottlenose dolphins, *Tursiops truncatus*

Dissertation Advisor:

Peter L. Tyack

POSITIONS:

Postdoctoral Fellow, Department of Biology, Woods Hole Oceanographic Institution (1999–2002)

Postdoctoral Research Associate, National Research Council/National Oceanic and Atmospheric Administration, Northeast Fisheries Science Center (2000–2002)

Staff Scientist, Sensory Biology and Behavior Program, Center for Marine Mammal and Sea Turtle Research, Mote Marine Laboratory (2002–2003)

Guest Investigator, Woods Hole Oceanographic Institution (2002–2003)

Assistant Professor, Department of Oceanography, Florida State University (2003–2008)

Visiting Scholar, Institute of Marine and Antarctic Sciences, University of Tasmania, Hobart, Tasmania, Australia (2013)

Associate Professor, Duke University, Nicholas School of the Environment & Pratt School of Engineering (2008-present)

CURRENT PROFESSIONAL SERVICE:

Western Gray Whale Advisory Panel, The World Conservation Union (IUCN), Gland, Switzerland
Invited Guest Editor, *Marine Ecology Progress Series*
Atlantic Scientific Review Group, Chair, NOAA Fisheries
Adjunct Scientist, Mote Marine Laboratory
Adjunct Faculty, Biological Sciences, University of North Carolina, Wilmington
Cetacean Specialist Group, Species Survival Program, The World Conservation Union, Switzerland
Acoustical Society of America, Animal Bioacoustics Committee

PAST PROFESSIONAL SERVICE:

North Atlantic Right Whale Consortium, Chair & Board Member
Associate Editor, *Marine Mammal Science*
Society for Marine Mammalogy, Member of Board of Governors
National Fish and Wildlife Foundation, Reviewer (2007)
NSF Biological Oceanography, Reviewer (2006)
Independent Scientific Review Panel, The World Conservation Union (IUCN), Gland, Switzerland
(2005)
NOAA Right Whale Program, Reviewer (2004)
NOAA, National Marine Fisheries Service, Atlantic Large Whale Take Reduction Team, Northeast
Implementation Team (2000-02)

PEER REVIEWED PUBLICATIONS:

Published or In Press:

65. Thornton, SW, McLellan, WA, Rommel, SA, Dillaman, RM, Nowacek, DP, Koopman, HN, and Pabst, DA. 2015. Morphology of the nasal apparatus in pygmy (*Kogia breviceps*) and dwarf (*K. sima*) sperm whales. *The Anatomical Record* 298:1301–1326
64. Bouveroux, T., Tyson, RB, and Nowacek, DP. 2014. Abundance and site fidelity of bottlenose dolphins in coastal waters near Panama City, Florida. *Journal of Cetacean Research and Management* 14: 37–42.
63. Risch, D, Gales, NJ, Gedamke, J, Kindermann, L, Nowacek, DP, Read, AJ, Siebert, U, Van Opzeeland, IC, Van Parijs, SM, and Friedlaender, AS. 2014. Mysterious bio-duck sound attributed to the Antarctic minke whale (*Balaenoptera bonaerensis*)." *Biology Letters* 10(4): 20140175 doi: 10.1098/rsbl.2014.0175.
62. Friedlaender, AS, Goldbogen, JA, Nowacek, DP, Read, AJ, Johnston, D, and Gales, N. Feeding rates and under-ice foraging strategies of the smallest lunge filter feeder, the Antarctic minke whale (*Balaenoptera bonaerensis*). *The Journal of Experimental Biology* 217(16): 2851-2854.
61. Nousek-McGregor, A.E., Miller, C.A., Moore, M.J., Nowacek, D.P. 2014. Effects of body condition on buoyancy in endangered North Atlantic right whales. *Physiological and Biochemical Zoology* 87(1): 160-171.

