

LITERATURE CITED

- Allen, B.M., and R.P. Angliss. 2010. Alaska marine mammal stock assessments, 2009. NOAA Technical Memorandum NMFS-AFSC-233. National Marine Fisheries Service, Seattle, WA.
- Allen, B. M., and R. P. Angliss. 2013. Alaska marine mammal stock assessments, 2012. NOAA Technical Memorandum NMFS-AFSC-245. National Marine Fisheries Service, Seattle, WA.
- Allen, B. M., and R. P. Angliss. 2014. Alaska marine mammal stock assessments, 2013. NOAA Technical Memorandum NMFS-AFSC-277. National Marine Fisheries Service, Seattle, WA.
- ANSI (American National Standards Institute). 1986. Methods of measurement for impulse noise 3 (ANSI S12.7-1986). Acoustical Society of America, Woodbury, NY.
- ANSI. 2005. Measurement of sound pressure levels in air (ANSI S1.13-2005). Acoustical Society of America, Woodbury, NY.
- Blackwell, S.B. 2004. Underwater measurements of pile-driving sounds during the Port MacKenzie dock modifications, 13-16 August 2004. Rep. from Greeneridge Sciences, Inc., Goleta, CA, and LGL Alaska Research Associates, Inc., Anchorage, AK, in association with HDR Alaska, Inc., Anchorage, AK, for Knik Arm Bridge and Toll Authority, Anchorage, AK, Department of Transportation and Public Facilities, Anchorage, AK, and Federal Highway Administration, Juneau, AK.
- Blackwell, S. B., and C. R. Greene, Jr. 2002. Acoustic measurements in Cook Inlet, Alaska, during August 2001. Greeneridge Rep. 271-2. Prepared by Greeneridge Sciences, Inc., Santa Barbara, CA, for National Marine Fisheries Service, Anchorage, AK.
- Boveng, P.L., J.M. London, and J.M. VerHoef. 2012. Distribution and abundance of harbor seals in Cook Inlet, Alaska. Task III: Movements, marine habitat use, diving behavior, and population structure, 2004-2006.. Final Report. BOEM Report 2012-065. Bureau of Ocean Energy Management, Alaska Outer Continental Shelf Region, Anchorage, AK.
- Caltrans. 2012. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish: Appendix I – Compendium of Pile Driving Sound Data. Updated October 2012.
- Clark, C.W., W.T. Ellison, B.L. Southall, L. Hatch, S.M. Van Parijs, A. Frankel, and D. Ponirakis. 2009. Acoustic masking in marine ecosystems: intuitions, analysis, and implication. *Marine Ecology Progress Series* **395**:201-222.
- Cox, T.M., T.J. Ragen, A.J. Read, E. Vos, R.W. Baird, K. Balcomb, et al. 2006. Understanding the impacts of anthropogenic sound on beaked whales. *Journal of Cetacean Research and Management* **7** (3):177-187.
- Dazey, E., B. McIntosh, S. Brown, and K.M. Dudzinski. 2012. Assessment of Underwater Anthropogenic Noise Associated with Construction Activities in Bechers Bay, Santa Rosa Island, California. *Journal of Environmental Protection*, 2012, 3:1286-1294.

Everitt, R.D., C.H. Fiscus, and R.L. DeLong. 1980. Northern Puget Sound Marine Mammals. DOC/EPA Interagency Energy/ Environ. R&D Program. Doc. #EPA-6009/7-80-139, U.S. Environmental Protection Agency, Washington, D.C. 134 p.

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** (1):417-431.

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., 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.

Foote, A.D., R.W. Osborne, and A.R. Hoelzel. 2004. Whale-call response to masking boat noise. *Nature* **428**:910.

Federal Highway Administration (FHWA). 2013. Categorical Exclusion Documentation Form for Federal Highway Administration Projects, 16 August 2013.

Frost, W. 2015. Personal e-mail communication from William Frost, ADF&G Habitat Division, 07 April 2015.

Gordon, J., D. Gillespie, J. Potter, A. Frantzis, M.P. Simmonds, R. Swift, and D. Thompson. 2004. A review of the effects of seismic surveys on marine mammals. *Marine Technology Society Journal* **37** (4):16-34.

Harris, C.M. (ed.). 1998. *Handbook of Acoustical Measurements and Noise Control*. Acoustical Society of America, Woodbury, NY.

Hastings, M. C., and A. N. Popper. 2005. Effects of sound on fish. Technical report for Jones and Stokes to California Department of Transportation.

Hildebrand, J. A. 2009. Anthropogenic and natural sources of ambient noise in the ocean. *Mar. Ecol. Prog. Ser.* 395, 5–20.

Hobbs, R.C., and J.M. Waite. 2010. Abundance of harbor porpoise (*Phocoena phocoena*) in three Alaskan regions, corrected for observer errors due to perception bias and species misidentification, and corrected for animals submerged from view.

Holt, M.M., D.P. Noren, V. Veirs, C.K. Emmons, and S. Veirs. 2009. Speaking up: Killer whales (*Orcinus orca*) increase their call amplitude in response to vessel noise. *Journal of the Acoustical Society of America* **125** (1):EL27-32.

