

List of peer-reviewed scientific studies on the impacts of ocean noise on marine living resources submitted by the Permanent Secretariat of the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area pursuant to paragraph 162 of General Assembly resolution 64/71 of 4 December 2009

### Bibliography

- Agardy, T., Aguilar Soto, N., Cañadas, A., Engel, M., Frantzis, A., Hatch, L., Hoyt, E., Kaschner, K., LaBrecque, E., Martin, V., Notarbartolo di Sciara, G., Pavan, G., Servidio, A., Smith, B., Wang, J., Weilgart, L., Wintle, B., and Wright, A. (2007). A global scientific workshop on spatio-temporal management of noise. Report of workshop held in Puerto Calero, Lanzarote, June 4-6, 2007. 25pp.
- Amoser, S., and Ladich, F. 2003. Diversity in noise-induced temporary hearing loss in otophysine fishes. *J. Acoust. Soc. Am.* 113: 2170–2179.
- Andrew, R.K., Howe, B.M., Mercer, J.A., and Dzieciuch, M.A. 2002. Ocean ambient sound: Comparing the 1960s with the 1990s for a receiver off the California coast. *Acoust. Res. Lett. Online* 3(2): 65-70.
- Bain, D.E., and Williams, R. 2006. Long-range effects of airgun noise on marine mammals: Responses as a function of received sound level and distance. Paper SC/58/E35 presented to the IWC Scientific Committee, June 2006 (unpublished). 13 pp. [Available from the Office of the Journal of Cetacean Research and Management and reported out of the IWC Scientific Committee.]
- Baird, R.W., Webster, D.L., McSweeney, D.J., Ligon, A.D., Schorr, G.S., and Barlow, J. 2006. Diving behavior of Cuvier's (*Ziphius cavirostris*) and Blainville's (*Mesoplodon densirostris*) beaked whales in Hawai'i. *Canadian J. Zoo.* 84: 1120-1128.
- Balcomb, K.C., and Claridge, D.E. 2001. A mass stranding of cetaceans caused by naval sonar in the Bahamas. *Bahamas J. Sci.* 8(2): 1-8.
- Banner, A. and Hyatt, M. 1973. Effects of noise on eggs and larvae of two estuarine fishes. *Trans. Am. Fish. Soc.* 102: 134-136.
- Barlow, J., and Gisiner, R. 2006. Mitigation and monitoring of beaked whales during acoustic events. *J. Cetacean Res. Manage.* 7: 239-249.
- Beale, C.M., and Monaghan, P. 2004. Behavioral responses to human disturbance: A matter of choice? *Animal Behav.* 68: 1065-1069.
- Bejder, L. 2005. Linking short and long-term effects of nature-based tourism on cetaceans. Ph.D. Thesis, Dalhousie University, Halifax, Nova Scotia.

- Bejder, L., Samuels, A., Whitehead, H., Gales, N., Mann, J., Connor, R., Heithaus, M., Watson-Capps, J., and Flaherty, C. 2006. Decline in relative abundance of bottlenose dolphins exposed to long-term disturbance. *Conserv. Biol.* 20: 1791-1798.
- Bejder, L., Samuels, A., Whitehead, H., Finn, H., and Allen, S. 2009. Impact assessment research: Use and misuse of habituation, sensitization and tolerance in describing wildlife responses to anthropogenic stimuli. *Mar. Ecol. Prog. Ser.* 395: 177-185.
- Borsani, J.F., Clark, C.W., Nani, B., Scarpinitti, M. 2007. Fin whales avoid loud rhythmic, low-frequency sounds in the Ligurian Sea. *Bioacoustics* 17: \_\_\_-\_\_\_.
- Bowles, A.E., Smulter, M., Würsig, B., DeMaster, D.P., and Palka, 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.
- Brownell, R.L., Jr., Yamada, T., Mead, J., and van Helden, A.L. 2004. Mass strandings of Cuvier's beaked whales in Japan: U.S. Naval acoustic link? Paper SC/56/E37 presented to the IWC Scientific Committee, June 2004 (unpublished). 10 pp. [Available from the Office of the Journal of Cetacean Research and Management and reported out of the IWC Scientific Committee.]
- Brownell, R.L., Jr., Nowacek, D.P., and Ralls, K. 2008. Hunting cetaceans with sound: a worldwide review. *J. Cetacean Res. Manage.* 10: 81-88.
- Brownell, R.L., Jr., Ralls, K., Baumann-Pickering, S., and Poole, M.M. 2009. Behavior of melon-headed whales, *Peponocephala electra*, near oceanic islands. *Mar. Mamm. Sci.* 25: 639-658.
- Bryant, P.J., Lafferty, C.M., and Lafferty, S.K. 1984. Reoccupation of Laguna Guerrero Negro Baja California, Mexico, by gray whales. Pp. 375-386 in M.L. Jones, S.L. Swartz, and S. Leatherwood (eds.). *The Gray Whale *Eschrichtius robustus**. Orlando: Academic Press.
- Buckstaff, K.C. 2004. Effects of watercraft noise on the acoustic behavior of bottlenose dolphins, *Tursiops truncatus*, in Sarasota Bay, Florida. *Mar. Mamm. Sci.* 20: 709-725.
- Claridge, D.E. 2006. Fine-scale distribution and habitat selection of beaked whales. M.A. Thesis, University of Aberdeen, Scotland.
- Clark, C.W., and Gagnon, G.C. 2006. Considering the temporal and spatial scales of noise exposures from seismic surveys on baleen whales. Paper SC/58/E9 presented to the IWC Scientific Committee, June 2006 (unpublished). 9 pp. [Available from the Office of the Journal of Cetacean Research and Management.]

