

## Literature Cited

- Allen, B.M. and R.P. Angliss. 2013. Alaska Marine Mammal Stock Assessments, 2012. U.S. Department of commerce, NOAA Technical Memorandum. NMFS-AFSC-245, 282 p.
- Allen, B. M., and R. P. Angliss. 2014. Alaska marine mammal stock assessments, 2013. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-277, 294 p. Available at [http://www.nmfs.noaa.gov/pr/sars/pdf/ak2013\\_final.pdf](http://www.nmfs.noaa.gov/pr/sars/pdf/ak2013_final.pdf).
- Au, W.W.L. 1993. The sonar of dolphins. Springer-Verlag, New York, NY. 277 p.
- Au, W.W.L. and P.W.B. Moore. 1988. Detection of complex echoes in noise by an echolocating dolphin. *Journal of the Acoustical Society of America* 83:662-668.
- Au, W.W.L. and P.W.B. Moore. 1990. Critical ration and critical bandwidth for the Atlantic bottlenose dolphin. *Journal of the Acoustical Society of America* 88:1635-1638.
- Au, W.W.L., R.W. Floyd, R.H. Penner and A.E. Murchison. 1974. Measurement of Echolocation Signals of the Atlantic Bottlenose Dolphin, *Tursiops truncatus* Montagu, in Open Waters. *J. Acoust. Soc. Am.* 56: 1280-1290.
- Au, W.W.L., D.A. Carder, R.H. Penner and B.L. Scronce. 1985 . Demonstration of Adaptation in Beluga Whale Echolocation Signals. *J. Acoust. Soc. Am.* 77: 726-730.
- Bain, D.E. and M.E. Dahlheim. 1994. Effects of Masking Noise on Detection Thresholds of Killer Whales. p. 243-256. In: T.R. Loughlin (ed.), *Marine Mammals and the Exxon Valdez*. Academic Press, San Diego, CA. 395 p.
- Bain, D.E., B. Kriete, and M.E. Dahlheim. 1993. Hearing Abilities of Killer Whales (*Orcinus orca*). *J. Acoust. Soc. Am.* 94: 1829.
- Blane, J.M. and R. Jaakson. 1994. The Impact of Ecotourism Boats on the St Lawrence Beluga Whales. *Environmental Conservation*, 21, pp 267-269. doi:10.1017/S0376892900033282.
- Blaxter, J., Gray, J., and Denton, E. 1981. Sound and the startle response in herring shoals. *J. Mar. Biol. Assoc. U.K.* 61:851-869.
- Blecha F. 2000. Immune system response to stress. *The biology of animal stress*. G. P. Moberg and J. A. Mench, CABI 111-122.
- Boveng, P., J. London, J. Ver Hoef, and R. Montgomery. 2007. Strong Seasonal Dynamics of Harbor Seals in Cook Inlet, Alaska, 2003-2006. Alaska Fisheries Science Center, National Marine Mammal Laboratory. Scientific Poster accessed 17 September, 2013 at [http://dec.alaska.gov/spar/perp/response/sum\\_fy09/090324201/090324201\\_Boveng%20poster%20full%20size\\_NMFS.pdf](http://dec.alaska.gov/spar/perp/response/sum_fy09/090324201/090324201_Boveng%20poster%20full%20size_NMFS.pdf).

- Bowen, W. D. and Siniff, D. B. 1999. Distribution, population biology, and feeding ecology of marine mammals. Reynolds, J. E. III and Rommel, S. A. [eds.] In *Biology of Marine Mammals*. pp. 423-484. Washington, D.C., Smithsonian Press.
- Brueggeman, J.J., M. Smultea, K. Lomac-MacNair, D.J. Blatchford, and R. Dimmick. 2007a. 2007 fall marine mammal monitoring program for the Union Oil Company of California Granite Point seismic operations in Cook Inlet Alaska: 90-day report. Canyon Creek Consulting. Prepared for Union Oil Company of California. 34 pp.
- Brueggeman, J.J., M. Smultea, H. Goldstein, S. McFarland, and D.J. Blatchford. 2007b. 2007 spring marine mammal monitoring program for the ConocoPhillips Beluga River seismic operations in Cook Inlet Alaska: 90-day report. Canyon Creek Consulting. Prepared for ConocoPhillips Alaska, Inc. 38 pp.
- Brueggeman, J.J., M. Smultea, K. Lomac-MacNair, and D.J. Blatchford. 2008. 2007 fall marine mammal monitoring program for the Marathon Oil Company North Ninilchik seismic operations in Cook Inlet Alaska: 90-day Report. Prepared for Marathon Oil Company. 18 pp.
- Burns, J.J. and G.A. Seaman. 1986. Investigations of belukha whales in coastal waters of western and northern Alaska. II. Biology and Ecology. U.S. Dept. Commerce, NOAA, OCSEAP Final Rep. 56(1988):221-357.
- Calambokidis, J. and S.D. Osmek. 1998. Marine mammal research and mitigation in conjunction with airgun operation for the USGS SHIPS seismic surveys in 1998. Draft rep. from Cascadia Research, Olympia, WA, for U.S. Geol. Surv., Nat. Mar. Fish. Serv., and Minerals Manage. Serv.
- Calkins, D.G. 1989. Status of belukha whales in Cook Inlet. In: *Gulf of Alaska, Cook Inlet, and North Aleutian Basin information update meeting*. L.E. Jarvela and L.K. Thorsteinson (Eds). Anchorage, Ak., Feb. 7-8, 1989. Anchorage, Ak. USDOC, NOAA, OCSEAP p. 109-112.
- Carlson, T.J. 1994. Use of Sound for Fish Protection at Power Production Facilities: A Historical Perspective of the State of the Art. Phase I Final Report: Evaluation of the Use of Sound to Modify the Behavior of Fish. Report No. DOE/BP-62611-4. Prepared for Waterfront Department of Energy; Bonneville Power Administration; Environment, Fish, and Wildlife. November.
- Carretta, J.V., E. Oleson, D.W. Weller, A.R. Land, K.A. Forney, J. Baker, B. Hanson, K. Martien, M.M. Muto, T. Orr, H. Huber, M.S. Lowry, J. Barlow, D. Lynch, L. Carswell, R.L. Brownell Jr., and D.K. Mattila. 2014. U.S. Pacific Marine Mammal Stock Assessments (DRAFT): 2013. NOAATM-NMFS-SWFSC-XXX. U.S. Department of Commerce, Southwest Fisheries Science Center. Accessed June 2014. Available at [http://www.nmfs.noaa.gov/pr/sars/pdf/po2013\\_draft.pdf](http://www.nmfs.noaa.gov/pr/sars/pdf/po2013_draft.pdf).

