

Systematic Review and Critique of the Contributions of Traditional Ecological Knowledge of Beluga Whales in the Marine Mammal Literature

Kaitlin Breton-Honeyman,¹ Chris M. Furgal² and Michael O. Hammill³

APPENDIX 1

TABLE S1. List of sources included in the review, including categorization.

Reference	Publication type	Location	Discipline code ¹	TEK code
Adams, M., Frost, K.J., and Harwood, L.A. 1993. Alaska and Inuvialuit Beluga Whale Committee (AIBWC) – An initiative in “at home management.” <i>Arctic</i> 46(2):134–137. http://dx.doi.org/10.14430/arctic1334	Journal	Alaska; Western Arctic	MC	Content
Alayco, S., Bergeron, M., and Michaud, M.D. 2007. Inuit elders and their traditional knowledge: Beluga hunting and sustainable practices. Westmount, Quebec: Avataq Cultural Institute; Ottawa: Fisheries and Oceans Canada.	Grey	Hudson Bay	HT	Study
Asselin, N.C. 2010. Spring distribution and habitat use of belugas (<i>Delphinapterus leucas</i>) in the eastern Beaufort Sea. MS thesis, University of Manitoba, Winnipeg, Manitoba.	Grey	Western Arctic	BL	Content
Asselin, N.C., Barber, D.G., Stirling, I., Ferguson, S.H., and Richard, P.R. 2011. Beluga (<i>Delphinapterus leucas</i>) habitat selection in the eastern Beaufort Sea in spring, 1975–1979. <i>Polar Biology</i> 34(12):1973–1988. http://dx.doi.org/10.1007/s00300-011-0990-5	Journal	Western Arctic	BL	Reference
Asselin, N.C., Barber, D.G., Richard, P.R., and Ferguson, S.H. 2012. Occurrence, distribution and behaviour of beluga (<i>Delphinapterus leucas</i>) and bowhead (<i>Balaena mysticetus</i>) whales at the Franklin Bay ice edge in June 2008. <i>Arctic</i> 65(2):121–132. http://dx.doi.org/10.14430/arctic4194	Journal	Western Arctic	BL	Reference
Bailleul, F., Lesage, V., Power, M., Doidge, D.W., and Hammill, M.O. 2012. Differences in diving and movement patterns of two groups of beluga whales in a changing Arctic environment reveal discrete populations. <i>Endangered Species Research</i> 17(1):27–41. http://dx.doi.org/10.3354/esr00420	Journal	Hudson Bay	BL	Reference
Balch, G., and Sang, S. 1986. Contaminants in Arctic wildlife in Nunavut, Canada: Nunavut Wildlife Health Assessment Project. Toronto: WWF-Canada; Peterborough, Ontario: Trent University. 56 p.	Grey	Eastern Arctic; Hudson Bay	BL	Content
Barber, D.G., Saczuk, E., and Richard, P.R. 2001. Examination of beluga-habitat relationships through the use of telemetry and a geographic information system. <i>Arctic</i> 54(3):305–316. http://dx.doi.org/10.14430/arctic790	Journal	Eastern Arctic; Western Arctic	BL	Reference
Barber, D.G., Aspin, M.G., Papakyriakou, T.N., Miller, L., Else, B.G.T., Iacozza, J., Mundy, C.J., et al. 2012. Consequences of change and variability in sea ice on marine ecosystem and biogeochemical processes during the 2007–2008 Canadian International Polar Year program. <i>Climatic Change</i> 115(1):135–159. http://dx.doi.org/10.1007/s10584-012-0482-9	Journal	Arctic wide (Canadian)	BL	Reference
Braham, H.W., Krogman, B.D., and Carroll, G.M. 1984. Bowhead and white whale migration, distribution, and abundance in the Bering, Chukchi, and Beaufort Seas, 1975–78. NOAA Technical Report NMFS SSRF-778. Washington, D.C.: U.S. Department of Commerce. 48 p.	Grey	Western Arctic; Russia	BL	Content

¹ Corresponding author: Environmental and Life Sciences Program; and Health, Environment, and Indigenous Communities Research Group, Trent University, Peterborough, Ontario, K9J 7B8, Canada; kaitlinbh@gmail.com

² Health, Environment, and Indigenous Communities Research Group; and Indigenous Environmental Studies Program, Trent University, Peterborough, Ontario K9J 7B8, Canada

³ Maurice-Lamontagne Institute, Department of Fisheries and Oceans, Mont-Joli, Québec G5H 3Z4, Canada

TABLE S1. List of sources included in the review, including categorization – *continued*:

Reference	Publication type	Location	Discipline code ¹	TEK code
Brooke, L.F. 1992. Report on the 1991 beluga whale and walrus subsistence harvest levels by the Inuit of Nunavik. Kuujjuaq, Quebec: Makivik Corporation. Prepared for DFO under the Aboriginal Fisheries Strategy. 19 p.	Grey	Hudson Bay	HT	Content
Brooke, L.F. 1996. A report on the 1995 Nunavik beluga and walrus subsistence harvest study. Kuujjuaq, Quebec: Makivik Corporation. Prepared for DFO under the Aboriginal Fisheries Strategy.	Grey	Hudson Bay	HT	Content
Brooke, L.F. 1997. A report on the 1996 Nunavik beluga and walrus subsistence harvest study. Kuujjuaq, Quebec: Makivik Corporation. Prepared for DFO under the Aboriginal Fisheries Strategy.	Grey	Hudson Bay	HT	Content
Brooke, L.F. 1998. A report on the 1997 Nunavik beluga and walrus subsistence harvest study. Kuujjuaq, Quebec: Makivik Corporation. Prepared for DFO under the Aboriginal Fisheries Strategy. 91 p.	Grey	Hudson Bay	HT	Content
BSIMPI (Beaufort Sea Integrated Management Planning Initiative) Working Group. 2003. Ecological assessment of the Beaufort Sea beluga management plan—Zone 1(a) as a marine protected area of interest. Ottawa: Fisheries and Oceans Canada.	Grey	Western Arctic	MC	Content
Byers, T., and Roberts, L.W. 1995. Harpoons and ulus: Collective wisdom and traditions of Inuvialuit regarding the beluga (“qilalugaq”) in the Mackenzie River Estuary. Winnipeg: Byers Environmental Studies. 152 p.	Grey	Western Arctic	BL	Study
Carter, B.T.G., and Nielsen, E.A. 2011. Exploring ecological changes in Cook Inlet beluga whale habitat through traditional and local ecological knowledge of contributing factors for population decline. <i>Marine Policy</i> 35(3):299–308. http://dx.doi.org/10.1016/j.marpol.2010.10.009	Journal	Alaska	BL	Study
Cleator, H. n.d. Consultations related to possible listing of Cumberland Sound beluga and Eastern High Arctic-Baffin Bay beluga under the Species at Risk Act. Winnipeg: Fisheries and Oceans Canada. http://www.nwmb.com/en/list-all-site-files/public-hearings/2010-1/may-14-2010-high-arctic-baffin-bay-beluga/852-14-ec-consultation-report-eha-bb-beluga-eng/file	Grey	Eastern Arctic	MC	Content
COSEWIC (Committee on the Status of Endangered Wildlife in Canada). 2004. COSEWIC assessment and update status report on the beluga whale <i>Delphinapterus leucas</i> in Canada. Ottawa. ix + 70 p. http://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_beluga_whale_e.pdf	Grey	Arctic wide (Canadian)	BL	Reference
Culik, B. 2003. Odontocetes. The toothed whales: “ <i>Delphinapterus leucas</i> .“ Bonn, Germany: UNEP/CMS Secretariat.	Grey	Arctic wide	BL	Reference
Day, B. 2002. Renewable resources of the Beaufort Sea for our children: Perspectives from an Inuvialuit Elder. <i>Arctic</i> 55(Suppl. 1):1–3. http://dx.doi.org/10.14430/arctic730	Grey	Western Arctic	HT	Content
De March, B.G.E., and Postma, L.D. 2003. Molecular genetic stock discrimination of belugas (<i>Delphinapterus leucas</i>) hunted in eastern Hudson Bay, northern Quebec, Hudson Strait, and Sanikiluaq (Belcher Islands), Canada, and comparisons to adjacent populations. <i>Arctic</i> 56(2):111–124. http://dx.doi.org/10.14430/arctic607	Journal	Hudson Bay	BL	Reference
DFO. 2000. Eastern Beaufort Sea beluga. DFO Science Stock Status Report E5-38(2000).	Grey	Western Arctic	BL; MC	Content
DFO. 2001. Northern Quebec (Nunavik) beluga (<i>Delphinapterus leucas</i>). DFO Science Stock Status Report E4-01(2001).	Grey	Hudson Bay	BL; MC	Content
DFO. 2002a. Cumberland Sound beluga. DFO Science Stock Status Report E5-32(2002). http://www.dfo-mpo.gc.ca/csas/Csas/status/2002/SSR2002_E5-32e.pdf	Grey	Eastern Arctic	BL; MC	Content

TABLE S1. List of sources included in the review, including categorization – *continued*:

Reference	Publication type	Location	Discipline code ^l	TEK code
DFO. 2002b. Northern Quebec (Nunavik) beluga (<i>Delphinapterus leucas</i>). DFO Science Stock Status Report E4-01(2002).	Grey	Hudson Bay	BL; MC	Content
DFO. 2005. Stock assessment of northern Quebec (Nunavik) beluga (<i>Delphinapterus leucas</i>). Canadian Science Advisory Secretariat, Science Advisory Report 2005/020.	Grey	Hudson Bay	BL; MC	Content
DFO. 2008. Nunavik and adjacent waters 3-year beluga management plan 2006–2008. Ottawa: DFO.	Grey	Hudson Bay	MC	Content
DFO. 2009a. Advice relevant to the identification of critical habitat for Cumberland Sound belugas. Canadian Science Advisory Secretariat, Science Advisory Report 2008/056.	Grey	Eastern Arctic	BL	Content
DFO. 2009b. Stock assessment of northern Quebec (Nunavik) beluga (<i>Delphinapterus leucas</i>). Canadian Science Advisory Secretariat, Science Advisory Report 2009/076.	Grey	Hudson Bay	BL; MC	Content
DFO. 2011. Harvest advice for Nunavik beluga (<i>Delphinapterus leucas</i>). Canadian Science Advisory Secretariat, Science Advisory Report 2010/074.	Grey	Hudson Bay	BL; MC	Content
DFO. 2012. Harvest advice for Nunavik beluga (<i>Delphinapterus leucas</i>). Canadian Science Advisory Secretariat, Science Advisory Report 2011/080.	Grey	Hudson Bay	BL; MC	Content
Diemer, K.M., Conroy, M.J., Ferguson, S.H., Hauser, D.D.W., Grgicak-Mannion, A., and Fisk, A.T. 2011. Marine mammal and seabird summer distribution and abundance in the fjords of northeast Cumberland Sound of Baffin Island, Nunavut, Canada. <i>Polar Biology</i> 34(1):41–48. http://dx.doi.org/10.1007/s00300-010-0857-1	Journal	Eastern Arctic	BL	Reference
Doidge, D.W., and Lesage, V. 2001. Use of the Little Whale and Nastapoka estuaries by humans and beluga during summer 2001. Kuujjuaq, Quebec: Nunavik Research Centre. 34 p.	Grey	Hudson Bay	BL	Content
Doidge, D.W., Adams, W., and Burg, C. 2002. Traditional ecological knowledge of beluga whales in Nunavik: Interviews from Puvirnituq, Umiujaq and Kuujjuaapik. Kuujjuaq, Quebec: Makivik Corporation.	Grey	Hudson Bay	BL	Study
Doniol-Valcroze, T., and Hammill, M.O. 2012a. Information on abundance and harvest of Ungava Bay beluga. Canadian Science Advisory Secretariat, Research Document 2011/126. iv + 12 p. http://www.dfo-mpo.gc.ca/Csas-sccs/publications/resdocs-docrech/2011/2011_126-eng.pdf	Grey	Hudson Bay	BL; MC	Reference
Doniol-Valcroze, T., and Hammill, M.O. 2012b. Harvest advice for beluga in the Belcher, King George, and Sleeper Islands in relation to the eastern Hudson Bay stock. Canadian Science Advisory Secretariat, Research Document 2011/125. iv + 8 p. http://publications.gc.ca/collections/collection_2013/mpo-dfo/Fs70-5-2011-125-eng.pdf	Grey	Hudson Bay	BL; MC	Reference
Doniol-Valcroze, T., Lesage, V., and Hammill, M.O. 2012. Management implications of closure of estuaries to hunting of beluga in Nunavik. Canadian Science Advisory Secretariat, Research Document 2011/130. iv + 16 p. http://www.dfo-mpo.gc.ca/Library/345618.pdf	Grey	Hudson Bay	BL; MC	Reference
Dutton, I.M., Klein, J.R., Cain, K.J., Deel, R., Federer, R., LeBail, H., and Hunt, J. 2012. An oral history of habitat use by Cook Inlet belugas in waters of the Kenai Peninsula Borough. Kenai Peninsula Borough 109. http://www.alaskapublic.org/wp-content/uploads/2012/06/3-R0086-Oral-History-of-CIBW-Final-Report-FINAL-051012.pdf	Grey	Alaska	BL	Study
Duval, W.S. 1993. Proceedings of a workshop on Beaufort Sea beluga: February 3–6, 1992, Vancouver, BC. Environmental Studies Research Funds, Report No. 123. Vancouver: Arys Environmental Consulting Ltd. 33 p. http://www.esrfunds.org/pdf/123.pdf	Grey	Alaska; Western Arctic	BL	Content

TABLE S1. List of sources included in the review, including categorization – *continued*:

Reference	Publication type	Location	Discipline code ¹	TEK code
Ferguson, S.H., Kingsley, M.C.S., and Higdon, J.W. 2011. Killer whale (<i>Orcinus orca</i>) predation in a multi-prey system. Population Ecology 54(1):31–41. http://dx.doi.org/10.1007/s10144-011-0284-3	Journal	Eastern Arctic; Hudson Bay	BL	Study
Ferguson, S.H., Higdon, J.W., and Westdal, K.H. 2012. Prey items and predation behavior of killer whales (<i>Orcinus orca</i>) in Nunavut, Canada based on Inuit hunter interviews. Aquatic Biosystems 8(3). 16 p. http://dx.doi.org/10.1186/2046-9063-8-3	Journal	Eastern Arctic; Hudson Bay	BL	Study
Fernandez-Gimenez, M.E., Huntington, H.P., and Frost, K.J. 2006. Integration or co-optation? Traditional knowledge and science in the Alaska Beluga Whale Committee. Environmental Conservation 33(4):306–315. http://dx.doi.org/10.1017/S0376892906003420	Journal	Alaska	MC	Study
Fernandez-Gimenez, M., Hays, J., Jr., Huntington, H., Andrew, R., and Goodwin, W. 2008. Ambivalence toward formalizing customary resource management norms among Alaska Native beluga whale hunters and Tohono O’odham livestock owners. Human Organization 67(2):137–150. http://dx.doi.org/10.17730/humo.67.2.008083027273n05q	Journal	Alaska	MC	Study
Finley, K.J., Miller, G.W., Allard, M., Davis, A., and Evans, C.R. 1982. The belugas (<i>Delphinapterus leucas</i>) of northern Quebec: Distribution, abundance, stock identity, catch history and management. Technical Report of Fisheries and Aquatic Sciences 1123. 57 p.	Grey	Hudson Bay	BL; MC	Study
FJMC (Fisheries Joint Management Committee). 2001. Beaufort Sea beluga management plan. Inuvik: FJMC. http://www.dfo-mpo.gc.ca/Library/261696.pdf	Grey	Western Arctic	MC	Content
Frost, K.J., Lowry, L.F., and Carroll, G. 1993. Beluga whale and spotted seal use of a coastal lagoon system in the northeastern Chukchi Sea. Arctic 46(1):8–16. http://dx.doi.org/10.14430/arctic1316	Journal	Alaska	BL	Content
Funk, D.W., Markowitz, T.M., and Rodrigues, R., eds. 2005. Baseline studies of beluga whale habitat use in Knik Arm, Upper Cook Inlet, Alaska, July 2004–July 2005. Report from 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. 232 p.	Grey	Alaska	BL	Reference
Gilchrist, H.G., and Robertson, G.J. 2000. Observations of marine birds and mammals wintering at polynyas and ice edges in the Belcher Islands, Nunavut, Canada. Arctic 53(1):61–68. http://dx.doi.org/10.14430/arctic835	Journal	Hudson Bay	BL	Study
Gislason, R. 2007. Beluga co-management: Perspectives from Kuujjuarapik and Umiujaq, Nunavik. MEnv thesis, University of Manitoba, Winnipeg.	Grey	Hudson Bay	MC	Study
Goetz, K.T., Rugh, D.J., Read, A.J., and Hobbs, R.C. 2007. Habitat use in a marine ecosystem: Beluga whales <i>Delphinapterus leucas</i> in Cook Inlet, Alaska. Marine Ecology Progress Series 330:247–256. http://dx.doi.org/10.3354/meps330247	Journal	Alaska	BL	Reference
Gosselin, J.-F., Lesage, V., and Hammill, M.O. 2009. Index estimates of abundance for beluga in eastern Hudson Bay, James Bay and Ungava Bay in summer 2008. Canadian Science Advisory Secretariat, Research Document 2009/006. iv + 25 p. http://www.dfo-mpo.gc.ca/CSAS/Csas/Publications/ResDocs-DocRech/2009/2009_006_e.pdf	Grey	Hudson Bay	BL	Reference
Hammill, M., and Lesage, V. 2009. Seasonal movements and abundance of beluga in northern Quebec (Nunavik) based on weekly sightings information. Canadian Science Advisory Secretariat, Research Document 2009/010. iv + 14 p. http://www.dfo-mpo.gc.ca/CSAS/Csas/Publications/ResDocs-DocRech/2009/2009_010_e.pdf	Grey	Hudson Bay	BL	Content

