

Academic Bibliography of Peer-Reviewed Studies relating to Marine Species and Anthropogenic Underwater Noise

Abate, R.S. (2010). NEPA, National Security, and Ocean Noise: The Past, Present, and Future of Regulating the Impact of Navy Sonar on Marine Mammals. *J. of Int. Wildlife Law & Policy*, 13(1), 170-179.

Amoser, S. & Ladich, F. (2005). Diversity in noise-induced temporary hearing loss in otophysine fishes. *J. Acoust. Soc. Am.* 113, 2170-2179.

Ando-Mizobata, N., Ichikawa, K., Arai, N., & Kato, H. (2010). Does boat noise affect dugong (*Dugong dugon*) vocalization? *The Mamm. Soc. of Japan*, 39(1), 21-27.

Andrew, R.K, Howe, B.M., Mercer, J.A., & Dzienciuch, M.A. (2002). Ocean ambient sound: Comparing the 1960s with the 1990s for a receiver off the California coast. *J. Acoust. Soc. Am.* 112, 170-179.

Bowles, A.E., Smulter, M., Würsig, B., DeMaster, D.P., & Balca, D. (1994). Relative abundance and behavior of marine mammals exposed to transmissions from the Heard Island Feasibility Test. *J. Acoust. Soc. Am.* 96, 2469-2484.

Boyd, I.L. (2012). Technology requirements to investigate the effects of sound on marine wildlife. *Soc. Underwater Technol.*, 30(3), 23-31.

Boyd, I.L., Frisk, G., Urban, E., Tyack, P., Ausubel, S., Seyave, S., Cato, D., Southall, B., Weise, M., Andrew, R., Akamatsu, T., Dekeling, R., Erbe, C., Farmer, C., Gentry, R., Gross, T., Hawkins, A., Li, F.,

De Robertis, A., & Wilson, C.D. (2010). Silent ships sometimes do encounter more fish. 2. Concurrent echosounder observations from a drifting buoy and vessels. *ICES J. Mar. Sci.*, 67(5), 996-1003.

Deng, Z.D., Southall, B.L., Carlson, T.J., Xu, J., Martinez, J.J., (2014) 200 kHz Commercial Sonar Systems Generate Low-Frequency Side Lobes Audible to Some Marine Mammals. *PLoS ONE* 9(4), e95315.

Dennison, S., Fahlman, A., Moore, M. (2012). The use of diagnostic imaging for identifying abnormal gas accumulations in cetaceans and pinnipeds. *Physiol.* 3.

DeRuiter, S.L., Southall, B.L., Calambokidis, J., Zimmer, W.M.X., Sadykova, D., (2013). First active sonar frequencies. *Biol. Lett.*, 9, 20130223.

Dolman, S.J.(2007). Spatiotemporal restrictions as best practice precautionary response to ocean noise. *J. International Wildlife Law and Pol* 10, 219-224.

Dolman, S.J., Weir, C.R. & Jasny, M.(2009). Comparative review of marine mammal guidance implemented during naval exercises. *Mar. Pol. Bull.*, 58, 465-77.

Dotinga, H.M., & Elferink, A.G.O.(2000). Acoustic pollution in the oceans: The search for legal standards. *Ocean Development and International Law*, 31, 151-182.

Evans, P.G.H., Carson, Q., Fisher, Jordan, W., Limer, R., & Lees, I. (1994). A study of the reactions of harbour porpoises to various boats in the coastal waters of S.E. Shetland.

