

### Port of Alaska SFD IHA References

- 61 North Environmental. 2021. Petroleum and Cement Terminal Construction Marine Mammal Monitoring Final Report. Prepared for Pacific Pile and Marine, Port of Alaska, and NMFS. Prepared February 2021.
- ABR, Inc. 2017. Protected Species Monitoring Report, 2017 Ship Creek Boat Launch Repairs Project, Anchorage, Alaska. Prepared for R&M Consultants and Port of Anchorage. 06 November 2017.
- 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.
- ANSI (American National Standards Institute). 2005. Measurement of Sound Pressure Levels in Air (ANSI S1.13-2005). New York: Acoustical Society of America.
- Atkinson, S., D. P. DeMaster, and D. G. Calkins. 2008. Anthropogenic causes of the western Steller sea lion *Eumetopias jubatus* population decline and their threat to recovery. *Mammal Rev.* 38(1):1-18.
- 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.
- Austin, M., S. Denes, J. MacDonnell, and G. Warner. 2016. Hydroacoustic Monitoring Report, Anchorage Port Modernization Project Test Pile Program. Prepared by JASCO under contract of Kiewit Infrastructure West Co. for the Port of Anchorage.
- Baird, R. W., and P. J. Stacey. 1988. Variation in saddle patch pigmentation in populations of killer whales (*Orcinus orca*) from British Columbia, Alaska, and Washington State. *Can. J. Zool.* 66 (11):2582-2585.
- Baird, R. W., P. A. Abrams, and L. M. Dill. 1992. Possible indirect interactions between transient and resident killer whales: implications for the evolution of foraging specializations in the genus *Orcinus*. *Oecologia* 89:125-132.
- Baker, C. S., L. M. Herman, A. Perry, W. S. Lawton, J. M. Straley, A. A. Wolman, G. D. Kaufman, H. E. Winn, J. D. Hall, J. M. Reinke, and J. Ostman. 1986. Migratory movement

and population structure of humpback whales (*Megaptera novaeangliae*) in the central and eastern North Pacific. *Mar. Ecol. Prog. Ser.* 31:105-119.

Baker, C. S., L. Medrano-Gonzalez, J. Calambokidis, A. Perry, F. Pichler, H. Rosenbaum, J. M. Straley, J. Urban-Ramirez, M. Yamaguchi, and O. von Ziegeler. 1998. Population structure of nuclear and mitochondrial DNA variation among humpback whales in the North Pacific. *Mol. Ecol.* 7:695-707.

Barber, J. R., K. R. Crooks and K. M. Fristrup. 2010. The costs of chronic noise exposure for terrestrial organisms. *Trends in ecology & evolution*, 25(3), pp.180-189.

Barlow, J. 1995. The abundance of cetaceans in California waters. Part I: Ship surveys in summer and fall of 1991. *Fish. Bull.*, U.S. 93:1-14.

Barlow, J. 1997. Preliminary estimates of cetacean abundance off California, Oregon and Washington based on a 1996 ship survey and comparisons of passing and closing modes. Southwest Fisheries Science Center Administrative Report LJ-97-11, 25 p. Available from SWFSC, NMFS, 8901 La Jolla Shores Drive, La Jolla, CA 92037. 25 p.

Barrett-Lennard, L. G. 2000. Population structure and mating patterns of killer whales (*Orcinus orca*) as revealed by DNA analysis. Ph.D. Dissertation, University of British Columbia, Vancouver, BC, Canada. 97 p

Bejder, L., A. Samuels, H. Whitehead, N. Gales, J. Mann, R. Connor, M. Heithaus, J. Watson-Capps, C. Flaherty and M. Krützen. 2006. Decline in relative abundance of bottlenose dolphins exposed to long-term disturbance. *Conservation Biology* 20 (6):1791-1798

Bejder, L., A. Samuels, H. Whitehead, H. Finn and S. Allen. 2009. Impact assessment research: use and misuse of habituation, sensitisation and tolerance in describing wildlife responses to anthropogenic stimuli. *Marine Ecology Progress Series*, 395, pp.177-185.

Beauchamp, G. and B. Livoreil. 1997. The effect of group size on vigilance and feeding rate in spice finches (*Lonchura punctulata*). *Canadian Journal of Zoology* 75 (9):1526-1531.

Bigg, M. A. 1969. The harbor seal in British Columbia. *Bull. Fish. Res. Board Can.* 172:1-33.

Bigg, M. A. 1981. Harbour seal: *Phoca vitulina* Linnaeus, 1758, and *Phoca largha* Pallas, 1811, p. 1-27. In S. H. Ridgway and R. J. Harrison (eds.), *Handbook of Marine Mammals. Volume 2: Seals*. Academic Press, London, UK.

Bigg, M. A., P. F. Olesiuk, G. M. Ellis, J. K. B. Ford, and K. C. Balcomb III. 1990. Social organization and genealogy of resident killer whales (*Orcinus orca*) in the coastal waters of British Columbia and Washington State, p. 386-406. In P. S. Hammond, S. A. Mizroch, and G. P. Donovan (eds.), *Individual Recognition of Cetaceans: Use of Photo-identification and Other Techniques to Estimate Population Parameters*. *Rep. Int. Whal. Comm. Special Issue* 12.

- Blackwell, S B., J. W. Lawson, and M. T. Williams. 2004. Tolerance by ringed seals (*Phoca hispida*) to impact pipe-driving and construction sounds at an oil production island. *Journal of the Acoustical Society of America* 115 (5):2346-2357.
- Blecha, F. 2000. Immune system response to stress. Pages 111-122 in G.P. Moberg and J.A. Mench, eds. *The Biology of Animal Stress: Basic Principles and Implications for Animal Welfare*. CABI Publishing, Oxon, United Kingdom.
- Boveng, P. L., J. M. London, and J. M. Ver Hoef. 2012. Distribution and abundance of harbor seals in Cook Inlet, Alaska. Task III: Movements, marine habitat use, diving behavior, and population structure, 2004-2006. Final Report. BOEM Report 2012-065. Bureau of Ocean Energy Management, Alaska Outer Continental Shelf Region, Anchorage, AK. 58.
- Bowles, A.E., Smultea, 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. *The Journal of the Acoustical Society of America*, 96(4), pp.2469-2484.
- Bradbury, J.W. and Vehrencamp, S.L., 1998. Principles of animal communication: 75-112.
- Bradshaw, C. J. A., S. Boutin, and D. M. Hebert. 1998. Energetic implications of disturbance caused by petroleum exploration to woodland caribou. *Canadian Journal of Zoology* 76 (7):1319-1324.
- Braham, H. W. and M. E. Dahlheim. 1982. Killer whales in Alaska documented in the Platforms of Opportunity Program. *Rep. Int. Whal. Comm.* 32:643-646.
- Brueggeman, J. J., M. Smultea, H. Goldstein, S. McFarland, and D. J. Blatchford. 2007. 2007 spring marine mammal monitoring program for the ConocoPhillips Beluga River seismic operations in Cook Inlet Alaska: 90-day report. Prepared for ConocoPhillips Alaska, Inc., Anchorage, AK by Canyon Creek Consulting, Seattle, WA.
- Brueggeman, J. J., M. Smultea, K. Lomac-MacNair, D. J. Blatchford, and R. Dimmick. 2008a. 2007 fall marine mammal monitoring program for the Union Oil Company of California Granite Point seismic operations in Cook Inlet Alaska: 90-day report. Prepared for Union Oil Company of California by Canyon Creek Consulting, Seattle, WA.
- Brueggeman, J. J., M. Smultea, K. Lomac-MacNair, and D. J. Blatchford. 2008b. 2007 fall marine mammal monitoring program for the Marathon Oil Company North Ninilchik seismic operations in Cook Inlet Alaska: 90-day report. Prepared for Marathon Oil Company by Canyon Creek Consulting, Seattle, WA.
- Burek-Huntington, K. A., J. Dushane, C. E. C. Goertz, L. Measures, C. Romero, and S. Raverty. 2015. Morbidity and mortality in stranded Cook Inlet beluga whales (*Delphinapterus leucas*). *Dis. Aquat. Organ.* 114(1):45-60. DOI: [dx.doi.org/10.3354/dao02839](https://doi.org/10.3354/dao02839).