TABLE S1. List of sources included in the review, including categorization – *continued*:

Reference	Publication type	Location	Discipline code ^l	TEK code
Hammill, M.O., Lesage, V., Gosselin, J.-F., Bourdages, H., de March, B.G.E., and Kingsley, M.C.S. 2004. Evidence for a decline in northern Quebec (Nunavik) belugas. Arctic 57(2):183–195. http://dx.doi.org/10.14430/arctic494	Journal	Hudson Bay	BL	Reference
Hammill, M. O., Lesage, V., Richard, P., and Hall, P. 2007. A response to ‘Sentient beings and wildlife resources: Inuit, beluga whales and management regimes in the Canadian Arctic.’ Human Ecology 35(5):639–640. http://dx.doi.org/10.1007/s10745-007-9130-9	Grey	Hudson Bay	MC	Content
Harwood, L.A., and Smith, T.G. 2002. Whales of the Inuvialuit Settlement Region in Canada’s Western Arctic: An overview and outlook. Arctic 55(Suppl. 1):77–93. http://dx.doi.org/10.14430/arctic736	Journal	Western Arctic	BL	Content
Harwood, L.A., Norton, P., Day, B., and Hall, P.A. 2002. The harvest of beluga whales in Canada’s Western Arctic: Hunter-based monitoring of the size and composition of the catch. Arctic 55(1):10–20. http://dx.doi.org/10.14430/arctic687	Journal	Western Arctic	BL; HT;	Content
Heide-Jørgensen, M.P., Laidre, K.L., Borchers, D., Marques, T.A., Stern, H., and Simon, M. 2010. The effect of sea-ice loss on beluga whales (<i>Delphinapterus leucas</i>) in West Greenland. Polar Research 29(2):198–208. http://dx.doi.org/10.1111/j.1751-8369.2009.00142.x	Journal	Greenland	BL	Content
Hobbs, R.C., Rugh, D.J., and DeMaster, D.P. 2000. Abundance of belugas, <i>Delphinapterus leucas</i> , in Cook Inlet, Alaska, 1994–2000. Marine Fisheries Review 62(3):37–45.	Journal	Alaska	BL	Reference
Hobbs, R.C., Laidre, K.L., Vos, D.J., Mahoney, B.A., and Eagleton, M. 2005. Movements and area use of belugas, <i>Delphinapterus leucas</i> , in a subarctic Alaskan estuary. Arctic 58(4):331–340. http://dx.doi.org/10.14430/arctic447	Journal	Alaska	BL	Reference
Huntington, H.P. 1998. Observations on the utility of the semi-directive interview for documenting traditional ecological knowledge. Arctic 51(3):237–242. http://dx.doi.org/10.14430/arctic1065	Journal	Alaska; Russia	MD	Study
Huntington, H.P. 2000a. Using traditional ecological knowledge in science: Methods and applications. Ecological Applications 10(5):1270–1274. http://dx.doi.org/10.1890/1051-0761(2000)010[1270:utekis]2.0.co;2	Journal	Alaska	BL	Study
Huntington, H.P. 2000b. Traditional knowledge of the ecology of belugas, <i>Delphinapterus leucas</i> , in Cook Inlet, Alaska. Marine Fisheries Review 62(3):134–140.	Journal	Alaska	MD	Study
Huntington, H. 2006. User knowledge: The role of user knowledge in co-management: The example of the Alaska Beluga Whale Committee. In: Hovelsrud G.K., and Winsnes, C., eds. User knowledge and scientific knowledge in management decision-making. Tromso, Norway: The North Atlantic Marine Mammal Commission. 25–26.	Grey	Alaska; C. Western Arctic	MC	Content
Huntington, H.P. 2011. Arctic science: The local perspective. Nature 478:182–183. http://dx.doi.org/10.1038/478182a	Journal	Alaska	BL	Reference
Huntington, H., and Myrrin, N.I. 1996. Traditional ecological knowledge of beluga whales: An indigenous knowledge pilot project in the Chukchi and northern Bering Seas. Anchorage: Inuit Circumpolar Conference. http://www.mnh.si.edu/arctic/html/tek.html	Grey	Alaska; Russia	BL	Study
Huntington, H., and the Communities of Buckland, Elim, Koyuk, Point Lay, and Shaktoolik. 1999. Traditional knowledge of the ecology of beluga whales (<i>Delphinapterus leucas</i>) in the eastern Chukchi and northern Bering Seas, Alaska. Arctic 52(1):49–61. http://dx.doi.org/10.14430/arctic909	Journal	Alaska	BL	Study