- Clark CW, Ellison WT, Southall BL, Hatch L, Van Parijs SM, Frankel A, Ponirakis M. 2009. Acoustic masking in marine ecosystems: intuitions, analysis, and implications: Marine Ecology Progress Series, v. 395, p. 301-322.
- Coombs, S. 1981. Interspecific Differences in Hearing Capabilities for Select Teleost Species. p.173-178. In: W.N. Tavolga, A.N. Popper, and R.R. Fay (eds.) Hearing and Sound Communication in Fishes. Springer-Verlag New York Inc.
- Crum, L., Bailey, M., Guan, J., Hilmo, P., Kargl, S. & Matula, T. 2005. Monitoring bubble growth in supersaturated blood and tissue ex vivo and the relevance to marine mammal bioeffects. Acoustics Research Letters Online, 6(3), 214-220. 10.1121/1.1930987.
- Dahlheim, M.E. 1987. Bio-acoustics of the gray whale (*Eschrichtius robustus*). Ph.D. thesis, Univ. Brit. Columbia, Vancouver, B.C. 315 p.
- Dahlheim, M., A. York, R. Towell, J. Waite, and J. Breiwick. 2000. Harbor porpoise (*Phocoena phocoena*) abundance in Alaska: Bristol Bay to Southeast Alaska, 1991-1993. Marine Mammal Science 16:28-45.
- Di Iorio, L. and C.W. Clark. 2010. Exposure to seismic survey alters blue whale acoustic communication. Biology Letters 6:51-54.
- Dubrovskiy, N.A. 1990. On the Two Auditory Subsystems in Dolphins. p. 233-254. In: J.A. Thomas, and R.A. Kastelein (eds.). Sensory Abilities of Cetaceans/Laboratory and Field Evidence. Plenum Press, New York.
- Engas, A., S. Lokkeborg, A.V. Soldal and E. Ona. 1993. Comparative trials for cod and haddock using commercial trawl and longline at two different stock levels. J. Northw. Atl. Fish. Sci. 19:83-90.
- Erbe, C and D.M. Farmer. 2000. Zones of impact around icebreakers affecting beluga whales in the Beaufort Sea. Journal of the Acoustical Society of America 108(3): 1332-1340.
- Finneran, J.J., and C.E. Schlundt. 2010. Frequency-dependent and longitudinal changes in noise-induced hearing loss in a bottlenose dolphin (*Tursiops truncatus*). Journal of the Acoustical Society of America 128:567-570.
- Finneran, J.J., C.E. Schlundt, D.A. Carder, J.A. Clark, J.A. Young, J.B. Gaspin, and S.H. Ridgway. 2000. Auditory and behavioral responses of bottlenose dolphins (*Tursiops truncatus*) and a beluga whale (*Delphinapterus leucas*) to impulsive sounds resembling distant signatures of underwater explosions. Journal of the Acoustical Society of America 108:417-431.
- Finneran, J.J., D.A. Carder, and S.H. Ridgeway. 2002. Low frequency acoustic pressure, velocity, and intensity thresholds in a bottlenose dolphin (*Tursiops truncatus*) and white

