

CURRICULUM VITAE

Gary Shaffer
(June 2016)

Investigador asociado
GAIA-Antarctica
Universidad de Magallanes
Punta Arenas, Chile
E-mail: gary.shaffer.chile@gmail.com



Professor Emeritus
Niels Bohr Institute
University of Copenhagen
Copenhagen, Denmark
E-mail: gs@nbi.ku.dk

Born May 11, 1947 in Windber, Pennsylvania, USA.
Languages: English, Spanish, Swedish, Danish and German.

Higher education and academic degrees

1965-1969 Undergraduate studies with a major in Physics at the Pennsylvania State University, State College, Pennsylvania, USA.

[Bachelor of Science degree in Physics](#) (with high honors), June 1969.

1969-1970 Graduate studies in Physical Oceanography at the Johns Hopkins University, Baltimore, Maryland, USA.

1970-1974 Graduate studies in Physical Oceanography at Institut für Meereskunde, Kiel University, Germany.

[Diplom Ozeanograf degree in Physical Oceanography](#) (with honors), March 1972. *Thesis*: “A theory of time-dependent upwelling induced by a spatially- and temporally-varying wind with emphasis on the effects of a seabreeze-landbreeze cycle”, 70pp.

[Dr. rer. nat. degree in Oceanography](#) (with honors), June 1974, *Thesis*: “On the North West African coastal upwelling system”, 178 pp.

1979 Awarded the level of [Docent](#) (required for applying for professorships in the Swedish system) at Gothenburg University, Sweden, December 1979.

Academic positions and work experience

- 1974-1975 [Assistant Professor of Physical Oceanography](#) at the Oceanographic Institute, Gothenburg University, Sweden.
- 1975-1978 [Research Assistant Professor of Physical Oceanography](#), financed by the Swedish Natural Science Research Council (NFR), at the Department of Marine System Analysis, Stockholm University and the Oceanographic Institute, Gothenburg University.
- 1978-1990 [Research Associate Professor of Physical Oceanography](#), financed by NFR, at the Oceanographic Institute, Gothenburg University.
- 1988,1989 [Visiting Senior Research Scientist](#) at the Programme for Atmospheric and Oceanic Sciences, Princeton University, USA, May to July 1988 and August to October 1989.
- 1990 [Research Professor of Physical Oceanography](#) (permanent position), financed by NFR, at the Oceanographic Institute, Gothenburg University.
- 1992-1997 [Professor of Physical Oceanography/Climate](#) (permanent position) at the Department of Geophysics, Niels Bohr Institute for Astronomy, Physics and Geophysics (NBIfAFG), University of Copenhagen, Denmark
- 1996-2004 [Visiting Senior Research Scientist](#), Program for Physical Oceanography and Climate in the Eastern South Pacific Ocean and Department of Geophysics, University of Concepcion, Chile.
- 1997- 2002 [Professor and Founding Director](#), Danish Center for Earth System Science (DCESS), Universities of Copenhagen and Southern Denmark, Denmark.
- 2002- 2009 [Professor of Physical Oceanography/Climate](#) (permanent position) at the Department of Geophysics, NBIfAFG, University of Copenhagen.
- 2009 - [Professor Emeritus](#), Niels Bohr Institute, University of Copenhagen
- 2004 -2014 [Senior scientist](#) (part time), Department of Geophysics, University of Concepcion, Chile
- 2014 - 2016 [Senior Scientist](#) (part time), Center for Advanced Studies in Arid Zones (CEAZA)
- 2014 - [Senior Scientist](#) (part time), GAIA-Antarctica, University of Magallanes, Punta Arenas, Chile

Principle research activities

Modeling Earth System interactions including ocean circulation and biogeochemical cycling and atmospheric greenhouse gas concentrations. Projections of future Earth system change and simulations of past climate change. Modelling sea level variations including simple ice sheet modeling including a new model of the Antarctic Ice Sheet. Field and modeling studies of ocean circulation, carbon cycling and coastal dynamics in the South Pacific Ocean.

Research projects in the last 20 years

- 1995-1999 The Ocean and Climate Change (Principle Investigator). Danish Natural Science Research Council, Total funding 1 000 000 USD.
- 1997-2002 Danish Center for Earth System Science (DCESS). Danish Research Foundation, (Founding Director), Total funding 9 100 000 USD
- 2003 - Development and applications of the DCESS Earth System Model
- 2004-2006 A prediction system for ocean conditions off Chile (Principle Investigator), Fundacion Andes/Universidad de Concepcion. Total funding 156 200 USD
- 2007-2008 Circulation and oceanic teleconnections in the eastern South Pacific Ocean (Principle Investigator), Danish Natural Science Research Council. Total funding 86 000 USD
- 2011 - Development and applications of simple ice sheet models with ocean interaction
- 2012-2015 Modeling and analysis of the Paleocene-Eocene Thermal Maximum and other past warming events using the DCESS Earth System Model (Principle Investigator), FONDECYT nr. 1120040. Total funding 162 000 USD
- 2013-2014 Center for Climate and Resilience Research (CR)² (Associate researcher) FONDAP_CONICYT nr. 151 10009.
- 2013 - Paleoclimate of the Southern Hemisphere (Associate researcher), Millenium Nucleus NC120066.
- 2015-2019 Modelling the possible role of methane in deep-time, global warming events using the DCESS Earth System Model (Principle Investigator), FONDECYT nr. 1150913. Total funding 221 000 USD