- Calambokidis, J., G. H. Steiger, J. M. Straley, T. Quinn, L. M. Herman, S. Cerchio, D. R. Salden, M. Yamaguchi, F. Sato, J. Urban R., J. Jacobson, O. von Ziegesar, K. C. Balcomb, C. M. Gabriele, M. E. Dahlheim, N. Higashi, S. Uchida, J. K. B. Ford, Y. Miyamura, P. Ladrón de Guevara, S. A. Mizroch, L. Schlender, and K. Rasmussen. 1997. Abundance and population structure of humpback whales in the North Pacific basin. Final Contract Report 50ABNF500113 to Southwest Fisheries Science Center, 8901 La Jolla Shores Drive, La Jolla, CA 92037. 72 p.
- Calkins, D.G. 1989. Status of belukha whales in Cook Inlet. Pages 109-112 in Gulf of Alaska, Cook Inlet, and North Aleutian Basin information update meeting. L.E. Jarvela and L.K. Thorsteinson (eds.). Anchorage, AK, Feb. 7-8, 1989. USDOC, NOAA, OCSEAP.
- Cartwright, R., A. Venema, V. Hernandez, C. Wyels, J. Cesere, and D. Cesere. 2019. Fluctuating reproductive rates in Hawaii's humpback whales, *Megaptera novaeangliae*, reflect recent climate anomalies in the North Pacific. *Roy. Soc. Open Sci.* 6:181463. DOI: [dx.doi.org/10.1098/rsos.181463](https://doi.org/10.1098/rsos.181463).
- Castellote, M., R. J. Small, J. Mondragon, J. Jenniges, and J. Skinner. 2015. Seasonal distribution and foraging behavior of Cook Inlet belugas based on acoustic monitoring. ADF&G Final Report to Department of Defense.
- Castellote, M., Small, R.J., Lammers, M.O., Jenniges, J.J., Mondragon, J. and Atkinson, S., 2016. Dual instrument passive acoustic monitoring of belugas in Cook Inlet, Alaska. *The Journal of the Acoustical Society of America*, 139(5), pp.2697-2707.
- Castellote, M., B. Thayre, M. Mahoney, J. Mondragon, C. Schmale, and R. J. Small. 2016. Anthropogenic noise in Cook Inlet beluga habitat: sources, acoustic characteristics, and frequency of occurrence. Alaska Department of Fish and Game, Final Wildlife Research Report, ADF&G/DWC/WRR-2016-4, Juneau.
- Castellote, M., B. Thayre, M. Mahoney, J. Mondragon, M. O. Lammers, and R. J. Small. 2019. Anthropogenic noise and the endangered Cook Inlet beluga whale, *Delphinapterus leucas*: acoustic considerations for management. *Mar. Fish. Rev.* 80(3):63-88. DOI: [dx.doi.org/10.7755/MFR.80.3.3](https://doi.org/10.7755/MFR.80.3.3).
- Castellote, M., Small, R.J., Lammers, M.O., Jenniges, J., Mondragon, J., Garner, C.D., Atkinson, S., Delevaux, J.M., Graham, R. and Westerholt, D., 2020. Seasonal distribution and foraging occurrence of Cook Inlet beluga whales based on passive acoustic monitoring. *Endangered Species Research*, 41, pp.225-243.
- 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. *Marine Ecology Progress Series*, 395, pp.201-222.
- Colbeck, G. J., Duchesne, P., Postma, L. D., Lesage, V., Hammill, M. O., and Turgeon, J. 2013. Groups of related belugas (*Delphinapterus leucas*) travel together during their seasonal

migrations in and around Hudson Bay. *Proc. R. Soc. Biol.* 280, 2552–2561.  
doi:10.1098/rspb.2012.2552.

Committee on Taxonomy. 2019. List of marine mammal species and subspecies. Society for Marine Mammalogy. [www.marinemammalscience.org](http://www.marinemammalscience.org).

Connor, R. C. and M. R. Heithaus. 1996. Approach by great white shark elicits flight response in bottlenose dolphins. *Marine Mammal Science* 14 (4): 602-606.

Cornick, L.A., and L. Pinney. 2011. Distribution, habitat use and behavior of Cook Inlet beluga whales and other marine mammals at the Port of Anchorage Marine Terminal Redevelopment Project June – November 2010: Scientific Marine Mammal Monitoring Program 2010 Annual Report. Prepared for U.S. Department of Transportation, Maritime Administration, Washington, DC; Port of Anchorage, Anchorage, AK; and Integrated Concepts & Research Corporation, Anchorage, AK by Alaska Pacific University, Anchorage, AK.

Cornick, L.A. and L. Saxon-Kendall. 2008. Distribution, habitat use, and behavior of Cook Inlet beluga whales in Knik Arm, Fall 2007. Final annual report for 2007. Prepared by Alaska Pacific University, Anchorage, AK, for Integrated Concepts & Research Corporation, Anchorage, AK.

- 2009. Distribution, habitat use and behavior of Cook Inlet beluga whales and other marine mammals at the Port of Anchorage Marine Terminal Redevelopment Project June–November, 2008: Scientific marine mammal monitoring report for 2008. Prepared by Alaska Pacific University, Anchorage, AK, for U.S. Department of Transportation Maritime Administration, Washington, DC, and Port of Anchorage, Anchorage, AK, and Integrated Concepts and Research Corporation, Anchorage, AK.

Cornick, L. A., L. Saxon Saxon-Kendall, and L. Pinney. 2010. Distribution, habitat use and behavior of Cook Inlet beluga whales and other marine mammals at the Port of Anchorage Marine Terminal Redevelopment Project May – November, 2009: Scientific Marine Mammal Monitoring Program 2009 annual report. Prepared by Alaska Pacific University, Anchorage, AK for U.S. Department of Transportation, Maritime Administration, Washington, DC, Port of Anchorage, Anchorage, AK, and Integrated Concepts & Research Corporation, Anchorage, AK.

Cornick, L. A., S. Love, L. Pinney, C. Smith, and Z. Zartler. 2011. Distribution, habitat use and behavior of Cook Inlet beluga whales and other marine mammals at the Port of Anchorage Marine Terminal Redevelopment Project June - November 2011: Scientific Marine Mammal Monitoring Program 2011 Annual Report. Prepared for U.S. Department of Transportation, Maritime Administration, Washington, DC; Port of Anchorage, Anchorage, AK; and Integrated Concepts and Research Corporation, Anchorage, AK by Alaska Pacific University, Anchorage, AK.

Cornick, L., and D. J. Seagars. 2016. Final Report: Anchorage Port Modernization Project Test Pile Program. Technical Report by AECOM for Kiewit.

