

References

- ABR. 2016. Protected-Species Monitoring at the Kodiak Ferry Terminal & Dock Improvements Project, Kodiak, Alaska, 2015–2016.
- Ahroon, W.A., R.P. Hamernik, and S.-F., Lei. 1996. The effects of reverberant blast waves on the auditory system. *Journal of the Acoustical Society of America* 100:2247-2257.
- Allen, B.A. and R. P. Angliss 2015. Alaska Marine Mammal Stock Assessments 2014. NOAA Technical Memorandum. Anchorage AK, US Department of Commerce: 304pp.
- American National Standards Institute (ANSI). 1986. Methods of measurement for impulse noise 3 (ANSI S12.7-1986). Acoustical Society of America, Woodbury, NY.
- American National Standards Institute (ANSI). 1995. Bioacoustical Terminology (ANSI S3.20-1995). Acoustical Society of America, Woodbury, NY.
- 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 pp.
- Au, W.W.L. and M. Hastings. 2008. Principles of Marine Bioacoustics. Springer-Verlag, New York.
- Caltrans. 2015. Guidance Document: Sound Propagation Modeling to Characterize Pile Driving Sounds Relevant to Marine Mammals. Sacramento, CA, CA Department of Transportation: 532 pp.
- Carlson, T.J., D.L. Woodruff, G.E. Johnson, N.P. Kohn, G.R. Ploskey, M.A. Weiland, et al. 2005. Hydroacoustic measurements during pile driving at the Hood Canal Bridge, September through November 2004. PNWD-3621, Prepared by Battelle Marine Sciences Laboratory for the Washington State Department of Transportation: 165 pp.
- Committee on Taxonomy. 2019. List of marine mammal species and subspecies. Society for Marine Mammalogy, www.marinemammalscience.org.
- 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.
- Dahlheim, M.E., P.A. White and J.M. Wait. (2009). Cetaceans of Southeast Alaska: Distribution and seasonal occurrence. *Journal of Biogeography* 36(3):410-426.
- Dahlheim, M.E., A N. Zerbini, J.M. Waite and A.S. Kennedy. 2015. Temporal changes in abundance of harbor porpoise (*Phocoena phocoena*) inhabiting the inland waters of Southeast Alaska. *Fishery Bulletin* 113(3): 242-255.
- Denes, S.L., G.A. Warner, M. Austin and A.O. MacGillivray. 2016. Hydroacoustic Pile Driving Noise Study - Comprehensive Report. Technical Report by JASCO Applied Sciences. Anchorage, AK, Alaska Department of Transportation & Public Facilities. Version 2.0.
- Ellison, W.T., B. 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.
- Everitt, R.D., C.H. Fiscus, and R.L. DeLong. 1980. Northern Puget Sound marine mammals. Interagency Energy/Environment R&D Program Report EPA-600/7-80-139, Prepared by National Marine Fisheries Service for Environmental Protection Agency 150pp.

- Finneran, J.J. 2015. Noise-induced hearing loss in marine mammals: A review of temporary threshold shift studies from 1996 to 2015. *Journal of the Acoustical Society of America* 138:1702-1726.
- Finneran, J.J. 2016. Auditory weighting functions and TTS/PTS exposure functions for marine mammals exposed to underwater noise. Technical Report. San Diego: SPAWAR.
- 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., 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., 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* 111:2929-2940.
- 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.
- Friday, N.A., A.N. Zerbini, J.M. Waite, S.E. Moore, and P.J. Clapham. 2013. Cetacean distribution and abundance in relation to oceanographic domains on the eastern Bering Sea shelf in June and July of 2002, 2008, and 2010. *Deep-Sea Res. II* 94:244-256.
- Haines. 2007. Haines Coastal Management Program - Final Plan Amendment. Juneau, AK, Haines Borough and Sheinberg Associates: 160 pp.
- Haines Borough Comprehensive Plan 2012. <https://www.hainesalaska.gov/cp2025>
- Hastings, M.C., and A.N. Popper. 2005. Effects of sound on fish. Technical report for Jones and Stokes to California Department of Transportation.
- Hastings, K. et al. 2020. Demographic consequences and characteristics of recent population mixing and colonization in Steller sea lions, *Eumetopias jubatus*. *J. Mammalogy*. 101:107-120.
- Hemilä, S., S. Nummela, A. Berta, and T. Reuter. 2006. High-frequency hearing in phocid and otariid pinnipeds: An interpretation based on inertial and cochlear constraints (L). *Journal of the Acoustical Society of America* 120(6):3463-3466.
- Henderson, D., B. Hu, and E. Bielefeld. 2008. Patterns and mechanisms of noise-induced cochlear pathology. pp. 195-217 In Schacht, J., A.N. Popper, and R.R. Fay (Eds.) *Auditory Trauma, Protection, and Repair*. New York: Springer.
- Jemison, L.A., G.W. Pendleton, K.K. Hastings, J.M. Maniscalco and L.W. Fritz. 2018. Spatial distribution, movements, and geographic range of Steller sea lions (*Eumetopias jubatus*) in Alaska." *PLoS One* 13(12): e0208093.
- Kastak, D., J. Mulsow, A. Ghouli, and C. Reichmuth. 2008. Noise-induced permanent threshold shift in a harbor seal: Abstract. *Journal of the Acoustical Society of America* 123:2986.