- Henderson, E.E., Smith, M.H., Gassmann, M., Wiggins, S.M., Douglas, A.B., & Hildebrand, J.A. (2014). Delphinid behavioral responses to incidental low frequency active sonar. *J. Acoust. Soc. Am.*, 136(4), 2003-2014.
- Hermanssen, L., Tougaard, J., Beedholm, K., Nielsen, J., & Madsen, P.T. (2015). Characteristics and Propagation of Airgun Pulses in Shallow Water with Implications for Effects on Small Marine Mammals. *PLoS ONE*, 10(7), e0133436.
- Hildebrand, J.A. (2009). Anthropogenic and natural sources of ambient noise in the ocean. *Mar. Ecol. Prog. Ser.*, 395, 5-20.
- Holles, S., Simpson, S.D., Radford, A.N., Berten, L., & Lecchini, D. (2013). Boat noise disrupts orientation behaviour in a coral reef fish. *Mar. Ecol. Prog. Ser.*, 485, 295-300.
- Holt, D.E., & Johnston, C.E. (2014). Evidence of the Lombard effect in fishes. *Behav. Ecol.*, 00(00), 1-8.
- Holt, M.M., Noren, D.P., & Emmons, C.K. (2011). Effects of noise levels and call types on the source levels of killer whale calls. *J. Acoust. Soc. Am.*, 130, 3100.
- Holt, M.M., Noren, D.P., Veirs, V., Emmons, C.K., & Veirs, S. (2009). Speaking up: Killer whales (*Orcinus orca*) increase their call amplitude in response to vessel noise. *J. Acoust. Soc. Am.*, 125, EL27-32.

Kastak, D., Mulsow, J., Ghoul, A., & Reichmuth, C. (2008). Noise-induced permanent threshold shift in a harbor seal [abstract]. *Acoust. Soc. Am.*, 123, 2986.

Kastak, D., Schuetman, R.J., Southall, B.L., & Reichmuth, C.J. (1999). Underwater temporary threshold shift induced by octave

- Madsen, P.T.(2005). Marine mammals and noise: Problems with root mean square pressure levels for transients. *J. Acoust. Soc. Am.*117, 3952-3957.
- Madsen, P.T., Johnson, M., Miller, J.F.O., Soto, N.A., Lynch, J., & Tyack, P.(2006). Quantitative measures of airgun pulses recorded on sperm whales (*Physeter macrocephalus*) using acoustic tags during controlled exposure experiments. *J. Acoust. Soc. Am.*120, 2366-2379.
- Madsen, P.T., Wahlberg, M., Tougaard, J., Lucke, K., & Tyack, P.(2006). Wind turbine underwater noise and marine mammals: Implications of current knowledge. *Mar. Ecol. Prog. Ser.*, 309, 279-295.
- Martin, K J., Alessi, S.C., Gaspard, J.C., Tucker, A.D., Bauer, G.B., & Mann, D.A. (2012). Underwater hearing in the loggerhead turtle (*Caretta caretta*): a comparison of behavioral and auditory evoked potentials. *J. Exp. Bio.*, 216(17), 3001-3009.
- McCauley R.D., Fewtrell, J., & Popper, A.N.(2003). High intensity anthropogenic sound damages fish ears. *J. Acoust. Soc. Am.*113, 638-642.
- McDonald, M.A., Hildebrand, J.A., & Wiggins, S.M.(2006). Increases in deep ocean ambient noise in the Northeast Pacific west of San Nicolas Island, California. *J. Acoust. Soc. Am.*120, 711-718.
- McDonald, T.L., Richardson, W.J., Greene Jr, C.R., Blackwell, S.B., Nations, C., Nielson R.M. & Streever, B. (2012). Detecting changes in the distribution of calling bowhead whales exposed to fluctuating anthropogenic sounds. *Cetac. Res. Manage.*, (12), 91-106.
- Melcón, M.L., Cummins, A.J., Kerosky, S.M., Roche L.K., Wiggins, S.M., Hildebrand, J.A. (2012). Blue Whales Respond to Anthropogenic Noise. *PLoS One* (7), e32681.
- Merchant, N.D., Fristrup, K.M., Johnson, M.P., Tyack, P.L., Witt, J.M., Blondel, P. & Parks, S.E. (2015). Measuring acoustic habitats. *Methods in Ecology and Evolution*, 6, 257-265.
- Miksis-Olds, J.L., Donaghay, P., Miller, J.H., Tyack, P.L., & Nystuen, J.A.(2007). Noise level

Radford, AN., Kerridge, E., & Simpson, S.D. (2014). Acoustic communication in a noisy world: can fish compete with anthropogenic noise? *Behavioral Ecology*, 0(0), 1-9.