- Clark, C.W., Ellison, W.T., Southall, B.L., Hatch, L., Van Parijs, S.M., Frankel, A., and Ponirakis, D. 2009. Acoustic masking in marine ecosystems: intuitions, analysis, and implication. *Mar. Ecol. Prog. Ser.* 395: 201-222.
- Compton, R., Goodwin, L., Handy, R., and Abbott, V. 2008. A critical examination of worldwide guidelines for minimizing the disturbance to marine mammals during seismic surveys. *Mar. Pol.* 32: 255-262.
- Cook, M.L.H. 2006. Behavioral and auditory evoked potential (AEP) hearing measurements in odontocete cetaceans. Ph.D. Thesis, University of South Florida, Tampa, Florida.
- Cosens, S.E., and Dueck, L.P. 1993. Ice breaker noise in Lancaster Sound, NWT, Canada: Implications for marine mammal behavior. *Mar. Mamm. Sci.* 9(3): 285-300.
- Cox, T.M., Ragen, T.J., Read, A.J., Vos, E., Baird, R.W., Balcomb, K., Barlow, J., Caldwell, J., Cranford, T., Crum, L., D'Amico, A., D'Spain, G., Fernández, A., Finneran, J., Gentry, R., Gerth, W., Gulland, F., Hildebrand, J., Houser, D., Hullar, T., Jepson, P.D., Ketten, D., MacLeod, C.D., Miller, P., Moore, S., Mountain, D., Palka, D., Ponganis, P., Rommel, S., Rowles, T., Taylor, B., Tyack, P., Wartzok, D., Gisiner, R., Mead, J., and Benner, L. 2006. Understanding the Impacts of Anthropogenic Sound on Beaked Whales. 7 *J. Cetacean Res. Manage.* 177-187.
- Croll, D.A., Clark, C.W., Acevedo, A., Tershy, B., Flores, S., Gedamke, J., and Urban, J. 2002. Only male fin whales sing loud songs. *Nature* 417: 809.
- Crum, L.A., Bailey, M.R., Guan, J., Hilmo, P.R., Kargl, S.G., Matula, T.J., Sapozhnikov, O.A. 2005. Monitoring bubble growth in supersaturated blood and tissue *ex vivo* and the relevance to marine mammal bioeffects. *Acoustics Research Letters Online* 6: 214-20.
- Culik, B.M., Koschinski, S., Tregenza, N., and Ellis, G.M. 2001. Reactions of harbor porpoises *Phocoena phocoena* and herring *Clupea harengus* to acoustic alarms. *Mar. Ecol. Prog. Ser.* 211: 255-260.
- Currey, R.J.C., Dawson, S.M., Slooten, E., Schneider, K., Lusseau, D., Boisseau, O.J., Haase, P., and Williams, J.A. 2009. Survival rates for a declining population of bottlenose dolphins in Doubtful Sound, New Zealand: An information theoretic approach to assessing the role of human impacts. *Aquatic Conserv.: Mar. Freshw. Ecosyst.* 19: 658-670.
- Dalebout, M.L., Robertson, K.M., Frantzis, A., Engelhaupt, D., Mignucci-Giannoni, A.A., Rosario-Delestre, R.J., and Baker, C.S. 2005. Worldwide structure of mtDNA

- diversity among Cuvier's beaked whales (*Ziphius cavirostris*): implications for threatened populations. *Mol. Ecol.* 14: 3353-3371.
- David, J.A. 2006. Likely sensitivity of bottlenose dolphins to pile-driving noise. *Water and Environment J.* 20: 48-54.
- Department of Fisheries and Oceans (DFO). 2004. Potential impacts of seismic energy on snow crab. DFO Can. Sci. Advis. Sec. Habitat Status Report 2004/003
- Dolman, S.J. 2007. Spatio-temporal restrictions as best practice precautionary response to ocean noise. *J. International Wildlife Law and Pol.* 10: 219-224.
- Dolman, S.J., Weir, C.R., and Jasny, M. 2009. Comparative review of marine mammal guidance implemented during naval exercises. *Mar. Poll. Bull.* 58: 465-77.
- Dotinga, H.M., and Elferink, A.G.O. 2000. Acoustic pollution in the oceans: The search for legal standards. *Ocean Development and International Law* 31: 151-182.
- D'Spain, G.L., D'Amico, A., and Fromm, D.M. 2006. Properties of the underwater sound fields during some well documented beaked whale mass stranding events. *J. Cetacean Res. Manage.* 7: 223-238.
- Engås, A., Løkkeborg, S., Ona, E., and Soldal, A.V. 1996. Effects of seismic shooting on local abundance and catch rates of cod (*Gadus morhua*) and haddock (*Melanogrammus aeglefinus*). *Can. J. Aquat. Sci.* 53: 2238-2249.
- Erbe, C., and Farmer, D.M. 2000. Zones of impact around icebreakers affecting beluga whales in the Beaufort Sea. *J. Acoust. Soc. Am.* 108: 1332-1340.
- Evans, D.L., and England, G.R. 2001. Joint interim report: Bahamas marine mammal stranding event of 15-16 March 2000. Washington, D.C.: U.S. Department of Commerce and Department of the Navy. 66pp.
- Evans, P.G.H., Carson, Q., Fisher, P., Jordan, W., Limer, R., and Rees, I. 1994. A study of the reactions of harbour porpoises to various boats in the coastal waters of S.E. Shetland. *Eur. Cetacean Soc. Newsletter* 21.
- Evans, P.G.H., and Miller, L.A. eds. 2004. Proceedings of the Workshop on Active Sonar and Cetaceans. Las Palmas, Gran Canaria, 8<sup>th</sup> March 2003, European Cetacean Society Newsletter, No. 42. Special Issue.
- Faerber, M.M., and Baird, R.W. 2010. Does a lack of observed beaked whale strandings in military exercise areas mean no impacts have occurred? A comparison of stranding

and detection probabilities in the Canary and main Hawaiian Islands. *Mar. Mamm. Sci.* 2010: \_\_\_-\_\_\_.