- whale (*Delphinapterus leucas*). *Journal of the Acoustical Society of America* 111:447-456.
- 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* 114:1667-1677.
- 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. *J. Acoust. Soc. Am.* 118(4):2696-2705.
- Finneran, J.J., C.E. Schlundt, B. Branstetter, and R.L. Dear. 2007. Assessing temporary threshold shift in a bottlenose dolphin (*Tursiops truncatus*) using multiple simultaneous auditory evoked potentials. *Journal of the Acoustical Society of America* 122:1249–1264.
- Finneran, J.J., D.A. Carder, C.E. Schlundt, and R.L. Dear. 2010a. Growth and recovery of temporary threshold shift at 3 kHz in bottlenose dolphins: Experimental data and mathematical models. *Journal of the Acoustical Society of America* 127:3256-3266.
- Finneran, J.J., D.A. Carder, C.E. Schlundt, and R.L. Dear. 2010b. Temporary threshold shift in a bottlenose dolphin (*Tursiops truncatus*) exposed to intermittent tones. *Journal of the Acoustical Society of America* 127:3267-3272.
- Foote AD, Osborne RW, Hoelzel AR. 2004. Whale-call response to masking boat noise. *Nature* 428(6986):910.
- Funk, D.W., R.J. Rodrigues, and M.T. Williams (eds.). 2005. Baseline studies of beluga whale habitat use in Knik Arm, Upper Cook Inlet, Alaska, July 2004-July 2005. Report from LGL Alaska Research Associates, Inc., Anchorage, Alaska, in association with HDR Alaska, Inc., Anchorage, AK, for Knik Arm Bridge and Toll Authority, Anchorage, Alaska, Department of Transportation and Public Facilities, Anchorage, AK, and Federal Highway Administration, Juneau, Alaska. December 9. 232 p.
- Gentry, R. (ed.). 2002. Report of the workshop on acoustic resonance as a source of tissue trauma in cetaceans, Silver Spring, MD, April 2002. *Nat. Mar. Fish. Serv.* 19 p. (Available at [http://www.nmfs.noaa.gov/prot\\_res/PR2/Acoustics\\_Program/acoustics.html](http://www.nmfs.noaa.gov/prot_res/PR2/Acoustics_Program/acoustics.html))
- Goetz, K. T., Montgomery, R. A., Ver Hoef, J. M., Hobbs, R. C., Johnson, D. S. 2012a. Identifying essential summer habitat of the endangered beluga whale *Delphinapterus leucas* in Cook Inlet, Alaska. *Endangered Species Res* 16, 135-147.
- Goetz, K. T., P. W. Robinson, R. C. Hobbs, K. L. Laidre, L. A. Huckstadt, and K. E. W. Sheldon. 2012b. Movement and dive behavior of beluga whales in Cook Inlet, Alaska. AFSC Processed Rep. 2012-03, 40 p. Alaska Fish. Sci. Cent., NOAA, Natl. Mar. Fish. Serv., 7600 Sand Point Way NE, Seattle WA 98115.

- Goold, J.C. 1996a. Acoustic assessment of common dolphins off the west Wales coast, in conjunction with 16th round seismic surveying. Rep. from School of Ocean Sciences, Univ. Wales, Bangor, Wales, for Chevron UK Ltd, Repsol Explor. (UK) Ltd., and Aran Energy Explor. Ltd. 22 p.
- Goold, J.C. 1996b. Acoustic assessment of populations of common dolphin *Delphinus delphis* in conjunction with seismic surveying. *J. Mar. Biol. Assoc. U.K.* 76:811-820.
- Goold, J.C. 1996c. Acoustic cetacean monitoring off the west Wales coast. Rep. from School of Ocean Sciences, Univ. Wales, Bangor, Wales, for Chevron UK Ltd, Repsol Explor. (UK) Ltd, and Aran Energy Explor. Ltd. 20 p.
- Gordon, J, Gillespie, D., Potter, J., Frantzis, A., Simmonds, M.P., Swift, R., and Thompson, D. 2004. A review of the effects of seismic surveys on marine mammals. *Mar Tech Soc J* 37(4):16–34.
- Harris, R.E., G.W. Miller and W.J. Richardson. 2001. Seal responses to airgun sounds during summer seismic surveys in the Alaskan Beaufort Sea. *Mar. Mamm. Sci.* 17(4):795-812.
- Hastings, M.C. and Popper, A.N. 2005. Effects of sound on fish. Technical report for Jones and Stokes to California Department of Transportation, Sacramento, CA.
- Hawkins, A.D. 1981. The Hearing Abilities of Fish. In *Hearing and Sound Communication in Fishes* (ed. W.N. Tavolga, A.N. Popper and R.R. Fay). pp.109-133. New York: Springer.
- Hawkins, A.D. 1993. Underwater Sound and Fish Behaviour. p. 129-169 In: T.J. Pitcher (ed.). *Behaviour of Teleost Fishes*. Chapman & Hall, London.
- Hobbs, R. C., and K. E. W. Sheldon. 2008. Supplemental status review and extinction assessment of Cook Inlet belugas (*Delphinapterus leucas*). AFSC Processed Rep. 2008-08, 76 p. Alaska Fish. Sci. Cent., NOAA, Natl. Mar. Fish. Serv., 7600 Sand Point Way NE, Seattle WA 98115.
- Hobbs, R. C., K. E. W. Sheldon, D. J. Rugh, and S. A. Norman. 2008. 2008 status review and extinction risk assessment of Cook Inlet belugas. AFSC Processed Report 2008-02, 116 p. Alaska Fisheries Science Center, NOAA, National Marine Fisheries Service. 7600 Sand Point Way NE, Seattle, WA 98115.
- Hobbs, R.C., C.L. Sims, and K.E.W. Sheldon. 2011. Estimated abundance of belugas, *Delphinapterus leucas*, in Cook Inlet, Alaska, from aerial surveys conducted in June 2011. NMFS, NMML Unpublished Report. 7p.
- Holberton RL, Helmuth B, Wingfield JC. 1996. The corticosterone stress response in gentoo and king penguins during the non-fasting period. *The Condor* 98(4): 850-854.

