

Hauke Flores – Curriculum Vitae

Name Hauke Flores
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Date of birth 09/18/1974 (Bremerhaven)
Nationality German

Career

Since January 2012 Leader of the Helmholtz Young Investigators Group *Iceflux*, University of Hamburg and Alfred Wegener Institut Helmholtz-Zentrum für Polar- und Meeresforschung

2007-2011 Junior Scientist, Institute for Marine Resources and Ecosystem Studies (IMARES), the Netherlands

2003 – 2009 PhD thesis (05/01/2009); University of Groningen
Title: *Frozen Desert Alive – The role of sea ice for pelagic macrofauna and its predators: implications for the Antarctic pack-ice food web*

2002 - 2003 Scientific observer, Federal Research Institute for Fisheries (Hamburg)

1996 - 2002 Studies of biology, University of Hamburg

1994 - 1996 Civil service

1981-1994 School education, Abitur (Niedersächsisches Internatsgymnasium Bederkesa)

Research Cruises *Polarstern*, PS65; PS67, PS69, PS71, PS80, PS89, PS92, *PS106: 2004-2017
*as cruise leader Ichthyoplankton survey, RV *Tridens*, Dutch EEZ: November 2010
Seabirds and fish survey at the Frisian Front, fishing vessel SC41, Dutch EEZ: July-August 2009
CCAMLR Fisheries survey, FS *Yuzhmorgeologiya*, South Shetland Islands: 2001

Teaching (since 2006) Lectures and laboratory courses at the BSc, MSc post-graduate level:
Wageningen University (2006-2011), University of Hamburg (since 2012), AWI's graduate school POLMAR (since 2012)
Supervision of 5 PhD theses, 5 MSc theses, and 3 BSc theses

Further Qualification Individual career management for Young Investigator Group Leaders, Helmholtz and Friends 2016
Effective leadership, Helmholtz Academy 2013
Talents & Topics, Wageningen University, 2010
German Research Diver Certificate, University of Oldenburg, 2003-2004

Succesful proposals Excellence network (HGF 2016), PhD grants (University of Hamburg 2015, Netherlands Organisation for Research 2013), investment (HGF 2012), Young Investigators group (HGF 2012), international workshop (European Commission 2010). Total amount ~ 1,580,000 €

Awards Oslo Science Conference Stipend Programme, Research Council of Norway, 2010
Best oral presentation, SCAR Open Science Conference, St. Petersburg, 2008
Best poster presentation, SCAR Open Science Conference, St. Petersburg, 2008

Community service

Committees and associations	SCOR WG Biogeochemical Exchange Processes at Sea Ice Interfaces (BEPSII) Scientific-Technical Commission Polarstern II German platform marine sensor systems Association of Polar Early Career Scientists (APECS)
Organised workshops	Networking in Antarctic Biology: is it important? Association of Polar Early Career Scientists (APECS), SCAR Biology XI, Barcelona, 14 July 2013 Antarctic Krill in a Changing Ocean, Texel, April 2011 – funded by EU Commission International Collaboration and Field Work, (APECS), Oslo, June 2010 Southern Ocean Trophic Interactions, Texel, June 2007
Editorial tasks	Frontiers in Marine Science, section Ocean Observation Nature Scientific Reports World Register of Marine Species (marinespecies.org), taxonomic editor
Peer reviewing	The Cryosphere, Deep-Sea Research I, Deep-Sea Research II, Environmental Conservation, Limnology and Oceanography, Marine Ecology Progress Series, Oceanography, Polar Biology, Progress in Oceanography, SCAR fellowship (funding proposals)
Outreach	Various public appearances (e.g. “MS Wissenschaft”, July 2016), contributions to exhibitions and arts (e.g. Senckenberg-Museum Frankfurt a.M., 2013), Press appearances (e.g. GEO, National Geographic), radio, TV and web contributions (e.g. Deutschlandfunk, KiKa, AWI factsheets, www.meereisportal.de) <u>Blogs:</u> PS80 (GEO.de 2012), PS81 (wur.nl 2013), PS89 (wur.nl 2015), PS92, PS106 (blogs.helmholtz.de/polarstern2017) <u>Book contributions:</u> <ul style="list-style-type: none">• Flores H. (2017) Rückgang des arktischen Meereises und seine ökologischen Auswirkungen, in: Lozan J (ed) Warnsignal Klima: Die Biodiversität• WAS IST WAS Polargebiete (2017) Tessloff-Verlag• Flores H. (2017) Der arktische Polardorsch und der antarktische Silberfisch: Erfolgsgeschichten im Eismeer, in: Hempel G, Bischof K, Hagen W (eds) Faszination Meeresforschung. Springer Verlag• Stefels J, Schoeman V, Flores H. (2016) Zee-ijs: meer dan een witte deken over de donkere oceaan, in: Buma A, Scheepstra AJM, Bintanja R (eds) Door de kou bevangen. Vijftig jaar Nederlands onderzoek in de poolgebieden. MaRiSuDa. ISBN 978-90-818264-2-6• Kück, H. & Meier, G.D. (2014) Faszination Eisbären – Eine Erfolgsgeschichte im Zoo am Meer Bremerhaven. Carl Schünemann-Verlag, 112 Seiten
H-Index	14 (Google Scholar)
ORCID	0000-0003-1617-5449