60. Wilson, R.M., Chanton, J.P., Balmer, B.C., Nowacek, D.P. 2014. An evaluation of lipid extraction techniques for interpretation of carbon and nitrogen isotope values in bottlenose dolphin (*Tursiops truncatus*) skin tissue. *Marine Mammal Science* 30(1): 85-103. DOI: 10.1111/mms.12018
59. Crain, D. D., A. S. Friedlaender, D. W. Johnston, D. P. Nowacek, B. L. Roberts, K. W. Urian, D. M. Waples and A. J. Read. 2014. A quantitative analysis of the response of short-finned pilot whales, *Globicephala macrorhynchus*, to biopsy sampling. *Marine Mammal Science* 30(2): 819-826. DOI: 10.1111/mms.12074
58. Nowacek, D.P., Bröker, K., Donovan, G., Gailey, G., Racca, R., Reeves, R.R., Vedenev, A.I., Weller, D.W., and Southall, B.L. 2013. Responsible Practices for Minimizing and Monitoring Environmental Impacts of Marine Seismic Surveys with an Emphasis on Marine Mammals. *Aquatic Mammals* 2013, 39(4), 356-377, DOI 10.1578/AM.39.4.2013.356
57. Friedlaender, A.S., Johnston, D.W., Tyson, R.B., Kaltenberg, A., Stimpert, A.K., Curtice, C., Hazen, E.L., Halpin, P.N., Read, A.J., and Nowacek, D.P. In review. The optimal diving machine: foraging strategies of humpback whales in Antarctic waters. *Ecology Letters*.
56. Friedlaender A.S., Tyson R.B., Stimpert A.K., Read A.J., and Nowacek D.P. In Press. Extreme diel variation in the feeding behavior of humpback whales along the Western Antarctic Peninsula during autumn. *Marine Ecology Progress Series*.
55. Wilson, R.M., Nelson, J.A., Balmer, B.C., Nowacek, D.P. & J. P. Chanton. 2013. Stable isotope variation in the northern Gulf of Mexico constrains bottlenose dolphin (*Tursiops truncatus*) foraging ranges. *Mar Biol* DOI 10.1007/s00227-013-2287-4
54. Buckstaff, K.C., Wells, R.S., Gannon, J.G., & D.P. Nowacek. 2013. Responses of bottlenose dolphins to construction and demolition of coastal marine structures. *Aquatic Mammals* 39 (2): 174-186. doi:10.1578/AM.39.2.2013.174
53. Stimpert, A.K., Peavey, L.E., Friedlaender, A.S., and Nowacek, D.P. 2012. Humpback whale song and foraging behavior on an Antarctic feeding ground. *PLoS ONE* 7(12): e51214. doi:10.1371/journal.pone.0051214.
52. Espinasse, B. Zhou, M., Zhu, Y., Hazen, E.L., Friedlaender, A.S., Nowacek, D.P., Chu, D., and Carlotti1, F. 2012. Austral fall–winter transition of mesozooplankton assemblages and krill aggregations in an embayment west of the Antarctic Peninsula. *Mar Ecol Prog Ser* 452: 63–80, doi: 10.3354/meps09626
51. Rolland, R.M., Parks, S.E., Hunt, K.E., Castellote, M., Corkeron, P.J., Nowacek, D.P., Wasser, S.K., and Kraus, S.D. 2012. Evidence that ship noise increases stress in right whales. *Proceedings of the Royal Society B: Biological Sciences*. Published online 8 February 2012, doi: 10.1098/rspb.2011.2429.
50. Johnston, D.W., Friedlaender, A.S., Read, A.J., and Nowacek, D.P. 2012. Preliminary density estimates of humpback whales (*Megaptera novaeangliae*) in the inshore waters of the Western Antarctic Peninsula during the late autumn. *Endangered Species Research* 18:63-71.
49. Kot, B.W., Sears, R., Anis, A., Nowacek, D.P., Gedamke, J., Marshall, C.D. 2012. Behavior response of minke whales (*Balaenoptera acutorostrata*) to experimental fishing gear in a coastal environment. *Journal of Experimental Marine Biology and Ecology*. 413: 13-20.
48. Wilson R.M., Kucklick, J.R., Balmer, B.C., Wells, R.S., Chanton, J.P., and Nowacek, D.P. 2012. Spatial distribution of bottlenose dolphins (*Tursiops truncatus*) inferred from stable isotopes and priority organic pollutants. *Science of the Total Environment*. 425: 223-230.
47. Klein, M. and D. Nowacek. 2012. Use of social sounds by humpback whales (*Megaptera novaeangliae*) in the Western Antarctic Peninsula feeding grounds. *J Acoust Soc Am* 132:1979-1979.
46. Nowacek, D. P., A. Vedenev, B. L. Southall, and R. Racca. 2012. Development and implementation of criteria for exposure of Western gray whales to oil and gas industry noise. *Advances in experimental medicine and biology* 730:523-528.