- Holt MM, Noren DP, Veirs V, Emmons CK, Veirs S. 2009. Speaking up: killer whales (*Orcinus orca*) increase their call amplitude in response to vessel noise. *JASA Expr. Lett.* 125(1):EL27-EL32.
- Hood LC, Boersma PD, Wingfeild JC. 1998. The adrenocortical response to stress in incubating Magellanic Penguins (*Spheniscus magellanicus*). *The Auk* 115(1): 76-84.
- Hoover, A., A. 1988. Harbor Seal and Steller Sea Lion. In *Selected Marine Mammals of Alaska, Species Accounts with Research and Management Recommendations*. Jack W. Lentfer, ed., Marine Mammal Commission, 1988.
- Huntington, H.P. 2000. Traditional knowledge of the ecology of belugas, *Delphinapterus leucas*, in Cook Inlet, Alaska. *Marine Fisheries Review* 62: 134- 140.
- Ireland, D. S., D. W. Funk, T. M. Markowitz, and C. C. Kaplan. 2005. Beluga whale distribution and behavior in Eagle Bay and the Sixmile Area of Upper Cook Inlet, Alaska, in September and October 2005. Rep. from LGL Alaska Research Associates, Inc., Anchorage, Alaska, in association with HDR Alaska, Inc., Anchorage, Alaska, for the Knik Arm Bridge and Toll Authority, Anchorage, AK, Department of Transportation and Public Facilities, Anchorage, Alaska, and the Federal Highway Administration, Juneau, Alaska.
- Jefferson, T. and B. Curry, 1994,. Review and evaluation of potential acoustic methods or reducing or eliminating marine mammal fishery interactions. Report to the U.S. Marine Mammal Commission, Contract T10155628, 59 p. (Available from Alaska Fisheries Science Center, Natl. Mar. Fish. Serv., NOAA, 7600 Sand Point Way NE, Seattle, WA 98115)
- Jessop TS, Tucker AD, Limpus CJ, Whittier JM . 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.
- Johnson, D.S., and L. W. Fritz. 2014. agTrend: a Bayesian approach for estimating trends of aggregated abundance. *Methods in Ecology and Evolution*. DOI: 10.1111/2041-210X.12231.
- Kastak, D., R.J. Schusterman, B.L. Southall, and C.J. Reichmuth. 1999. Underwater temporary threshold shift induced by octave-band noise in three species of pinniped. *Journal of the Acoustical Society of America* 106:1142-1148.
- Kastak, D., B.L. Southall, R.J. Schusterman, and C. Reichmuth Kastak. 2005. Underwater temporary threshold shift in pinnipeds: Effects of noise level and duration. *Journal of the Acoustical Society of America* 118:3154-3163.

- Kastelein, R.A., R. Gransier, L. Hoek, A. Macleod, and J.M. Terhune. 2012a. Hearing threshold shifts and recovery in harbor seals (*Phocina vitulina*) after octave-band noise exposure at 4 kHz. *Journal of the Acoustical Society of America* 132:2745-2761.
- Kastelein, R.A., R. Gransier, L. Hoek, and J. Olthuis. 2012b. Temporary hearing 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.
- Ketten DR. 1995. Estimates of blast injury and acoustic trauma zones for marine mammals from underwater explosions. p. 391-407 In: R.A. Kastelein, J.A. Thomas, and P.E. Nachtigall (eds.), *Sensory systems of aquatic mammals*. De Spil Publ., Woerden, Netherlands. 588 p.
- Ketten DR, Lien J, Todd S. 1993. Blast injury in humpback whale ears: evidence and implications. *J. Acoust. Soc. Am.* 94(3, Pt. 2):1849-1850 (Abstract).
- Krausman PR, Bleich VC, Cain III JW, Stephenson TR, DeYoung DW, McGrath PW, Swift PK, Pierce BM, Jansen BD. 2004. Neck lesions in ungulates from collars incorporating satellite technology. *Wildlife Society Bulletin* 32(3):5.
- Kryter, K.D. 1985. *The effects of noise on man*, 2nd ed. Academic Press, Orlando, FL. 688 p.
- Kryter, K.D., W.D. Ward, J.D. Miller, and D.H. Eldredge. 1966. Hazardous Exposure to Intermittent and Steady-State Noise. *Journal of the Acoustical Society of America* 39:451-464.
- Lankford SE, Adams TE, Miller RA, Cech Jr, JJ. 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.
- Leatherwood, J.S., W.E. Evans, and D.W. Rice. 1982. *The whales, dolphins, and porpoises of the eastern north Pacific. A guide to their identification in the water*. Naval Undersea Center, NUC TP 282. 175p.
- Lesage, V., C. Barrette and M.C.S. Kingsley. 1993. The effect of noise from an outboard motor and a ferry on the vocal activity of beluga (*Delphinapterus leucas*) in the St. Lawrence estuary, Canada. *Abstr. 10th Bienn. Conf. Biol. Mar. Mamm.*, Galveston, TX, Nov. 1993:70. 130 p.
- Lesage, V., C. Barrette, M.C.S. Kingsley and B. Sjare. 1999. The effect of vessel noise on the vocal behavior of belugas in the St. Lawrence River estuary, Canada. *Mar. Mamm. Sci.* 15(1):65-84.
- Lomac-MacNair, K.S., L.S. Kendall, and S. Wisdom. *Marine Mammal Monitoring and Mitigation, 90-Day Report, May 6- September 30, 2012*, Alaska Apache Corporation 3D Seismic Program, Cook Inlet, Alaska. 2013. Prepared by SAExploration 8240

Sandlewood Pl. Suite 102 Anchorage, AK and Fairweather Science 9525 King Street, Anchorage, AK. Prepared for Apache Alaska Corporation and National Marine Fisheries Service. 87 p.