Kastelein, R.A., P. Wensveen, L. Hoek, and J.M. Terhune. 2009. Underwater hearing sensitivity of harbor seals (*Phoca vitulina*) for narrow noise bands between 0.2 and 80 kHz. *Journal of the Acoustical Society of America* 126(1):476-483.

Kastelein, R.A., J. Schop, R. Gransier, and L. Hoek. 2014. Frequency of greatest temporary hearing threshold shift in harbor porpoise (*Phocoena phocoena*) depends on the noise level. *Journal of the Acoustical Society of America* 136:1410-1418.

Kastelein, R.A., et al. 2016. Pile driving playback sounds and temporary threshold shift in harbor porpoises (*Phocoena phocoena*): Effect of exposure duration. *The Journal of the Acoustical Society of America* 139(5):2842-2851.

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.

Lusseau, D. and L. Bejder. 2007. The long-term consequences of short-term responses to disturbance experiences from whale watching impact assessment. *International Journal of Comparative Psychology* 201(2-3):228-236.

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.

Marston, B.H., M.F. Willson and S.M. Gende. 2002. Predator aggregations during eulachon *Thaleichthys pacificus* spawning runs. *Marine Ecology Progress Series* 231: 229-236.

Miller, J.D. 1974. Effects of noise on people. *Journal of the Acoustical Society of America* 56:729-764.

Muto, M. *et al.* 2019. Alaska marine mammal stock assessments, 2018. U.S. Dep. Commerce, NOAA Tech. Memo. NMFS-AFSC-393, 390 pp.

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

NMFS (2013). Status Review of the Eastern Distinct Population Segment of Steller Sea Lion (*Eumetopias jubatus*). Juneau, AK, U.S. Dept Commerce: 144 pp.

NMFS (2017). Endangered Species Act (ESA) Section 7(a)(2) Biological Opinion for Construction of Haines Alaska Ferry Terminal. Juneau, AK, U.S. Dept Commerce: 83 pp.
<https://www.fisheries.noaa.gov/action/incidental-take-authorization-alaska-department-transportation-and-public-facilities-haines>

National Marine Fisheries Service (NMFS). 2018. 2018 Revisions to: Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0): Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts. U.S. Department of Commerce, NOAA. NOAA Technical Memorandum NMFS-OPR-59, 169 pp.

NMFS 2018b. Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Haines Ferry Terminal Modification Project. *Federal Register* 83(24): 5063-5072.

NMFS 2019. Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Railroad Dock Dolphin Installation Project, Skagway, Alaska. Federal Register 84(33): 4777-4790.

National Research Council (NRC). 2005. Marine mammal populations and ocean noise: Determining when noise causes biologically significant effects. National Academy of Sciences: 142 pp.

Nedwell, J. and B. Edwards. 2002. Measurements of underwater noise in the Arun River during piling at County Wharf, Li.

Nowacek, D.P., M.P. Johnson, and P.L. Tyack. 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):227-231.

Oestman, R., D. Buehler, J. Reyff, and R. Rodkin. 2009. Technical guidance for assessment and mitigation of the hydroacoustic effects of pile driving on fish. Prepared by ICF Jones & Stokes and Illingworth & Rodkin, Inc. for the California Department of Transportation: 298 pp.

