

References

- Archer, F.I., S.L. Mesnick, and A.C. Allen. 2010. Variation and predictors of vessel response behavior in a tropical dolphin community. NOAA Technical Memorandum NMFS-SWFSC-457, National Marine Fisheries Service: 60.
- Au, W.W., Moore, P.W. and Pawloski, D.A., 1988. Detection of complex echoes in noise by an echolocating dolphin. *The Journal of the Acoustical Society of America*, 83(2), pp.662-668.
- Au, W.W.L. and M.C. Hastings. 2008. Principles of Marine Bioacoustics. Springer, New York
- Augusto, J.F., Frasier, T.R. and Whitehead, H. Social structure of long-finned pilot whales (*Globicephala melas*) off northern Cape Breton Island, Nova Scotia. Behaviour. DOI:10.1163/1568539X-00003432
- Beauchamp, G. and B. Livoreil. 1997. The effect of group size on vigilance and feeding rate in spice finches (*Lonchura punctulata*). Canadian Journal of Zoology **75** (9):1526-1531.
- Bejder, L., A. Samuels, H. Whitehead, N. Gales, J. Mann, R. Connor, et al. 2006. Decline in relative abundance of bottlenose dolphins exposed to long-term disturbance. Conservation Biology **20** (6):1791-1798.
- Bejder, L., A. Samuels, H. Whitehead, H. Finn, and S. Allen. 2009. Impact assessment research: Use and misuse of habituation, sensitisation and tolerance in describing wildlife responses to anthropogenic stimuli. Marine Ecology Progress Series **395**:177-185.
- Blackwell, S.B., J.W. Lawson, and M.T. Williams. 2004. Tolerance by ringed seals (*Phoca hispida*) to impact pipe-driving and construction sounds at an oil production island. Journal of the Acoustical Society of America **115** (5):2346.
- Blecha, F. 2000. Immune system response to stress. Pages 111-122 in G.P. Moberg and J.A. Mench, eds. The Biology of Animal Stress: Basic Principles and Implications for Animal Welfare. CABI Publishing, Oxon, United Kingdom. Bonnell, M.L., M.O. Pierson, and G.D. Farrens. 1983. Pinnipeds and sea otters of central and northern California, 1980-1983: Status, abundance and distribution. Prepared by Center for Marine Studies, University of California for Minerals Management Service: 220.
- Boebel, O., Clarkson, P., Coates, R., Larter, R., O'BRIEN, P.E., Plötz, J., Summerhayes, C., Tyack, T., Walton, D.W.H. and Wartzok, D., 2005. Risks posed to the Antarctic marine environment by acoustic instruments: a structured analysis. *Antarctic Science*, 17(04), pp.533-540.
- Bowles, A.E., M. Smultea, B. Wursig, D.P. DeMaster, and D. Palka. 1994. Relative abundance and behavior of marine mammals exposed to transmissions from the Heard Island feasibility test. Journal of the Acoustical Society of America **96** (4):2469-2484.

- Bradshaw, C.J.A., S. Boutin, and D.M. Hebert. 1998. Energetic implications of disturbance caused by petroleum exploration to woodland caribou. *Canadian Journal of Zoology* **76** (7):1319-1324.
- Brownell Jr, R.L., Ralls, K., Baumann-Pickering, S. and Poole, M.M., 2009. Behavior of melon-headed whales, *Peponocephala electra*, near oceanic islands. *Marine Mammal Science*, *25*(3), pp.639-658.
- Brueggeman, J.J., Green, G.A., Grotefendt, R.A. and Chapman, D.G., 1987. Aerial surveys of endangered cetaceans and other marine mammals in the northwestern Gulf of Alaska and southeastern Bering Sea. *NOAA/OCSEAP Environmental Assessment of the Alaskan Continental Shelf. Final Reports of Principal Investigators*, *61*, pp.1-124.
- Brueggeman, J.J., Grotefendt, G.A.G.R.A., Bonnell, C.E.B.M.L. and Balcomb, K.C., 1992. Oregon and Washington Marine Mammal and Seabird Surveys-Cetacean Distribution and Abundance Off Oregon and Washington, 1989-1990.
- Burns, J.J., 2009. Arctic marine mammals. *Encyclopedia of Marine Mammals. Second edition. Academic Press, San Diego*, pp.48-54.
- Christal, J., Whitehead, H. and Lettevall, E., 1998. Sperm whale social units: variation and change. *Canadian Journal of Zoology*, *76*(8), pp.1431-1440.
- Committee on Taxonomy. 2014. List of marine mammal species and subspecies. Society for Marine Mammalogy, www.marinemammalscience.org, accessed on July 14, 2014.
- Connor, R.C. and M.R. Heithaus. 1996. Approach by great white shark elicits flight response in bottlenose dolphins. *Marine Mammal Science* **12** (4):602-606.
- Costa, D.P., D.E. Crocker, J. Gedamke, P.M. Webb, D.S. Houser, S.B. Blackwell, et al. 2003. The effect of a low-frequency sound source (acoustic thermometry of the ocean climate) on the diving behavior of juvenile northern elephant seals, *Mirounga angustirostris*. *Journal of the Acoustical Society of America* **113** (2):1155-1165.
- Crocker, S.E. and Fratantonio, F.D., 2016. Characteristics of Sounds Emitted During High-Resolution Marine Geophysical Surveys. Naval Undersea Warfare Center Division Newport United States (Sponsored by BOEM & USGS).
- Croll, D.A., C.W. Clark, J. Calambokidis, W.T. Ellison, and B.R. Tershy. 2001. Effect of anthropogenic low-frequency noise on the foraging ecology of *Balaenoptera* whales. *Animal Conservation* **4** (1):13-27.
- Daan, S., C. Deerenberg, and C. Dijkstra. 1996. Increased daily work precipitates natural death in the kestrel. *Journal of Animal Ecology* **65** (5):6.