- Lucke K, Siebert U, Lepper PA, Blanchet M-A. 2009. Temporary shift in masked hearing thresholds in a harbor porpoise (*Phocoena phocoena*) after exposure to seismic airgun stimuli. *J. Acoust. Soc. Am.* 125(6):4060-4070
- Lutton HH. 1985. Effects of Renewable Resource Harvest Disruptions on Socioeconomic and Sociocultural Systems: Wainwright, Alaska. Technical Report 91. Anchorage, AK: USDOJ, MMS, Alaska OCS Region, 603 p.
- Madsen, P.T., M. Johnson, P.J.O. Miller, N. Aguilar de Soto, J. Lynch and P.L. 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.
- Mate, B.R., and J.T. Harvey. 1987. Acoustical deterrents in marine mammals conflicts with fisheries. Workshop, 17-18 February, 1986, Newport Oregon. Oregon State University, Publ. No. ORESU-W-86-001, 116 p.
- Matkin C, 2009 Predation by Killer Whales in Cook Inlet in Western Alaska: An Integrated Approach. 2008-2009 North Gulf Ocean Society Project R0303-01.
- McEwen B, Wingfield JC. 2003. The concept of allostasis in biology and biomedicine. *Hormones and Behavior* 43:2–15.
- Miller, P.J.O., N. Biassoni, A. Samuels, and P.O. Tyack. 2000. Whale songs lengthen in response to sonar. *Nature*, 405, 903.
- Miller, G.W., V.D. Moulton, R.A. Davis, M. Holst, P. Millman, A. MacGillivray and D. Hannay. 2005. Monitoring seismic effects on marine mammals—southeastern Beaufort Sea, 2001-2002. p. 511-542 In: S.L. Armsworthy, P.J. Cranford, and K. Lee (eds.), *Offshore oil and gas environmental effects monitoring/Approaches and technologies*. Battelle Press, Columbus, OH.
- Moberg GP. 1987. Influence of the adrenal axis upon the gonads. *Oxford reviews in reproductive biology*. J. Clarke. New York, New York, Oxford University Press: 456 - 496.
- Moberg GP. 2000. Biological response to stress: implications for animal welfare. *The biology of animal stress*. G. P. Moberg and J. A. Mench. Oxford, United Kingdom, Oxford University Press: 1 - 21.
- Mooney, T.A., P.E. Nachtigall, and S. Vlachos. 2009a. Sonar-induced temporary hearing loss in dolphins. *Biology Letters* 5:565-567.



- Mooney, T.A., P.E. Nachtigall, M. Breese, S. Vlachos, and W.W.L. Au. 2009b. Predicting temporary threshold shifts in a bottlenose dolphin (*Tursiops truncatus*): The effects of noise level and duration. *Journal of the Acoustical Society of America* 125:1816-1826.
- Moore, P.W.B. and D.A. Pawloski. 1990. Investigations on the Control of Echolocation Pulses in the Dolphin (*Tursiops truncatus*). p. 305-316. In: J.A. Thomas, and R.A. Kastelein (eds.). *Sensory Abilities of Cetaceans/Laboratory and Field Evidence*. Plenum Press, New York.
- Moore, S.E., K.E.W. Shelden, L.L. Litzky, B.A. Mahoney, and D.J. Rugh. 2000. Beluga, *Delphinapterus leucas*, habitat associations in Cook Inlet, Alaska. *Marine Fisheries Review* 62:60-80.
- Moulton, V.D. and J.W. Lawson. 2002. Seals, 2001. p. 3-1 to 3-46 In: W.J. Richardson and J.W. Lawson (eds.), *Marine mammal monitoring of WesternGeco's open-water seismic program in the Alaskan Beaufort Sea, 2001*. LGL Rep. TA2564-4. Rep. from LGL Ltd., King City, Ont., for WesternGeco LLC, Anchorage, AK; BP Explor. (Alaska) Inc., Anchorage, AK; and Nat. Mar. Fish. Serv., Anchorage, AK, and Silver Spring, MD. 95 p.
- Moulton, V.D. and G.W. Miller. 2005. Marine mammal monitoring of a seismic survey on the Scotian Slope, 2003. p. 29-40 in K. Lee, H. Bain and G.V. Hurley, eds. 2005. *Acoustic Monitoring and Marine Mammal Surveys in The Gully and Outer Scotian Shelf before and during Active Seismic Programs*. Environmental Studies Research Funds Report. No. 151. 154 p.
- Nachtigall, P.E., J.L. Pawloski, and W.W.L. Au. 2003. Temporary threshold shifts and recovery following noise exposure in the Atlantic bottlenosed dolphin (*Tursiops truncatus*). *Journal of the Acoustical Society of America*, 113, 3425-3429.
- Nachtigall, P.E., A. Ya. Supin, J.L. Pawloski, and W.W.L. Au. 2004. Temporary threshold shifts after noise exposure in the bottlenose dolphin (*Tursiops truncatus*) measured using auditory evoked potentials. *Marine Mammal Science* 20:673-687.
- Nakken, O. 1992. Scientific basis for management of fish resources with regard to seismic exploration. *Fisheries and Offshore Petroleum Exploitation 2nd International Bergen, Norway*, 6-8 April 1992.
- NMFS. 2003. *Subsistence Harvest Management of Cook Inlet Beluga Whales Final Environmental Impact Statement*. July.
- NMFS. 2008a. *Final Conservation Plan for the Cook Inlet beluga whale (Delphinapterus leucas)*. National Marine Fisheries Service, Juneau, Alaska.
- NMFS. 2008b. *Recovery Plan for the Steller sea lion (Eumatopia jubatus)*. National Marine Fisheries Service, Juneau, Alaska.