- Falcone, E.A., Schorr, G.S, Douglas, A.B., Calambokidis, J., Henderson, E., McKenna, M.F., Hildebrand, J., and Moretti, D. 2009. Sighting characteristics and photo-identification of Cuvier's beaked whales (*Ziphius cavirostris*) near San Clemente Island, California: a key area for beaked whales and the military? Springerlink.com with open access.
- Fay, R.R., Ahroon, W.A., and Orawski, A.T. 1978. Auditory masking patterns in the goldfish (*Carrassius auratus*): Psychophysical tuning curves. *J. Exp. Biol.* 74: 83-100.
- Fernández, A., Edwards, J.F., Rodríguez, F., Espinosa de los Monteros, A., Herráez, P., Castro, P., Jaber, J.R., Martín, V., and Arbelo, M. 2005. 'Gas and fat embolic syndrome' involving a mass stranding of beaked whales (family *Ziphiidae*) exposed to anthropogenic sonar signals. *Veterinary Pathology* 42: 446-57.
- Finneran, J.J., Schlundt, C.E., Carder, D.A., Clark, J.A., and Young, J.A., Gaspin, J.B., and Ridgway, S.H. 1999. Auditory and behavioral responses of bottlenose dolphins (*Tursiops truncatus*) and a beluga whale (*Delphinapterus leucas*) to impulsive sounds resembling distant signatures of underwater explosions. *J. Acoust. Soc. Am.* 108: 417-431.
- Finneran, J.J., Schlundt, C.E., Dear, R., Carder, D.A., and Ridgway, S.H. 2002. Temporary shift in masked hearing thresholds in odontocetes after exposure to single underwater impulses from a seismic watergun. *J. Acoust. Soc. Am.* 111: 2929-2940.
- Finneran, J.J., Dear, R., Carder, D.A., and Ridgway, S.H. 2003. Auditory and behavioral responses of California sea lions (*Zalophus californianus*) to single underwater impulses from an arc-gap transducer. *J. Acoust. Soc. Am.* 114: 1667-1677.
- Finneran, J.J., Carder, D.A., Schlundt, C.E., and Ridgway, S.H. 2005. Temporary threshold shift in bottlenose dolphins (*Tursiops truncatus*) exposed to mid-frequency tones. *J. Acoust. Soc. Am.* 118: 2696-2705.
- Foote, A.D., Osborne, R.W., and Rus Hoelzel, A. 2004. Whale-call response to masking boat noise. *Nature* 428: 910.
- Frantzis, A. 1998. Does acoustic testing strand whales? *Nature* 392: 29.
- Gedamke, J., Frydman, S., and Gales, N. 2008. Risk of baleen whale hearing loss from seismic surveys: Preliminary results from simulations accounting for uncertainty and individual variation. Paper SC/60/E9 presented to the IWC Scientific Committee,

- June 2008 (unpublished). 9 pp. [Available from the Office of the Journal of Cetacean Research and Management.]
- Gillespie, A. 2006. Establishing reliable foundations for the international scientific investigation of noise pollution in the oceans. *RECIEL* 15: 211-226.
- Gillespie, A. 2007. The precautionary principle in the twenty-first century: A case study of noise pollution in the ocean. *International J. of Mar. and Coastal Law* 22: 61-87.
- Gillespie, A. 2008. Environmental Impact Assessment in International Law. *RECIEL* 17: 221.
- Goodwin, L., and Cotton, P.A. 2004. Effects of boat traffic on the behavior of bottlenose dolphins (*Tursiops truncatus*). *Aq. Mammals* 30: 279-283.
- Guerra, A., and Gonzáles, A.F. 2006. Severe injuries in the giant squid *Architeuthis dux* stranded after seismic explorations. Pp. 32-38 in: *Impacts of Seismic Survey Activities on Whales and Other Marine Biota*, Dessau, September 6-7, 2006, Proceedings. Dessau, Germany: Federal Environment Agency [Germany].
- Hassel, A., Knutsen, T., Dalen, J., Skaar, K., Løkkeborg, S., Misund, O.A., Østensen, Ø., Fonn, M., and Haugland, E.K. 2004. Influence of seismic shooting on the lesser sandeel (*Ammodytes marinus*). *ICES J. of Mar. Sci.* 61: 1165-1173.
- Hastings, M.C., Popper, A.N., Finneran, J.J., and Lanford, P.J. 1996. Effects of low-frequency underwater sound on hair cells of the inner ear and lateral line of the teleost fish *Astronotus ocellatus*. *J. Acoust. Soc. Am.* 99: 1759-1765.
- Hatch, L.T., and Fristup, K.M. 2009. No barrier at the boundaries: Implementing regional frameworks for noise management in protected natural areas. *Mar. Ecol. Prog. Ser.* 395: 223-244.
- Hildebrand, J. 2006. Impacts of anthropogenic sound. Pages 101-123 in: Ragen, T.J., Reynolds III, J.E., Perrin, W.F., Reeves, R.R., and Montgomery, S. 2006. *Marine Mammal Research: Conservation beyond Crisis*. Baltimore: Johns Hopkins.
- Hildebrand, J.A. 2009. Anthropogenic and natural sources of ambient noise in the ocean. *Mar. Ecol. Prog. Ser.* 395: 5-20.
- Hohn, A.A., Rotstein, D.S., Harms, C.A., and Southall, B.L. 2006. Report on Marine Mammal Unusual Mortality Event UMESE 0501Sp: Multispecies mass stranding of pilot whales (*Globicephala macrorhynchus*), minke whale (*Balaenoptera*

