

List of peer-reviewed scientific studies on the
impacts of ocean noise on marine living resources
submitted by the United States, pursuant to paragraph 107 of
General Assembly resolution 61/222 of 20 December 2006

Key Articles

Bejder, L., A. Samuels, H. Whitehead, and N. Gales. 2006. Interpreting short-term behavioural responses to disturbance within a longitudinal perspective. *Animal Behavior* 72: 1149-1158.

Cox, T.M., T.J. Ragen, A.J. Read, E. Vos, R.W. Baird, K. Balcomb, J. Barlow, J. Caldwell, T. Cranford, L. Crum, A. D'Amico, G. D'Spain, A. Fernández, J.R. Finneran, R. Gentry, W. Gerth, F. Gulland, J. Hildebrand, D. Houser, T. Hullar, P.D. Jepson, D. Ketten, C.D. MacLeod, P. Miller, S. Moore, D.C. Mountain, D. Palka, P. Ponganis, S. Rommel, T. Rowles, B. Taylor, P. Tyack, D. Wartzok, R. Gisiner, J. Mead, and L. Benner. 2006. Understanding the impacts of anthropogenic sound on beaked whales. *Journal of Cetacean Research and Management* 7: 177-187.

Cranford, T.W., M. McKenna, M. Soldevilla, S.M. Wiggins, J. Goldbogen, R. Shadwick, P. Krysl, J. St. Leger, and J. A. Hildebrand. (in press). Anatomic geometry of sound transmission and reception in Cuvier's beaked whale (*Ziphius cavirostris*). *The Anatomical Record*.

Fernandez, A., J.F. Edwards, F. Rodriguez, A. Espinosa de los Monteros, P. Herraiez, P. Castro, J.R. Jaber, V. Martin, and M. Arbelo. 2005. "Gas and Fat Embolic Syndrome" involving a mass stranding of beaked whales (Family Ziphiidae) exposed to anthropogenic sonar signals. *Vet Pathol* 42:446-457.

Finneran, J.J. 2003. Whole-lung resonance in a bottlenose dolphin (*Tursiops truncatus*) and white whale (*Delphinapterus leucas*). *Journal of the Acoustical Society of America* 114, 529-535.

Finneran, J.J., D.A. Carder, C.E. Schlundt, and S.H. Ridgway. 2005. Temporary threshold shift (TTS) in bottlenose dolphins (*Tursiops truncatus*) exposed to mid-frequency tones.

Kastak, D., B.L. Southall, R.J. Schusterman, and C.R. Kastak. 2005. Underwater Temporary Threshold Shift in Pinnipeds: Effects of Noise Level and Duration. *Journal of Acoustical Society of America* 118: 3154–3163.

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.

McDonald, M.A., J.A. Hildebrand, and S.M. Wiggins. 2006. Increases in deep ocean ambient noise in the Northeast Pacific west of San Nicolas Island, California. *Journal of the Acoustical Society of America* 120(2): 711-718.

Moore, S.E., K.M. Stafford, D.K. Mellinger, and J.A. Hildebrand. 2006. Listening for large whales in the offshore waters of Alaska. *Bioscience* 56(1): 49-56.

Natchigall, P. E., A.Y. Supin, and J. Pawlowski. 2004. Temporary threshold shifts after noise exposure in the bottlenose dolphin (*Tursiops truncatus*) measured using evoked auditory potentials. *Marine Mammal Science*

Additional Articles

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(4): 2247-2257.

Cook, M.L.H., R.A. Varela, J.D. Goldstein, S.D. McCulloch, G.D. Bossart, J.J. Finneran, D. Houser, and D.A. Mann. 2006. Beaked whale auditory evoked potential hearing measurements. *J. Comp. Physiol.* 192: 489-495.

Costa, D.P., D.E. Crocker, J. Gedamke, P.M. Webb, D.S. Houser, S.B. Blackwell, D. Waples, S.A. Hayes, B.J. Le Boeuf. 2003. The effect of a low-frequency sound source (acoustic thermometry of the ocean climate) on the diving behavior of juvenile northern fur seals (*Mirounga angustirostris*). *Journal of the Acoustical Society of America*, 113(2): 1155-1165.

Erbe, C. 2002. Underwater noise of whale-watching boats and potential effects on killer whales (*Orcinus orca*), based on an acoustic impact model. *Marine Mammal Science* 18(2): 394-418.

Erbe, C. and D.M. Farmer. 2000. A software model to estimate zones of impact on marine mammals around anthropogenic noise. *Journal of the Acoustical Society of America*. 108(3): 1327-1331.