- Costa, D. P., D. E. Crocker, J. Gedamke, P. M. Webb, D. S. Houser, S. B. Blackwell, et al. 2003. The effect of a low-frequency sound source (acoustic thermometry of the ocean climate) on the diving behavior of juvenile northern elephant seals, *Mirounga angustirostris*. *Journal of the Acoustical Society of America* 113 (2):1155-1165.
- 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.
- Daan, S., C. Deerenberg, and C. Dijkstra. 1996. Increased daily work precipitates natural death in the kestrel. *Journal of Animal Ecology* 65 (5):6.
- Dahlheim, M., A. York, R. Towell, J. Waite, and J. Breiwick. 2000. Harbor porpoise (*Phocoena phocoena*) abundance in Alaska: Bristol Bay to southeast Alaska, 1991–1993. *Mar. Mamm. Sci.* 16:28–45.
- Dahlheim, M., A. Schulman-Janiger, N. Black, R. Tenullo, D. Ellifrit, K.C. Balcomb, III. 2008. Eastern Temperate North Pacific Offshore Killer Whales (*Orcinus orca*): Occurrence, Movements, and Insights into Feeding Ecology. *Mar. Mamm. Sci.* 24(3):719-729.
- Dahlheim, M., P. A. White, and J. Waite. 2009. Cetaceans of Southeast Alaska: distribution and seasonal occurrence. *J. Biogeogr.* 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. *Fish. Bull., U.S.* 113(3):242-255
- Delean, B. J., V. T. Helker, M. M. Muto, K. Savage, S. Teerlink, L. A. Jemison, K. Wilkinson, J. Jannot, and N. C. Young. 2020. Human-caused mortality and injury of NMFS-managed Alaska marine mammal stocks, 2013- 2017. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-401, 86 p.
- 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.
- Erbe, C., 1997. Masking of beluga whale (*Delphinapterus leucas*) vocalizations by icebreaker noise (Doctoral dissertation, University of British Columbia).
- Erbe, C. and Farmer, D.M., 1998. Masked hearing thresholds of a beluga whale (*Delphinapterus leucas*) in icebreaker noise. *Deep Sea Research Part II: Topical Studies in Oceanography*, 45(7), pp.1373-1388.
- Evans, D. L. and G. R. England. 2001. Joint interim report: Bahamas marine mammal stranding event of 15-16 March 2000. U.S. Navy and National Marine Fisheries Service: 66.

- 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 150p. 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.
- Ezer, T., J. R. Ashford, C. M. Jones, B. A. Mahoney, and R. C. Hobbs. 2013. Physical–biological interactions in a subarctic estuary: How do environmental and physical factors impact the movement and survival of beluga whales in Cook Inlet, Alaska?. *Journal of Marine Systems*, 111, pp.120-129.
- Fair, P. A. and P. R. Becker. 2000. Review of stress in marine mammals. *Journal of Aquatic Ecosystem Stress and Recovery* 7 (4):335-354.
- Ferrero, R. C., Moore, S. E. and R. C. Hobbs. 2000. Development of beluga, *Delphinapterus leucas*, capture and satellite tagging protocol in Cook Inlet, Alaska. *Marine Fisheries Review*, 62(3), pp.112-123.
- Finneran, J. J., 2015. Noise-induced hearing loss in marine mammals: A review of temporary threshold shift studies from 1996 to 2015. *The Journal of the Acoustical Society of America*, 138(3), pp.1702-1726.
- Finneran, J. J., R. Dear, D. A. Carder, and S. H. Ridgway. 2003. Auditory and behavioral responses of California sea lions (*Zalophus californianus*) to single underwater impulses from an arc-gap transducer. *Journal of the Acoustical Society of America* 114 (3):1667
- 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.
- Fisher, H. D. 1952. The status of the harbour seal in British Columbia, with particular reference to the Skeena River. *Bull. Fish. Res. Board Can.* 93:1-58.
- Foote, A. D., R. W. Osborne, and A. R. Hoelzel. 2004. Whale-call response to masking boat noise. *Nature* 428:910

- Ford, J. K. B., and H. D. Fisher. 1982. Killer whale (*Orcinus orca*) dialects as an indicator of stocks in British Columbia. *Rep. Int. Whal. Comm.* 32:671-679.
- Ford, J. K. and R. R. Reeves. 2008. Fight or flight: antipredator strategies of baleen whales. *Mammal Review* 38 (1):50-86.
- Ford, J. K. B., G. M. Ellis, and K. C. Balcomb. 2000. *Killer Whales: The Natural History and Genealogy of *Orcinus orca* in British Columbia and Washington State*. Second edition. University of British Columbia Press, Vancouver, BC, Canada. 104 p.
- Forney, K. A., J. Barlow, and J. V. Carretta. 1995. The abundance of cetaceans in California waters. Part II: Aerial surveys in winter and spring of 1991 and 1992. *Fish. Bull., U.S.* 93:15-26.
- Forney K. A., Southall B. L., Slooten E., Dawson S., Read A. J., Baird R. W., and R. L. Brownell Jr. 2017. Nowhere to go: noise impact assessments for marine mammal populations with high site fidelity. *Endang Species Res* 32:391-413. <https://doi.org/10.3354/esr00820>
- Francis, C. D. and J. R. Barber. 2013. A framework for understanding noise impacts on wildlife: an urgent conservation priority. *Frontiers in Ecology and the Environment*, 11(6), pp.305-313.
- Frankel, A. S. and C. W. Clark. 2000. Behavioral responses of humpback whales (*Megaptera novaeangliae*) to full-scale ATOC signals. *Journal of the Acoustical Society of America* 108 (4):1930-1937.
- Fristrup, K. M., L. T. Hatch, and C. W. Clark. 2003. Variation in humpback whale (*Megaptera novaeangliae*) song length in relation to low-frequency sound broadcasts. *Journal of the Acoustical Society of America* 113 (6):3411-3424.
- Fritz, H., M. Guillemain, and D. Durant. 2002. The cost of vigilance for intake rate in the mallard (*Anas platyrhynchos*): An approach through foraging experiments. *Ethology, Ecology and Evolution* 14 (2):91-97.
- Funk, D. W., T. M. Markowitz, and R. Rodrigues (eds.) 2005. *Baseline studies of beluga whale habitat use in Knik Arm, Upper Cook Inlet, Alaska, July 2004-July 2005*. Prepared by LGL Alaska Research Associates, Inc., Anchorage, AK, in association with HDR Alaska, Inc., Anchorage, AK, for Knik Arm Bridge and Toll Authority, Anchorage, AK, Department of Transportation and Public Facilities, Anchorage, AK, and Federal Highway Administration, Juneau, AK.
- Gailey, G., B. Wursig, and T. L. McDonald. 2007. Abundance, behavior, and movement patterns of western gray whales in relation to a 3-D seismic survey, northeast Sakhalin Island, Russia. *Environmental Monitoring and Assessment* 134 (1-3):75-91.



- Geraci, J. R., D. M. Anderson, R. J. Timperi, D. St. Aubin, G. A. Early, J. H. Prescott, and C. A. Mayo. 1989. Humpback whales (*Megaptera novaeangliae*) fatally poisoned by dinoflagellate toxin. *Can. J. Fish. Aquat. Sci.* 46(11):1895-1898. . DOI: [dx.doi.org/10.1139/f89-238](https://doi.org/10.1139/f89-238).
- Goold, J. C. 1996. Acoustic assessment of populations of common dolphin *Delphinus delphis* in conjunction with seismic surveying. *Journal of the Marine Biological Association of the United Kingdom* 76 (3):811-820.
- Goetz, K. T., P. W. Robinson, R. C. Hobbs, K. L. Laidre, L. A. Huckstadt, and K. E. W. Shelden. 2012a. Movement and dive behavior of beluga whales in Cook Inlet, Alaska. AFSC Processed Rep. 2012-03, 40 p. Alaska Fisheries Science Center, NMFS, 7600 Sand Point Way NE, Seattle, WA 98115.
- Goetz, K. T., R. A. Montgomery, J. M. Ver Hoef, R. C. Hobbs, and D. S. Johnson. 2012b. Identifying essential summer habitat of the endangered beluga whale *Delphinapterus leucas* in Cook Inlet, Alaska. *Endang. Species Res.* 16:135-147.
- Goldbogen, J. A., J. Calambokidis, A. S. Friedlaender, J. Francis, S. L. Deruiter, A. K. Stimpert, E. Falcone, and B. L. Southall. 2013a. Underwater acrobatics by the world's largest predator: 360° rolling manoeuvres by lunge-feeding blue whales. *Biology Letters* 9:20120986.
- Goldbogen, J. A., A. S. Friedlaender, J. Calambokidis, M. F. McKenna, M. Simon, and D. P. Nowacek. 2013b. Integrative approaches to the study of baleen whale diving behavior, feeding performance, and foraging ecology. *BioScience* 63 (2):90-100.
- Green, G. A., J. J. Brueggeman, R. A. Grotefendt, C. E. Bowlby, M. L. Bonnell, and K. C. Balcomb. 1992. Cetacean distribution and abundance off Oregon and Washington, 1989-1990, p. 1-100. In J. J. Brueggeman (ed.), *Oregon and Washington marine mammal and seabird surveys. Final Report OCS Study MMS 91-0093*.
- Harrington, F. H. and A. M. Veitch. 1992. Calving success of woodland caribou exposed to low-level jet fighter overflights. *Arctic* 45 (3):213-218.
- Hastings, K. K., K. J. Frost, M. A. Simpkins, G. W. Pendleton, U. G. Swain, and R. J. Small. 2004. Regional differences in diving behavior of harbor seals in the Gulf of Alaska. *Can. J. Zool.* 82:1755-1773.
- Hastings, M. C. and A. N. Popper. 2005. Effects of sound on fish. Technical report for Jones and Stokes to California Department of Transportation.
- Hatch, L. T., Clark, C. W., Van Parijs, S. M., Frankel, A. S. and Ponirakis, D. W., 2012. Quantifying loss of acoustic communication space for right whales in and around a US National Marine Sanctuary. *Conservation Biology*, 26(6), pp.983-994.