- acutorostrata), and dwarf sperm whales (*Kogia sima*) in North Carolina on 15-16 January 2005. Silver Spring: National Marine Fisheries Service. 230 pp.
- Holt, M.M., Noren, D.P., Veirs, V., Emmons, C.K., and Viers, S. 2009. Speaking up: Killer whales (*Orcinus orca*) increase their call amplitude in response to vessel noise. *J. Acoust. Soc. Am.* 125: EL27-32.
- Hooker, S.K., Baird, R.W., and Fahlman, A. 2009. Could beaked whales get the bends? Effect of diving behavior and physiology on modelled gas exchange for three species: *Ziphius cavirostris*, *Mesoplodon densirostris*, and *Hyperoodon ampullatus*. *Respiratory Phys. & Neurobio.* 167: 235-246.
- Houser, D.S., Howard, R., and Ridgway, S. 2001. Can diving-induced tissue nitrogen supersaturation increase the chance of acoustically driven bubble growth in marine mammals? *J. of Theor. Bio.* 213: 183-195.
- Independent Scientific Review Panel (ISRP). 2005. Impacts of Sakhalin II Phase 2 on western North Pacific gray whales and related biodiversity. Gland: IUCN-World Conservation Union. 129 pp.
- International Whaling Commission Scientific Committee (IWC/SC). 2004. Annex K of the 2004 Scientific Committee Report: Report of the Standing Working Group on Environmental Concerns. Annual IWC meeting, Sorrento, Italy, 29 June – 10 July 2004. 56 pp.
- International Whaling Commission Scientific Committee (IWC/SC). 2006. Report and Annex K of the 2006 Scientific Committee Report: Report of the Standing Working Group on Environmental Concerns. Annual IWC meeting, St. Kitts and Nevis, 1-13 June 2006. 73 pp.
- Jarvis, S., DiMarzio, N., Morrissey, R., and Morretti, D. 2006. Automated classification of beaked whales and other small odontocetes in the Tongue of the Ocean, Bahamas. Proceedings of the MTS/IEEE Oceans 2006 Conference and Exhibition. 6 pp.
- Jefferson, T.A., Hung, S.K., and Würsig, B. 2009. Protecting small cetaceans from coastal development: Impact assessment and mitigation experience in Hong Kong. *Mar. Pol.* 33: 305-311.
- Jensen, F.H., Bejder, L., Wahlberg, M., Soto, N.A., Johnson, M., and Madsen, P.T. 2009. Vessel noise effects on delphinid communication. *Mar. Ecol. Prog. Ser.* 2009: 161-175.
- Jepson, P.D., Arbelo, M., Deaville, R., Patterson, I.A.P., Castro, P., Baker, J.R., Degollada, E., Ross, H.M., Herraiz, P., Pocknell, A.M., Rodriguez, F., Howie, F.E.,

- Espinosa, A., Reid, R.J., Jaber, J.R., Martin, V., Cunningham, A.A., and Fernandez, A. 2003. Gas-bubble lesions in stranded cetaceans. *Nature* 425: 575-576.
- Jepson, P.D., Deaville, R., Patterson, I.A.P., Pocknell, A.M., Ross, H.M., Baker, J.R., Howie, F.E., Reid, R.J., Colloff, A., and Cunningham, A.A. 2005. Acute and chronic gas bubble lesions in cetaceans stranded in the United Kingdom. *Vet. Pathol.* 42: 291-305.
- Jones, M.L., Swartz, S.L., and Dahlheim, M.E. 1994. Census of Gray Whale Abundance in San Ignacio Lagoon: A Follow-Up Study in Response to Low Whale Counts Recorded During an Acoustic Playback Study of Noise Effects on Gray Whales. Report to the U.S. Marine Mammal Commission, Washington, DC. NTIS PB94195062. 32 pp.
- Kastak, D., Schusterman, R.J., Southall, B.L., and Reichmuth, C.J. 1999. Underwater temporary threshold shift induced by octave-band noise in three species of pinniped. *J. Acoust. Soc. Am.* 106: 1142-1148.
- Kastak, D., Southall, B.L., Schusterman, R.J., and Kastak, C.R. 2005. Underwater temporary threshold shift in pinnipeds: Effects of noise level and duration. *J. Acoust. Soc. Am.* 118: 3154-3163.
- Kastak, D., Mulsow, J., Ghoul, A., Reichmuth, C. 2008. Noise-induced permanent threshold shift in a harbor seal [abstract] *J. Acoust. Soc. Am.* 123: 2986.
- Kastelein, R.A., de Haan, D., Vaughan, N., Staal, C., and Schooneman, N.M. 2001. The influence of three acoustic alarms on the behaviour of harbour porpoises (*Phocoena phocoena*) in a floating pen. *Mar. Environ. Res.* 52: 351-371.
- Kastelein, R.A., Jennings, N., Verboom, W.C., de Haan, D., Schooneman, N.M. 2006. Differences in the responses of a striped dolphin (*Stenella coeruleoalba*) and a harbour porpoise (*Phocoena phocoena*) to an acoustic alarm. *Mar. Environ. Res.* 61: 363-378.
- Kastelein, R.A., van der Heul, S., Verboom, W.C., Triesscheijn, R.J.V., and Jennings, N.V. 2006. The influence of underwater data transmission sounds on the displacement behaviour of captive harbour seals (*Phoca vitulina*). *Mar. Environ. Res.* 61: 19-39.
- Kastelein, R.A., Verboom, W.C., Muijsers, M., Jennings, N.V., van der Heul, S. 2005. The influence of acoustic emissions for underwater data transmission on the behavior of harbour porpoises (*Phocoena phocoena*) in a floating pen. *Mar. Environ. Res.* 59: 287-307.