45. Richardson, J., A. G. Wood, A. Neil, D. Nowacek, and M. Moore. 2012. Changes in distribution, relative abundance, and species composition of large whales around South Georgia from opportunistic sightings: 1992 to 2011. *Endangered Species Research* 19:149-156.
44. Tyson, R. B., A. S. Friedlaender, C. Ware, A. K. Stimpert, and D. P. Nowacek. 2012. Synchronous mother and calf foraging behaviour in humpback whales *Megaptera novaeangliae*: insights from multi-sensor suction cup tags. *Marine Ecology Progress Series* 457: 209–220.
43. Robbins, J., Dalla Rosa, L., Allen, J.M., Mattila, D.K., Secchi, E.R., Friedlaender, A.S., Stevick, P.T., Nowacek, D.P., Steel, D. 2011. Return movement of a humpback whale between the Antarctic Peninsula and American Samoa: a seasonal migration record. *Endangered Species Research* 13(2): 117-121.
42. Parks, S.E., Searby, A., Célérier, A., Johnson, M.P., Nowacek, D.P., & Tyack, P.L. 2011. Sound production behavior of tagged individual North Atlantic right whales: implications for passive acoustic monitoring. *Endangered Species Research* 15(1): 63-76.
41. Nowacek D.P., Friedlaender A.S., Halpin P.N., Hazen E.L., Johnston D.W., et al. 2011. Super-Aggregations of krill and humpback whales in Wilhelmina Bay, Antarctic Peninsula. *PLoS ONE* 6(4): e19173. doi:10.1371/journal.pone.0019173
40. Hazen E.L., Nowacek D.P., St. Laurent L., Halpin P.N., Moretti D.J. 2011. The relationship among oceanography, prey fields, and beaked whale foraging habitat in the Tongue of the Ocean. *PLoS ONE* 6(4): e19269. doi:10.1371/journal.pone.0019269
39. Kucklick, J., Schwacke, L., Wells, R., Hohn, A., Guichard, A., Yordy, J., Hansen, L., Zolman, E., Wilson, R., Litz, J., Nowacek, D., Rowles, T., Pugh, R., Balmer, B., Sinclair, C., and Rosel, P. 2011. Bottlenose dolphins as indicators of persistent organic pollutants in the Western North Atlantic Ocean and Northern Gulf of Mexico. *Environ Sci Technol* 45(10): 4270-4277 <http://pubs.acs.org/doi/abs/10.1021/es1042244>
38. Parks, S.E., Johnson, M., Nowacek, D., and Tyack, P.L. 2011. Individual right whales call louder in increased environmental noise. *Biology Letters*, 7(1): 33-35 doi:10.1098/rsbl.2010.0451
37. Ware, C., Friedlaender, A.S., and Nowacek, D.P. 2010. Shallow and deep lunge feeding of humpback whales in fjords of the West Antarctic Peninsula. *Marine Mammal Science*, DOI: 10.1111/j.1748-7692.2010.00427.x
36. Nowacek, D. P., A. Vedenev, B. L. Southall, and R. Racca. 2011. Development and Implementation of Criteria for Exposure of Western Gray Whales to Oil and Gas Industry Noise. In A. N. Popper and A. Hawkins, editors. *The Effects of Noise on Aquatic Life*. Springer, New York.
35. Friedlaender, A.S., Nowacek, D.P., Johnston, D.W., Read, A.J., Tyson, R.B., Peavey, L.E. and Revelli, E. 2010. An exceptional sighting of a large group of Arnoux's beaked whales (*Berardius arnouxii*) in the Gerlache Strait, Antarctica. *Marine Mammal Science*, 26(1): 246-250.
34. Wilson, R.M., Chanton, J., Lewis, G., and Nowacek, D.P. 2010. Concentration-dependent stable isotope analysis of consumers in the upper reaches of a freshwater-dominated estuary: Apalachicola Bay, FL USA. *Estuaries and Coasts* 33(6): 1406-1419.
33. Wilson, R.M., Chanton, J., Lewis, G., and Nowacek, D.P. 2009. Combining organic matter source and relative trophic position determinations to explore trophic structure. *Estuaries and Coasts* 32:999-1010 doi: 10.1007/s12237-009-9183-7
32. Wilson, R.M., Chanton, J., Lewis, G., and Nowacek, D.P. 2009. Isotopic variation ($\delta^{15}\text{N}$, $\delta^{13}\text{C}$, and $\delta^{34}\text{S}$) with body size in post-larval estuarine consumers. *Estuarine, Coastal and Shelf Science* 83(3): 307-312.