Illingworth & Rodkin, Inc. 2013. Naval Base Kitsap at Bangor, Trident Support Facilities Explosive Handling Wharf (EHW-2) Project, Acoustic Monitoring Report, Bangor, Washington. Prepared for U.S. Navy by Illingworth & Rodkin, Inc., Petaluma, CA under contract with Hart Crowser. 23 April 2013, Revised 15 May 2013. Available online at:
http://www.nmfs.noaa.gov/pr/pdfs/permits/navy_kitsap_ehw2_acoustics2013.pdf.

Illingworth & Rodkin, Inc. 2014. Anchorage Port Modernization Project Underwater Noise Monitoring Plan. Prepared for CH2M Hill Engineers, Inc., on behalf of HDR, by Illingworth & Rodkin, Inc., Marysville, CA.

ISO (International Organization for Standardization). 2003. Acoustics – Description, measurement and assessment of environmental noise – Part 1: Basic quantities and assessment procedures (ISO 1996-1:2003(E)). International Organization for Standardization, Geneva.

Kryter, K.D. 1985. *The Effects of Noise on Man*. Academic Press, New York.

Jemison, L. A., Pendleton, G. W., Wilson, C. A. and Small, R. J. 2006. Long-term trends in harbor seal numbers at Tugidak Island and Nanvak Bay, Alaska. *Marine Mammal Science* 22(2):339-360.

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(2):1142-1148.

Kodiak Seafood and Marine Science Center. 2015. Gulf Apex Predator-Prey Project.
<http://seagrant.uaf.edu/map/gap/marine-mammals/seals/index.php>

Laughlin, J. 2011. Port Townsend dolphin timber pile removal – vibratory pile monitoring technical memorandum to Rick Huey, 03 January 2011.

Laws, B. 2015. Personal communication between Benjamin Laws, NOAA Federal, and David Ward, HDR, Portland, OR, regarding use of seal bombs, 13 March 2015.

Lerma, D. 2014. Naval Base Point Loma Fleet Logistics Center Fuel Pier Replacement Project: Acoustic, marine mammal, green sea turtle, and California least tern monitoring report. Prepared by Tierra Data Inc. for Naval Facilities Engineering Command Southwest: 250.

Lowry, L. F., K. J. Frost, J. M. VerHoef, and R. A. DeLong. 2001. Movements of satellite-tagged subadult and adult harbor seals in Prince William Sound, Alaska. *Marine Mammal Science* 17:835-861.

Lucke, K., Lepper, P. A., Blanchet, M.-A., and Siebert, U. (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

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

Maine Department of Transportation and Eastport Port Authority. 2014. Incidental Harassment Authorization Questionnaire. Eastport Breakwater Replacement. Application to NOAA Fisheries, 06 May 2014.

Marine Mammal Commission. 2000. Annual report to Congress 1999. Bethesda, MD.

Marie, M. 2015. Personal e-mail communication from Megan Marie, ADF&G Habitat Division, 16 April 2015.

Merrick R.L., and T.R. Loughlin. 1997. Foraging behavior of adult female and young-of-the-year Steller sea lions in Alaskan waters. *Canadian Journal of Zoology* **75**:776–786.

Miles, P.R., C.I. Malme, and W.J. Richardson. 1987. Prediction of drilling site-specific interaction of industrial acoustic stimuli and endangered whales in the Alaskan Beaufort Sea. OCS Study MMS 87-0084. Minerals Management Service, Anchorage, AK.

Mitson, R.B. (ed.). 1995. Underwater Noise of Research Vessels: Review and Recommendations. *ICES Coop. Res. Rep.* No. 209, 61.

Morton and Symonds., 2002. Displacement of *Orcinus Orca* by high amplitude sound in British Columbia. *ICES J. Mar. Sci.* **21**:217-242

Moulton et al 2005. Effects of offshore oil development on local abundance and distribution of ringed seals of the Alaskan Beaufort Sea . *Marine Mammal Science* **21**:217-242

NMFS (National Marine Fisheries Service). 1993. Designated critical habitat Steller sea lion. *Federal Register* **58**:45269-45285.

NMFS (National Marine Fisheries Service). 2013. Informal consultation concurrence letter to Federal Highway Administration. PCTS# AKR-2013-9277, 29 July 2013.

NIOSH (National Institute for Occupational Safety and Health). 1998. Criteria for a recommended standard: Occupational noise exposure. United States Department of Health and Human Services, Cincinnati, OH.

NOAA (National Oceanic and Atmospheric Administration). 2013. Draft guidance for assessing the effects of anthropogenic sound on marine mammals—acoustic threshold levels for onset of permanent and temporary threshold shifts. National Marine Fisheries Service, Silver Spring, MD.