- Desharnais, F., Heard, G.J., Hazen, M.G. and Fraser, I.A., 1999. The underwater acoustic noise field on Sable Bank. *Canadian Acoustics*, 27(3), pp.30-31.
- Dolphin, W.F., Au, W.W.L., Nachtigall, P.E. and Pawloski, J., 1995. Modulation rate transfer functions to low-frequency carriers in three species of cetaceans. *Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology*, 177(2), pp.235-245.
- Dominion Resources Inc. (Dominion). 2013. Virginia Offshore Wind Technology Advancement Project (VOWTAP) Site Characterization Survey Marine Mammal and Sea Turtle Harassment Avoidance Summary Report.
- Dominion Resources Inc. (Dominion). 2014. Virginia Offshore Wind Technology Advancement Project (VOWTAP) Site Characterization Survey Marine Mammal and Sea Turtle Harassment Avoidance Nearshore Marine Geophysical and Geotechnical Surveys Summary Report.
- DoN (Department of the Navy). 2007. Navy OPAREA Density Estimates (NODE) for the Northeast OPAREAs: Boston, Narragansett Bay, and Atlantic City. Final Report. Contract number N62470-02- D-9997, CTO 0045. Norfolk, Virginia: Atlantic Division, Naval Facilities Engineering Command. Prepared by Geo-Marine, Inc., Plano, Texas.
- Ellison, W.T., B.L. Southall, C.W. Clark, and A.S. Frankel. 2012. A new context-based approach to assess marine mammal behavioral responses to anthropogenic sounds. *Conservation Biology* **26** (1):21-28.
- ESS Group (ESS). 2013. Summary of Marine Mammal Monitoring Activities for Cape Wind Energy Project – Geophysical Survey 2012. Available at:
http://www.nmfs.noaa.gov/pr/pdfs/permits/capewind_monitoring2012.pdf
- Evans, D.L. and G.R. England. 2001. Joint interim report: Bahamas marine mammal stranding event of 15-16 March 2000. U.S. Navy and National Marine Fisheries Service: 66.
- Fair, P.A. and P.R. Becker. 2000. Review of stress in marine mammals. *Journal of Aquatic Ecosystem Stress and Recovery* **7** (4):335-354.
- Finneran, J.J. and Schlundt, C.E., 2010. Frequency-dependent and longitudinal changes in noise-induced hearing loss in a bottlenose dolphin (*Tursiops truncatus*). *The Journal of the Acoustical Society of America*, 128(2), pp.567-570.
- Finneran, J.J., C.E. Schlundt, R. Dear, D.A. Carder, and S.H. Ridgway. 2002. Temporary shift in masked hearing thresholds in odontocetes after exposure to single underwater impulses from a seismic watergun. *Journal of the Acoustical Society of America* **111** (6):2929.