- Knudsen, F.R., Enger, P.S., and Sand, O. 1992. Awareness reactions and avoidance responses to sound in juvenile Atlantic salmon, *Salmo salar* L. *J. of Fish Biology* 40: 523-534.
- Koschinski, S., Culik, B.M., Henriksen, O.D., Tregenza, N., Ellis, G., Jansen, C., and Kathe, G. 2003. Behavioural reactions of free-ranging porpoises and seals to the noise of a simulated 2 MW windpower generator. *Mar. Ecol. Prog. Ser.* 265: 263-273.
- Kostyuchenko, L.P. 1973. Effect of elastic waves generated in marine seismic prospecting on fish eggs on the Black Sea. *Hydrobiol. J.* 9: 45-48.
- Kujawa, S.G., and Liberman, M.C. 2009. Adding insult to injury: Cochlear nerve degeneration after “temporary” noise-induced hearing loss. *J. of Neurosci.* 29: 14077-14085.
- Kvadsheim, P., Benders, F., Miller, P., Doksaeter, L., Knudsen, F., Tyack, P., Nordlund, N., Lam, F.-P., Samarra, F., Kleivane, L., and Godø, O.R. 2007. Herring (sild), killer whales (spekkhogger) and sonar – the 3S-2006 cruise report with preliminary results. Norway: Norwegian Defence Research Establishment. 79 pp.
- Lagardère, J.-P. 1982. Effects of noise on growth and reproduction of Crangon crangon in rearing tanks. *Mar. Biol.* 71: 177-185.
- Lemon, M., Lynch, T.P., Cato, D.H., and Harcourt, R.G. 2006. Response of travelling bottlenose dolphins (*Tursiops aduncus*) to experimental approaches by a powerboat in Jervis Bay, New South Wales, Australia. *Bio. Conserv.* 127: 363-372.
- Lesage, V., Barrette, C., Kingsley, M.C.S., and Sjare, B. 1999. The effect of vessel noise on the vocal behavior of belugas in the St. Lawrence River estuary, Canada. *Mar. Mamm. Sci.* 15: 65-84.
- Ljungblad, D.K., Würsig, B., Swartz, S.L., and Keene, J.M. 1988. Observations on the behavioral responses of bowhead whales (*Balaena mysticetus*) to active geophysical vessels in the Alaskan Beaufort Sea. *Arctic* 41(3): 183-194.
- Løkkeborg, S. 1991. Effects of a geophysical survey on catching success in longline fishing. *ICES (CM) B*: 40.
- Lucke, K., Siebert, U., Lepper, P.A., and 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: 4060-4070.
- Lusseau, D. 2004. The hidden cost of tourism: Detecting long-term effects of tourism using behavioral information. *Ecol. & Soc.* 9: 2.

- Lusseau, D. 2005. Residency pattern of bottlenose dolphins *Tursiops* spp. in Milford Sound, New Zealand, is related to boat traffic. *Mar. Ecol. Prog. Ser.* 295: 265-272.
- Lusseau, D., Bain, D.E., Williams, R., and Smith, J.C. 2009. Vessel traffic disrupts the foraging behavior of southern resident killer whales *Orcinus orca*. *Endang. Species Res.* 6: 211-221.
- Lusseau, D., Lusseau, S.M., Bejder, L., and Williams, R. 2006. An individual-based model to infer the impact of whalewatching on cetacean population dynamics. Paper SC/58/WW7 presented to the IWC Scientific Committee, June 2006 (unpublished). 19 pp. [Available from the Office of the Journal of Cetacean Research and Management.]
- Lusseau, D., Slooten, L., and Currey, R.J.C. 2006. Unsustainable dolphin-watching tourism in Fiordland, New Zealand. *Tourism Mar. Environ.* 3: 173-178.
- Luttbegg, B., and Kerby, J.L. 2005. Are scared prey as good as dead? *TRENDS Ecol. Evol.* 20(8): 416-418.
- MacLeod, C.D., Perrin, W.F., Pitman, R., Barlow, J., Ballance, L., D'Amico, A., Gerrodette, T., Joyce, G., Mullin, K.D., Palka, D.L., and Waring, G.T. 2006. Known and inferred distributions of beaked whale species (Cetacea: Ziphiidae). *J. Cetacean Res. Manage.* 7: 271-286.
- Madsen, P.T. 2005. Marine mammals and noise: Problems with root mean square sound pressure levels for transients. *J. Acoust. Soc. Am.* 117: 3952-3957.
- Madsen, P.T., Johnson, M., Miller, P.J.O., Soto, N.A., Lynch, J., and Tyack, P. 2006. Quantitative measures of air-gun 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., and Tyack, P. 2006. Wind turbine underwater noise and marine mammals: Implications of current knowledge and data needs. *Mar. Ecol. Prog. Ser.* 309: 279-295.
- Malme, C.I., Miles, P.R., Clark, C.W., Tyack, P., and Bird, J.E. 1984. Investigations of the potential effects of underwater noise from petroleum industry activities on migrating gray whale behavior. Phase II: January 1984 migration. Report of Bolt Beranek & Newman, Inc., Cambridge, MA, to U.S. Minerals Management Service, Anchorage, AK. NTIS PB86-218377.
- McCauley, R.D., Fewtrell, J., Duncan, A.J., Jenner, C., Jenner, M.-N., Penrose, J.D., Prince, R.I.T., Adhitya, A., Murdoch, J., McCabe K. 2000. Marine seismic surveys:

Analysis and propagation of air-gun signals; and effects of air-gun exposure on humpback whales, sea turtles, fishes and squid. Western Australia: Curtin University of Technology. 203 pp.

McCauley R.D., Fewtrell, J., and Popper, A.N. 2003. High intensity anthropogenic sound damages fish ears. *J. Acoust. Soc. Am.* 113: 638-642.

McDonald, M.A., Hildebrand, J.A., and 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.