TABLE S1. List of sources included in the review, including categorization – *continued*:

Reference	Publication type	Location	Discipline code ¹	TEK code
Huntington, H.P., Brown-Schwalenberg, P.K., Frost, K.J., Fernandez-Gimenez, M.E., Norton, D.W., and Rosenberg, D.H. 2002. Observations on the workshop as a means of improving communication between holders of traditional and scientific knowledge. <i>Environmental Management</i> 30(6):778–792. http://dx.doi.org/10.1007/s00267-002-2749-9	Journal	Alaska	MD	Study
Huntington, H.P., Suydam, R.S., and Rosenberg, D.H. 2004. Traditional knowledge and satellite tracking as complementary approaches to ecological understanding. <i>Environmental Conservation</i> 31(3):177–180. http://dx.doi.org/10.1017/s0376892904001559	Journal	Alaska	BL	Reference
Kilabuk, P. 1998. A study of Inuit knowledge of the southeast Baffin beluga. The Southeast Baffin Beluga Management Committee.	Grey	Hudson Bay	BL	Study
Kingsley, M.C.S., Gosselin, S., and Sleno, G.A. 2001. Movements and dive behaviour of belugas in northern Quebec. <i>Arctic</i> 54(3):262–275. http://dx.doi.org/10.14430/arctic786	Journal	Hudson Bay; Eastern Arctic	BL	Content
Kishigami, N. 2005. Co-management of beluga whales in Nunavik (Arctic Quebec), Canada. In: Kishigami, N., and Savelle, J.M., eds. <i>Indigenous use and management of marine resources</i> . Senri Ethnological Studies 67. 121–144.	Journal	Hudson Bay	MC	Content
Kocho-Schellenberg, J.-E. 2010. Understanding the evolution of beluga entrapment co- management in the Inuvialuit Settlement Region using social network analysis. Master of Natural Resources Management, University of Manitoba. Winnipeg, Manitoba	Grey	Western Arctic	MC	Study
Laidre, K.L., Shelden, K.E.W., Rugh, D.J., and Mahoney, B.A. 2000. Beluga, <i>Delphinapterus leucas</i> , distribution and survey effort in the Gulf of Alaska. <i>Marine Fisheries Review</i> 62(3):27–36.	Journal	Alaska	BL	Reference
Lawson, J., Hammill, M., and Stenson, G. 2006. Characteristics for recovery: Beluga whale. Canadian Science Advisory Secretariat, Research Document 2006/075. ii + 16 p. http://www.dfo-mpo.gc.ca/csas/Csas/DocREC/2006/RES2006_075_e.pdf	Grey	Arctic wide (Canadian)	BL	Content
Lee, D., Doidge, W., Burgoyne, C., and Adams, W. 2002. Traditional ecological knowledge in relation to the management of beluga whales in Nunavik Phase I. Interviews at Kangirsuk, Salluit and Inukjuak. Kuujjuaq, Quebec: Makivik Corporation.	Grey	Hudson Bay	BL	Study
Lerczak, J.A., Shelden, K.E.W., and Hobbs, R.C. 2000. Application of suction-cup-attached VHF transmitters to the study of beluga, <i>Delphinapterus leucas</i> , surfacing behavior in Cook Inlet, Alaska. <i>Marine Fisheries Review</i> 62(3):99–111.	Journal	Alaska	BL	Content
Lesage, V., Baillargeon, D., Turgeon, S., and Doidge, D.W. 2009. Harvest statistics for beluga in Nunavik, 2005–2008. Canadian Science Advisory Secretariat, Research Document 2009/007. Ottawa: DFO. iv + 25 p.	Grey	Hudson Bay	BL; HT; MC	Reference
Lewis, A.E., Hammill, M.O., Power, M., Doidge, D.W., and Lesage, V. 2009. Movement and aggregation of eastern Hudson Bay beluga whales (<i>Delphinapterus leucas</i>): A comparison of patterns found through satellite telemetry and Nunavik traditional ecological knowledge. <i>Arctic</i> 62(1):13–24. http://dx.doi.org/10.14430/arctic109	Journal	Hudson Bay	BL	Study
Loseto, L.L., Stern, G.A., Deibel, D., Connelly, T.L., Prokopowicz, A., Lean, D.R.S., Fortier, L., and Ferguson, S.H. 2008a. Linking mercury exposure to habitat and feeding behaviour in Beaufort Sea beluga whales. <i>Journal of Marine Systems</i> 74(3-4):1012–1024. http://dx.doi.org/10.1016/j.jmarsys.2007.10.004	Journal	Western Arctic	BL	Reference
Loseto, L.L., Stern, G.A., and Ferguson, S.H. 2008b. Size and biomagnification: How habitat selection explains beluga mercury levels. <i>Environmental Science & Technology</i> 42(11):3982–3988. http://dx.doi.org/10.1021/es7024388	Journal	Western Arctic	BL	Reference

TABLE S1. List of sources included in the review, including categorization – *continued*:

Reference	Publication type	Location	Discipline code ^l	TEK code
Lucier, C.V., and VanStone, J.W. 1995. Traditional beluga drives of the Iñupiat of Kotzebue Sound, Alaska. <i>Fieldiana, Anthropology new series</i> 25. Chicago: Field Museum of Natural History.	Journal	Alaska	HT	Study
Mahoney, B.A., and Shelden, K.E.W. 2000. Harvest history of belugas, <i>Delphinapterus leucas</i> , in Cook Inlet, Alaska. <i>Marine Fisheries Review</i> 62(3):124–133.	Journal	Alaska	HT	Content
Marcoux, M., McMeans, B.C., Fisk, A.T., and Ferguson, S.H. 2012. Composition and temporal variation in the diet of beluga whales, derived from stable isotopes. <i>Marine Ecology Progress Series</i> 471:283–291. http://dx.doi.org/10.3354/meps10029	Journal	Eastern Arctic	BL	Reference
Markowitz, T.M., and Link, M.R. 2006. Estimating the effects of smolt predation by beluga whales on Kvichak River sockeye salmon. Anchorage: LGL Alaska Research Associates, Inc. Prepared for North Pacific Research Board and Bristol Bay Science and Research Institute. http://doc.nprb.org/web/03_prjs/r0321_final2.pdf	Grey	Alaska	BL	Content
McDonald, M., Arragutainaq, L., and Novalinga, Z., compilers. 1997. Voices from the Bay: Traditional ecological knowledge of Inuit and Cree in the Hudson Bay bioregion. Ottawa: Canadian Arctic Resources Committee and Environmental Committee of Municipality of Sanikiluaq.	Grey	Hudson Bay	BL	Study
Michaud, M.D. 2007. Nunavik Inuit traditional knowledge and beluga harvesting. Summary of the report entitled: « Inuit Elders and their traditional knowledge: Beluga hunting and sustainable practices ». Avataq Cultural Institute and Fisheries and Oceans Canada.	Grey	Hudson Bay	HT	Study
Moore, S.E., and DeMaster, D.P. 2000. Cook Inlet belugas, <i>Delphinapterus leucas</i> : Status and overview. <i>Marine Fisheries Review</i> 62(3):1–5.	Journal	Alaska	BL	Content
Moore, S.E., and Huntington, H.P. 2008. Arctic marine mammals and climate change: Impacts and resilience. <i>Ecological Applications</i> 18(Sp2):S157–S165. http://dx.doi.org/10.1890/06-0571.1	Journal	Arctic	BL	Reference
Moore, S.E., Shelden, K.E.W., Litzky, L.K., Mahoney, B.A., and Rugh, D.J. 2000. Beluga, <i>Delphinapterus leucas</i> , habitat associations in Cook Inlet, Alaska. <i>Marine Fisheries Review</i> 62(3):60–80.	Journal	Alaska	BL	Reference
Morseth, C.M. 1997. Twentieth-century changes in beluga whale hunting and butchering by the Kanigmiut of Buckland, Alaska. <i>Arctic</i> 50(3):241–255. http://dx.doi.org/10.14430/arctic1106	Journal	Alaska	HT	Study
Mosnier, A., Lesage, V., Gosselin, J.-F., Lefebvre, S.L., Hammill, M.O., and Doniol-Valcroze, T. 2010. Information relevant to the documentation of habitat use by St. Lawrence beluga (<i>Delphinapterus leucas</i>), and quantification of habitat quality. Canadian Science Advisory Secretariat, Research Document 2009/098. iv + 35 p. http://www.dfo-mpo.gc.ca/CSAS/Csas/publications/resdocs-docrech/2009/2009_098_e.pdf	Grey	Other	BL	Reference
Mymrin, N.I., the communities of Novoe Chaplino, Sireniki, Uelen, and Yankrakinnot, and Huntington, H.P. 1999. Traditional knowledge of the ecology of beluga whales (<i>Delphinapterus leucas</i>) in the northern Bering Sea, Chukotka, Russia. <i>Arctic</i> 52(1):62–70. http://dx.doi.org/10.14430/arctic910	Journal	Russia	BL	Study
NAMMCO (North Atlantic Marine Mammal Commission). n.d. Status of marine mammals in the North Atlantic: The beluga whale. Tromso, Norway: NAMMCO. http://iea.uoregon.edu/indicators/NAMMCOBelugaWhales1992-2002Data.pdf	Grey	Arctic wide	BL	Content
NMFS (National Marine Fisheries Service). 2008. Conservation plan for the Cook Inlet beluga whale (<i>Delphinapterus leucas</i>). Juneau, Alaska: NMFS. 128 p.	Grey	Alaska	MC	Content
NOAA (National Oceanic and Atmospheric Administration). 1999. Designation of the Cook Inlet, Alaska, stock of beluga whale as depleted under the Marine Mammal Protection Act (MMPA) and response to petitions.	Grey	Alaska	MC	Content

TABLE S1. List of sources included in the review, including categorization – *continued*:

Reference	Publication type	Location	Discipline code ¹	TEK code
NOAA. 2005a. Draft conservation plan for the Cook Inlet beluga whale (<i>Delphinapterus leucas</i>).	Grey	Alaska	MC	Content
NOAA. 2005b. Environmental assessment: Co-management agreement between National Marine Fisheries Service and the Cook Inlet Marine Mammal Council for the year 2005. Juneau, Alaska: NOAA.	Grey	Alaska	MC	Content
NOAA. 2010. Final RIR/4 (b)(2) Preparatory Assessment / FRFA for the Critical Habitat Designation of Cook Inlet Beluga Whale. 247 p.	Grey	Alaska	MC	Content
Olpinski, S. 1990. The 1989 Nunavik beluga and walrus subsistence harvest study: A report. Report prepared for the Department of Fisheries and Oceans under the Aboriginal Fisheries Strategy.	Grey	Hudson Bay	HT	Content
Olpinski, S. 1991. The 1990 Nunavik beluga and walrus subsistence harvest study: A report. Report prepared for the Department of Fisheries and Oceans under the Aboriginal Fisheries Strategy.	Grey	Hudson Bay	HT	Content
Olpinski, S. 1993. The 1992 Nunavik beluga whale and walrus subsistence harvest study. Report prepared for the Department of Fisheries and Oceans under the Aboriginal Fisheries Strategy.	Grey	Hudson Bay	HT	Content
Portnoff, M. 1994. The 1993 Nunavik beluga whale and walrus subsistence harvest study: A report. Montreal: Nunavik Graphics for Department of Fisheries and Oceans. iv + 61 p.	Grey	Hudson Bay	HT	Content
Read, C.J., and Stephansson, S.E. 1976. Distribution and migration routes of marine mammals in the central Arctic region. Technical Report 667. Ottawa: Fisheries and Marine Service. v + 13 p. http://www.dfo-mpo.gc.ca/Library/58470.pdf	Grey	Eastern Arctic	BL	Study
Reeves, R.R. 1995. Belugas (white whales) in Nunavik. Ottawa: Department of Fisheries and Oceans Canada.	Grey	Hudson Bay	BL	Content
Reeves, R.R., and Mitchell, E. 1987. Distribution and migration, exploitation, and former abundance of white whales (<i>Delphinapterus leucas</i>) in Baffin Bay and adjacent waters. Canadian Special Publication of Fisheries and Aquatic Sciences 99. 34 p. http://www.dfo-mpo.gc.ca/Library/105822.pdf	Journal	Eastern Arctic	BL	Content
Reeves, R.R., and Mitchell, E. 1989. Status of white whales, <i>Delphinapterus leucas</i> , in Ungava Bay and eastern Hudson Bay. The Canadian Field-Naturalist 103:200–239.	Journal	Hudson Bay	BL	Reference
Remnant, R.A., and Thomas, M.L. 1992. Inuit traditional knowledge of the distribution and biology of High Arctic narwhal and beluga. Winnipeg: North/South Consultants Inc., Canada/Greenland Joint Commission for the Conservation and Management of Beluga and Narwhal. vii + 96 p.	Grey	Eastern Arctic	BL	Study
Richard, P.R. 2005. An estimate of the Western Hudson Bay beluga population size in 2004. Canadian Science Advisory Secretariat, Research Document 2005/017. ii + 29 p.	Grey	Hudson Bay	BL	Content
Richard, P.R. 2010. Stock definition of belugas and narwhals in Nunavut. Canadian Science Advisory Secretariat, Research Document 2010/022. iv + 14 p.	Grey	Eastern Arctic; Hudson Bay; Western Arctic	BL; MC	Content
Richard, P.R., and Pike, D.G. 1993. Small whale co-management in the Eastern Canadian Arctic: A case history and analysis. Arctic 46(2):138–143. http://dx.doi.org/10.14430/arctic1335	Journal	Eastern Arctic; Hudson Bay	MC	Content
Richard, P., and Stewart, D.B. 2009. Information relevant to the identification of critical habitat for Cumberland Sound belugas (<i>Delphinapterus leucas</i>). 2008/085. iv + 24 p. http://www.dfo-mpo.gc.ca/CSAS/Csas/Publications/ResDocs-DocRech/2008/2008_085_e.pdf	Grey	Eastern Arctic	BL	Content
Richard, P., Martin, A.R., and Orr, J.R. 1997. Study of summer and fall movements and dive behaviour of Beaufort Sea belugas, using satellite telemetry: 1992–1995. Environmental Studies Research Funds, Report No. 134. Calgary. v + 26 p.	Grey	Western Arctic	BL	Content

TABLE S1. List of sources included in the review, including categorization – *continued*:

Reference	Publication type	Location	Discipline code ^l	TEK code
Richard, P.R., Martin, A.R., and Orr, J.R. 2001. Summer and autumn movements of belugas of the eastern Beaufort Sea stock. Arctic 54(3):223–236. http://dx.doi.org/10.14430/arctic783	Journal	Western Arctic	BL	Content
Rioux, È., Lesage, V., Postma, L., Pelletier, E., Turgeon, J., Stewart, R.E.A., Stern, G., and Hammill, M.O. 2012. Use of stable isotopes and trace elements to determine harvest composition and wintering assemblages of belugas at a contemporary ecological scale. Endangered Species Research 18:179–191. http://www.int-res.com/articles/esr_oa/n018p179.pdf	Journal	Eastern Arctic; Hudson Bay	BL	Reference
Rodrigues, R., Nemeth, M., Markowitz, T.M., and Funk, D.W. 2006. Review of literature on fish species and beluga whales in Cook Inlet, Alaska. Anchorage: LGL Alaska Research Associates Inc. for DRven Corporation, Anchorage, Alaska. iv + 49 p. http://www.chuitnaseis.com/documents/projectdocs/Literature-Review-Marine-Fish-Mammals.pdf	Grey	Alaska	BL	Reference
Rugh, D.J., Shelden, K.E.W., and Mahoney, B.A. 2000. Distribution of belugas, <i>Delphinapterus leucas</i> , in Cook Inlet, Alaska, during June/July 1993–2000. Marine Fisheries Review 62(3):6–21.	Journal	Alaska	BL	Content
Sang, S., Booth, C., and Balch, G. 2004. Documentation of Inuit Qaujimajatuqangit (local knowledge) in Pangnirtung, Coral Harbour and Arviat, Nunavut. Toronto, Ontario: World Wildlife Fund Canada.	Grey	Eastern Arctic; Hudson Bay	BL	Study
Sejersen, F. 2001. Hunting and management of beluga whales (<i>Delphinapterus leucas</i>) in Greenland: Changing strategies to cope with new national and local interests. Arctic 54(4):431–443. http://dx.doi.org/10.14430/arctic800	Journal	Greenland	HT; MC	Study
Shelden, K.E.W., Rugh, D.J., Mahoney, B.A., and Dahlheim, M.E. 2003. Killer whale predation on belugas in Cook Inlet, Alaska: Implications for a depleted population. Marine Mammal Science 19(3):529–544. http://dx.doi.org/10.1111/j.1748-7692.2003.tb01319.x	Journal	Alaska	BL	Reference
Smith, T.G. 1998. Seasonal movements and migrations of belugas, <i>Delphinapterus leucas</i> , along the Nunavik coastlines: Evidence from harvest statistics, game reports, local knowledge and scientific studies. Prepared for the Department of Fisheries and Oceans Canada, Institut Maurice Lamontagne, Mont Joli, Quebec. 32 p.	Grey	Hudson Bay	BL	Content
Smith, T.G. 2000. Studying the movements and migrations of Arctic beluga whales. Makivik Corporation under the Aboriginal Fisheries Strategy Program of the Department of Fisheries and Oceans. 36 p.	Grey	Hudson Bay	BL	Content
Speckman, S.G., and Piatt, J.F. 2000. Historic and current use of lower Cook Inlet, Alaska, by belugas, <i>Delphinapterus leucas</i> . Marine Fisheries Review 62(3):22–26.	Journal	Alaska	BL	Reference
Stewart, D. B. 2001. Inuit knowledge of belugas and narwhals in the Canadian eastern Arctic. Winnipeg, Manitoba: Arctic Biological Consultants. Prepared for Canada Department of Fisheries and Oceans. iv + 32 p. http://www.dfo-mpo.gc.ca/Library/254637.pdf	Grey	Eastern Arctic	BL	Study
Stewart, D.B., and Lockhart, W.L. 2005. Chapter 9. Mammals. In: An overview of the Hudson Bay marine ecosystem. Canadian Technical Report of Fisheries and Aquatic Sciences 2586. 40 p. http://www.dfo-mpo.gc.ca/Library/314704-Ch9.pdf	Grey	Hudson Bay	BL	Reference
Stewart, D.B., Akeeaqok, A., Amarualik, R., Panipakutsuk, S., and Taqtu, A. 1995. Local knowledge of beluga and narwhal from four communities in Arctic Canada. Canadian Technical Report of Fisheries and Aquatic Sciences 2065: viii + 48 p. + Appendices on disk.	Grey	Eastern Arctic	BL	Study
Suydam, R.S. 2009. Age, growth, reproduction, and movements of beluga whales (<i>Delphinapterus leucas</i>) from the eastern Chukchi Sea. PhD thesis, University of Washington.	Grey	Alaska	BL	Content