- NMFS. 2013c. Finding of No Significant Impact for Issuance of an Incidental Harassment Authorization for Seismic Survey in Cook Inlet, AK. U.S Department of Commerce, NOAA-NMFS. (Available at: [http://www.nmfs.noaa.gov/pr/pdfs/permits/apache\\_fonsi2013.pdf](http://www.nmfs.noaa.gov/pr/pdfs/permits/apache_fonsi2013.pdf))
- National Marine Mammal Laboratory (NMML). 2004. Personal communication from Christy Sims, Marine Mammal Data Specialist. Regarding Opportunistic Marine Mammal Sightings (1999-2002) and beluga aerial survey data (1993-2004). Seattle, WA.
- NOAA. 2007. Cook Inlet Beluga Whale Subsistence Harvest Draft Supplemental Environmental Impact Statement. USDOC, NOAA, NMFS, Anchorage, AK 200 pp. (Available at: <http://alaskafisheries.noaa.gov/protectedresources/whales/beluga/seis/cib1207.pdf>)
- Nedwell, J.R., B. Edwards, A.W.H. Turnpenney, and J. Gordon. 2004. Fish and Marine Mammal Audiograms: A Summary of Available Information. Subacoustech Ltd. Report No. 534R0214 for Chevron Texaco Ltd., TotalFinaElf Exploration UK PLC, DSTL, Department of Trade and Industry, and Shell U.K. Exploration and Production Ltd.
- NRC. 2003. Ocean Noise and Marine Mammals. Washington DC, National Academies Press.
- Olsen, K. 1979. Observed avoidance behaviour in herring in relation to passage of an echo survey vessel. *ICES Journal of Marine Science* 18: 21 pp.
- Olsen, K., Angell, J., Pettersen, F., and A. Lovik. 1983. Observed fish reactions to a surveying vessel with special reference to herring, codcapelin and polar cod. *FAO Fish. Rep.*, 300: 131-138. 8 pp.
- Ona, E. 1988. Observations of Cod Reaction to Trawling Noise. ICES FAST WG-meeting, Oostende, 20-22.
- Ona, E. and O.R. Godo. 1990. Fish reaction to trawling noise; the significance for trawl sampling. *Rapp. O-v Reun. Coast. Int. Explor. Mer.* 189:159-166.
- Ona, E. and R. Toresen. 1988. Reaction of herring to trawl noise. *ICES. CM* 1988/B-36:1-8.
- Parks, S.E., C.W. Clark and P.L. Tyack. 2007. 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., I. Urazghildiiev and C.W. Clark. 2009. Variability in ambient noise levels and call parameters of North Atlantic right whales in three habitat areas. *J. Acoust. Soc. Am.* 125(2):1230-1239.
- Penner, R.H., C.W. Turl, and W.W. Au. 1986. Target Detection by the Beluga Using a Surfacerreflected Path. *J. Acoust. Soc. Am.* 80: 1842-1843.

- Popov, V.V., A.Y. Supin, D. Wang, K. Wang, L. Dong, and S. Wang. 2011a. Noise-induced temporary threshold shift and recovery in Yangtze finless porpoises *Neophocaena phocaenoides asiaeorientalis*. *Journal of the Acoustical Society of America* 130:574-584.
- Popov, V.V., V.O. Klishin, D.I. Nechaev, M.G. Pletenko, V.V. Rozhnov, A.Y. Supin, E.V. Sysueva, and M.B. Tarakanov. 2011b. Influence of acoustic noises on the white whale hearing thresholds. *Doklady Biological Sciences* 440:332-334.
- Popper, A.N., and T.J. Carlson. 1998. Application of Sound and Other Stimuli to Control Fish Behavior. *Transactions of the American Fisheries Society* 127:673-707.
- Popper, A.N., J. Fewtrell, M.E. Smith, and R.D. McCauley. 2003/2004. Anthropogenic Sound: Effects on the Behaviour and Physiology of Fishes. *Marine Technology Society Journal* 37(4): 35-40.
- Prevel Ramos, A.P., T.M. Markowitz, D.W. Funk, and M.R. Link. 2006. Monitoring beluga whales at the Port of Anchorage: Pre-expansion observations, August-November 2005. Report from LGL Alaska Research Associates, Inc., Anchorage, Alaska, for Integrated Concepts & Research Corporation, the Port of Anchorage, Alaska, and the waterfront Department of Transportation Maritime Administration.
- Prevel Ramos, A.P., M.J. Nemeth, and A.M. Baker. 2008. Marine mammal monitoring at Ladd Landing in Upper Cook Inlet, Alaska, from July through October 2007. Final report prepared by LGL Alaska Research Associates, Inc., Anchorage, Alaska for DRven Corporation, Anchorage, Alaska.
- Reneerkens J, Morrison R, Ramenofsky M, Piersma T, Wingfield JC. 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* , Vol. 75, No. 2, pp. 200-208.
- Richardson, W.J., C.R. Greene, C.I. Malme, and D.H. Thomson. 1995. *Marine Mammals and Noise*. Academic Press, Inc., San Diego, CA.
- Romanenko, E.V. and V.Ya. Kitain. 1992. The Functioning of the Echolocation System of *Tursiops truncatus* During Noise Masking. p. 415-419. In: J.A. Thomas, R.A. Kastelein and A.Ya. Supin (eds.). *Marine Mammal Sensory Systems*. Plenum, New York.
- Romano, T.A., M.J. Keogh, C. Kelly P. Feng, L. Berk, C.E. 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.
- Rostad, A., S. Kaartvedt, T.A. Klevjer, and W. Melle. 2006. Fish are attracted to vessels. *ICES Journal of Marine Science* 63: 1431-1437.