Miksis-Olds, J.L., Donaghay, P.L., Miller, J.H., Tyack, P.L., and Nystuen, J.A. 2007. Noise level correlates with manatee use of foraging habitats. *J. Acoust. Soc. Am.* 121: 3011-3020

Miksis-Olds, J.L., and Miller, J.H. 2006. Transmission loss in manatee habitats. *J. Acoust. Soc. Am.* 120: 2320-2327.

Miller, P.J.O., Biasson, N., Samuels, A., and Tyack, P.L. 2000. Whale songs lengthen in response to sonar. *Nature* 405: 903.

Moore, M.J., and Early, G.A. 2004. Cumulative sperm whale bone damage and the bends. *Science* 306: 2215.

Moore, M.J., Bogomolni, A.L., Dennison, S.E., Early, G., Garner, M.M., Hayward, B.A., Lentell, B.J., AND Rotstein, D.S. 2009. Gas Bubbles in Seals, Dolphins, and Porpoises Entangled and Drowned at Depth in Gillnets, *Vet Pathol* 46:536-547

Morton, A.B., and Symonds, H.K. 2001. Displacement of *Orcinus orca* (L.) by high amplitude sound in British Columbia. *ICES J. Mar. Sci.* 59: 71-80.

Nachtigall, P.E., Pawloski, J.L., and Au, W.W.L. 2003. Temporary threshold shifts and recovery following noise exposure in the Atlantic bottlenosed dolphin (*Tursiops truncatus*). *J. Acoust. Soc. Am.* 113: 3425-3429.

NMFS. 2005. Assessment of acoustic exposures on marine mammals in conjunction with USS Shoup active sonar transmissions in the eastern Strait of Juan de Fuca and Haro Strait, Washington, 5 May 2003. Silver Spring: NMFS. 13 pp.

National Research Council (NRC). 2000. Marine Mammals and Low-Frequency Sound. Washington: National Academy Press. 146 pp.

National Research Council (NRC). 2003. Ocean Noise and Marine Mammals. Washington: National Academy Press. 204 pp.

- National Research Council (NRC). 2005. *Marine Mammal Populations and Ocean Noise: Determining When Noise Causes Biologically Significant Effects*. Washington: National Academy Press. 96 pp.
- Nieukirk, S.L., K.M. Stafford, D.K. Mellinger, R.P. Dziak, C.G. Fox, C.G. 2004. Low-frequency whale and seismic airgun sounds recorded in the mid-Atlantic Ocean. *J. Acoust. Soc. Am.* 115(4): 1832-1843.
- Noren, D.P., Johnson, A.H., Rehder, D., and Larson, A. 2009. Close approaches by vessels elicit surface active behaviors by southern resident killer whales. *Endangered Species Res.* 8: 179-192.
- Nowacek, D.P., Johnson, M.P., and Tyack, P.L. 2004. Right whales ignore ships but respond to alarm stimuli. *Proc. Royal Soc. London, Pt. B: Biol. Sci.* 271: 227-231.
- Nowacek, D.P., Thorne, L.H., Johnston, D.W., and Tyack, P.L. 2007. Responses of cetaceans to anthropogenic noise. *Mammal Rev.* 37: 81-115.
- Olesiuk, P.F., Nichol, L.M., Sowden, M.J., and Ford, J.K.B. 2002. Effect of the sound generated by an acoustic harassment device on the relative abundance and distribution of harbor porpoises (*Phocoena phocoena*) in Retreat Passage, British Columbia. *Mar. Mamm. Sci.* 18: 843-862.
- Parente, C.L., de Araújo, J.P., and de Araújo, M.E. 2007. Diversity of cetaceans as tool in monitoring environmental impacts of seismic surveys. *Biota Neotropica* 7.
- Parks, S.E., Clark, C.W., and Tyack, P.L. 2007. Short- and long-term changes in right whale calling behavior: The potential effects of noise on acoustic communication. *J. Acoust. Soc. Am.* 122: 3725-3731.
- Parsons, E.C.M., Birks, I., Evans, P.G.H., Gordon, J.C.D., Shrimpton, J.H., and Pooley, S. 2000. The possible impacts of military activity on cetaceans in West Scotland. *Eur. Res. Cetaceans* 14: 185-190.
- Parsons, E.C.M., Dolman, S.J., Wright, A.J., Rose, N.A., and Burns, W.C.G. 2008. Navy sonar and cetaceans: Just how much does the gun to smoke before we act? *Mar. Poll. Bull.* 56: 1248-1257.
- Parsons, E.C.M., Dolman, S.J., Jasny, M., Rose, N.A., Simmonds, M.P., and Wright, A.J. 2009. A critique of the UK's JNCC seismic survey guideline for minimizing acoustic disturbance to marine mammals: Best practice? *Mar. Poll. Bull.* 58: 643-651.