- 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.
- Hobbs, R. C. 2013. Detecting changes in population trends for Cook Inlet beluga whales (*Delphinapterus leucas*) using alternative schedules for aerial surveys. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC252, 25 p.
- Hobbs, R. C., K. L. Laidre, D. J. Vos, B. A. Mahoney, and M. Eagleton. 2005. Movements and area use of belugas, *Delphinapterus leucas*, in a subarctic Alaskan estuary. *Arctic* 58(4):331-340.
- Hobbs, R. C., K. E. W. Shelden, D. J. Rugh, and S. A. Norman. 2008. *2008 Status review and extinction risk assessment of Cook Inlet belugas (Delphinapterus leucas)*. AFSC Processed Report 2008-02. National Marine Fisheries Service, Alaska Fisheries Science Center, Seattle, WA. Available online at [http://www.nmfs.noaa.gov/pr/pdfs/statusreviews/belugawhale\\_cookinlet.pdf](http://www.nmfs.noaa.gov/pr/pdfs/statusreviews/belugawhale_cookinlet.pdf).
- Hobbs, R. C. and J. M. Waite. 2010. Abundance of harbor porpoise (*Phocoena phocoena*) in three Alaskan regions, corrected for observer errors due to perception bias and species misidentification, and corrected for animals submerged from view. *Fish. Bull.*, U.S. 108(3):251-267.
- Hoelzel, A. R., M. E. Dahlheim, and S. J. Stern. 1998. Low genetic variation among killer whales (*Orcinus orca*) in the eastern North Pacific, and genetic differentiation between foraging specialists. *J. Hered.* 89:121-128.
- Hoelzel, A. R., A. Natoli, M. Dahlheim, C. Olavarria, R. Baird, and N. Black. 2002. Low worldwide genetic diversity in the killer whale (*Orcinus orca*): implications for demographic history. *Proc. R. Soc. Lond.* 269:1467-1473.
- Holberton, R. L., B. Helmuth, and J. C. Wingfield. 1996. The corticosterone stress response in gentoo and king penguins during the non-fasting period. *Condor* 98 (4):850-854.
- Holt, M. M., D. P. Noren, V. Veirs, C. K. Emmons, and S. Veirs. 2009. Speaking up: killer whales (*Orcinus orca*) increase their call amplitude in response to vessel noise. *Journal of the Acoustical Society of America* 125 (1):EL27-32.
- Hood, L. C., P. D. Boersma, and J. C. Wingfield. 1998. The adrenocortical response to stress in incubating Magellanic penguins (*Spheniscus magellanicus*). *Auk* 115 (1):76-84.
- ICRC (Integrated Concepts & Research Corporation). 2009. Marine mammal monitoring final report 15 July 2008 through 14 July 2009. Construction and scientific marine mammal monitoring Associated with the Port of Anchorage Marine Terminal Redevelopment Project, in accordance with the 15 July 2008 National Marine Fisheries Service Incidental Harassment Authorization. Prepared for Maritime Administration, Washington, DC; Port of

Anchorage, Anchorage, AK by Integrated Concepts & Research Corporation, Anchorage, AK.

- 2010. 2009 Annual marine mammal monitoring report. Construction and scientific marine mammal monitoring Associated with the Port of Anchorage Marine Terminal Redevelopment Project, in accordance with the USACE 404/10 Permit and the NMFS 2009 Letter of Authorization. Prepared for U.S. Department of Transportation, Maritime Administration, Washington, DC; Port of Anchorage, Anchorage, AK by Integrated Concepts & Research Corporation, Anchorage, AK.

- 2011. 2010 Annual marine mammal monitoring report. Construction and Scientific Marine Mammal Monitoring Associated with the Port of Anchorage Marine Terminal Redevelopment Project, in accordance with the USACE 404/10 Permit and the NMFS 2010-2011 Letter of Authorization. Prepared U.S. Department of Transportation, Maritime Administration, Washington, DC; Port of Anchorage, Anchorage, AK by Integrated Concepts & Research Corporation, Anchorage, AK.

- 2012. 2011 Annual marine mammal monitoring report. Construction and Scientific Marine Mammal Monitoring Associated with the Port of Anchorage Marine Terminal Redevelopment Project, in accordance with the Letter of Authorization issued by the National Marine Fisheries for July 15, 2011 through July 14, 2012. Prepared for the U.S. Department of Transportation, Maritime Administration, Washington, DC; Port of Anchorage, Anchorage, AK by Integrated Concepts & Research Corporation, Anchorage, AK.

Ireland, D. S., D. W. Funk, T. M. Markowitz, and C. C. Kaplan. 2005. *Beluga whale distribution and behavior in Eagle Bay and the Sixmile area of upper Cook Inlet, Alaska, in September and October 2005*. Rep. from LGL Alaska Research Associates, Inc., Anchorage, Alaska, in association with HDR Alaska, Inc., Anchorage, AK, for the Knik Arm Bridge and Toll Authority (KABATA), Anchorage, AK, Department of Transportation and Public Facilities, Anchorage, AK, and Federal Highway Administration, Juneau, AK.

Jansen, J. K., P. L. Boveng, S. P. Dahle, and J. L. Bengtson. 2010. Reaction of harbor seals to cruise ships. *J. Wildl. Manage.* 74:1186-1194. DOI: [dx.doi.org/10.2193/2008-192](https://doi.org/10.2193/2008-192).

Jansen, J. K., P. L. Boveng, J. M. Ver Hoef, S. P. Dahle, and J. L. Bengtson. 2015. Natural and human effects on harbor seal abundance and spatial distribution in an Alaskan glacial fjord. *Mar. Mammal Sci.* 31(1):66-89.

Jessop, T. S., A. D. Tucker, C. J. Limpus, and J. M. Whittier. 2003. Interactions between ecology, demography, capture stress, and profiles of corticosterone and glucose in a free-living population of Australian freshwater crocodiles. *General and Comparative Endocrinology* 132 (1):161-170.