- Finneran, J.J., R. Dear, D.A. Carder, and S.H. Ridgway. 2003. Auditory and behavioral responses of California sea lions (*Zalophus californianus*) to single underwater impulses from an arc-gap transducer. *Journal of the Acoustical Society of America* **114** (3):1667.
- Finneran, J.J., D.A. Carder, C.E. Schlundt, and S.H. Ridgway. 2005. Temporary threshold shift in bottlenose dolphins (*Tursiops truncatus*) exposed to mid-frequency tones. *Journal of the Acoustical Society of America* **118** (4):2696-2705.
- Finneran, J.J., Houser, D.S., Mase-Guthrie, B., Ewing, R.Y. and Lingenfelter, R.G., 2009. Auditory evoked potentials in a stranded Gervais' beaked whale (*Mesoplodon europaeus*). *The Journal of the Acoustical Society of America*, *126*(1), pp.484-490.
- Finneran, J.J., Carder, D.A., Schlundt, C.E. and Dear, R.L., 2010. Growth and recovery of temporary threshold shift at 3 kHz in bottlenose dolphins: Experimental data and mathematical models a. *The Journal of the Acoustical Society of America*, *127*(5), pp.3256-3266.
- Finneran, J.J. and A.K. Jenkins. 2012. Criteria and thresholds for U.S. Navy acoustic and explosive effects analysis. Technical Report, Space and Naval Warfare Systems Center Pacific, U.S. Navy: 64.
- Finneran, J.J., 2015. Noise-induced hearing loss in marine mammals: A review of temporary threshold shift studies from 1996 to 2015. *The Journal of the Acoustical Society of America*, *138*(3), pp.1702-1726.
- Foot, A.D., R.W. Osborne, and A.R. Hoelzel. 2004. Whale-call response to masking boat noise. *Nature* **428**:910
- Frankel, A.S. and C.W. Clark. 2000. Behavioral responses of humpback whales (*Megaptera novaeangliae*) to full-scale ATOC signals. *Journal of the Acoustical Society of America* **108** (4):1930-1937.
- Fristrup, K.M., L.T. Hatch, and C.W. Clark. 2003. Variation in humpback whale (*Megaptera novaeangliae*) song length in relation to low-frequency sound broadcasts. *Journal of the Acoustical Society of America* **113** (6):3411-3424.
- Fritz, H., M. Guillemain, and D. Durant. 2002. The cost of vigilance for intake rate in the mallard (*Anas platyrhynchos*): An approach through foraging experiments. *Ethology, Ecology and Evolution* **14** (2):91-97.
- Ford, J.K. and Reeves, R.R., 2008. Fight or flight: antipredator strategies of baleen whale. *Mammal Review*, *38*(1), pp.50-86.

- Gailey, G., B. Wursig, and T.L. McDonald. 2007. Abundance, behavior, and movement patterns of western gray whales in relation to a 3-D seismic survey, northeast Sakhalin Island, Russia. *Environmental Monitoring and Assessment* **134** (1-3):75-91.
- Gardline. 2016. Field Verification and Vessel Signature Report. Survey report for Baystate Wind Offshore Wind Farm. (Submitted under separate cover).
- Gardline. 2017. Technical Memo in support of Bay State Wind Field Verification Report.: (Submitted under separate cover).
- Goldbogen, J.A., J. Calambokidis, A.S. Friedlaender, J. Francis, S.L. Deruiter, A.K. Stimpert, et al. 2013a. Underwater acrobatics by the world's largest predator: 360° rolling manoeuvres by lunge-feeding blue whales. *Biology Letters* 9 (1):Article 20120986.
- Goldbogen, J.A., A.S. Friedlaender, J. Calambokidis, M.F. McKenna, M. Simon, and D.P. Nowacek. 2013b. Integrative approaches to the study of baleen whale diving behavior, feeding performance, and foraging ecology. *BioScience* 63 (2):90-100.
- Goold, J.C. 1996. Acoustic assessment of populations of common dolphin *Delphinus delphis* in conjunction with seismic surveying. *Journal of the Marine Biological Association of the United Kingdom* **76** (3):811-820.
- Harrington, F.H. and A.M. Veitch. 1992. Calving success of woodland caribou exposed to low-level jet fighter overflights. *Arctic* **45** (3):213-218.
- Holberton, R.L., B. Helmuth, and J.C. Wingfield. 1996. The corticosterone stress response in gentoo and king penguins during the non-fasting period. *Condor* **98** (4):850-854.
- Hood, L.C., P.D. Boersma, and J.C. Wingfield. 1998. The adrenocortical response to stress in incubating Magellanic penguins (*Spheniscus magellanicus*). *Auk* **115** (1):76-84.
- Jacobs, S.R. and Terhune, J.M., 2002. The effectiveness of acoustic harassment devices in the Bay of Fundy, Canada: seal reactions and a noise exposure model. *Aquatic Mammals*, 28(2), 147-158.
- Jensen, A.S. and Silber, G.K., 2003. *Large Whale Ship Strike Database*. US Department of Commerce. National Oceanic and Atmospheric Administration. Technical Memorandum NMFS-OPR.
- Jessop, T.S., A.D. Tucker, C.J. Limpus, and J.M. Whittier. 2003. Interactions between ecology, demography, capture stress, and profiles of corticosterone and glucose in a free-living population of Australian freshwater crocodiles. *General and Comparative Endocrinology* **132** (1):161-170.