Pearson, W.H., J.R. Skalski, and C.I. Malme. 1992. Effects of sounds from a geophysical survey device on behavior of captive rockfish (*Sebastes spp.*). Canadian Journal of Fisheries and Aquatic Sciences 49:1343-1356.

Popper, A.N. and M.C. Hastings. 2009. The effects of anthropogenic sources of sound on fishes. Journal of Fish Biology 75 (3):455-489.

Reichmuth, C. and M.M. Holt. 2013. Comparative assessment of amphibious hearing in pinnipeds. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural and Behavioral Physiology 199(6):491-507.

Reichmuth, C., A. Ghoul, J.M. Sillis, A. Rouse, and B.L. Southall. 2016. Low-frequency temporary threshold shift not observed in spotted or ringed seals exposed to single air gun impulses. Journal of the Acoustical Society of America 140:2648-2658.

Richardson, W.J., C.R. Greene, C.I. Malme, and D.H. Thomson. 1995. Marine Mammals and Noise. Academic Press, Inc., San Diego, CA.

Scholik, A.R. and H.Y. Yan. 2001. The effects of underwater noise on auditory sensitivity of fish. Proceedings of the Institute of Acoustics 23(4):27.

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.

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.

Sigler, M.F., J.N. Womble and J.J. Vollenweider. 2004. Availability to Steller sea lions (*Eumetopias jubatus*) of a seasonal prey resource: a prespawning aggregation of eulachon (*Thaleichthys pacificus*). Canadian Journal of Fisheries and Aquatic Sciences 61(8): 1475-1484.

- 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(7):1357-1365.
- 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.
- Thorson, P. and J.A. Reyff. 2006. San Francisco-Oakland Bay Bridge East Span Seismic Safety Project: marine mammal and acoustic monitoring for the marine foundations at piers E2 and T1, January-September 2006. Prepared by SRS Technologies and Illingworth & Rodkin, Inc. for the California Department of Transportation, 51 p.
- Wade, P. *et al.* 2016. Estimates of abundance and migratory destination for North Pacific humpback whales in both summer feeding areas and winter mating and calving areas. Bled, Slovenia, International Whaling Commission.
- Ward, W.D., A. Glorig, and D.L. Sklar. 1958. Dependence of temporary threshold shift at 4 kc on intensity and time. Journal of the Acoustical Society of America 30:944-954.
- Ward, W.D., A. Glorig, and D.L. Sklar. 1959. Temporary threshold shift from octave-band noise: Application to damage-risk criteria. Journal of the Acoustical Society of America 31:522-528.
- Ward, W.D. 1960. Recovery from high values of temporary threshold shift. Journal of the Acoustical Society of America 32:497-500.
- Wartzok, D., and D.R. Ketten. 1999. Marine mammal sensory systems. pp 117-175 In J.E. Reynolds II & S.A. Rommel (Eds.), Biology of Marine Mammals. Washington, DC: Smithsonian Institution Press.
- 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.
- 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.
- Wolfe, R.J., J. Bryant, L.B. Hutchinson-Scarborough, M.A. Kookesh and L. Sill. 2013. The subsistence harvest of harbor seals and sea lions in Southeast Alaska in 2012. Anchorage, AK, Alaska Department of Fish and Game.
- Womble, J.N. 2003. Seasonal Distribution of Steller Sea Lions (*Eumetopias jubatus*) in Relation to High-quality Ephemeral Prey Species in Southeastern Alaska. MS, University of Alaska Fairbanks.
- Womble, J.N. and M.F. Sigler. 2006. Seasonal availability of abundant, energy-rich prey influences the abundance and diet of a marine predator, the Steller sea lion *Eumetopias jubatus*. Marine Ecological Progress Series 325: 281-293.
- Womble, J.N., M.F. Sigler and M.F. Willson. 2009. Linking seasonal distribution patterns with prey availability in a central-place forager, the Steller sea lion. Journal of Biogeography 36(3): 439-451.
- Womble, J.N., M.F. Willson, M.F. Sigler, B.P. Kelly and G.R. VanBlaricom. 2005. Distribution of Steller sea lions *Eumetopias jubatus* in relation to spring-spawning fish in SE Alaska. Marine Ecology Progress Series 294: 271-282.

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.