Reeve, L.L.N. (2012). Of Whales and Ships: Impacts on the Great Whales of Underwater Noise Pollution from Commercial Shipping and Proposals for Regulation under International Law. *Ocean & Coastal LJ*, 1827.

Régault, M.R., & Lagardère, JP. (1983). Effects of ambient noise on the metabolic level of

Schecklman, S., Houser, D., Cross, M., Hernandez, D., & Siderius, M. (2011). Comparison of methods used for computing the impact of sand on the marine environment. *Mar. Environ. Res.*, 71(5), 342-350.

Schick, R.S., & Urban, D.L. (2000). Spatial components of bowhead whale (*Balaena mysticetus*)

Skalski, J.R., Pearson, W.H., & Malme, C.I. (1992). Effects of sounds from a geophysical survey device on catch-per-unit-effort in a hook-and-line fishery for rockfish (*Sebastes* spp.). *Can. J. Fish. Aquat. Sci.* 49, 1357-1365.

Slabbekoorn, H., Bouton, N., van Opzeeland, A., ten Cate, C., & Popper, A.N. (2010). A noisy spring: The impact of globally rising underwater sound levels on fish. *Trends in Ecology and Evolution*, 25, 419-427.

Slotte, A., Hansen, K., Dalen, J., & Öne, E. (2004). Acoustic mapping of pelagic fish distribution and abundance in relation to a seismic shooting area off the Norwegian west coast. *Fish. Res.* 67, 143-150.

Smith, M.E., Kane, A.S., & Popper, A.N. (2004). Noise-induced stress response and hearing loss in goldfish *Carassius auratus*. *Extremes* 6, 100-104. doi:10.1007/s10157-004-0011-3

- Todd, S., Stevič, P., Lien, J., Marques, F., & Ketten, D. (1996). Behavioural effects to underwater explosions in humpback whales (*Megaptera novaeangliae*). *Can. J. Zool.* 74, 1661-1672.
- Tolstoy, M., Diebold, J.B., Webb, S.C., Bohnenstiehl, R.D., Chapp, E., Holmes, R.C., Rawson, M. (2004). Broadband calibration of R/V Ewing seismic sources. *Geophysical Res. Letters*, 31, L14310
- Tougaard J. (2015). Underwater Noise from Wave Energy Converter Is Unlikely to Affect Marine Mammals. *PLoS ONE* 10(7), e0132391.
- Tougaard, J., Carstensen, J., Teilmann, J., Skov, H., & Rasmussen, P. (2009). Living zone of responsiveness extends beyond 20 km for harbor porpoises (*Phocoena phocoena* (L.)). *J. Acoust. Soc. Am.*, 126, 11.
- Tougaard, J., Wright, A.J., & Madsen, P.T. (2015). Cetacean noise criteria revisited in the light of proposed exposure limits for harbour porpoises. *Mar. Poll. Bull.*, 90, 1908.
- Tripovich, J.S., Hall, S., Charrier, I., & Arnould, J.P. (2012). The behavioural response of Australian fur seals to motor boat noise. *PLoS one*, (7), e37228.
- Tubelli, A.A., Zosuls, A., Ketten, D.R., Yamab, M., & Mountain, D.C. (2012) A prediction of the Minke Whale (*Balaenoptera acutorostrata*) middle transfer function. *J. Acoust. Soc.*, 132, 3263.
- Tyack, P.L. (2008). Implications for marine mammals of large scale changes in the marine acoustic environment. *J. of Mammalogy* 89, 549-558.
- Tyack, P.L. (2009). Acoustic playback experiments to study behavioral responses of free-ranging marine animals to anthropogenic sounds. *Mar. Ecol. Prog. Ser.* 395, 187-200.
- Tyack, P.L., Zimmer, W.M.X., Moretti, D., Southall, B.L., Claridge, D.E., et al. (2011). Beaked Whales Respond to Simulated and Actual Navy Sonar. *PLoS One*, (6), e17009.
- UNEP Convention on Biological Diversity Subsidiary Body on Scientific, Technical and Technological Advice. (2012). *Scientific, Technical and Technological Advice*. (2012). <https://www.unep.org/biodiversity/Portals/0/STTA/STTA%2010%20Final%20Report.pdf>