- Kastak, D., B.L. Southall, R.J. Schusterman, and C.R. Kastak. 2005. Underwater temporary threshold shift in pinnipeds: Effects of noise level and duration. *Journal of the Acoustical Society of America* **118** (5):3154-3163.
- Kastak, D., Reichmuth, C., Holt, M.M., Mulsow, J., Southall, B.L. and Schusterman, R.J., 2007. Onset, growth, and recovery of in-air temporary threshold shift in a California sea lion (*Zalophus californianus*). *The Journal of the Acoustical Society of America*, *122*(5), pp.2916-2924.
- Kastelein, R.A., D. de Haan, N. Vaughan, C. Staal, and N.M. Schooneman. 2001. The influence of three acoustic alarms on the behaviour of harbour porpoises (*Phocoena phocoena*) in a floating pen. *Marine Environmental Research* **52** (4):351-371.
- Kastelein, R.A., R. Van Schie, W.C. Verboom, and D. de Haan. 2005a. Underwater hearing sensitivity of a male and a female Steller sea lion (*Eumetopias jubatus*). *Journal of the Acoustical Society of America* **118** (3):1820-1829.
- Kastelein, R.A., W.C. Verboom, M. Muijsers, N.V. Jennings, and S. Van der Heul. 2005b. The influence of acoustic emissions for underwater data transmission on the behavior of harbour porpoises (*Phocoena phocoena*) in a floating pen. *Marine Environmental Research* **59**:287-307.
- Kastelein, R.A., N. Jennings, W.C. Verboom, D. de Haan, and N.M. Schooneman. 2006. Differences in the response of a striped dolphin (*Stenella coeruleoalba*) and a harbour porpoise (*Phocoena phocoena*) to an acoustic alarm. *Marine Environmental Research* **61** (3):363-378.
- Kastelein, R.A., R. Gransier, L. Hoek, A. Macleod, and J.M. Terhune. 2012a. Hearing threshold shifts and recovery in harbor seals (*Phoca vitulina*) after octave-band noise exposure at 4 kHz. *Journal of the Acoustical Society of America* **132** (4):2745-2761.
- Kastelein, R.A., R. Gransier, L. Hoek, and J. Olthuis. 2012b. Temporary threshold shifts and recovery in a harbor porpoise (*Phocoena phocoena*) after octave-band noise at 4 kHz. *Journal of the Acoustical Society of America* **132**:3525-3537.
- Kenney, R.D. and Vigness-Raposa, K.J. 2009. *Marine Mammals and Sea Turtles of Narragansett Bay, Block Island Sound, Rhode Island Sound, and Nearby Waters: An Analysis of Existing Data for the Rhode Island Ocean Special Area Management Plan*. Technical Report, May 31, 2009.
- Knowlton A.R. and S.D. Kraus. 2001. "Mortality and serious injury of northern right whales (*Eubalaena glacialis*) in the western North Atlantic Ocean". *Journal of Cetacean Research and Management*, Special Issue 2:193-208.

- Krausman, P.R., L.K. Harris, C.L. Blasch, K.K.G. Koenen, and J. Francine. 2004. Effects of military operations on behavior and hearing of endangered Sonoran pronghorn. *Wildlife Monographs* **157**:1-41.
- Kremser, U., Klemm, P. and KOeTZ, W.D., 2005. Estimating the risk of temporary acoustic threshold shift, caused by hydroacoustic devices, in whales in the Southern Ocean. *Antarctic Science*, *17*(01), pp.3-10.
- Kryter, K.D., Ward, W.D., Miller, J.D. and Eldredge, D.H., 1966. Hazardous exposure to intermittent and steady-state noise. *The Journal of the Acoustical Society of America*, *39*(3), 451-464.
- Kryter, K.D. 1985. *The Effects of Noise on Man*. Academic Press, New York.
- LaBrecque, E., Curtice, C., Harrison, J., Van Parijs, S.M. and Halpin, P.N., 2015. 3. Biologically Important Areas for Cetaceans Within US Waters-Gulf of Mexico Region. *Aquatic Mammals*, *41*(1), p.30.
- Laist, D.W., A.R. Knowlton, J.G. Mead, A.S. Collet, and M. Podesta. 2001. Collisions between ships and whales. *Marine Mammal Science* *17* (1), 35–75. *Lesage, V. and M.O. Hammill. 2001. The status of the grey seal, Halichoerus grypus, in the Northwest Atlantic. Can. Field-Nat.* *115*(4): 653-662.
- Lankford, S.E., T.E. Adams, R.A. Miller, and J.J. Cech. 2005. The cost of chronic stress: Impacts of a nonhabituating stress response on metabolic variables and swimming performance in sturgeon. *Physiological and Biochemical Zoology* **78**:599-609.
- Lucke, K., U. Siebert, P.A. Lepper, and M. Blanchet. 2009. Temporary shift in masked hearing thresholds in a harbor porpoise (*Phocoena phocoena*) after exposure to seismic airgun stimuli. *Journal of the Acoustical Society of America* **125** (6):4060.
- Lurton, X., 2016. Modelling of the sound field radiated by multibeam echosounders for acoustical impact assessment. *Applied Acoustics*, *101*, pp.201-221.
- Lusseau, D. and L. Bejder. 2007. The long-term consequences of short-term responses to disturbance experiences from whalewatching impact assessment. *International Journal of Comparative Psychology* **201** (2-3):228-236.
- Madsen, P.T. and Møhl, B., 2000. Sperm whales (*Physeter catodon* L. 1758) do not react to sounds from detonators. *The Journal of the Acoustical Society of America*, *107*(1), pp.668-671.