- Rugh, D.J., K.E.W. Sheldon, and B. A. Mahoney. 2000. Distribution of belugas, *Delphinapterus leucas*, in Cook Inlet, Alaska, during June/July, 1993-2000. *Marine Fisheries Review* 62: 6-21.
- Rugh, D.J., K.E.W. Sheldon, B.A. Mahoney, and L.K. Litzky. 2001. Aerial Surveys of Belugas in Cook Inlet, Alaska, June 2001. Available at <http://www.alaskafisheries.noaa.gov/protectedresources/whales/beluga/surveyrpt2002.pdf>
- Rugh, D.J., B.A. Mahoney, L.K. Litzky, and B.K. Smith. 2002. Aerial Surveys of Belugas in Cook Inlet, Alaska. June 2002. Available at <http://www.alaskafisheries.noaa.gov/protectedresources/whales/beluga/surveyrpt2002.pdf>
- Rugh, D.J., B.A. Mahoney, C.L. Sims, B.K. Smith, and R.C. Hobbs. 2003. Aerial Surveys of Belugas in Cook Inlet, Alaska, June 2003. Available at <http://www.fakr.noaa.gov/protectedresources/whales/beluga/surveyrpt2003.pdf>
- Rugh, D.J., B.A. Mahoney, and B. K. Smith. 2004a. Aerial surveys of beluga whales in Cook Inlet, Alaska, between June 2001 and June 2002. U.S. Dep. Commer. NOAA Tech. Memo. NMFS-AFSC-145.
- Rugh, D.J., B.A. Mahoney, C.L. Sims, B.A. Mahoney, B.K. Smith, and R.C. Hobbs. 2004b. Aerial Surveys of Belugas in Cook Inlet, Alaska, June 2004. <http://www.fakr.noaa.gov/protectedresources/whales/beluga/survey/2004.pdf>.
- Rugh, D.J., K.E.W. Sheldon, C.L. Sims, B.A. Mahoney, B.K. Smith, L.K. (Litzky) Hoberecht, and R.C. Hobbs. 2005a. Aerial surveys of belugas in Cook Inlet, Alaska, June 2001, 2002, 2003, and 2004. NOAA Technical Memorandum NMFS-AFSC-149. 71pp.
- Rugh, D. J., K.T. Goetz, and B.A. Mahoney. 2005b. Aerial Surveys of Belugas in Cook Inlet, Alaska, August 2005. <http://www.fakr.noaa.gov/protectedresources/whales/beluga/aerialsurvey05.pdf>.
- Rugh, D. J., K. T. Goetz, B. A. Mahoney, B. K. Smith, and T. A. Ruzkowski. 2005c. Aerial surveys of belugas in Cook Inlet, Alaska, June 2005. Unpublished Document. Natl. Mar. Mammal Lab., NMFS, NOAA, Alaska Fish. Sci. Cent., 7600 Sand Point Way, NE, Seattle, WA 98115. 17 p.
- Rugh, D.J., K.T. Goetz, C.L. Sims, and B.K. Smith. 2006. Aerial surveys of belugas in Cook Inlet, Alaska, August 2006. Unpubl. NMFS report. 9 pp.
- Rugh, D.J., K.T. Goetz, J.A. Mocklin, B.A. Mahoney, and B.K. Smith. 2007. Aerial surveys of belugas in Cook Inlet, Alaska, June 2007. Unpublished Document. NMFS report. 16 pp.
- Sapolsky RM, Romero LM, Munck AU. 2000. How do glucocorticoids influence stress responses? Integrating permissive, suppressive, stimulatory, and preparative actions. *Endocrinol. Rev.* 21, 55-89.

- Scheifele, P.M., S. Andrews, R.A. Cooper, M. Darre, F.E. Musick, and L. Max. 2005. Indication of a Lombard vocal response in the St. Lawrence River beluga. *Journal of the Acoustical Society of America*, 117, 1486-1492.
- Schlundt, C.E., J.J. Finneran, D.A. Carder, and S.H. Ridgway. 2000. Temporary shift in masked hearing thresholds of bottlenose dolphins, *Tursiops truncatus*, and white whales, *Delphinapterus leucas*, after exposure to intense tones. *Journal of the Acoustical Society of America* 107:3496-3508.
- Seyle H. 1950. Stress and the general adaptation syndrome. *The British Medical Journal*: 1383-1392.
- Sharma, G.D. and D.C. Burrell. 1970. Sedimentary environment and sediment of Cook Inlet, Alaska. *The American Association of Petroleum Geologists Bulletin* 54(4):647-654.
- Shelden, K.E.W., D.J. Rugh, B.A. Mahoney, and M.E. Dahlheim. 2003. Killer Whale Predation on Belugas in Cook Inlet, Alaska: Implications for a Depleted Population. *Marine Mammal Science* 19(3):529-544.
- Shelden, K.E., K.T. Goetz, L.V. Brattström, C.L. Sims, D.J. Rugh, and B.A. Mahoney. 2008. Aerial surveys of belugas in Cook Inlet, Alaska, June 2008. NMFS Report. 19 pp.
- Smith ME, Kane AS, Popper AN. 2004a. Noise-induced stress response and hearing loss in goldfish (*Carassius auratus*). *Journal of Experimental Biology* 207(3): 427-435.
- Smith ME, Kane AS, Popper AN. 2004b. Acoustical stress and hearing sensitivity in fishes: does the linear threshold shift hypothesis hold water? *Journal of Experimental Biology* 207: 3591-3602.
- Smultea, M.A., M. Holst, W.R. Koski, and S. Stoltz. 2004. Marine mammal monitoring during Lamont-Doherty Earth Observatory's seismic program in the Southeast Caribbean Sea and adjacent Atlantic Ocean, April-June 2004. LGL Rep. TA2822-26. Rep. from LGL Ltd., King City, ON, for Lamont-Doherty Earth Observatory of Columbia Univ., Palisades, NY, and Nat. Mar. Fish. Serv., Silver Spring, MD. 106 p.
- Southall, B.L., A.E. Bowles, W.T. Ellison, J.J. Finneran, R.L. Gentry, C.R. Greene Jr., D. Kastak, D.R. Ketten, J.H. Miller, P.E. Nachtigall, W.J. Richardson, J.A. Thomas, and P.L. Tyack. 2007. Marine mammal noise exposure criteria: Initial scientific recommendations. *Aquatic Mammals*, Special Issue 33.
- Stanek, R. T. 1994. The subsistence use of beluga whale in Cook Inlet by Alaska Natives. 1993. Draft Final Report for year two, subsistence study and monitoring system No.50ABNF200055. Technical Paper No. 232. ADF&G, Juneau, Alaska. 23-pp.