- Jones, B. and Kostick, M.L. 2016. The Harvest and Use of Wild Resources in Nikiski, Seldovia, Nanwalek, and Port Graham, Alaska, 2014. Alaska Department of Fish and Game, Division of Subsistence, Technical Paper, (420).
- Jones, B., Holen, D., and D. S. Koster. (2015). The Harvest and Use of Wild Resources in Tyonek, Alaska, 2013. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 404. Anchorage.
- Kastelein, R. A., D. de Haan, N. Vaughan, C. Staal, and N. M. Schooneman. 2001. The influence of three acoustic alarms on the behaviour of harbour porpoises (*Phocoena phocoena*) in a floating pen. *Marine Environmental Research* 52 (4):351-371.
- Kastelein, R. A., W. C. Verboom, M. Muijsers, N. V. Jennings, and S. Van der Heul. 2005. The influence of acoustic emissions for underwater data transmission on the behavior of harbor porpoises (*Phocoena phocoena*) in a floating pen. *Marine Environmental Research* 59:287-307.
- Kastelein, R. A., N. Jennings, W. C. Verboom, D. de Haan, and N. M. Schooneman. 2006. Differences in the response of a striped dolphin (*Stenella coeruleoalba*) and a harbor porpoise (*Phocoena phocoena*) to an acoustic alarm. *Marine Environmental Research* 61 (3):363-378.
- 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., R. Gransier, M. A. T. Marijt, and L. Hoek. 2015. Hearing frequency thresholds of harbor porpoises (*Phocoena phocoena*) temporarily affected by play back offshore pile driving sounds. *Journal of the Acoustical Society of America* 137:556-564.
- Kendall, L.S., Sirovic, A. and Roth, E. H., 2013. Effects of construction noise on the Cook Inlet beluga whale (*Delphinapterus leucas*) vocal behavior. *Canadian Acoustics*, 41(3), pp.3-13.
- Kendall, L.S. and L.A. Cornick. 2015. Behavior and distribution of Cook Inlet beluga whales, *Delphinapterus leucas*, before and during pile driving activity. *Marine Fisheries Review* 77:106-114.
- King, S., Schick, R. S., Donovan, C., Booth, C. G, Burgman, M., Thomas, L., and J. Harwood. 2015. An Interim Framework for Assessing the Population Consequences of Disturbance. *Methods in Ecology and Evolution*. doi: 10.1111/2041-210X.12411

- Krausman, P. R., L. K. Harris, C. L. Blasch, K. K. G. Koenen, and J. Francine. 2004. Effects of military operations on behavior and hearing of endangered Sonoran pronghorn. *Wildlife Monographs* 157:1-41.
- Lankford, S. E., T. E. Adams, R. A. Miller, and J. J. Cech. 2005. The cost of chronic stress: Impacts of a nonhabituating stress response on metabolic variables and swimming performance in sturgeon. *Physiological and Biochemical Zoology* 78:599-609.
- Lammers, M. O., M. Castellote, R. J. Small, S. Atkinson, J. Jenniges, A. Rosinski, J. N. Oswald, and C. Garner. 2013. Passive acoustic monitoring of Cook Inlet beluga whales (*Delphinapterus leucas*). *J. Acoust. Soc. Am.* 134:2497-2504. DOI: [dx.doi.org/10.1121/1.4816575](https://doi.org/10.1121/1.4816575).
- Lefebvre, K. A., L. Quakenbush, E. Frame, K. Burek Huntington, G. Sheffield, R. Stimmelmayer, A. Bryan, P. Kendrick, H. Ziel, T. Goldstein, J. A. Snyder, T. Gelatt, F. Gulland, B. Dickerson, and V. Gil. 2016. Prevalence of algal toxins in Alaskan marine mammals foraging in a changing arctic and subarctic environment. *Harmful Algae* 55:13-24. DOI: [dx.doi.org/10.1016/j.hal.2016.01.007](https://doi.org/10.1016/j.hal.2016.01.007).
- Lesage, V., Barrette, C., Kingsley, M.C. and Sjare, B. 1999. The effect of vessel noise on the vocal behavior of belugas in the St. Lawrence River estuary, Canada. *Marine Mammal Science*, 15(1), pp.65-84.
- Lillis, A., Eggleston, D.B. and Bohnenstiehl, D.R. 2014. Estuarine soundscapes: distinct acoustic characteristics of oyster reefs compared to soft-bottom habitats. *Marine Ecology Progress Series*, 505, pp.1-17.
- Linnenschmidt, M., J. Teilmann, T. Akamatsu, R. Dietz, and L. A. Miller. 2013. Biosonar, dive, and foraging activity of satellite tracked harbor porpoises (*Phocoena phocoena*). *Mar. Mammal Sci.* 29 (2):77-97.
- Lombard, E., 1911. Le signe de l'elevation de la voix. *Ann. Mal. de L'Oreille et du Larynx*, pp.101-119.
- Lowry, L. F., J. J. Citta, G. O'Corry-Crowe, L. T. Quakenbush, K. J. Frost, R. Suydam, R. C. Hobbs, and T. Gray. 2019. Distribution, abundance, harvest, and status of western Alaska beluga whale, *Delphinapterus leucas*, stocks. *Mar. Fish. Rev.* 81(3-4):54-71
- 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.
- Malme, C. I., P. R. Miles, C. W. Clark, P. Tyack, and J. E. Bird. 1984. Investigations of the potential effects of underwater noise from petroleum industry activities on migrating gray whale behavior, phase II: January 1984 migration. Report No. 5586, Prepared by Bolt Beranek and Newman, Inc. for Minerals Management Service: 357.

- Mathews, E. A., L. A. Jemison, G. W. Pendleton, K. M. Blejwas, K. E. Hood, and K. L. Raum-Suryan. 2016. Haulout patterns and effects of vessel disturbance on harbor seals (*Phoca vitulina*) on glacial ice in Tracy Arm, Alaska. *Fish. Bull.*, U.S. 114(2):186-202.
- 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.
- Mahoney, B. A. and K. E. W. Shelden. 2000. Harvest history of beluga whale, *Delphinapterus leucas*, in Cook Inlet, Alaska. *Mar. Fisher. Rev.* (62) 3:124-133.
- Markowitz, T. M., and T. L. McGuire (eds.). 2007. Temporal-spatial distribution, movements and behavior of beluga whales near the Port of Anchorage, Alaska. Prepared by LGL Alaska Research Associates, Inc., Anchorage, AK for Integrated Concepts and Research Corporation, Anchorage, AK.
- McClatchie, S., Field, J., Thompson, A. R., Gerrodette, T., Lowry, M., Fiedler, P.C., Watson, W., Nieto, K. M. and R. D. Vetter. 2016. Food limitation of sea lion pups and the decline of forage off central and southern California. *Royal Society Open Science*, 3(3), p.150628.
- McGuire, T. and A. Stephens. 2017. Photo-identification of Beluga Whales in Cook Inlet, Alaska: summary and synthesis of 2005-2015 data. Report prepared by LGL Alaska Research Associates, Inc., Anchorage, AK, for National Marine Fisheries Service, Alaska Region. 189 p.  
[https://docs.wixstatic.com/ugd/af2fcb\\_4a6dbde631be4de685f764a73cf16908.pdf](https://docs.wixstatic.com/ugd/af2fcb_4a6dbde631be4de685f764a73cf16908.pdf).
- McGuire, T. L., Himes Boor, G. K., McClung, J. R., Stephens, A. D., Garner, C., Shelden, K. E. and B. Wright. 2020. Distribution and habitat use by endangered Cook Inlet beluga whales: Patterns observed during a photo-identification study, 2005–2017. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 30(12), pp.2402-2427.
- Miller, P. J. O., N. Biassoni, A. Samuels, and P. L. Tyack. 2000. Whale songs lengthen in response to sonar. *Nature* 405 (6789):903.
- Moberg, G. P. 1987. Influence of the adrenal axis upon the gonads. Pages 456-496 in J. Clarke, ed. *Oxford Reviews in Reproductive Biology*. Oxford University Press, New York, New York.
- Moberg, G. P. 2000. Biological response to stress: Implications for animal welfare. Pages 1-21 in G. P. Moberg and J. A. Mench, eds. *The Biology of Animal Stress: Basic Principles and Implications for Animal Welfare*. CABI Publishing, Oxon, United Kingdom.