- Madsen, P.T., Payne, R., Kristiansen, N.U., Wahlberg, M., Kerr, I. and Møhl, B., 2002. Sperm whale sound production studied with ultrasound time/depth-recording tags. *Journal of Experimental Biology*, 205(13), 1899-1906.
- Madsen, P.T., M. Johnson, P.J.O. Miller, N.A. Soto, J. Lynch, and P. Tyack. 2006. Quantitative measures of air-gun pulses recorded on sperm whales (*Physeter macrocephalus*) using acoustic tags during controlled exposure experiments. *Journal of the Acoustical Society of America* **120** (4):2366-2379.
- Malme, C. I., Miles, P. R., Clark, C. W., Tyack, P., & Bird, J. E. 1984. *Investigations of the potential effects of underwater noise from petroleum-industry activities on migrating gray-whale behavior. Phase 2: January 1984 migration* (No. PB-86-218377/XAB; BBN-5586). Bolt, Beranek and Newman, Inc., Cambridge, MA (USA).
- Malme, C.I., Würsig, B., Bird, J.E. and Tyack, P., 1986. *Behavioral responses of gray whales to industrial noise: feeding observations and predictive modeling* (No. PB-88-249057/XAB). BBN Labs., Inc., Cambridge, MA (USA).
- McEwen, B.S. and Wingfield, J.C., 2003. The concept of allostasis in biology and biomedicine. *Hormones and behavior*, 43(1), pp.2-15.
- Miller, P.J.O., N. Biassoni, A. Samuels, and P.L. Tyack. 2000. Whale songs lengthen in response to sonar. *Nature* **405** (6789):903.
- Miller, J. H., Bowles, A. E., Gentry, R. L., Ellison, W. T., Finneran, J. J., Greene Jr, C. R., . . . Nachtigall, P. E. 2005. Strategies for weighting exposure in the development of acoustic criteria for marine mammals. *The Journal of the Acoustical Society of America*, 118(3), 2019- 2019.
- Moberg, G.P. 1987. Influence of the adrenal axis upon the gonads. Pages 456-496 in J. Clarke, ed. *Oxford Reviews in Reproductive Biology*. Oxford University Press, New York, New York.
- Moberg, G.P. 2000. Biological response to stress: Implications for animal welfare. Pages 1-21 in G.P. Moberg and J.A. Mench, eds. *The Biology of Animal Stress: Basic Principles and Implications for Animal Welfare*. CABI Publishing, Oxon, United Kingdom.
- Mooney, T.A., Nachtigall, P.E. and Vlachos, S., 2009a. Sonar-induced temporary hearing loss in dolphins. *Biology letters*, pp.rsbl-2009.
- Mooney, T.A., Nachtigall, P.E., Breese, M., Vlachos, S. and Au, W.W., 2009b. Predicting temporary threshold shifts in a bottlenose dolphin (*Tursiops truncatus*): The effects of noise level and duration. *The Journal of the Acoustical Society of America*, 125(3), pp.1816-1826.

- Morgan-Jones, R., 1998. *The impact of hearing impairment on the couple, the family and the social network* (Doctoral dissertation, London School of Economics and Political Science (United Kingdom)).
- Morton, A.B. and H.K. Symonds. 2002. Displacement of *Orcinus orca* (L.) by high amplitude sound in British Columbia, Canada. *ICES Journal of Marine Science* **59** (1):71-80.
- Myrberg, A.A., 1978. *Ocean Noise and the Behavior of Marine Mammals: Relationships and Implications*. Academic Press.
- Nachtigall, P.E., A.Y. Supin, J.L. Pawloski, and W.W.L. Au. 2004. Temporary threshold shifts after noise exposure in the bottlenose dolphin (*Tursiops truncatus*) measured using evoked auditory potentials. *Marine Mammal Science* **20** (4):672-687.
- Nachtigall, P.E., M.M.L. Yuen, T.A. Mooney, and K.A. Taylor. 2005. Hearing measurements from a stranded infant Risso's dolphin, *Grampus griseus*. *Journal of Experimental Biology* **208** (21):4181-4188.
- Nachtigall, P.E., T.A. Mooney, K.A. Taylor, L.A. Miller, M.H. Rasmussen, T. Akamatsu, et al. 2008. Shipboard measurements of the hearing of the white-beaked dolphin *Lagenorhynchus albirostris*. *Journal of Experimental Biology* **211** (4):642-647.
- Ng, S.L. and S. Leung. 2003. Behavioral response of Indo-Pacific humpback dolphin (*Sousa chinensis*) to vessel traffic. *Marine Environmental Research* **56** (5):555-567.
- NMFS. 2016a. Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing—Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts. National Marine Fisheries Service, Silver Spring, MD.
- Northridge, S., Tasker, M., Webb, A., Camphuysen, K. and Leopold, M., 1997. White-beaked *Lagenorhynchus albirostris* and Atlantic white-sided dolphin *L. acutus* distributions in northwest European and US North Atlantic waters. *Rep. int. Whal. Commn*, 47, pp.797-805.
- Nowacek, D.P., Johnson, M.P. and Tyack, P.L., 2004. North Atlantic right whales (*Eubalaena glacialis*) ignore ships but respond to alerting stimuli. *Proceedings of the Royal Society of London B: Biological Sciences*, 271(1536), pp.227-231.
- Nowacek, D.P., L.H. Thorne, D.W. Johnston, and P.L. Tyack. 2007. Responses of cetaceans to anthropogenic noise. *Mammal Review* **37** (2):81-115.
- NRC (National Research Council). 2003. Ocean noise and marine mammals. National Academy of Sciences: 220.
- NRC. 2005. Marine mammal populations and ocean noise: Determining when noise causes biologically significant effects. National Academy of Sciences: 142.