- Stone, C.J. 2003. The effects of seismic activity on marine mammals in the UK waters 1998-2000. JNCC report 323 Joun Nature Conservancy, Aberdeen, Scotland. 43 p.
- Tavolga, W.N., A.N. Popper, and R.R. Fay. 1981. Hearing and Sound Communication in Fishes. Springer-Verlag, New York. 608 pp.
- Terhune, J.M. 1999. Pitch Separation as a Possible Jamming-Avoidance Mechanism in Underwater Calls of Bearded Seals (*Erignathus barbatus*). *Can. J. Zool.* 77: 1025-1034.
- Thomas, J.A. and C.W. Turl. 1990. Echolocation Characteristics and Range Detection Threshold of a False Killer Whale (*Pseudorca crassidens*). p. 321-334. In: J.A. Thomas and R.A. Kastelein (eds.). *Sensory Abilities of Cetaceans/Laboratory and Field Evidence*. Plenum, New York.
- Thompson DR, Hamer KC. 2000. Stress in seabirds: causes, consequences and diagnostic value. *J Mar Ecosyst Stress Recovery.* 7: 91–110.
- Thompson, D., M. Sjöberg, E.B. Bryant, P. Lovell, and A. Bjørge. 1998. Behavioral and physiological responses of harbor (*Phoca vitulina*) and grey (*Halichoerus grypus*) seals to seismic surveys. *Abstr. World Mar. Mamm. Sci. Conf., Monaco*.
- Trimper PG, Standen NM, Lye LM, Lemon D, Chubbs TE, Humphries GW. 1998. Effects of low-level jet aircraft noise on the behaviour of nesting osprey. *Journal of Applied Ecology* 35(1): 122-130.
- Tyack, P. L. 2000. "Functional aspects of cetacean communication," in *Cetacean Societies: Field Studies of Dolphins and Whales*, edited by J. Mann, R. C. Connor, P. L. Tyack, and H. Whitehead (Univ. Chicago, Chicago), pp. 270–307.
- Tyack, P., M. Johnson and P. Miller. 2003. Tracking responses of sperm whales to experimental exposures of airguns. p. 115-120 In: A.E. Jochens and D.C. Biggs (eds.), *Sperm whale seismic study in the Gulf of Mexico/Annual Report: Year 1. OCS Study MMS 2003-069. Rep. from Texas A&M Univ., College Station, TX, for U.S. Minerals Manage. Serv., Gulf of Mexico OCS Reg., New Orleans, LA.*
- Ward, W.D. 1997. Effects of high-intensity sound. Pages 1497-1507 In M.J. Crocker (ed.) *Encyclopedia of Acoustics, Volume III*. New York: John Wiley & Sons.
- Weir, C.R. 2008. Overt responses of humpback whales (*Megaptera novaeangliae*), sperm whales (*Physeter macrocephalus*), and Atlantic spotted dolphins (*Stenella frontalis*) to seismic exploration off Angola. *Aquatic Mammals* 34(1):71-83.
- Welch BL, Welch AS. 1970. *Physiological Effects of Noise*. New York, Plenum Press.
- Wilson, B. and L.M. Dill. 2002. Pacific herring respond to simulated odontocete echolocation calls. *Can. J. Fish. Aquat. Sci.* 59, 542-553.

- Wolfe, R.J., J.A. Fall, and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence. Technical Paper No. 347, Anchorage. 93 pp.
- Yan, H.Y. 2004. The Role of Gas-Holding Structures in Fish Hearing: An Acoustically Evolved Potentials Approach. In: (eds.) G. Von der Emede and J. Mogdans. Senses of Fishes. Narosa Publishing House. New Delhi, India.
- Zaitseva, K.A., V.P. Morozov, and A.I. Akopian. 1980. Comparative Characteristics of Spatial Hearing in the Dolphin *Tursiops truncatus* and Man. *Neurosci. Behav. Physiol.* 10: 180-182 (Transl. from *Zh. Evol. Biokhim. Fiziol.* 14(1): 80-83, 1978).
- Zelick, R., Mann, D. and Popper, A.N. 1999. Acoustic communication in fishes and frogs. Pp 363-411, In: R.R. Fay and A.N. Popper (eds.). *Comparative Hearing: Fish and Amphibians* Springer-Verlag, New York.