Publications

Peer-reviewed articles

1. Lange B.A., Katlein C., Castellani G. Fernandez-Mendez M., Nicolaus M., Peeken I., **Flores H.** (in press) Characterizing spatial variability of ice algal chlorophyll a and net primary production between sea ice habitats using horizontal profiling platforms. *Frontiers in Marine Science*. doi: 10.3389/fmars.2017.00349
2. Kohlbach D., Lange B.A., Schaafsma F.L., David C., Vortkamp M., Graeve M., van Franeker J.A., Krumpen T., **Flores H.** (2017) Ice algae-produced carbon is critical for overwintering of Antarctic krill *Euphausia superba*. *Frontiers in Marine Science*. doi: 10.3389/fmars.2017.00310
3. Castellani G., Losch M., Lange B.A., **Flores H.** (2017) Modeling Arctic sea-ice algae: Physical drivers of spatial distribution and algae phenology. *Journal of Geophysical Research: Oceans*. doi: 10.1002/2017jc012828
4. Schaafsma F.L., Kohlbach D., David C., Lange B.A., Graeve M., **Flores H.**, van Franeker J.A. (2017) Spatio-temporal variability in the winter diet of larval and juvenile Antarctic krill (*Euphausia superba*) in ice-covered waters. *Marine Ecology Progress Series*. doi: 10.3354/meps12309
5. Lange, B.A., **Flores H.**, Michel C., Beckers J.F., Bublitz A., Casey J.A., Castellani G., Hatam I., Reppchen A., Rudolph S.A., Haas C. (2017). Pan-Arctic sea ice-algal chlorophyll *a* biomass and suitable habitat are largely underestimated for multi-year ice. *Global Change Biology*. doi: 10.1111/gcb.13742
6. Kohlbach D., Schaafsma F.L., Graeve M., Lebreton B., Lange B.A., David C., Vortkamp M., **Flores H.** (2017) High trophic dependency of polar cod (*Boreogadus saida*) on sea ice algae-produced carbon: evidence from stomach content, fatty acid and stable isotope analyses. *Progress in Oceanography*, 152, pp. 62-74. doi:10.1016/j.pocean.2017.02.003
7. Lange B.A., Katlein C., Nicolaus M., Peeken I., **Flores H.** (2016) Sea ice-algal chlorophyll *a* concentrations derived from under-ice spectral radiation profiling platforms. *Journal of Geophysical Research: Oceans*. doi:10.1002/2016JC011991
8. Kohlbach, D., Graeve, M., Lange, B.A., David, C., Peeken, I., **Flores, H.** (2016) The importance of ice algae-produced carbon in the central Arctic Ocean ecosystem: food web relationships revealed by lipid and stable isotope biomarker analyses. *Limnology and Oceanography*. doi: 10.1002/lno.10351
9. David, C., Schaafsma, F.L., van Franeker, J.A., Lange, B.A., Brandt, A., **Flores, H.** (2016) Community structure of under-ice fauna in relation to winter sea-ice habitat properties from the Weddell Sea. *Polar Biology*. doi: 10.1007/s00300-016-1948-4
