

## CV Bogi Hansen

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**Profession** Physical oceanography, Ph.D.

**Current position** Senior scientist, Faroe Marine Research Institute  
Honorary (adjungeraður) professor at the University of the Faroe Islands  
Honorary (adjungeret) professor at Aarhus University, Denmark

**Education**

1969	Cand. scient. in Theoretical Physics, University of Copenhagen
1970	M.A in Theoretical Physics, S.U.N.Y. at Stony Brook
1973	Mag. scient. in Physical Oceanography, University of Copenhagen
1977	Lic. scient. (Ph.D.) in Physical Oceanography, University of Copenhagen

**Employments**

1970 - 1972	Highschool (Gymnasie) teacher in Tórshavn
1975 - 1982	Lecturer in Physics at the University of the Faroes
1982 -	Hydrographer at Havstovan
1991 - 2012	Head of Environmental Department

**Language capacity**

Faroese	Mother tongue
Scandinavian	Fluent
English	Fluent
German	Moderate
French	Moderate

**Selected offices**

1988 - 1991	Chairman of the ICES Working Group on Oceanic Hydrography
1988 - 1995	Member of the Nordic WOCE Steering Group
1992 - 1993	President of the Faroese Scientific Society (Føroya Fróðskaparfelag)
2000 - 2005	Chairman of the Westnordic Programme for Ocean Climate Research
2000 - 2005	Contributing author to the Arctic Climate Impact Assessment, Ch. 9: Marine Systems
2004 - 2006	Chairman of the Norwegian – Iceland Seas Experiment (NISE)
2006 - 2015	Honorary (adjungeraður) professor at the University of the Faroe Islands
2009 - 2013	Honorary (adjungeret) professor at Aarhus University, Denmark
2010 - 2013	Member of CLIVAR Atlantic Panel

### Main research fields

- Regional oceanography of the North East Atlantic.
- Regional oceanography of the Faroe Shelf and Faroese fjords
- Oceanic coupling between the Arctic and North Atlantic
- North Atlantic thermohaline circulation
- Physical effects on primary production and ecosystems in Faroese waters
- Coupling: Climate – Ocean - Biology