- Pearson, W.H., Skalski, J.R., and Malme, C.I. 1992. Effects of sounds from a geophysical survey device on behavior of captive rockfish (*Sebastes* spp.). *Can. J. Fish. Aquat. Sci.* 49: 1343-1356.
- Popper, A.N. 2003. The effects of anthropogenic sounds on fishes. *Fisheries* 28(10): 24-31.
- Potter, J.R. 2004. A possible mechanism for acoustic triggering of decompression sickness symptoms. Pages 365-371 in: *Proceedings of the 2004 International Symposium on Underwater Technology*.
- Régnault, M.R., and Lagardère, J.-P. 1983. Effects of ambient noise on the metabolic level of *Crangon crangon* (Decapoda, Nanantia). *Mar. Ecol. Prog. Ser.* 11: 71-78.
- Rendell, L.E., and Gordon, J.C.D. 1999. Vocal responses of long-finned pilot whales (*Globicephala melas*) to military sonar in the Ligurian Sea. *Mar. Mammal Sci.* 15: 198-204.
- Richardson, W.J., Greene, C.R., Jr., Malme, C.I., and Thomson, D.H. 1995. *Marine Mammals and Noise*. New York: Academic Press. 576 pp.
- Richardson, W.J., Miller, G.W., and Greene, C.R. 1999. Displacement of migrating bowhead whales by sounds from seismic surveys in shallow waters of the Beaufort Sea [abstract]. *J. Acoust. Soc. Am.* 106: 2281.
- Richardson, W.J., and Würsig, B. 1997. Influences of man-made noise and other human actions on cetacean behaviour. *Mar. Fresh. Behav. Physiol.* 29: 183-209.
- Ridgway, S.H., and Howard, R. 1979. Dolphin lung collapse and intramuscular circulation during deep diving: Evidence from nitrogen washout. *Science* 206: 1182-83.
- Romano, T.A., Keogh, M.J., Kelly, C., Feng, P., Berk, L., Schlundt, C.E., Carder, D.A., and Finneran, J.J. 2004. Anthropogenic sound and marine mammal health: Measures of the nervous and immune systems before and after intense sound exposure. *Can. J. Fish. Aq. Sci.* 61: 1124-1134.
- Rommel, S.A., Costidis, A.M., Fernández, A., P.D. Jepson, D.A. Pabst, W.A. McLellan, D.S. Houser, T.W. Cranford, A.L. van Helden, D.M. Allen, and N.B. Barros. 2006. Elements of beaked whale anatomy and diving physiology and some hypothetical causes of sonar-related stranding. *J. Cetacean Res. Manage.* 7: 189-209.

- Roussel, E. 2002. Disturbance to Mediterranean cetaceans caused by noise. In: di Sciara, G.N. ed., *Cetaceans of the Mediterranean and Black Seas: State of knowledge and conservation strategies. A report to the ACCOBAMS Secretariat*. Monaco: ACCOBAMS.
- SACLANT Undersea Research Centre. 1998. Summary Record, SACLANTCEN Bioacoustics Panel, La Spezia, Italy, 15-17 June 1998; Summary Record, SACLANTCEN Marine Mammal Environmental and Mitigation Procedures Panel, La Spezia, Italy 17-19 June 1998; SACLANTCEN Human Diver and Marine Mammal Environmental Policy and SACLANTCEN Human Diver and Marine Mammal Risk Mitigation Rules. La Spezia, It.: SACLANTCEN Undersea Research Centre. 211pp.
- Santulli, A., Modica, A., Messina, C., Ceffa, L., Curatolo, A., Rivas, G., Fabi, G., and D'amelio, V. 1999. Biochemical responses of European sea bass (*Dicentrarchus labrax* L.) to the stress induced by off shore experimental seismic prospecting. *Mar. Poll. Bull.* 38: 1105-1114.
- Sarà, G., Dean, J.M., D'Amato, D., Buscaino, G., Oliveri, A., Genovese, S., Ferro, S., Buffa, G., Lo Martire, M., and Mazzola, S. 2007. Effect of boat noise on the behaviour of bluefin tuna *Thunnus thynnus* in the Mediterranean Sea. *Mar. Ecol. Prog. Ser.* 331: 243-253.
- Schick, R.S., and Urban, D.L. 2000. Spatial components of bowhead whale (*Balaena mysticetus*) distribution in the Alaskan Beaufort Sea. *Can. J. Fish. Aquat. Sci.* 57: 2193-2200.
- Schlundt, C.E., Finneran, J.J., Carder, D.A., and Ridgway, S.H. 2000. Temporary shift in masked hearing thresholds of bottlenose dolphins, *Tursiops truncatus*, and white whales, *Delphinapterus leucas*, after exposure to intense tones. *J. Acoust. Soc. Am.* 107: 3496-3508.
- Scholik, A.R. and Yan, H.Y. 2002a. Effects of boat engine noise on the auditory sensitivity of the fathead minnow, *Pimephales promelas*. *Environ. Biol. Fish.* 63: 203-209.
- Scholik, A.R., and Yan, H.Y. 2002b. The effects of noise on the auditory sensitivity of the bluegill sunfish, *Lepomis macrochirus*. *Comp. Biochem. and Physiol. Part A* 133: 43-52.
- Scott, K.N. 2007. Sound and cetaceans: A regional response to regulating acoustic marine pollution. *J. of International Law and Pol.* 10: 175-199.

- Shapiro, A.D., Tougaard, J., Jørgensen, P.B., Kyhn, L.A., Balle, J.D., Bernardez, C., Fjälling, A., Karlsen, J., and Wahlberg, M. 2009. Transmission loss patterns from acoustic harassment and deterrent devices do not always follow geometrical spreading predictions. *Mar. Mamm. Sci.* 25: 53-67.
- Simmonds, M., Dolman, S., and Weilgart, L. (eds.). 2004. *Oceans of Noise 2004: A WDCS Science Report*. Chippenham, UK: WDCS.
- Simmonds, M.P., and Lopez-Jurado, L.F. 1991. Whales and the military. *Nature* 351: 448.
- Simpson, S.D., Meehan, M., Montgomery, J., McCauley, R., and Jeffs, A. 2005. Homeward sound. *Science* 308: 221.
- Skalski, J.R., Pearson, W.H., and 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.
- Slotte, A., Hansen, K., Dalen, J., and One, 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., and Popper, A.N. 2004. Noise-induced stress response and hearing loss in goldfish *Carassius auratus*. *J. Exp. Biol.* 207: 427-435.
- Soto, N.A., Johnson, M., Madsen, P.T., Tyack, P.L., Bocconcelli, A., and Borsani, J.F. 2006. Does intense ship noise disrupt foraging in deep-diving Cuvier's beaked whales (*Ziphius cavirostris*)? *Mar. Mamm. Sci.* 22: 690-699.
- Southall, B.L. 2005. Final Report of the National Oceanic and Atmospheric Administration (NOAA) International Symposium: 'Shipping Noise and Marine Mammals: A Forum for Science, Management, and Technology,' 18-19 May 2004, Arlington, Virginia, U.S.A. Silver Spring: NMFS. 40 pp.
- Southall, B.L., Braun, R., Gulland, F.M.D., Heard, A.D., Baird, R.W., Wilkin, S.M., and Rowles, T.K. 2006. Hawaiian melon-headed whale (*Peponocephala electra*) mass stranding event of July 3-4, 2004. Silver Spring: National Marine Fisheries Service. 78 pp.
- Southall, B.L., and Scholik-Schlomer, A. 2008. Final report of the NOAA International Conference: 'Potential Application of Vessel-Quieting Technology on Large Commercial Vessels,' 1-2 May 2007, Silver Spring, Maryland, U.S.A. Silver Spring: NMFS. 47 pp.

