

References

- 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.
- 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 p.
- Au, W.W.L. and M. Hastings. 2008. *Principles of Marine Bioacoustics*. Springer-Verlag, New York.
- Baird, R.W. 2003. Update COSEWIC status report on the harbour porpoise *Phocoena phocoena* (Pacific Ocean population) in Canada, in COSEWIC assessment and update status report on the harbour porpoise *Phocoena phocoena* (Pacific Ocean population) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.
- Barlow, J. 1988. Harbor porpoise *Phocoena phocoena*, abundance estimation for California, Oregon and Washington: I. Ship surveys. *Fish. Bull., U.S.* 86:417-432.
- Barlow, J., C. Oliver, T. D. Jackson, And B. L. Taylor. 1988. Harbor porpoise, *Phocoena phocoena*, abundance estimation for California, Oregon, and Washington: 11. Aerial surveys. *Fish. Bull., U.S.* 86:433-444
- Bigg, M.A. 1969. The harbour seal in British Columbia. *Fish. Res. Board Can. Bull.* 172. 31 p. Fisheries Research Board of Canada. Ottawa.
- Bigg, M. A. 1981. Harbour seal. Pages 1-27 in Ridgway, S.H., and R. J. Harrison, editors. *Handbook of marine mammals*. Vol. 2. Seals. Academic Press, N.Y.
- California Department of Transportation (Caltrans). 2020. Technical Guidance for the Assessment of Hydroacoustic Effects of Pile Driving on Fish.
- Caltrans (California Department of Transportation). 2015. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish: Appendix I – Compendium of Pile Driving Sound Data. Updated November 2015.
- 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.

- Carretta, James V.;Oleson, Erin M. (Erin Marie), 1977-;Weller, David William, 1963-;Lang, Aimée R.;Forney, Karin A.;Baker, Jason Daniel;Hanson, Brad;Martien, Karen K.;Muto, M. (Marcia);Orr, Anthony James;Huber, Harriet R.;Lowry, Mark S.;Barlow, Jay;Lynch, Deanna;Carswell, Lilian, 1968-;Brownell, Robert L.;Mattila, David K.. 2014 U.S. Pacific marine mammal stock assessments, 2013NOAA technical memorandum NMFS;NOAA-TM-NMFS-SWFSC ; 532;
- Carretta, J., M.M. Muto, J. Barlow, J. Baker, K.A. Forney, and M. Lowry. 2002. U.S. Pacific Marine Mammal Stock Assessments: 2002. NOAA Tech. Mem. NOAA-TM-NMFS-SWFSC-346. 286 pp
- 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.
- 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. DOC/EPA Interagency Energy/ Environ. R&D Program. Doc. #EPA-6009/7-80-139, U.S. Environmental Protection Agency, Washington, DC. 134 pp.
- Finneran, J.J. 2015. 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.
- Fisher, H.D. 1952. The status of the harbour seal in British Columbia, with particular reference to the Skeena River. *Fish. Res. Bd. Can. Bull.* 93:58 pp.
- Gaskin, D. E. 1984. The harbour porpoise (*Phocoena phocoena* L.): regional populations, status, and information on direct and indirect catches. *Rep. int. Whal. Commn* 34:5 69-586.
- Gomez, C., J. W. Lawson, A. J. Wright, A. D. Buren, D. Tollit, and V. Lesaged. 2016. A systematic review on the behavioural responses of wild marine mammals to noise: the

disparity between science and policy. Canadian Journal of Zoology 94 (12): 801-819.
<https://doi.org/10.1139/cjz-2016-0098>