NOAA (National Oceanic and Atmospheric Administration). 2015. Killer whale (*Orcinus orca*). <http://www.nmfs.noaa.gov/pr/species/mammals/whales/killer-whale.html>

- Nowacek, D.P., Thorne, L.H., Johnston, D.W. & Tyack, P.L. (2007). Responses of cetaceans to anthropogenic noise. *Mammalian Review*, 37(2), 81-115.
- NRC (National Research Council). 2003. *Ocean noise and marine mammals*. National Academies Press, Washington, DC.
- PND Engineers, Inc. 2013. Biological Assessment, Pier 3 replacement. Prepared for U.S. Army Corps of Engineers, Alaska District.
- Popper, A.N., and M.C. Hastings. 2009. The effects of anthropogenic sources of sound on fishes. *Journal of Fish Biology* 75:455-489.
- Rehberg M.J, R.D. Andrews, U.G. Swain, and D.G. Calkins. 2009. Foraging behavior of adult female Steller sea lions during the breeding season in Southeast Alaska. *Marine Mammal Science* 25: 588–604.
- Richardson, W.J., C.R. Greene, C.I. Malme, and D.H. Thomson. 1995. *Marine Mammals and Noise*. Academic Press, Inc., San Diego, CA.
- 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.
- 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** (6):3496-3508.
- Scholik, A.R. and H.Y. Yan. 2002. The effects of noise on the auditory sensitivity of the bluegill sunfish, *Lepomis macrochirus*. *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology* 133 (1):43-52..
- Simmonds, M., S. Dolman, and L. Weilgart. 2004. *Oceans of noise*. Whale and Dolphin Conservation Society, Bath, U.K.
- Skalski, J.R., W.H. Pearson, and C.I. Malme. 1992. Effects of sounds from a geophysical survey device on catch-per-unit-effort in a hook-and-line fishery for rockfish (*Sebastes* spp.). *Canadian Journal of Fisheries and Aquatic Sciences* 49:1357-1365.
- 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* 33(4):411–521.
- Speckman, S.G. 2015. Personal observation. HDR Alaska Marine Science Program Lead, Anchorage, AK.
- Swain, U., J. Lewis, G. Pendleton, and K. Pitcher. 1996. Movements, haulout, and diving behavior of harbor seals in southeast Alaska and Kodiak Island. *In Annual Report: Harbor seal investigations in*

Alaska, pp. 59–144. NOAA Grant NA57FX0367. Alaska Department of Fish and Game, Division of Wildlife Conservation. Douglas, AK.

Urlick, R.J. 1983. Principles of Underwater Sound. Peninsula Publishing, Los Altos, CA. Viada, S.T., R.M. Hammer, R. Racca, D. Hannay, M.J. Thompson, B.J. Balcom, and

URS (URS Corporation), Australia Pty Ltd. 2011. Ichthys gas field development project: potential effects of underwater blasting, pile driving and dredging on sensitive marine fauna in Darwin Harbor. INPEX Document No. C036-AH-REP-0115.

URS (URS Corporation). 2007. Port of Anchorage Marine Terminal Development Project underwater noise survey test pile driving program, Anchorage, Alaska. Report prepared for Integrated Concepts and Research Corporation, Anchorage, AK.

Viada S.T., Hammer R.M., Racca R., Hannay D., Thompson M.J., Balcolm B.J., Phillips N.W. (2008). Review of potential impacts on sea turtles from underwater explosive removal of offshore structures. Environmental Impact Assessment Review 28: 267–285.

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.

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.

Ward, D. 2015. Personal observation. HDR Senior Fisheries Biologist, Portland, OR.

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.

WSDOT (Washington State Department of Transportation). 2010. Section 7.2.4. Determining the Extent of Underwater Project-Related Noise Version 04-02-2014. In Biological Assessment Preparation Advanced Training Manual. http://www.wsdot.wa.gov/NR/rdonlyres/448B609A-A84E-4670-811B-9BC68AAD3000/0/BA_ManualChapter7.pdf.

Wynne, K.W., R. Foy, and L. Buck. 2011. Gulf Apex Predator-prey Study (GAP): FY2004-06 Standardized Comprehensive Report NOAA Federal Program http://seagrant.uaf.edu/map/gap/reports/GAP-04-06_Final.pdf

Wynne, K.W. 2014. Personal communication between Kate Wynne, Alaska Sea Grant Marine Advisory Program agent, Kodiak Seafood and Marine Science Center, Kodiak, Alaska, and Suzann Speckman, HDR Alaska Marine Science Program Lead, Anchorage, AK, regarding sea lion presence in the City of Kodiak, 18 December 2014.

Wynne, K.W. 2015a. Personal communication between Kate Wynne, Alaska Sea Grant Marine Advisory Program agent, Kodiak Seafood and Marine Science Center, Kodiak, Alaska,

Wynne, K.W. 2015b. Personal communication between Kate Wynne, Alaska Sea Grant Marine Advisory Program agent, Kodiak Seafood and Marine Science Center, Kodiak, Alaska, and Suzann Speckman, HDR Alaska Marine Science Program Lead, Anchorage, AK, regarding sea lion presence in the City of Kodiak, 01 June 2015.

Yelverton, J.T., D.R. Richmond, E.R. Fletcher, and R.K. Jones. 1973. Safe distances from underwater explosions for mammals and birds. Report No. 3114T, Defense Nuclear Agency: 70.