- Pace RM, Corkeron, PJ, and Kraus, SD. 2017. State space estimates reveal a recent decline in abundance of North Atlantic right whales. *Ecol Evol* 7: 8730–8741
- Palka, D., 2000. Abundance of the Gulf of Maine/Bay of Fundy harbor porpoise based on shipboard and aerial surveys during 1999. *Northeast Fish. Sci. Cent. Ref. Doc. 00-07*.
- Parks, S.E., Ketten, D.R., O'Malley, J.T. and Arruda, J., 2007a. Anatomical predictions of hearing in the North Atlantic right whale. *The Anatomical Record*, 290(6), pp.734-744.
- Parks, S.E., C.W. Clark, and P.L. Tyack. 2007b. Short- and long-term changes in right whale calling behavior: The potential effects of noise on acoustic communication. *Journal of the Acoustical Society of America* **122** (6):3725-3731.
- Parks, S.E., Brown, M.W., Conger, L.A., Hamilton, P.K., Knowlton, A.R., Kraus, S.D., Slay, C.K. and Tyack, P.L., 2007c. Occurrence, composition, and potential functions of North Atlantic right whale (*Eubalaena glacialis*) surface active groups. *Marine mammal science*, 23(4), pp.868-887.
- Popov, V.V., A.Y. Supin, D. Wang, K. Wang, L. Dong, and S. Wang. 2011. Noise-induced temporary threshold shift and recovery in Yangtze finless porpoises *Neophocaena phocaenoides asiaeorientalis*. *Journal of the Acoustical Society of America* **130** (1):574-584.
- Purser, J. and A.N. Radford. 2011. Acoustic noise induces attention shifts and reduces foraging performance in three-spined sticklebacks (*Gasterosteus aculeatus*). *PLoS ONE* **6** (2):e17478.
- Reneerkens, J., Morrison, R.G., Ramenofsky, M., Piersma, T. and Wingfield, J.C., 2002. Baseline and stress-induced levels of corticosterone during different life cycle substages in a shorebird on the high arctic breeding grounds. *Physiological and Biochemical Zoology*, 75(2), pp.200-208.
- RI Ocean SAMP. 2011. Rhode Island Coastal Resources Management Council. Draft, May 4, 2010.
- Richardson, W.J., C.R. Greene, C.I. Malme, and D.H. Thomson. 1995. *Marine Mammals and Noise*. Academic Press, Inc., San Diego, California.
- Ridgway, S.H., D.A. Carder, R.R. Smith, T. Kamolnick, C.E. Schlundt, and W.R. Elsberry. 1997. Behavioral responses and temporary shift in masked hearing threshold of bottlenose dolphins, *Tursiops truncatus*, to 1-second tones of 141 to 201 dB re 1 μ Pa. Technical Report 1751, Naval Command, Control and Ocean Surveillance Center: 32.
- Ridgway, S., D. Carder, J. Finneran, M. Keogh, T. Kamolnick, M. Todd, and A. Goldblatt. 2006. Dolphin continuous auditory vigilance for five days. *Journal of Experimental Biology* **209** (18):3621-3628.