31. Southall, B.L. and Nowacek, D.P. 2009. Acoustics in marine ecology; innovations in technology expands the use of sound in ocean science. *Marine Ecology Progress Series*, 395:1-3.
30. Hogg, C., Rogers, T.L., Shorter, K.A., Barton, K., Miller, P.J.O., Nowacek, D.P. 2009. Determination of steroid hormones in whale blow: is it feasible? *Marine Mammal Science*. 25(3): 605-618.
29. Friedlaender, A.S., Hazen, E.L., Nowacek, D.P., Halpin, P.N., Ware, C., Weinrich, M.T., Hurst, T., & Wiley, D. 2009. Diel changes in humpback whale *Megaptera novaeangliae* feeding behavior in response to sand lance *Ammodytes* spp. behavior and distribution. *Marine Ecology Progress Series* 395: 91-100.
28. Brownell, R.L., Nowacek, D.P., & K. Ralls. Hunting cetaceans with sound: a worldwide review. 2008. *Journal of Cetacean Research and Management* 10(1): 81-88.
27. Balmer, B.C., Wells, R.S., Nowacek, S.M., Nowacek, D.P., Schwacke, L.S., McLellan, W.A., Scharf, F.S., Rowles, T.K., Hansen, L.J., Spradlin, T.R. & D. A. Pabst. Seasonal abundance and distribution patterns of common bottlenose dolphins (*Tursiops truncatus*) near St. Joseph Bay, Florida, USA. 2008. *Journal of Cetacean Research and Management* 10(2): 157-167.
26. Nowacek, D.P. and P.L. Tyack. 2008. Assessing effects of anthropogenic noise on the behaviour of marine mammals. *Bioacoustics* 17: 338-341.
25. Tyson, R.B., Nowacek, D.P., & P.J.O. Miller. 2007. Nonlinear phenomena in the vocalizations of North Atlantic right whales (*Eubalaena glacialis*) and killer whales (*Orcinus orca*). *Journal of the Acoustical Society of America* 122(3): 1365-1373.
24. Dobbins, P.F. & D.P. Nowacek. 2007. Passive azimuth localization of dolphin whistles using acoustically small sensors. *Proceedings of the Institute of Physics* 29(3): 149-156.
23. Nowacek, D.P., Thorne, L.H., Johnston, D.W., & P.L. Tyack. 2007. Responses of cetaceans to anthropogenic noise. *Mammal Review* 37(2): 81-115.
22. Chapla, M.E., Nowacek, D.P., Rommel, S.A., & V.M. Sadler. 2007. CT scans and 3D reconstructions of Florida manatee (*Trichechus manatus latirostris*) heads and ear bones. *Hearing Research* 228: 123-135.
21. Ramage-Healey, L., Nowacek, D.P., & A.H. Bass. 2006. Dolphin foraging sounds suppress calling and elevate stress hormone levels in a prey species, the Gulf toadfish. *Journal of Experimental Biology* 209: 4444-4451.
20. Parks, S.E., Nowacek, D.P., Johnson, M.P., & P.L. Tyack. 2006. Right whales – Social sounds. *Journal of the Acoustical Society of America* 119(5), pt. 2: 3402-3403.
19. Dewar, W.K., Bingham, R.J., Iverson, R.L., Nowacek, D.P., St. Laurent, L.C., & P.H. Wiebe. 2006. Does the marine biosphere mix the ocean? *Journal of Marine Research* 64(4): 541-561.
18. Mann, D.A., O'Shea, T.J., & D.P. Nowacek. 2006. Nonlinear dynamics in manatee vocalizations. *Marine Mammal Science* 22(3): 548-555.
17. Nowacek, D.P. 2005. Acoustic ecology of foraging bottlenose dolphins (*Tursiops truncatus*), habitat-specific use of three sound types. *Marine Mammal Science* 21(4): 587-602.
16. Kraus, S.D., Brown, M.W., Caswell, H., Clark, C.W., Fujiwara, M., Hamilton, P.K., Kenney, R.D., Knowlton, A.R., Landry, S., Mayo, C.A., McLellan, W.A., Moore, M. J., Nowacek, D.P., Pabst, D.A., Read, A.J. & R.M. Rolland. 2005. North Atlantic right whales in crisis. *Science* 309: 561-562.
15. Reeves, R.R., Brownell, R.L., Burdin, A., Cooke, J.C., Darling, J.D., Donovan, G.P., Gulland, F.M.D., Moore, S.E., Nowacek, D.P., Ragen, T.J., Steiner, R.G., VanBlaricom, G.R., Vedenev, A., & A.V. Yablakov. 2005. Report of the Independent Scientific Review Panel on the Impacts of Sakhalin II Phase 2 on Western North Pacific Gray Whales and related Biodiversity. International Union for Conservation of Nature and Natural Resources (IUCN), Gland, Switzerland and Cambridge, UK. 123 pp.

