

Personal data

Born: April 24, 1969 in Victoria BC, Canada.
Citizenships: Danish, Canadian, Swedish.
Languages: Danish, English, Swedish.
Phone: +46 (0)31 751 89 82
e-mail: lars.arneborg@smhi.se

University Degrees

1994 M.Sc. (Civil Engineering/hydrodynamics), Technical University of Denmark.
2000 Ph.D. (Physical Oceanography), University of Gothenburg. Supervisor: Anders Stigebrandt. Title of thesis: Oceanographic studies of internal waves and diapycnal mixing.
2007 Associate professor, University of Gothenburg
2018 Adjunct professor, University of Gothenburg

Professional record

2018-present Head of oceanography unit, Department of Research and Development, Swedish Meteorological and Hydrological Institute.
2016-2018 Researcher leader at the Department of Research and Development, Oceanography, Swedish Meteorological and Hydrological Institute.
2010-2016 Lecturer (Universitetslektor) at the Department of Marine Sciences, University of Gothenburg.
2008-2010 Associate Professor, University of Gothenburg (Docent title 2007)
2004-2008 Junior Researcher (Forskarassistent), University of Gothenburg.
2000-2003 Researcher in EU project (OAERRE), University of Gothenburg.
1994-1996 Researcher and consultant at Danish Hydraulic Institute.

Leaves

In total 20 months parental leave in the period 2006-2009.

Supervision

PhD thesis by Sam Fredriksson, The air-water gas transfer velocity during low wind conditions, April 2016. Main supervisor.

Masters theses (30-60 hp each): Klara Mattsson, 2018, Natalia Markowska, 2016, Pär Jansson 2014, Ambjörn Andersson 2014, Ola Kalén, 2010, Pernilla Johansson, 2010, Magnus Nilsson, 2010, Sofia Åström, 2009, Maria Andersson, 2007, Karolina Falk, 2005, Torsten Hanson, 2005, Erik Gustafsson, 2005, Gunilla Andrée, 2001. Bachelor thesis (15 hp): Sandra Lagnevall, 2015, Alexandra Iantchenko, 2014, Pär Jansson, 2012, Daniel Sandberg, 2012, Ola Kalén, 2009.

Opponent assignments

- 2018: Pre-examinor of Antti Westerlunds PhD thesis, FMI
- Faculty opponent for Chris Lappe, Warnemünde, 2017.
- Faculty opponent for Maris Skudra, Tallin, 2017.
- Member of examining committee for Léon Chafik, Stockholm University, 2014

Awards, commissions and advisory groups

- 2018-: Member of advisory board for The Norwegian Argo Infrastructure (NorArgo)
- 2018: Invited attendee at Science for Ocean Actions Conference, 19-20 Nov. 2018 in Bergen
- 2017: Modeling water circulation in complex coastal regions. Invited talk at the Gordon Conference on coastal ocean dynamics, Boston.
- Member of Department Council, Department of Earth Sciences, 2012-2014

- Member of Advisory Board, Sven Lovén Centre for Marine Sciences, 2012-2014
- Deputy Head of Department, 2013.
- Member of proposition group for head of department, 2012.
- Board member of Bornö Institute for Ocean and Climate Studies, 2013-present
- Awarded with the Crafoord Research Stipend, Swedish Royal Academy of Science, 2010

Peer-review work

- Reviewing project applications for NSF, 2010 and 2012, and for NERC, 2014.
- Member of the FriNat OCEAN expert panel for the Research Council of Norway, 2009.
- Reviewing project applications for the Research Council of Norway, 2005.
- Reviewer for many journals including, Nature, Limnology and Oceanography, Journal of Physical Oceanography, Journal of Geophysical Research, Geophysical Research Letters.

Conference session convening

Co-convenor for the mixing session at the IAPSO meeting in Gothenburg 2013 and in Prague 2015.
Co-convenor for the fjord session at Ocean Sciences Meeting in Salt Lake City, 2012.