- Montgomery, R., J. Ver Hoef, and P. Boveng. 2007. Spatial Modeling of Haul-Out Site use by Harbor Seals in Cook Inlet, Alaska. *Marine Ecology Progress Series*. 341: 257-264.  
<http://www.int-res.com/articles/meps2007/341/m341p257.pdf>
- Mooney, T. A., Castellote, M., Jones, I., Rouse, N., Rowles, T., Mahoney, B. and C. E. Goertz. 2020. Audiogram of a Cook Inlet beluga whale (*Delphinapterus leucas*). *The Journal of the Acoustical Society of America*, 148(5), pp.3141-3148.
- Moore, S. E., K. E. W. Shelden, L. K. Litzky, B. A. Mahoney, and D. J. Rugh. 2000. Beluga, *Delphinapterus leucas*, habitat associations in Cook Inlet, Alaska. *Mar. Fish. Rev.* 62(3):60-80.
- Morton, A. B. and H. K. Symonds. 2002. Displacement of *Orcinus orca* (L.) by high amplitude sound in British Columbia, Canada. *ICES Journal of Marine Science* 59 (1):71-80.
- Muto, M. M., V. T. Helker, B. J. Delean, R. P. Angliss, P. L. Boveng, J. M. Breiwick, B. M. Brost, M. F. Cameron, P. J. Clapham, S. P. Dahle, M. E. Dahlheim, B. S. Fadely, M. C. Ferguson, L. W. Fritz, 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. 2020. Alaska marine mammal stock assessments, 2019. U.S. Department of Commerce, NOAA Tech. Memo. NMFS-AFSC-404.
- Muto, M. M., V. T. Helker, B. J. Delean, N. C. Young, J. C. Freed, R. P. Angliss, 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. 2020b. Alaska marine mammal stock assessments, 2020b. U.S. Department of Commerce, NOAA Tech. Memo. NMFS-AFSC-421, 398 p.
- 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 (National Marine Fisheries Service). 2003. *Subsistence Harvest Management of Cook Inlet Beluga Whales - Final Environmental Impact Statement*. Available online at <http://alaskafisheries.noaa.gov/protectedresources/whales/beluga/eis2003/final.pdf>.
- 2008a. Recovery Plan for the Steller sea lion (*Eumetopias jubatus*). Revision. National Marine Fisheries Service, Silver Spring, MD. 325 p.
  - 2008b. Cook Inlet beluga whale subsistence harvest: Final Supplemental Environmental Impact Statement. U.S. Dep. Commer., NOAA, NMFS, Alaska Region, Office of Protected Resources, Juneau, AK. Available online: <https://repository.library.noaa.gov/view/noaa/4948>.

- 2012. Guidance Document: Data Collection Methods to Characterize Underwater Background Sound Relevant to Marine Mammals in Coastal Nearshore Waters and Rivers of Washington and Oregon. NMFS Northwest Region and Northwest Fisheries Science Center. Available online at [https://media.fisheries.noaa.gov/dam-migration/characterize\\_background\\_sound\\_guidance\\_memo.pdf](https://media.fisheries.noaa.gov/dam-migration/characterize_background_sound_guidance_memo.pdf)
- 2015. Draft Recovery Plan for the Cook Inlet Beluga Whale (*Delphinapterus leucas*). National Marine Fisheries Service, Alaska Regional Office, Protected Resources Division, Juneau, AK.
- 2016a. Recovery plan for the Cook Inlet beluga whale (*Delphinapterus leucas*). National Marine Fisheries Service, Alaska Region, Protected Resources Division, Juneau, AK.
- 2016b. Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing: Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts. U.S. Dept. of Commer., NOAA. NOAA Technical Memorandum NMFS-OPR-55, 178 p.
- 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 p.

National Research Council (NRC). 2003. Ocean noise and marine mammals. National Academy of Sciences: 220.

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

Naval Facilities Engineering Command Southwest (NAVFAC SW). 2020. Compendium of Underwater and Airborne Sound Data During Pile Installation and In-Water Demolition Activities in San Diego Bay, California. October 2020. Prepared by Tierra Data, Inc.

Nemeth, M. J., C. C. Kaplan, A. P. Ramos, G. D. Wade, D. M. Savarese, and C. D. Lyons. 2007. Baseline Studies of Marine Fish and Mammals in Upper Cook Inlet, April through October 2006. Final report prepared by LGL Alaska Research Associates, Inc., Anchorage, AK for DRven Corporation, Anchorage, AK.

New, L., J. Clark, D. Costa, E. Fleishman, M. Hindell, T. Klanjšček, D. Lusseau, D., S. Kraus, C. R. McMahon, P. W. Robinson, R. S. Schick, L. K. Schwarz, S. E. Simmons, L. Thomas, P. L. Tyack, and J. Harwood. 2014. Using short-term measures of behaviour to estimate long-term fitness of southern elephant seals. *Marine Ecology Progress Series*, 496, 99–108.



- Ng, S. L. and S. Leung. 2003. Behavioral response of Indo-Pacific humpback dolphin (*Sousa chinensis*) to vessel traffic. *Marine environmental research*, 56(5), pp.555-567.
- NOAA (National Oceanic and Atmospheric Administration). 2015. Tidal Datums, Anchorage, AK, Station ID: 9455920, NOAA Tides & Currents. Available online at <http://tidesandcurrents.noaa.gov/noaatidepredictions/NOAATidesFacade.jsp?Stationid=9455920>. Anchorage, AK&type=Datums. Accessed 02 January 2015
- Norman, S.A., Hobbs, R.C., Beckett, L.A., Trumble, S.J. and Smith, W.A., 2020. Relationship between per capita births of Cook Inlet belugas and summer salmon runs: age-structured population modeling. *Ecosphere*, 11(1), p.e02955.
- 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.
- Nowacek, D. P., L. H. Thorne, D. W. Johnston, and P. L. Tyack. 2007. Responses of cetaceans to anthropogenic noise. *Mammal Review* 37 (2): 81-115.
- O'Corry-Crowe, G. M., R. S. Suydam, A. Rosenberg, K. J. Frost, and A. E. Dizon. 1997. Phylogeography, population structure and dispersal patterns of the beluga whale *Delphinapterus leucas* in the western Nearctic revealed by mitochondrial DNA. *Molecular Ecology* 6:955-970.
- Parks, S. E., C. W. Clark, and P. L. Tyack. 2007. Short- and long-term changes in right whale calling behavior: The potential effects of noise on acoustic communication. *Journal of the Acoustical Society of America* **122** (6):3725-3731.
- Pijanowski, B. C., A. Farina, S. H. Gage, S. L. Dumyahn, and B. L. Krause. 2011. What is soundscape ecology? An introduction and overview of an emerging new science. *Landscape ecology*, 26(9), pp.1213-1232.
- 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.
- Popper, A. N., A. D. Hawkins, R. R. Fay, D. A. Mann, S. Bartol, T. J. Carlson, S. Coombs, W. T. Ellison, R. L. Gentry, M. B. Halvorsen, and S. Løkkeborg. 2014. Effects of Sound Exposure. In ASA S3/SC1. 4 TR-2014 Sound Exposure Guidelines for Fishes and Sea Turtles: A Technical Report prepared by ANSI-Accredited Standards Committee S3/SC1 and registered with ANSI (pp. 17-21). Springer, Cham.
- Prevel-Ramos, A. P., T. M. Markowitz, D. W. Funk, and M. R. Link. 2006. Monitoring beluga whales at the Port of Anchorage: Pre-expansion observations, August-November 2005. Prepared by LGL Alaska Research Associates, Inc., Anchorage, Alaska, for Integrated Concepts and Research Corporation, the Port of Anchorage, Alaska, and the waterfront Department of Transportation Maritime Administration.