14. Gannon, D.P., Barros, N.B., Nowacek, D.P., Read, A.J., Waples, D.M., & R.S. Wells. 2005. Prey detection by bottlenose dolphins (*Tursiops truncatus*): an experimental test of the passive listening hypothesis. *Animal Behaviour* 69(3): 709-720.
13. Maresh, J.L., Fish, F.E., Nowacek, D.P., Nowacek, S.M., & R.S. Wells. 2004. High performance turning capabilities during foraging by bottlenose dolphins (*Tursiops truncatus*). *Marine Mammal Science*, 20(3): 498-509.
12. Nowacek, S.M., Wells, R.S., Owen, E.C.G., Speakman, T.R., Flamm, R.O., & D.P. Nowacek. 2004. Florida manatees, *Trichechus manatus latirostris*, respond to approaching vessels. *Biological Conservation*, 119: 517-523.
11. Nowacek, D.P., Johnson, M.P., & P.L. Tyack. 2004. Right whales ignore ships but respond to alerting stimuli. *Proceedings of the Royal Society B: Biological Sciences*, 271: 227-231.
10. Nowacek, D.P., Casper, B.M., Wells, R.S., Nowacek, S.M., & D.A. Mann. 2003. Intraspecific and geographic variation of West Indian manatee (*Trichechus manatus* spp.) vocalizations. *Journal of the Acoustical Society of America*, 114(1): 66-69.
9. Nowacek, D.P. 2002. Sequential foraging behaviour of bottlenose dolphins, *Tursiops truncatus*, in Sarasota Bay, FL. *Behaviour*, 139 (9): 1125-1145.
8. Matthews, J.N., Brown, S., Gillespie, D., Johnson, M., McLanaghan, R., Moscrop, A., Nowacek, D.P., Leaper, R., & P.L. Tyack. 2001. Vocalisation Rates of the North Atlantic Right Whale. *Journal of Cetacean Research and Management* 3(3): 271-282.
7. Miksis, J.L., Grund, M.D., Nowacek, D.P., Solow, A.R., Connor, R.C., & P.L. Tyack. 2001. Cardiac responses to acoustic playback experiments in the captive bottlenose dolphin *Tursiops truncatus*. *Journal of Comparative Psychology*, 115 (3): 227-232.
6. Nowacek, D.P., Johnson, M.P., Tyack, P.L., Shorter, K.A., McLellan, W.A., & D.A. Pabst. 2001. Buoyant balaenids: the ups and downs of buoyancy in right whales. *Proceedings of the Royal Society B: Biological Sciences*, 268: 1811-1816.
5. Nowacek, D.P., Wells, R.S., & P.L. Tyack. 2001. A platform for continuous behavioral and acoustic observation of free-ranging marine mammals: Overhead video combined with underwater audio. *Marine Mammal Science* 17(1): 191-199.
4. Flamm, R.O., Owen, E.C.G., Weiss, C.F., Wells, R.S., & D.P. Nowacek. 2000. Aerial videogrammetry from a tethered airship to assess manatee life-stage structure. *Marine Mammal Science*, 16(3): 617-630.
3. Nowacek, D.P., Tyack, P.L., Wells, R.S., & M.P. Johnson. 1998. An onboard acoustic data logger to record biosonar of free-ranging bottlenose dolphins. *Journal of the Acoustical Society of America* 103(5), Pt. 2: 2908.
2. Jacobs, M., Nowacek, D.P., Gerhart, D.J., Cannon, G., Nowicki, S., & R.B. Forward, Jr. 1992. Seasonal changes in vocalizations during behavior of the Atlantic bottlenose dolphin. *Estuaries*. 16(2): 241-246.
1. Grant, D.C., Ligibel, J.A., Nowacek, D.P., Horsburgh, S.E., Link, M.A., Ngu, M.N., Furr, K.I., & C.M. Hall. 1991. Impact of feral horse migration on soft bottom infaunal community structure. *The Journal of the Elisha Mitchell Scientific Society*. 107(1): 13-20.