- Wang Z., Wu, Y., Duan G., Cao, H., Liu, J., Wang, K., & Wang D. (2014). Assessing the Underwater Acoustics of the World's Largest Vibration Hammer (OCTONG) and Its Potential Effects on the Indian Pacific Humpbacked Dolphin (*Sousa chinensis*). *PLoS One*, 9(10), e110590.
- Wang, J.Y., & Yang, S.C. (2006). Unusual cetacean stranding events of Taiwan in 2004 and 2005. *Cetacean Res Manage*, 8, 283-292.
- Watkins, W.A., Moore K.E., & Tyack, P. (1985). Sperm whale acoustic behavior on the southeast Caribbean. *Cetology* 49, 1-15.
- Weilgart, L.S. (2007). A brief review of known effects of noise on marine mammals. *J. of Comp. Psychol.*, 20159-168.
- Weilgart, L.S. (2007). The impacts of anthropogenic ocean noise on cetaceans and implications for management. *Can. J. of Zool.*, 85(1), 1091-1116
- Weir, C.R., & Dolman, S.J. (2007). Comparative review of the regional marine mammal mitigation guidelines implemented during industrial seismic surveys, and guidance towards a worldwide standard. *J. International Wildlife Law and Pol* 10, 1-27.
- Whitfield, A.K., Becker, A. (2014). Impacts of recreational motorboats on fishes: A review. *Mar. Poll. Bull.*, 83, 2431.
- Williams, R., Ashe, E., Blight, L., Jasny, M., & Nowlan, L. (2014). Marine mammals and ocean noise: Future directions and information needs with respect to science, policy and law in Canada. *Mar. Poll. Bull.*, 86, 238.
- Williams, R., Bain, D.E., Ford, J.K.B., & Trites, A.W. (2002a). Behavioural responses of male killer whales (*Orcinus orca*) to whalewatching boats: Opportunistic observations and experimental approach. *Cetacean Res Manage*, 305-310.
- Williams, R., Bain, D.E., & Trites, A. (2002b). Behavioural responses of killer whales (*Orcinus orca*) to whalewatching boats: Opportunistic observations and experimental approach. *Zool. (London)* 256, 255-270.
- Williams, R., Erbe, C., Ashe, E., Beerman, A., & Smith, J. (2014). Severity of killer whale behavioural response to ship noise: A cross response study. *Mar. Poll. Bull.*, 79, 254-260.
- Williams, R., Lusseau, D., & Hammond, P.S. (2006). Estimating relative energetic costs of human disturbance to killer whales (*Orcinus orca*). *Biol. Conserv.*, 133, 301-311.
- Wimmer, T., & Whitehead, H. (2004). Movements and distribution of northern bottlenose whales, *Hyperoodon ampullatus*, on the Scotian Shelf and in adjacent waters. *Can. J. Zool.* 82, 1782.
- Wright, A.J., & Highfill, L. eds. (2007). Considerations of the effects of noise on marine mammals and other animals. *Int. J. of Comp. Psychol.* 20, 89-316.

- Wysocki, L.E., Dittami, J.P., & Ladich, F.(2006). Ship noise and cortisol secretion in European freshwater fishes. *Bio. Conserv.* 128, 501-508.
- Yang, W-C., Chou, L-S., Jepson, P.D., Brownell, R.L., Jr., Cowan, D., Chang, J-F, Chiou, H-I., Yao, C-J., Yamada, T.K., Chiu, J., & Wang, P-J., Fernández (2008). Unusual cetacean mortality event in Taiwan, possibly linked to naval activities. *Veterinary Record*, 162, 184-186.
- Zimmer, W.M.X., & Tyack, P.L.(2007). Repetitive shallow dives pose decompression risk in-deep diving beaked whales. *Mar. Mamm. Sci.* 23, 888-925.
- Zitterbart, D.P., Kindermann, L., Burkhardt, E., Boebel, O. (2013). Automatic Round-the-Clock Detection of Whales for Mitigation from Underwater Noise Impacts. *PLoS One*, 8(8), e71217.