- Southall, B.L., Schusterman, R.J., Kastak, D., and Kastak, C.R. 2005. Reliability of underwater hearing thresholds in pinnipeds. *Acoustics Res. Letters Online* 6: 243-249.
- Stone, C.J., and Tasker, M.L. 2006. The effects of seismic airguns on cetaceans in UK waters. *J. Cetacean Res. Manage.* 8: 255-263.
- Talpalar, A.E., and Grossman, Y. 2005. Sonar versus whales: Noise may disrupt neural activity in deep-diving cetaceans. *UHM* 32: 135-139.
- Taylor, B.L., Barlow, J., Pitman, R., Ballance, L., Klinger, T., DeMaster, D., Hildebrand, J., Urban, J., Palacios, D., and Mead, J. 2004. A call for research to assess risk of acoustic impact on beaked whale populations. Paper SC/56/E36 presented to the International Whaling Commission Scientific Committee, June 2004 (unpublished). 4 pp. [Available from the Office of the Journal of Cetacean Research and Management.]
- Tiemann, C.O., Martin, S.W., and Mobley, J.R., Jr. 2006. Aerial and acoustic marine mammal detection and localization on Navy ranges. *IEEE J. of Oceanic Engineering* 31: 107-119.
- Todd, S., Stevick, P., Lien, J., Marques, F., and 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, D.R., Chapp, E., Holmes, R.C., and Rawson, M. 2004. Broadband calibration of R/V *Ewing* seismic sources. *Geophysical Res. Letters* 31: L14310.
- Truett, A.A. 2007. Ecological risk to cetaceans from anthropogenic ocean sound: Characterization analysis using a professional judgment approach to uncertainty. Ph.D. dissertation, University of Maryland, College Park, Maryland.
- Turnpenny, A.W.H., Thatcher, K.P., and Nedwell, J.R. 1994. The effects on fish and other marine animals of high-level underwater sound. Report prepared for UK Defense Research Agency FRR1 27/94, Fawley Aquatic Research Laboratories, Ltd., Southampton, U.K. 78 pp.
- 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 sound. *Mar. Ecol. Prog. Ser.* 395: 187-200.

- Tyack, P.L., and Clark, C.W. 2000. Communication and acoustic behavior of dolphins and whales. Pages 156-224 in: W. Au, A.N. Popper, and R. Fay (eds.). *Hearing by Whales and Dolphins*. Springer Handbook of Auditory Research Series. New York: Springer Verlag.
- Van Dyke, J.M., Gardner, E.A., and Morgan, J.R. 2004. Whales, submarines, and active sonar. *Ocean Yearbook* 18: 330-363.
- Wang, J.Y., and Yang, S.-C. 2006. Unusual cetacean stranding events of Taiwan in 2004 and 2005. *J. Cetacean Res. Manage.* 8: 283-292.
- Watkins, W.A., Moore, K.E., and Tyack, P. 1985. Sperm whale acoustic behaviors in the southeast Caribbean. *Cetology* 49: 1-15.
- Weir, C.R., and 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.
- Williams, R., Bain, D.E., Ford, J.K.B., and Trites, A.W. 2002a. Behavioural responses of male killer whales to a "leapfrogging" vessel. *J. Cetacean Res. Manage.* 4: 305-310.
- Williams, R., Bain, D.E., and Trites, A. 2002b. Behavioural responses of killer whales (*Orcinus orca*) to whale-watching boats: Opportunistic observations and experimental approaches. *J. Zool. (London)* 256: 255-270.
- Williams, R., Lusseau, D., and Hammond, P.S. 2006. Estimating relative energetic costs of human disturbance to killer whales (*Orcinus orca*). *Biol. Conserv.* 133: 301-311.
- Wimmer, T., and Whitehead, H. 2004. Movements and distribution of northern bottlenose whales, *Hyperoodon ampullatus*, on the Scotian Slope and in adjacent waters. *Can. J. Zool.* 82: 1782.
- Wright, A.J. ed. 2008. International workshop on shipping noise and marine mammals. Proceedings of workshop held by Okeanos-Foundation for the Sea, Hamburg, Germany, 21-24 April 2008. Darmstadt: Okeanos-Foundation for the Sea.
- Wright, A.J., and Highfill, L. eds. 2007. Considerations of the effects of noise on marine mammals and other animals. *International J. of Comp. Psychology* 20: 89-316.
- Wright, A.J., Rose, N.A., Parsons, E.C.M., and Dolman, S.J. 2009. Urging cautious policy applications of captive research data is not the same as rejecting those data. *Mar. Poll. Bull.* 58: 314-316.

- Wysocki, L.E., Dittami, J.P., and 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, P.-H., Chiou, H.-I., Yao, C.-J., Yamada, T.K., Chiu, J.-T., 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., and Tyack, P.L. 2007. Repetitive shallow dives pose decompression risk in deep-diving beaked whales. *Mar. Mamm. Sci.* 23: 888-925.