Finneran, J.J., D.A. Carder, and S.H. Ridgway. 2002. Low-frequency acoustic pressure, velocity, and intensity thresholds in a bottlenose dolphin (*Tursiops truncatus*) and white whale (*Delphinapterus leucas*). *Journal of the Acoustical Society of America* 111: 447-456.

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.

Finneran, J. J., R. Dear, D.A. Carder, T. Belting, J. McBain, L. Dalton, and S.H. Ridgway. 2005. Pure tone audiograms and possible aminoglycoside-induced hearing loss in belugas (*Delphinapterus leucas*). *Journal of the Acoustical Society of America* 117: 3936-3943.

Finneran, J. J. and D.S. Houser. 2007. Bottlenose dolphin (*Tursiops truncatus*) steady-state evoked responses to multiple simultaneous sinusoidal amplitude modulated tones. *Journal of the Acoustical Society of America*. 121: 1775-1782.

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Finneran, J. J., D.S. Houser, and C.E. Schlundt. 2007. Objective detection of bottlenose dolphin (*Tursiops truncatus*) steady-state auditory evoked potentials in response to AM/FM tones. *Aquat. Mammals* 33: 43-54.

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Nachtigall, P.E., T.A. Mooney, K.A. Taylor, and M.L. Yuen. 2007. Hearing and auditory evoked potential methods applied to Odontocete Cetaceans. *Aquatic Mammals* 33 (1): 6-13.

Olesiuk, P.F., L.M. Nichol, M.J. Sowden, and J.K.B. Ford. 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. *Marine Mammal Science* 18 (4): 843–862.

Popper, A.N. M.B. Halvorsen, A. Kane., D.L. Miller, M.E. Smith, J. Song, P. Stein, and L.E. Wysocki. 2007. The effects of high-intensity, low-frequency active sonar on rainbow trout. *Journal of the Acoustical Society of America* 122(1): 623-635.

Schlundt, C.E., R.L. Dear, L. Green, D.S. Houser, and J.J. Finneran. 2007. Simultaneously measured behavioral and electrophysiological hearing thresholds in a bottlenose dolphin (*Tursiops truncatus*). *Journal of the Acoustical Society of America* 122: 615-622.

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.

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Sindlinger, L.R., D.C. Biggs, and S.F. DiMarco. 2004. Temporal and spatial variability of ADCP backscatter on a continental slope. *Continental Shelf Research* 25: 259-275.

Smith, M.E., A.S. Kane, and A.E. Popper. 2004. Noise-induced stress response and hearing loss in goldfish (*Carassius auratus*). *J Exp Bio* 207:427-435.

Stafford, K.M., S.E. Moore, M. Spillane, and S. Wiggins. 2007. Gray whale calls recorded near Barrow, Alaska, throughout the winter of 2003– 04. *Arctic* 60(2): 167-172.

Taylor, K.A., P.E. Nachtigall, T.A. Mooney, A. Supin, and M.L. Yuen. 2007. A portable system for the evaluation of the auditory capabilities of marine mammals. *Aquatic Mammals* 33: 93-99.

Thode, A. 2005. Three-dimensional passive acoustic tracking of sperm whales (*Physeter macrocephalus*) in ray-refracting environments. *Journal of the Acoustical Society of America* 118(6): 3575-3584.

Wartzok, D., A.N. Popper, J. Gordon, and J. Merrill. 2003/2004. Factors affecting the responses of marine mammals to acoustic disturbance. *Marine Technology Society Journal* 37(4): 4-13.

Watwood, S.L., P.J.O. Miller, M. Johnson, P.T. Madsen, and P.L. Tyack. 2006. Deep-diving foraging behaviour of sperm whales (*Physeter macrocephalus*). *J. Animal Ecology* 75: 814-825.

Williams, T.M., and M. Zavanelli (in press) Natural neuroprotection in the brains of marine mammals: Why swimming dolphins don't stroke. *Integrative and Comparative Biology*.

Yuen, M.E., P.E. Nachtigall, and A. Ya Supin and M. Breese 2005. Behavioral and auditory evoked potential audiograms of a false killer whale (*Pseudorca crassidens*). *Journal of the Acoustical Society of America* 118 (4): 2688-2695.

Zimmer, W.M.X., and P.L. Tyack. 2007. Repetitive shallow dives pose decompression risk in deep-diving beaked whales. *Marine Mammal Science* 23(4): 888-925.

Journal Issues

- Marine Technology Society Journal, volume 37(4) from 2003/2004
- IEEE Journal of Ocean Engineering, volume 31 from 2006