- Right Whale Consortium. 2014. North Atlantic Right Whale Consortium Sightings Database. 03/11/2014. New England Aquarium, Boston, MA. USA.
- Rivier, C., 1995. Influence of immune signals on the hypothalamic-pituitary axis of the rodent. *Frontiers in neuroendocrinology*, 16(2), pp.151-182.
- Rolland, R.M., S.E. Parks, K.E. Hunt, M. Castellote, P.J. Corkeron, D.P. Nowacek, et al. 2012. Evidence that ship noise increases stress in right whales. Proceedings of the Royal Society of London Series B Biological Sciences **279** (1737):2363-2368.
- Romano, T., M. Keogh, and K. Danil. 2002a. Investigation of the effects of repeated chase and encirclement on the immune system of spotted dolphins (*Stenella attenuata*) in the eastern tropical Pacific. Administrative Report LJ-02-35C, National Marine Fisheries Service: 37.
- Romano, T.A., D.L. Felten, S.Y. Stevens, J.A. Olschowka, V. Quaranta, and S.H. Ridgway. 2002b. Immune response, stress, and environment: Implications for cetaceans. Pages 253-279 in C.J. Pfeiffer, ed. Molecular and Cell Biology of Marine Mammals. Krieger Publishing Co., Malabar, Florida.
- Romano, T.A., M.J. Keogh, C. Kelly, P. Feng, L. Berk, C.R. Schlundt, et al. 2004. Anthropogenic sound and marine mammal health: Measures of the nervous and immune systems before and after intense sound exposure. Canadian Journal of Fisheries and Aquatic Sciences **61**:1124-1134.
- Ronald, K., and B. L. Gots. 2003. Seals: Phocidae, Otariidae, and Odobenidae. Pp. 789–854 in: G. A. Feldhamer, B. C. Thompson, and J. A. Chapman, eds. Wild Mammals of North America: Biology, Management, and Economics, second edition. Johns Hopkins University Press, Baltimore, MD.
- Schilling, M. R., I. Seipt, M. T. Weinrich, S. E. Frohock, A. E. Kuhlberg, and P. J. Clapham. 1992. Behavior of individually-identified sei whales *Balaenoptera borealis* during an episodic influx into the southern Gulf of Maine in 1986. Fishery Bulletin 90:749–755
- Schlundt, C.E., R.L. Dear, D.S. Houser, A.E. Bowles, T. Reidarson, and J.J. Finneran. 2011. Auditory evoked potentials in two short-finned pilot whales (*Globicephala macrorhynchus*). Journal of the Acoustical Society of America **129** (2):1111-1116.
- Schroeder, C. L. 2000. Population Status and Distribution of the Harbor Seal in Rhode Island Waters. M.S. thesis. University of Rhode Island, Graduate School of Oceanography, Narragansett, RI. xiii + 197 pp.
- Seyle, H. 1950. Stress and the general adaptation syndrome. British Medical Journal June 17:1383-1392.

- Shoop, C. R., and R. D. Kenney. 1992. Distributions and abundances of loggerhead and leatherback sea turtles in northeastern United States waters. *Herpetological Monographs* 6:43–67. Roberts et al. 2016
- Smith, M.E., Kane, A.S. and Popper, A.N., 2004a. Noise-induced stress response and hearing loss in goldfish (*Carassius auratus*). *Journal of Experimental Biology*, 207(3), pp.427-435.
- Smith, M.E., Kane, A.S. and Popper, A.N., 2004b. Acoustical stress and hearing sensitivity in fishes: Does the linear threshold shift hypothesis hold water?. *Journal of Experimental Biology*, 207(20), pp.3591-3602.
- Southall, B.L., Braun, R., Gulland, F.M., Heard, A.D., Baird, R.W., Wilkin, S.M. and Rowles, T.K., 2006. *Hawaiian Melon-headed Whale (Peponocephala electra) Mass Stranding Event of July 3-4, 2004*.
- Southall, B.L., A.E. Bowles, W.T. Ellison, J.J. Finneran, R.L. Gentry, C.R. Greene, et al. 2007. Marine mammal noise exposure criteria: initial scientific recommendations. *Aquatic Mammals* 33 (4):411-521.
- Southall, B.L., Rowles, T., Gulland, F., Baird, R.W. and Jepson, P.D., 2013. Final report of the Independent Scientific Review Panel investigating potential contributing factors to a 2008 mass stranding of melonheaded whales (*Peponocephala electra*) in Antsohihy, Madagascar. *Independent Scientific Review Panel*.
- Stone, G.S., L. Cavagnaro, A. Hutt, S. Kraus, K. Baldwin, and J. Brown. 2000. Reactions of Hector's dolphins to acoustic gillnet pingers. New Zealand Department of Conservation: 28.
- Subacoustech. 2016. Fugro Synergy- Dynamic Positioning System – Sound Source Verification. (in support of Bay State Wind Farm) Subacoustech Environmental Report. E588R020. (Submitted under separate cover).
- Supin, A.Y. and Popov, V.V., 1995. Temporal resolution in the dolphin's auditory system revealed by double-click evoked potential study. *The Journal of the Acoustical Society of America*, 97(4), pp.2586-2593.
- Teilmann, J., J. Tougaard, L.A. Miller, T. Kirketerp, K. Hansen, and S. Brando. 2006. Reactions of captive harbor porpoises (*Phocoena phocoena*) to pinger-like sounds. *Marine Mammal Science* 22 (2):240-260.
- Tetra Tech. 2014. Hydroacoustic Survey Report of Geotechnical Activities Virginia Offshore Wind Technology Advancement Project (VOWTAP) September 2014.
- Thompson, D.R. and Hamer, K.C., 2000. Stress in seabirds: causes, consequences and diagnostic value. *Journal of aquatic ecosystem stress and recovery*, 7(1), pp.91-109.