Scientific grants, main applicant

- 2014-2015: (with Göran Broström) Red10 grant from the Faculty of Science for Lake Vänern research, 1.3 kSEK.
- 2010: Project "Ocean induced glacier melting in Greenland", accepted for operational planning with high priority by the Swedish Research Council, and Swedish Polar Research Secretariat, dnr. 2010-6184.
- 2010 - 2013: Financial support from the Faculty of Science, GU, for one Ph.D. student for air-sea gas exchange research.
- 2009 – 2011: Project funding and 75% salary for 3 years (Lektorsanställningsbidrag), Swedish Research Council, grant 621-2008-2689. 4050 kSEK.
- 2008 – 2010: Instrumentation grant from the KAW foundation. Head applicant. Co-applicants: Anders Stigebrandt and Göran Björk. 6500 kSEK.
- 2006 - 2008: Project funding for "Entrainment into dense bottom currents", Swedish Research Council, grant 621-2005-4027. 324 kSEK.
- 2004 - 2008: Salary as young researcher (Forskarassistent) and project funding, Swedish Research Council, grant 621-2003-2620. 3094 kSEK.
- 1996 - 1999: Salary for 3 years of Ph.D studies in Göteborg, Danish Research Academy, J.nr. 1996-154-047

Other grants and contracts

- 2018-2020: Co-applicant on Elin Almroth Rosells SGU project on dispersion of pollutants from fiberbanks. 1660 kSEK.
- 2011-2014: Co-applicant on David Bastvikens VR project on air-lake gas exchange (Diar. Nr. 2011-3575): 200 kSEK for GU.
- 2013: Coapplicant on Anna Wåhllins VR projekt (Diar. Nr. 2013-5273, 950 kSEK/year, 2014-2017).
- Investigation of currents around Orust for the Municipality of Orust (Fyrbodals kommunalförbund): 162 kSEK.

Selected teaching

- Ocean Mixing (OC4910, 15 hp). Graduate course. Course leader, 2012, 2014.
- Physical Oceanography II (OCM200, 7.5 hp). Advanced course, Course leader, 2014-2016.
- Physical Oceanography I (OCM100, 15 hp). Advanced course, 2013-2015.
- Marina undersökningar, redskap och metoder (MAR103, 15 hp). Basic course, Course leader, 2011.

- Kustekosystem 1 - Introduktion till kustekosystem (MAR107, 15 hp). Basic course, 2012, 2013.
- Hydromekanic (OC710, 15 hp). Advanced course, 2005-2012.
- Vattenundersökningar (NOC040, 15 hp). Basic course, Course leader, 2009.

Pedagogic education

- HPE102: Teaching and Learning in Higher Education 2: Subject Field Pedagogy at the Faculty of Science (5 hec).
- HPE101: Teaching and Learning in Higher Education 1: Basic course (5 hec).
- HPE201: Supervision in Postgraduate Programmes (5 hec).
- "Högskolepedagogisk Introduktionskurs"

Selected field work since 2010.

- Jerico Next project, 2016: Mooring deployments inside and outside Stigfjorden to investigate water exchange and validate the SMHI Coastal zone model. Collaboration with Bengt Karlson and Kari Eilola, SMHI, and Anna Godhe, GU.
- Väner@GEO project, 2014-2016: Mooring deployments and turbulence measurements in Lake Vänern, 2014 to 2016 to investigate water exchange, upwelling, and primary production. Collaboration with Göran Broström and Sten-Åke Wängberg, GU.
- Skagerak, April 2015: Study of plastic dispersion and validation of HF radar system on Swedish west coast. R/V Skagerak. Cruise leader.
- Sermilik Fjord, Greenland, September 2012: Study of warm ocean water fluxes towards the Helheim glacier. Collaboration with Fiamma Straneo, Woods Hole Oceanographic Institution. R/V Fox.
- Air-water gas exchange experiments, including influence of waves, at several Swedish lakes and in Gullmar Fjord during 2010-2012. Collaboration with David Bastviken (LiU), Anna Rutgersson (UU), and Sally MacIntyre (UC Santa Barbara)
- Oslofjord, June 2011: Study of mixing processes at the sill. Collaboration with André Staalstrom, NIVA, and Göran Broström, METNO.
- Oden Southern Ocean expedition to the Amundsen Sea, Antarctica, December 2010 to January 2011. Responsible for designing, acquiring, and assembling two moorings, one of which has been redeployed since then at the same position with 100% data recovery. Icebreaker Oden.