- Green, G. A., J. J. Brueggeman, R. A. Grotefendt, C. E. Bowlby, M. L. Bonnell, and K. C. Balcomb III. 1992. Ceta-cean distribution and abundance off Oregon and Washington, 1989–1990. Chapter 1 in Oregon and Washington marine mammal and seabird surveys (J. J. Brueggeman, ed.), p. 1–140. Final report to OCS (Offshore Continental Shelf) Study MMS 91-0093
- Hall, A.M. 2004. Seasonal abundance, distribution and prey species of harbour porpoise (*Phocoena phocoena*) in southern Vancouver Island waters. Master Thesis. University of British Columbia.
- Hastings, M.C., and A.N. Popper. 2005. Effects of sound on fish. Technical report for Jones and Stokes to California Department of Transportation.
- HDR. 2012. Naval Base Kitsap at Bangor Test Pile Program, Bangor, Washington. Final Marine Mammal Monitoring Report. Prepared for Naval Facilities Engineering Northwest.
- Heath, C. B., and W. F. Perrin. 2008. California, Galapagos and Japanese Sea Lions *Zalophus californianus*, *Z. wolfebaeki* and *Z. japonicus*. In Encyclopedia of Marine Mammals (second edition), W. F. Perrin, B. Würsig, and J. G. M. Thewissen (editors), pgs 170–75.
- Heath, C.B. and W.F. Perrin. 2008. California, Galapagos, and Japanese Sea Lions. In Perrin, W.F., B. Wursig and J.G.M. Thewissen (eds) Encyclopedia of Marine Mammals. Academic Press: Burlington, Mass: 170-176.
- Huber et al. 2001. Correcting Aerial Survey Counts Of Harbor Seals (*Phoca Vitulina Richardsi*) In Washington And Oregon. Mar. Mam. Sci. (17)2:276-293.
- 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.
- Jeffries S., J. Oliver and L. Salzer. 2015. Aerial surveys for pinnipeds and sea otters on the Washington coast. Final report to the Washington Department of Natural Resources. Washington Department of Fish and Wildlife, Olympia, WA USA. 9pp.
- Jeffries, S.J., P.J. Gearin, H.R. Huber, D.L. Saul, and D.A. Pruett, 2000. “Atlas of Seal and Sea Lion Haulout Sites in Washington.” Washington Department of Fish and Wildlife. Available at:<http://wdfw.wa.gov/publications/00427/wdfw00427.pdf>
- 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., 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., 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.
- 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.
- Laughlin, J. 2019. Bainbridge / Fauntleroy: Vibratory Driving Monitoring of H- Piles
- 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 p.
- 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.
- Miller, J.D. 1974. Effects of noise on people. *Journal of the Acoustical Society of America* 56:729-764.
- Muto, M. M., V. T. Helker, B. J. Delean, N. C. Young, J. C. Freed, R. P. Angliss, N. A. Friday, P. L. Boveng, J. M. Breiwick, B. M. Brost, M. F. Cameron, P. J. Clapham, J. L. Crance, S. P. Dahle, M. E. Dahlheim, B. S. Fadely, M. C. Ferguson, L. W. Fritz, K. T. Goetz, R. C. Hobbs, Y. V. Ivashchenko, A. S. Kennedy, J. M. London, S. A. Mizroch, R. R. Ream, E. L. Richmond, K. E. W. Shelden, K. L. Sweeney, R. G. Towell, P. R. Wade, J. M. Waite, and A. N. Zerbini. 2022. Alaska marine mammal stock assessments, 2021. U.S. Dep. Commer., NOAA Tech. Memo. NMFSAFSC-441, 295 p. STELLER SEA LION (*Eumetopias jubatus*): Eastern U.S. Stock (noaa.gov)
- 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.
- National Research Council (NRC). 2005. Marine mammal populations and ocean noise: Determining when noise causes biologically significant effects. National Academy of Sciences: 142.

- Navy. 2019. U.S. Navy Marine Species Density Database Phase III for the Northwest Training and Testing Study Area. NAVFAC Pacific Technical Report. Naval Facilities Engineering Command Pacific, Pearl Harbor, Hawaii. 262 pp.
https://www.nwtteis.com/portals/nwtteis/files/NWTT_Marine_Species_Density_Technical_Report_September_2019.pdf
- Navy. 2020. Navy Marine Species Density Database (NMSDD) for U.S. Pacific & Gulf of Alaska. 2020. <https://seamap.env.duke.edu/models/Pacific-GOA/>
- Nedwell, J. and B. Edwards. 2002. Measurements of underwater noise in the Arun River during piling at County Wharf, Li
- NMFS. 2016. Marine Mammal Stranding Report. Kristin Wilkinson, Assistant Regional Stranding Coordinator, NOAA Fisheries, Protected Resources Division, West Coast Region. January 28, 2016. Seattle, Washington.
- NMFS (National Marine Fisheries Service). 2018. 2018 revision to: Technical guidance for assessing the effects of anthropogenic sound on marine mammal hearing (Version 2.0). NOAA Technical Memorandum NMFS-OPR-59, National Marine Fisheries Service: 178.
- NMFS. 2023c. Stellar Sea Lion Species Page. Available at:
<https://www.fisheries.noaa.gov/species/stellar-sea-lion>. Accessed on 4/6/2023
- 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.
- Osborne, R., J. Calambokidis, and E.M. Dorsey, 1988. *A guide to marine mammals of Greater Puget Sound*. Anacortes, Washington: Island Publishers.
- 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 fun 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.
- 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.
- 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.
- Scordino, J. 2010. West Coast Pinniped Program Investigations on California Sea Lion and Pacific Harbor Seal Impacts on Salmonids and Other Fishery Resources. Pacific States Marine Fisheries Commission.
- 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, Finneran J J, Reichmuth C, Nachtigall P E, Ketten D R, Bowles A E, Ellison W T, Nowacek D P, Tyack P L (2019). Marine Mammal Noise Exposure Criteria: Updated Scientific Recommendations for Residual Hearing Effects. *Aquatic Mammals* 2019, 45(2), 125-232, DOI 10.1578/AM.45.2.2019.125.
- Southall, B.L., D.P. Nowacek, A.E. Bowles, V. Seningaglia, L. Bejder, and P.L. Tyack. 2021. Marine mammal noise exposure criteria: Assessing the severity of marine mammal behavioral responses to human noise. *Aquatic Mammals* 47 (5): 421-464. DOI 10.1578/AM.47.5.2021.421
- 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.
- Southwest Fisheries Science Center, National Marine Fisheries Service, NOAA, P.O. Box 271, La Jolla, California 92038.)
- 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.
- Ward, W.D. 1960. Recovery from high values of temporary threshold shift. *Journal of the Acoustical Society of America* 32:497-500.
- 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.

- Wartzok D., A.N. Popper, J. Gordon J., and J.J. Merrill. 2004. Factors affecting the responses of marine mammals to acoustic disturbance. *Marine Technology Society Journal* 37:6-15.
- 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.
- WDFW. 2022. Priority Habitat and Species on the Web. Accessed December, 2022
- 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.
- Wiles, G.J. 2015. Washington state periodic status review for the Steller sea lion. Washington Department of Fish and Wildlife, Olympia, Washington. 38 pp.
- 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.