10. Schaafsma, F.L., David, C., Pakhomov, E.A., Lange, B.A., **Flores, H.**, van Franeker, J.A. (2016) Size and stage composition of first-year Antarctic krill (*Euphausia superba*) in the ice-water interface layer during winter/early spring. *Polar Biology*. doi: 10.1007/s00300-015-1877-7
11. David, C., Lange, B., Krumpen, T., Schaafsma, F.L., van Franeker, J. A. and **Flores, H.** (2015): Under-ice distribution of polar cod *Boreogadus saida* in the central Arctic Ocean and their association with sea-ice habitat properties, *Polar Biology*, special issue, pp. 1-14. doi: 10. 1007/s00300-015-1774-0
12. David, C., Lange, B., Rabe, B. and **Flores, H.** (2015): Community structure of under-ice fauna in the Eurasian central Arctic Ocean in relation to environmental properties of sea-ice habitats, *Marine Ecology Progress Series*, 522, pp. 15-32. doi: 10.3354/meps11156
13. Lange, B.A., Michel, C., Beckersm J.F., Casey, J.A., **Flores, H.**, Hatam, I., Meisterhans, G., Niemi, A., Haas, C. (2015) Comparing Springtime Ice-Algal Chlorophyll *a* and Physical Properties of Multi-Year and First-Year Sea Ice from the Lincoln Sea. *PLoS ONE* e0122418; doi: 10.1371/journal.pone.0122418
14. Fernández-Méndez, M., Katlein, C., Rabe, B., Nicolaus, M., Peeken, I., Bakker, K., **Flores, H.** and Boetius, A. (2015): Photosynthetic production in the central Arctic Ocean during the record sea-ice minimum in 2012. *Biogeosciences*, 12 (11), pp. 3525-3549. doi: 10.5194/bg-12-3525-2015
15. **Flores, H.**, Hunt, B. P. V., Kruse, S., Pakhomov, E. A., Siegel, V., van Franeker, J. A., Strass, V., van de Putte, A. P., Meesters, E. H. W. G. and Bathmann, U. V. (2014): Seasonal changes in the vertical distribution and community structure of Antarctic macrozooplankton and micronekton. *Deep-Sea Research I*, 84, pp. 127-141. doi: 10.1016/j.dsr.2013.11.001
16. **Flores, H.**, Atkinson, A., Kawagushi, S., Krafft, B., Milinevsky, G., Nicol, S., Reiss, C., Tarling, G. A., Werner, R., Bravo Rebolledo, E., Cirelli, V., Cuzin-Roudy, J., Fielding, S., Groeneveld, J., Haraldsson, M., Lombana, A., Marschoff, E., Meyer, B., Pakhomov, E. A., Rombolá, E., Schmidt, K., Siegel, V., Teschke, M., Tonkes, H., Toullec, J., Trathan, P., Tremblay, N., Van de Putte, A., van Franeker, J. A. and Werner, T. (2012): Impact of climate change on Antarctic krill. *Marine Ecology-Progress Series*, 458, pp. 1-19.