## Peer-reviewed publications since 2000

- Hansen, B. and Østerhus, S. 2000. North Atlantic - Nordic Seas Exchanges. *Progress in Oceanography* 45: 109-208.
- Blindheim, J., Borovkov, V., Hansen, B., Malmberg, S.Aa., Turrell, W.R., and Østerhus, S. 2000. Upper layer cooling and freshening in the Norwegian Sea in relation to atmospheric forcing. *Deep-Sea Research I* 47: 655-680.
- Gaard, E., and Hansen, B. 2000. Variations in the advection of *Calanus finmarchicus* onto the Faroe Shelf. *ICES J. Mar. Sci.*, 57: 1612-1618.
- Hansen, B., Turrell, W.R., and Østerhus, S. 2001. Decreasing overflow from the Nordic seas into the Atlantic Ocean through the Faroe Bank channel since 1950. *Nature* 411: 927-930.
- Østerhus, S., Turrell, W.R., Hansen, B., Lundberg, P., and Buch, E. 2001. Observed transport estimates between the North Atlantic and the Arctic Mediterranean in the Iceland-Scotland region. *Polar Research* 20(1): 169-175.
- Kuijpers, A., Hansen, B., Huhnerbach, V., Larsen, B., Nielsen, T., and Werner, F. 2002. Norwegian Sea overflow through the Faroe-Shetland gateway as documented by its bedforms. *Marine Geology* 188: 147-164.
- Gaard, E., Hansen, B., Olsen, B., and Reinert, J. 2002. Ecological features and recent trends in the physical environment, plankton, fish stocks, and seabirds in the Faroe Shelf Ecosystem. In *Large Marine Ecosystems of the North Atlantic*, ed. by K. Sherman and H. R. Skjoldal. Elsevier, London.
- Hansen, B., Turrell, W.R., and Østerhus, S. 2003. Indications and consequences of weakened Iceland-Scotland overflow. *ICES Mar. Sc. Symp.*, 219: 102-110.
- Turrell, W.R., Hansen, B., Hughes, S., & Østerhus, S. 2003. Hydrographic variability during the decade of the 1990s in the Northeast Atlantic and southern Norwegian Sea. *ICES Ma. Sc. Symp.*, 219: 111-120.
- Hansen, B., S. Østerhus, H. Hátún, R. Kristiansen, and Larsen, K.M.H. 2003. The Iceland-Faroe inflow of Atlantic water to the Nordic Seas, *Prog. in Oceanogr.*, 59: 443-474.
- Hátún, H., Hansen, B. and Haugan, P. 2004. Using an "Inverse Dynamic Method" to Determine Temperature and Salinity Fields from ADCP Measurements. *Journal of Atmospheric and Oceanic Technology*, 21: 527-534.
- Hansen, B., Østerhus, S., Quadfasel, D., and Turrell, W.R. 2004. Already the Day After Tomorrow? *Science*, 305: 953-954.
- Olsson, K.A., Jeansson, E., Anderson, L.G., Hansen, B., Eldevik, T., Kristiansen, R., Messias, M.-J., Johannesen, T., Watson, A. 2005. Intermediate water from the Greenland Sea in the Faroe Bank Channel: spreading of released sulphur hexafluoride. *Deep-Sea Research I* 52: 279-294.
- Østerhus, S., Turrell, W.R., Jónsson, S., and Hansen, B. 2005. Measured volume, heat, and salt fluxes from the Atlantic to the Arctic Mediterranean. *Geophysical Research Letters*, 32, L07603, doi:10.1029/2004GL022188.
- Eliassen, S.K., Gaard, E., Hansen, B., and Larsen, K.M.H. 2005. A "horizontal Sverdrup mechanism" may control the spring bloom around small oceanic islands and over banks. *Journal of Marine Systems*, 56: 352-362.
- Knutsen, Ø., Svendsen, H., Østerhus, S., Rosby, T., and Hansen, B. 2005. Direct measurements of the mean flow and eddy kinetic energy structure of the upper ocean circulation in the NE Atlantic. *Geophysical Research Letters*, 32: L14604, doi: 10.1029/2005GL023615.
- Hátún, H., Sandø, A.B., Drange, H., Hansen, B., and Valdimarsson, H. 2005. Influence of the Atlantic Subpolar Gyre on the Thermohaline Circulation. *Science* 309: 1841-1844.
- Hansen, B., Eliassen, S.K., Gaard, E., and Larsen, K.M.H. 2005. Climatic effects on plankton and productivity on the Faroe Shelf. *ICES Journal of Marine Science*, 62: 1224-1232. doi: 10.1016/j.icesjms.2005.04.014.
- Loeng, H., Brander, K., Carmack, E., Denisenko, S., Drinkwater, K., Hansen, B., Kovacs, K., McLaughlin, F., and Sakshaug, E. 2005. Chapter 9, Marine Systems. In *Arctic Climate Impact Assessment*, Cambridge University Press, 453-538.
- Hansen, B. 2006. How well can the Atlantic inflow to the Nordic Seas be monitored from satellite? *Cahiers du Centre Européen de Géodynamique et de Séismologie Vol 25*: 93-98.
- Geyer, F., Østerhus, S., Hansen, B., and Quadfasel, D. 2006. Observations of highly regular oscillations