TABLE S1. List of sources included in the review, including categorization – *continued*:

Reference	Publication type	Location	Discipline code ¹	TEK code
Suydam, R.S., Lowry, L.F., Frost, K.J., O'Corry-Crowe, G.M., and Pikok, D. 2001. Satellite tracking of Eastern Chukchi Sea beluga whales into the Arctic Ocean. <i>Arctic</i> 54(3):237–243. http://dx.doi.org/10.14430/arctic784	Journal	Alaska	BL	Reference
Suydam, R.S., Lowry, L.F., and Frost, K.J. 2005. Distribution and movements of beluga whales from the Eastern Chukchi Sea stock during summer and early autumn. OCS Study MMS 2005-035. http://www.boem.gov/BOEM-Newsroom/Library/Publications/2005/2005_035.aspx	\ Grey	Alaska	BL	Content
Thomsen, M.L. 1993. Local knowledge of the distribution, biology, and hunting of beluga and narwhal: A survey among Inuit hunters in West and North Greenland. Nuuk: Greenland Hunters' and Fishermen's Association, Greenland Home Rule Authorities, and Inuit Circumpolar Conference.	Grey	Greenland	BL	Study
Turgeon, J., Duchesne, P., Colbeck, G.J., Postma, L.D., and Hammill, M.O. 2012. Spatiotemporal segregation among summer stocks of beluga (<i>Delphinapterus leucas</i>) despite nuclear gene flow: Implication for the endangered belugas in eastern Hudson Bay (Canada). <i>Conservation Genetics</i> 13(2):419–433. http://dx.doi.org/10.1007/s10592-011-0294-x	Journal	Eastern Arctic; Hudson Bay	BL	Reference
Tyrrell, M. 2007a. Sentient beings and wildlife resources: Inuit, beluga whales and management regimes in the Canadian Arctic. <i>Human Ecology</i> 35(5):575–586. http://dx.doi.org/10.1007/s10745-006-9105-2	Journal	Hudson Bay	HT; MC	Study
Tyrrell, M. 2007b. Quaqtaqmiut and beluga whales: Knowledge, practice and the impact of beluga whale management. Cambridge: Scott Polar Research Institute.	Grey	Hudson Bay	HT; MC	Study
Tyrrell, M. 2008. Nunavik Inuit perspectives on beluga whale management in the Canadian Arctic. <i>Human Organization</i> 67(3):322–334. http://dx.doi.org/10.17730/humo.67.3.4782625k0623352	Journal	Hudson Bay	HT; MC	Study
Vos, D.J. 2003. Cook Inlet beluga age and growth. MScEnv thesis, Alaska Pacific University, Anchorage.	Grey	Alaska	BL	Reference
Watts, P.D., and Draper, B.A. 1986. Note on the behavior of beluga whales feeding on capelin. <i>Arctic and Alpine Research</i> 18(4):439. http://dx.doi.org/10.2307/1551093	Journal	Hudson Bay	BL	Content
Welch, H.E., Crawford, R.E., and Hop, H. 1993. Occurrence of Arctic cod (<i>Boreogadus saida</i>) schools and their vulnerability to predation in the Canadian High Arctic. <i>Arctic</i> 46(4):331–339. http://dx.doi.org/10.14430/arctic1361	Journal	Eastern Arctic	BL	Content

¹ MD = Methods; BL = Biology; MC = Management and co-management; HT = Harvesting/Hunting/Resource use.