- Prevel-Ramos, A. M., M. J. Nemeth, and A. M. Baker. 2008. Marine mammal monitoring at Ladd Landing in Upper Cook Inlet, Alaska, from July through October 2007. Prepared by LGL Alaska Research Associates, Inc., Anchorage, Alaska for DRven Corporation, Anchorage, AK.
- Purser, J. and A. N. Radford, 2011. Acoustic noise induces attention shifts and reduces foraging performance in three-spined sticklebacks (*Gasterosteus aculeatus*). PLoS One 6 (2):e17478.
- 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.
- Reyff, J., Janello, C., and C. Heyvaert. 2021. 2020 Hydroacoustic Monitoring Report, Port of Alaska Modernization Program Petroleum and Cement Terminal Phase January 2021. Prepared for the POA, Anchorage, AK, by Illingworth & Rodkin, Cotati, CA.
- Ridgway, S., D. Carder, C. Schlundt, T. Kamolnick, and W. Elsberry. 1997. Temporary shift in delphinoid masked hearing thresholds (Doctoral dissertation, Acoustical Society of America).
- Ridgway, S., D. Carder, J. Finneran, M. Keogh, T. Kamolnick, M. Todd, M. and A. Goldblatt. 2006. Dolphin continuous auditory vigilance for five days. Journal of Experimental Biology 209 (18):3621-3628.
- Richardson, W. J., C. R. Greene, C. I. Malme, and D. H. Thomson. 1995. Marine Mammals and Noise. Academic Press, Inc., San Diego, CA.
- Rolland R. M., S. E. Parks, K. E. Hunt, M. Castellote, P. J. Corkeron, D. P. Nowacek, S. K. Wasser, and S. D. Kraus. 2012. Evidence that ship noise increases stress in right whales. Proc Biol Sci 279: 2363–2366.
- Romano, T., M. Keogh, and K. Danil. 2002a. Investigation of the effects of repeated chase and encirclement on the immune system of spotted dolphins (*Stenella attenuata*) in the eastern tropical Pacific. Administrative Report LJ-02-35C, National Marine Fisheries Service: 37.
- Romano, T. A., D. L. Felten, S. Y. Stevens, J. A. Olschowka, V. Quaranta, and S. H. Ridgway. 2002b. Immune response, stress, and environment: Implications for cetaceans. Pages 253-279 in C.J. Pfeiffer, ed. Molecular and Cell Biology of Marine Mammals. Krieger Publishing Co., Malabar, Florida.
- Romano, T. A., M. J. Keogh, C. Kelly, P. Feng, L. Berk, C. R. Schlundt, D. A. Carder, and J. J. Finneran. 2004. Anthropogenic sound and marine mammal health: Measures of the nervous and immune systems before and after intense sound exposure. Canadian Journal of Fisheries and Aquatic Sciences 61:1124-1134.

- Rugh, D. J., K. E. W. Sheldon, and B. Mahoney. 2000. Distribution of beluga whales in Cook Inlet, Alaska, during June/July, 1993 to 1999. *Mar. Fish. Rev.* 62(3):6-21.
- Rugh, D. J., B. A. Mahoney, and B. K. Smith. 2004. Aerial surveys of beluga whales in Cook Inlet, Alaska, between June 2001 and June 2002. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-145, 26 p.
- Rugh, D.J., B.A. Mahoney, C.L. Sims, B.A. Mahoney, B.K. Smith, and R.C. Hobbs. 2004b. Aerial surveys of belugas in Cook Inlet, Alaska, June 2004. Unpubl. NMFS report. Available online at <https://www.afsc.noaa.gov/Publications/AFSC-TM/NOAA-TM-AFSC-145.pdf>.
- Rugh, D. J., K. E. W. Sheldon, C. L. Sims, B. A. Mahoney, B. K. Smith, L. K. Litzky, and R. C. Hobbs. 2005a. Aerial surveys of belugas in Cook Inlet, Alaska, June 2001, 2002, 2003, and 2004. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-149, 71 p.
- Rugh, D. J., K. T. Goetz, C. L. Sims, and B. K. Smith. 2006a. Aerial surveys of belugas in Cook Inlet, Alaska, August 2006. Unpubl. NMFS report. Available online at [https://alaskafisheries.noaa.gov/sites/default/files/cib\\_as\\_aug2006.pdf](https://alaskafisheries.noaa.gov/sites/default/files/cib_as_aug2006.pdf)
- Rugh, D. J., K. T. Goetz, J. A. Mocklin, B. A. Mahoney, and B. K. Smith. 2007. *Aerial surveys of belugas in Cook Inlet, Alaska, June 2007*. Unpubl. NMFS report.
- Rugh, D. J., Sheldon, K. E. and R. C. Hobbs. 2010. Range contraction in a beluga whale population. *Endangered Species Research*, 12(1), pp.69-75.
- Scheffer, V. B. and J. W. Slipp. 1944. The harbor seal in Washington State. *Am. Midland Nat.* 32:373-416.
- Scheifele, P. M., S. Andrew, R. A. Cooper, M. Darre, F. E. Musiek, and L. Max. 2005. Indication of a Lombard vocal response in the St. Lawrence River beluga. *The Journal of the Acoustical Society of America*, 117(3), pp.1486-1492.
- 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.
- Seyle H (1950) Stress and the general adaptation syndrome. *J Brit Med* 1:1383–1392
- Sharma, G. D. and D. C. Burrell. 1970. Sedimentary Environment and Sediments of Cook Inlet, Alaska. *American Association of Petroleum Geologists* 54(4, 9):647–654.

- Shelden, K. E. W., D. J. Rugh, B. A. Mahoney, and M. E. Dahlheim, 2003. Killer whale predation on belugas in Cook Inlet, Alaska: Implications for a depleted population. *Marine Mammal Science*, 19, 529–544. <https://doi.org/10.1111/j.1748-7692.2003.tb01319.x>
- Shelden, K. E. W., D. J. Rugh, K. T. Goetz, C. L. Sims, L. Vate Brattström, J. A. Mocklin, B. A. Mahoney, B. K. Smith, and R. C. Hobbs. 2013. Aerial surveys of beluga whales, *Delphinapterus leucas*, in Cook Inlet, Alaska, June 2005 to 2012. NOAA Technical Memorandum NMFS-AFSC-263. National Marine Fisheries Service, Seattle, WA.
- Shelden, K. E. W., B. A. Agler, J. J. Brueggeman, L. A. Cornick, S. G. Speckman, and A. Prevel-Ramos. 2014. Harbor porpoise, *Phocoena phocoena vomerina*, in Cook Inlet, Alaska. *Mar. Fish. Rev.* 76(1-2):22-50.
- Shelden, K. E. W., K. T. Goetz, D. J. Rugh, D. G. Calkins, B. A. Mahoney, and R. C. Hobbs. 2015a. Spatio-temporal changes in beluga whale, *Delphinapterus leucas*, distribution: results from aerial surveys (1977-2014), opportunistic sightings (1975-2014), and satellite tagging (1999-2003) in Cook Inlet, Alaska. *Mar. Fish. Rev.* 77(2):1-31 + appendices. DOI: [dx.doi.org/10.7755/MFR.77.2.1](https://doi.org/10.7755/MFR.77.2.1).
- Shelden, K. E. W., R. C. Hobbs, C. L. Sims, L. Vate Brattström, J. A. Mocklin, C. Boyd, and B. A. Mahoney. 2017. Aerial surveys, abundance, and distribution of beluga whales (*Delphinapterus leucas*) in Cook Inlet, Alaska, June 2016. AFSC Processed Rep. 2017-09, 62 p.
- Shelden, K. E. W., K. T. Goetz, R. C. Hobbs, L. K. Hoberecht, K. L. Laidre, B. A. Mahoney, T. L. McGuire, S. A. Norman, G. O’Corry-Crowe, D. J. Vos, G. M. Ylitalo, S. A. Mizroch, S. Atkinson, K. A. Burek-Huntington, and C. Garner. 2018. Beluga whale, *Delphinapterus leucas*, satellite-tagging and health assessments in Cook Inlet, Alaska, 1999 to 2002. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-369, 227 p.
- Shelden, K. E. W. and P. R. Wade (editors). 2019. Aerial surveys, distribution, abundance, and trend of belugas (*Delphinapterus leucas*) in Cook Inlet, Alaska, June 2018. AFSC Processed Rep. 2019-09. Alaska Fisheries Science Center, NOAA, NMFS, Seattle WA.
- Sinclair, E. H. and T. K. Zeppelin. 2002. Seasonal and spatial differences in diet in the Western Stock of Steller sea lions (*Eumetopias jubatus*). *J. Mamm.* 83(4):973-990.
- Sinclair, E. H., D. S. Johnson, T. K. Zeppelin, and T. S. Gelatt. 2013. Decadal variation in the diet of Western stock Steller sea lions (*Eumetopias jubatus*). U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-248, 67 p.
- 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.
- Stockham, M. L., P. H. Dahl, and P.G. Reinhall, “Analysis of the Port Townsend underwater

acoustic background,” Final Report to WSF and WSDOT, Aug. 2010.