doi: 10.3354/meps09831

17. **Flores, H.**, Franeker, J. A., Siegel, V., Haraldsson, M., Strass, V., Meesters, E. H., Bathmann, U. and Wolff, W. J. (2012): The association of Antarctic krill *Euphausia superba* with the under-ice habitat. *PLoS ONE*, 7 (2), e31775. doi: 10.1371/journal.pone.0031775
18. Brandt, A., Bathmann, U., Brix, S., Cisewski, B., **Flores, H.**, Göcke, C., Janussen, D., Krägefsky, S., Kruse, S., Leach, H., Linse, K., Pakhomov, E., Peeken, I., Riehl, T., Sauter, E., Sachs, O., Schüller, M., Schrödl, M., Schwabe, E., Strass, V., van Franeker, J. A. and Wilmsen, E. (2011): Maud Rise a snapshot through the water column. *Deep-Sea Research II*, 58(19-20)1982., 1962. doi: 10.1016/j.dsr2.2011.01.008
19. **Flores, H.**, van Franeker, J. A., Cisewski, B., Leach, H., Van de Putte, A. P., Meesters, E., Bathmann, U. and Wolff, W. J. (2011): Macrofauna under sea ice and in the open surface layer of the Lazarev Sea, Southern Ocean. *Deep-Sea Research II*, 58 (19), pp. 1948-1961. doi: 10.1016/j.dsr2.2011.01.010
20. Würzberg, L., Peters, J., **Flores, H.** and Brandt, A. (2011): Demersal fishes from the Antarctic shelf and deep sea: A diet study based on fatty acid patterns and gut content analyses. *Deep Sea Research II*, 58 (19-20), pp. 2036-2042. doi: 10.1016/j.dsr2.2011.05.012
21. Van de Putte, A. P., Jackson, G. D., Pakhomov, E. A., **Flores, H.** and Volckaert, F. (2010): Distribution of squid and fish in the pelagic zone of the Cosmonaut Sea and Prydz Bay region during the BROKE-West campaign. *Deep-Sea Research II*, 57 (9-10), pp. 956-967. doi: 10.1016/j.dsr2.2008.02.015
22. **Flores, H.**, Haas, C., van Franeker, J. A. and Meesters, E. (2008): Density of pack-ice seals and penguins in the western Weddell Sea in relation to ice thickness and ocean depth. *Deep-Sea Research II*, 55 (8), pp. 1068-1074. doi: 10.1016/j.dsr2.2007.12.024
23. **Flores, H.**, Van de Putte, A., Siegel, V., Pakhomov, E., van Franeker, J., Meesters, H. and Volckaert, F. (2008): Distribution, abundance and ecological relevance of pelagic fishes in the Lazarev Sea, Southern Ocean. *Marine Ecology Progress Series*, 367, pp. 271-282. doi: 10.3354/meps07530
24. Krapp, R. H., Berge, J., **Flores, H.**, Gulliksen, B. and Werner, I. (2008): Sympagic occurrence of Eusirid and Lysianassoid amphipods under Antarctic pack ice. *Deep Sea Research Part II: Topical Studies in Oceanography*, 55 (8-9), pp. 1015-1023. doi: 10.1016/j.dsr2.2007.12.018
25. Putte, A., **Flores, H.**, Volckaert, F. and Franeker, J. A. (2006): Energy Content of Antarctic Mesopelagic Fishes: Implications for the Marine Food Web. *Polar Biology*, 29 (12), pp. 1045-1051. doi: 10.1007/s00300-006-0148-z
26. **Flores, H.**, Kock, K. H., Wilhelms, S. and Jones, C. D. (2004): Diet of two icefish species from the South Shetland Islands and Elephant Island, *Champscephalus gunnari* and *Chaenocephalus aceratus*. *Polar Biology*, 27 (2), pp. 119-129. doi: 10.1007/s00300-003-0570-4

Scientific communication

27. Anonymous (2016) Ice algae key to Arctic food web. *Nature* 535:469

Scientific reports

28. **Flores, H.**, Siegel, V., Van de Putte, A.P. (2015) Zooplankton in General. In: Teschke, K. et al. (eds): Scientific background document in support of the development of a CCAMLR MPA in the Weddell Sea (Antarctica) - Version 2015 - Part A: General context of the establishment of MPAs and background information on the Weddell Sea MPA planning area
29. **Flores, H.**, Atkinson, A., Kawaguchi, S., Krafft, B., Milinevsky, G., Nicol, S., Reiss, C., Tarling, G. A., Werner, R., Bravo Rebolledo, E., Cirelli, V., Cuzin-Roudy, J., Fielding, S., van Franeker, J. A., Groeneveld, J., Haraldsson, M., Lombana, A., Marschoff, E., Meyer, B., Pakhomov, E. A., Van de Putte, A. P., Rombolá, E., Schmidt, K., Siegel, V., Teschke, M., Tonkes, H., Toullec, J., Trathan, P., Tremblay, N. and Werner, T. (2011): Krill and Climate Change, CCAMLR WG-EMM, CCAMLR Scientific Committee
30. Baptist M., Leopold M., **Flores H.**, van Bemmelen R., Geelhoed S., Verdaat H. (2009) Birds at Sea; studies into the possible impacts of wind farms on seabirds. *IMARES-Report*
31. **Flores H.**, Kock K.H. (2003) Fang und Beifang der deutschen Stellnetzfisherei (Catch and by-catch of the German set-net fishery). *Report to the German Ministry of Consumer Protection, Food and Agriculture*, Federal Research Centre for Fisheries, Hamburg.

PhD thesis

32. **Flores H** (2009) Frozen Desert Alive. The role of sea ice for pelagic macrofauna and its predators: implications for the Antarctic pack-ice food web. *PhD thesis*. University of Groningen, 240 pp <http://dissertations.ub.rug.nl/faculties/science/2009/h.flores/>