SCIENTIFIC CORRESPONDENCE:

Gannon, D.P., Johnston, D.W., Read, A.J., & D.P. Nowacek. 2004. Resonance and Dissonance: Science, Ethics, and the Sonar Debate. *Marine Mammal Science*, 20(4):898-899.

POPULAR ARTICLES AND BOOKS:

- Clark, C.W., Gillespie, D., Nowacek, D.P., & S.E. Parks. 2007. Listening to their world: Acoustics for monitoring and protecting right whales in an urbanized ocean. In: Kraus, S.D. & R.M. Rolland (eds). *The Urban Whale: North Atlantic Right Whales at the Crossroads*. Harvard University Press.
- Nowacek, S.M., & D.P. Nowacek. 2006. *Discovering Dolphins*. Colin Baxter Photography, Voyageur Press.

BOOK REVIEWS:

- Echolocation in Bats and Dolphins. 2004. Thomas, J.A., Moss, C.F. & M. Vater (editors). University of Chicago Press, Chicago, IL. Reviewed at the request of the Press.

TEACHING AND GRADUATE TRAINING:

Courses Taught:

- Marine Bioacoustics, Duke University (2011)
Marine Ichthyology, Duke University (2009-present)
Applied Ocean Acoustics, Florida State University (2006–2008)
Marine Vertebrates Field Course, Florida State University (2006)
Bioacoustics, Florida State University (2005–2008)
Marine Nekton, Florida State University (2004–2008)
Biology of Marine Mammals, Florida State University (2004–2008)
Biology of Marine Mammals, Eckerd College (2000)
Biology of Marine Mammals, Duke University (1999–2004)
Marine Mammals, Boston University Marine Program (1999)

Advisor for current students in:

- Ph.D. Program in Ecology, Duke University (1)
Ph.D. Program in Marine Science and Conservation, Duke University (4)
Ph.D. Program in Biological Oceanography, Florida State University (1)
Masters in Environmental Management, Duke University (5)

Advisor for Ph.D. Graduates from Duke University:

- Anna Nousek-McGregor. 2010. The costs of locomotion in North Atlantic Right Whales (*Eubalaena glacialis*).

Advisor for Masters in Environmental Management Graduates from Duke University:

- Casey Dziuba. 2011. Sea level rise education and outreach for coastal North Carolina.
- Jaime L. Budzynkiewicz. 2011. A comparison of Environmental Impact Statement methodologies for assessing sound propagation, density determination and impacts of protected marine mammals: BEOMRE & the U.S. Navy.
- Kimberly Gordon. 2010. Catch share management: An appropriate tool for New England?

Advisor for M.Sc. Graduates from Florida State University:

- Marie E. Chapla. 2006. Florida manatee (*Trichechus manatus latirostris*) outer and middle ear morphology: Potential sound pathways and middle ear mechanism. Current position – Research associate, NOAA, National Marine Fisheries Service, Pacific Islands Fisheries Science Center, Honolulu, HI.
- Athena Rycyk. 2007. Acoustic ecology of the bottlenose dolphin (*Tursiops truncatus*) in the Big Bend region of Florida. Current position – Ph.D. student, Department of Oceanography, Florida State University, D.P. Nowacek, advisor.
- Reny B. Tyson. 2008. Abundance of bottlenose dolphins in the Big Bend region of Florida: St. Vincent Sound to Alligator Harbor.