Stone, G. S., L. Cavagnaro, A. Hutt, S. Kraus, K. Baldwin, and J. Brown. 2000. Reactions of Hector's dolphins to acoustic gillnet pingers. New Zealand Department of Conservation: 28.

Širović, A. and Kendall, L.S., 2009. Passive acoustic monitoring of Cook Inlet beluga whales: analysis report, Port of Anchorage Marine Terminal redevelopment project. Prepared for US Department of Transportation, Maritime Administration.

Sweeney, K., R. Towell, and T. Gelatt. 2018. Results of Steller sea lion surveys in Alaska, June-July 2018. Memorandum to the Record, December 5, 2018. Available from Marine Mammal Laboratory, AFSC, NMFS, 7600 Sand Point Way NE, Seattle, WA 98115.

Sweeney, K., K. Luxa, B. Birkemeier, and T. Gelatt. 2019. Results of Steller sea lion surveys in Alaska, June-July 2019. Memorandum to the Record, December 6, 2019. Available from Marine Mammal Laboratory, AFSC, NMFS, 7600 Sand Point Way NE, Seattle, WA 98115.

Teilmann, J., J. Tougaard, L. A. Miller, T. Kirketerp, K. Hansen, and S. Brando. 2006. Reactions of captive harbor porpoises (*Phocoena phocoena*) to pinger-like sounds. *Marine Mammal Science* 22 (2):240-260.

Thorson, P. and J.A. Reyff. 2006. San Francisco-Oakland Bay B 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.

Tollit, D. J., J. Harwood, C. G. Booth, L. Thomas, L. New, and J. D. Wood. 2016. Cook Inlet Beluga Whale PCoD Expert Elicitation Workshop Report. Prepared by SMRU Consulting North America. 29 September 2016, SMRUC-NA-NOAA0915, 54p.

Tollit, D., L. Fritz, R. Joy, K. Miller, A. Schulze, J. Thomason, W. Walker, T. Zeppelin, and T. Gelatt. 2017. Diet of endangered Steller sea lions (*Eumetopias jubatus*) in the Aleutian Islands: new insights from DNA detections and bioenergetics reconstructions. *Can. J. Zool.* 95:853-868. DOI: [dx.doi.org/10.1139/cjz-2016-0253](https://doi.org/10.1139/cjz-2016-0253).

Tyack, P. L. 2008. Implications for marine mammals of large-scale changes in the marine acoustic environment. *Journal of Mammalogy*, 89(3), pp.549-558.

U.S. Navy. 2015. Proxy source sound levels and potential bubble curtain attenuation for acoustic modeling of nearshore marine pile driving at Navy installations in Puget Sound. Prepared by Michael Slater, Naval Surface Warfare Center, Carderock Division, and Sharon Rainsberry, Naval Facilities Engineering Command Northwest. Revised January 2015.

VanWormer, E., J. A. K. Mazet, A. Hall, V. A. Gill, P. L. Boveng, J. M. London, T. Gelatt, B. S. Fadely, M. E. Lander, J. Sterling, V. N. Burkanov, R. R. Ream, P. M. Brock, L. D. Rea, B. R. Smith, A. Jeffers, M. Henstock, M. J. Rehberg, K. A. Burek-Huntington, S. L. Cosby, J. A. Hammond, and T. Goldstein. 2019. Viral emergence in marine mammals in the North

Pacific may be linked to Arctic sea ice reduction. *Scientific Reports* 9, 15569. DOI: [dx.doi.org/10.1038/s41598-019-51699-4](https://doi.org/10.1038/s41598-019-51699-4).

- Vos, D. J. and K. E. W. Shelden. 2005. Unusual mortality in the depleted Cook Inlet beluga population. *Northwest. Nat.* 86(2):59-65.
- Wade, P. R., T. J. Quinn II, J. Barlow, C. S. Baker, A. M. Burdin, J. Calambokidis, P. J. Clapham, E. Falcone, J. K. B. Ford, C. M. Gabriele, R. Leduc, D. K. Mattila, L. Rojas-Bracho, J. Straley, B. L. Taylor, J. Urbán R., D. Weller, B. H. Witteveen, and M. Yamaguchi. 2016. Estimates of abundance and migratory destination for North Pacific humpback whales in both summer feeding areas and winter mating
- Wade, P. R., C. Boyd, K. E. W. Shelden, and C. L. Sims. 2019. Chapter 2: Group size estimates and revised abundance estimates and trend for the Cook Inlet beluga population. In K. E. W. Shelden and P. R. Wade (eds.), *Aerial surveys, distribution, abundance, and trend of belugas (*Delphinapterus leucas*) in Cook Inlet, Alaska, June 2018*. AFSC Processed Rep. 2019-09, 93 p. Alaska Fisheries Science Center, NMFS, 7600 Sand Point Way NE, Seattle, WA 98115.
- Ward, E. J., E. E. Holmes, and K. C. Balcomb. 2009. Quantifying the effects of prey abundance on killer whale reproduction. *Journal of Applied Ecology* 46:632–640.
- 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.
- 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.
- Wasser S. K., J. I. Lundin, K. Ayres, E. Seely, D. Giles, K. Balcomb, J. Hempelmann, K. Parsons, and R. Booth. 2017. Population growth is limited by nutritional impacts on pregnancy success in endangered Southern Resident killer whales (*Orcinus orca*). *PLoS ONE* 12(6): e0179824. doi:10.1371/journal.pone.0179824
- 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.
- Witteveen, B. H., J. M. Straley, E. Chenoweth, C. S. Baker, J. Barlow, C. Matkin, C. M. Gabriele, J. Neilson, D. Steel, O. von Ziegesar, and A. G. Andrews. 2011. Using movements, genetics and trophic ecology to differentiate inshore from offshore aggregations of humpback whales in the Gulf of Alaska. *Endangered Species Research*, 14(3), pp.217-225.
- Wright, A. J., N. A. Soto, A. L. Baldwin, M. Bateson, C. M. Beale, C. Clark, T. Deak, E. F. Edwards, A. Fernández, A. Godinho, and L. T. Hatch, L.T., 2007. Do marine mammals

experience stress related to anthropogenic noise?. *International Journal of Comparative Psychology*, 20(2).

Yazvenko, S. B., T. L. McDonald, S. A. Blokhin, S. R. Johnson, H. R. Melton, M. W. Newcomer, R. Nielson, and P. W. Wainright. 2007. Feeding of western gray whales during a seismic survey near Sakhalin Island, Russia. *Environmental Monitoring and Assessment* 134(1-3):93-106.

Yost, W. A. (2007). *Fundamentals of Hearing: An Introduction* (Academic, New York), 326 pp.

Young, N. C., B. J. Delean, V. T. Helker, J. C. Freed, M. M. Muto, K. Savage, S. Teerlink, L. A. Jemison, K. Wilkinson, and J. Jannot. 2020. Human-caused mortality and injury of NMFS-managed Alaska marine mammal stocks, 2014-2018. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-413, 142 p.