- Trimper, P.G., Chubbs, T.E., Standen, N.M. and Humphries, G.W., 1998. Effects of intensive aircraft activity on the behaviour of nesting osprey. In *7th International Congress on Noise as a Public Health Problem, ICBEN, Sydney, Australia*.
- Tyack, P.L., 2000. *Functional aspects of cetacean communication* (pp. 270-307). Chicago, IL:: Cetacean societies: field studies of dolphins and whales. The University of Chicago Press.
- Urick, R.J., 1975. *A Statistical Model for the Fluctuation of Sound Transmission in the Sea* (No. NSWC/WOL/TR-75-18). Naval Surface Weapons Center, White Oak Lab, Silver Spring, MD.
- U.S. Fish and Wildlife Service (USFWS). 2015. Monomoy National Wildlife Refuge :Final Comprehensive Conservation Plan and Environmental Impact Statement, Volume 1. Chatham, Massachusetts. 577 pp.
[http://www.fws.gov/uploadedFiles/10w_CCP_Entire_Document\(7207KB\).pdf](http://www.fws.gov/uploadedFiles/10w_CCP_Entire_Document(7207KB).pdf)
- Vanderlaan, A.S. and Taggart, C.T., 2007. Vessel collisions with whales: the probability of lethal injury based on vessel speed. *Marine mammal science*, 23(1), pp.144-156.
- Ward, W.D. 1997. Effects of high-intensity sound. Pages 1497-1507 in M.J. Crocker, ed. Encyclopedia of acoustics, Volume III. John Wiley & Sons, New York.
- Waring, G.T., E. Josephson, K. Maze-Foley, and P.E. Rosel (eds.). 2015. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Sssessments - 2014. NOAA Technical Memorandum. Available at: http://www.nmfs.noaa.gov/pr/sars/pdf/atl2014_final.pdf
- Waring, G.T., E. Josephson, K. Maze-Foley, and P.E. Rosel (eds.). 2013. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments - 2012, 419 pages. Available at: www.nmfs.noaa.gov/pr/sars/pdf/ao2012.pdf.
- Waring, G.T., E. Josephson, K. Maze-Foley, and P.E. Rosel (eds.). 2011. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments - 2011, 330 pages. Available at: <http://www.nmfs.noaa.gov/pr/pdfs/sars/ao2011.pdf>.
- Waring, G.T., Josephson, E., Maze-Foley, K. & Rosel, P. E. (eds.). 2009. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments -- 2009 [Technical Memorandum]. (NMFS NE 213, pp. 528). Woods Hole, MA: NOAA Retrieved from <http://www.nefsc.noaa.gov/nefsc/publications/tm/tm213/index.html>
- Waring G.T., Josephson E, Maze-Foley K, and Rosel PE (eds.). 2010. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments -- 2009. NOAA Tech Memo NMFS NE 213; 528 p.
- Waring, G.T., E. Josephson, K. Maze-Foley, and P.E. Rosel (eds.). 2016. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments - 2015. NOAA Technical Memorandum. Available at: http://www.nmfs.noaa.gov/pr/sars/pdf/atlantic2015_final.pdf

- Wartzok, D., & D.R. Ketten. 1999. Marine mammal sensory systems. *Biology of marine mammals*, 1, 117-175.
- Wartzok, D., A.N. Popper, J. Gordon, and J. Merrill. 2003. Factors affecting the responses of marine mammals to acoustic disturbance. *Marine Technology Society Journal* **37** (4):6-15.
- Wartzok, D., Popper, A. N., Gordon, J., & Merrill, J. 2003. Factors affecting the responses of marine mammals to acoustic disturbance. *Marine Technology Society Journal*, 37(4), 6-15.
- Watkins, W.A. 1986. Whale reactions to human activities in Cape Cod waters. *Marine Mammal Science* **2** (4):251-262.
- Weilgart, L.S. 2007. A brief review of known effects of noise on marine mammals. *International Journal of Comparative Psychology* **201** (2-3):159-168.
- Welch, B.L. and Welch, A.S., 1970. Control of brain catecholamines and serotonin during acute stress and after d-amphetamine by natural inhibition of monoamine oxidase: An hypothesis. *Amphetamines and related compounds*, ed. E. Costa & S. Garattini. New York: Raven Press.[taHA].
- Westgate, A.J. and Read, A.J., 1998. Applications of new technology to the conservation of porpoises. *Marine Technology Society. Marine Technology Society Journal*, 32(1), p.70.
- Whitehead, H., 2002. Estimates of the current global population size and historical trajectory for sperm whales. *Marine Ecology Progress Series*, 242, pp.295-304.
- Wood, S.A., Frasier, T.R., McLeod, B.A., Gilbert, J.R., White, B.N., Bowen, W.D., Hammill, M.O., Waring, G.T. and Brault, S., 2011. The genetics of recolonization: an analysis of the stock structure of grey seals (*Halichoerus grypus*) in the northwest Atlantic. *Canadian Journal of Zoology*, 89(6), pp.490-497.
- Yazvenko, S.B., T.L. McDonald, S.A. Blokhin, S.R. Johnson, H.R. Melton, M.W. Newcomer, et al. 2007. Feeding of western gray whales during a seismic survey near Sakhalin Island, Russia. *Environmental Monitoring and Assessment* **134** (1-3):93-106.
- Yuen, M.M.L., P.E. Nachtigall, M. Breese, and A.Y. Supin. 2005. Behavioral and auditory evoked potential audiograms of a false killer whale (*Pseudorca crassidens*). *Journal of the Acoustical Society of America* **118** (4):2688-2695.