- in the overflow plume downstream of the Faroe Bank Channel, *J. Geophys. Res.*, 111, C12020, doi:10.1029/2006JC003693.
- Sherwin, T.J., Hughes, S.L., Turrell, W.R., Hansen, B., Østerhus, S. 2007. Wind-driven monthly variations in transport and the flow field in the Faroe–Shetland Channel. *Polar Research* 27, 1:16.
- Hansen, B., Østerhus, S. 2007. *Faroe Bank Channel overflow 1995 - 2005*. Progress in Oceanography. doi: 10.1016/j.pocean.2007.09.004 .
- N. Penny Holliday, S. L. Hughes, S. Bacon, A. Beszczynska-Möller, B. Hansen, A. Lavin, H. Loeng, K. A. Mork, S. Østerhus, T. Sherwin, and W. Walczowski, (2008). Reversal of the 1960s to 1990s freshening trend in the northeast North Atlantic and Nordic Seas. *Geophys. Res. Lett.*, 35. L03614, doi:10.1029/2007GL-032675.
- Hansen, B., Østerhus, S., Turrell, B., Jónsson, S., Valdimarsson, H., Hátún, H., Olsen, S.M. 2008. The inflow of Atlantic water, heat, and salt to the Nordic Seas across the Greenland-Scotland Ridge. In *Arctic–Subarctic Ocean Fluxes: Defining the role of the Northern Seas in Climate*, 15 - 43 (eds Dickson, D., Meincke, J. & Rhines, P.), Ch. 1, Springer Science + Business Media B.V., 15-43.
- Østerhus, S., Sherwin, T., Quadfasel, D., Hansen, B. 2008. The overflow transport east of Iceland. In *Arctic–Subarctic Ocean Fluxes: Defining the role of the Northern Seas in Climate*, 427 - 441 (eds Dickson, D., Meincke, J. & Rhines, P.), Ch. 18, Springer Science + Business Media B.V., 427-441.
- Larsen, K.M.H., Hansen, B., Svendsen, H. 2008. Faroe Shelf Water. *Continental Shelf Research* 28, 1754-1768.
- Olsen, S.M., Hansen, B., Quadfasel, D., Østerhus, S. 2008. Observed and modelled stability of overflow across the Greenland-Scotland ridge. *Nature* 455, 519-522.
- Debes, H., Gaard, E., Hansen, B. 2008. Primary production on the Faroe shelf: Temporal variability and environmental influence. *Journal of Marine Systems* 74, 686-697.
- Hátún, H., Payne, M.R., Beaugrand, G., Reid, P.C., Sandø, A.B., Drange, H., Hansen, B., Jacobsen, J.A., Bloch, D. 2009. Large bio-geographical shifts in the north-eastern Atlantic Ocean: From the subpolar gyre, via plankton, to blue whiting and pilot whales. *Progress in Oceanography* 80, 149-162.
- Larsen, K.M.H., Hansen, B., Svendsen, H. 2009. The Faroe Shelf Front: Properties and exchange. *Journal of Marine Systems* 78, 9-17.
- Hansen, B., Hátún, H., Kristiansen, R., Olsen, S.M., and Østerhus, S. 2010. Stability and forcing of the Iceland-Faroe inflow of water, heat, and salt to the Arctic. *Ocean Sci. Discuss.*, 7, 1245–1287, 2010, doi:10.5194/osd-7-1245-2010.
- Hansen, B., Gaard, E., Debes, H., Larsen, K.M.H. 2010. Abrupt interruptions in the spring bloom on the Faroe Shelf. *Ann. Soc. Scient. Faer. Supplem.* 52, 21-35.
- Eliassen, K., Reinert, J., Gaard, E., Hansen, B., Jacobsen, J.A., Grønkjær, P., Christensen, J.T. 2011. Sandeel as a link between primary production and higher trophic levels on the Faroe shelf. *Mar Ecol Prog Ser* Vol. 438: 185-194, 2011. doi: 10.3354/meps09301.
- Mauritzen, C. et al. 2011. Closing the loop – Approaches to monitoring the state of the Arctic Mediterranean during the International Polar Year 2007-2008. *Progress in Oceanography* 90, 62-89.
- Homrum, E., Hansen, B., Steingrund, P., Hátún, H. (2012). Growth, maturation, diet and distribution of saithe (*Pollachius virens*) in Faroese waters (NE Atlantic). *Marine Biology Research*, 2012; 8: 246-254.
- Larsen, K.M.H., Hátún, H., Hansen, B., and Kristiansen, R. (2012). Atlantic water in the Faroe area: sources and variability. *ICES Journal of Marine Science*, doi:10.1093/icesjms/fss028.
- Berx, B., Hansen, B., Østerhus, S., Larsen, K. M., Sherwin, T. and Jochumsen, K. 2013. Combining in situ measurements and altimetry to estimate volume, heat and salt transport variability through the Faroe-Shetland Channel. *Ocean Sci.*, 9, 639-654, www.ocean-sci.net/9/639/2013/ doi:10.5194/os-9-639-2013.
- Homrum, E. í, Hansen, B., Jónsson, S. P., Michalsen, K., Burgos, J., Righton, D., Steingrund, P., Jakobsen, T., Mouritsen, R., Hátún, H., Armansson, H., and Joensen, J. S. 2013. Migration of saithe (*Pollachius virens*) in the Northeast Atlantic. *ICES Journal of Marine Science*. doi.1093/icesjms/fst048.
- Till A. S. Rasmussen, Steffen M. Olsen, Bogi Hansen, Hjálmar Hátún, Karin M. H. Larsen. 2014. The Faroe shelf circulation and its potential impact on the primary production. *Continental Shelf Research* 88 (2014) 171–184. <http://dx.doi.org/10.1016/j.csr.2014.07.014>.
- Rasmussen, T. A. S., Olsen, S. M., Hansen, B., Hátún, H., and Larsen, K. M. H. 2014. The Faroe shelf circulation and its potential impact on the primary production. *Continental Shelf Research*, 88, 171-184, doi:10.1016/j.csr.2014.07.014.