Graduate Thesis Committees:

Duke University
Florida State University
University of North Carolina at Wilmington

PRESENTATIONS AT SCIENTIFIC MEETINGS:

First-Author Presentations (*Invited):

- *Nowacek, D.P., Fleishman, E., Kraus, S.D. RIGHT WHALES OCEAN NOISE
- *Nowacek, D.P. SOCIETY FOR EXPLORATION GEOPHYSICS
- Nowacek, D.P., Bowers, M., Cannon, A., Hindell, M., Howle, L.E., Murray, M.M., Rittschof, D., Shorter, K.A., and Moore, M. The next generation of multi-sensor acoustic tags: sensors, applications and attachments. 166th Meeting of the Acoustical Society of America in San Francisco, CA.
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AWARDS (OVER \$25 K):

Pending:

Current:

Collaborative Research: The ecological role of a poorly studied Antarctic krill predator: the humpback whale, *Megaptera novaeangliae*. *National Science Foundation, Office of Polar Programs*. Requested amount \$967,165. With M. Zhou, P. Halpin and P. Tyack.

Beaked and sperm whale foraging ecology and habitat characterization. \$825,593. *Office of Naval Research*. November 2007 – October 2012. With P. Halpin, P. Tyack, & T. Stanton.

Delphinid Cetaceans: Quantifying Behavioral Ecology and Response to Predators using a multi-species approach. \$2.04M. *Strategic Environmental Research and Development Program (SERDP)*. May 2011 – March 2015. Co-PI with Read, A.J. and others.

Previous:

Response of Manatees to Vessel Traffic: Simultaneous Measurements of Behavioral Responses and the Acoustic Environment. \$149,932. *Florida Fish and Wildlife Conservation Commission, Manatee Avoidance Technology Program*. January 2007 – June 2009. With C. Deutsch, & R. Wells.

Pod-track: a long range passive acoustic detection, localization and tracking system for wild dolphins. \$70,541. *Protect Wild Dolphins, Harbor Branch Oceanographic Institution*. August 2006 – July 2008.

Use of multi-frequency hydroacoustics to study cetacean foraging ecology. \$211,464. *Office of Naval Research: Defense Research Universities Instrumentation Program*. March 2006 – September 2008. With A.J. Read and M. Jech.

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Why do North Atlantic right whales fail to avoid ships? Evaluating ship sound energy that reaches whales and testing mitigation measures with controlled exposure experiments. \$593,144. *National Marine Fisheries Service, Right Whale Grants Program*. With P. Tyack, & M. Johnson. 2003-2007.

North Atlantic right whale diving behavior and acoustics on their calving grounds. \$32,083. *National Fish and Wildlife Foundation, Whale Conservation Fund*. 2005-2006

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Assessing risk factors involved in collisions between ships and North Atlantic right whales using a digital acoustic recording tag. \$919,000. *Northeast Consortium / NOAA Fisheries*. 2000-2003. With M. Johnson, P. Tyack.

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Design and deployment of multi-sensor acoustic recording tags on bottlenose dolphins. \$750,000. *National Marine Fisheries Service*. 2002-2003. With R. Wells.

Auditory brainstem response in Florida manatees. \$40,000. *Florida Fish and Wildlife Conservation Commission*. 2002. With D. Mann.

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Blubber thickness and potential food limitation in North Atlantic right whales. \$125,000. *National Oceanic and Atmospheric Administration*. 2000-2001. With M. Moore.

Ocean science for Cleveland and NE Ohio schools. In collaboration with Project Oceanography and Dr. Paula Coble, University of South Florida, St. Petersburg. \$32,000. *The Martha Holden Jennings Foundation*. 1999-2000. With P. Coble.

Transmission loss of vessel noise in manatee environments. \$38,000. *Florida Fish and Wildlife Conservation Commission*. 1999. With M. Johnson.

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