- Hansen, B., Larsen, K. M. H., Hátún, H., Kristiansen, R., Mortensen, E., and Østerhus, S. 2015.* Transport of volume, heat, and salt towards the Arctic in the Faroe Current 1993-2013. *Ocean Science*, 11, 743-757, doi:10.5194/os-11-743-2015.
- Eliassen, S. K., Hansen, B., Larsen, K. M. H., and Hátún, H. 2016.* The exchange of water between the Faroe Shelf and the surrounding waters and its effect on the primary production. *Journal of Marine Systems*, 153, 1-9, doi:10.1016/j.marsys.2015.08.004.
- Olsen, S. M., Hansen, B., Østerhus, S., Quadfasel, D., and Valdimarsson, H. 2016.* Biased thermohaline exchanges with the Arctic across the Iceland-Faroe Ridge in ocean climate models. *Ocean Science*, 12, 545-560, doi:10.5194/os-12-545-2016.

#### Popularized papers for the general public

- Hansen, B. 1987.* Rákið á Føroya Banka. *Fiskirannsóknir* nr. 4, 29-45.
- Hansen, B & Poulsen, M. 1987.* Iltrot á føroyskum gáttarfirðum. *Fiskirannsóknir* nr. 4, 69-89.
- Hansen, B. 1988.* Sjóvarfallið (1. Partur). *Fiskirannsóknir* nr. 5, 39-71.
- Hansen, B. 1991.* Veðurlagsbroytingar og havið um Føroyar. *Fiskirannsóknir* nr. 7, 57-90.
- Hansen, B. & Joensen, H.P. 1991.* Geislavirkni í føroyskum sjógv. *Fiskirannsóknir* nr. 7, 91-112.
- Hansen, B. 2000.* Menneskeskabte klimaændringer i Nordatlanten. *Global Økologi*, 7. årgang, nr. 1: 14-15.
- Hansen, B 2002.* The Sea/Havet. In *Hunters of the North / Fangskulturer i Vestnorden*, ed. by B. Kruse, Forlagið Sprotin, Tórshavn (in English and Danish).
- Hansen, B. 2003.* Blir de nordiska haven kallare under det kommande århundradet? *Finlands Natur* nr. 5, 2003, 16-17.
- Hansen, B. 2006.* Et oplagt emne for nordisk samarbejde. In *Nordisk Styrka, NordForsk Rapporter: 1*, NordForsk, Oslo.

#### Books

- Hansen, B. 1993.* Streymur og sjóvarfall. Føroya Skúlabókagrunnur, Tórshavn, 32 pp.
- Hansen, B. 2000.* Havið. Føroya Skúlabókagrunnur, Tórshavn, 232 pp.
- Hansen, B. 2011.* Veðurlagsbroytingar. Nám, Tórshavn, 118 pp.