

## Moritz S. Schmid

Oregon State University  
2030 SE Marine Science Drive  
Newport, OR 97365, USA

Phone: 541-264-0458  
Email: [schmidm@oregonstate.edu](mailto:schmidm@oregonstate.edu)  
Website: [www.schmidscience.com](http://www.schmidscience.com)

Biological oceanographer rooted in data science and machine learning

**EDUCATION:**

Ph.D.	2017	Underwater imaging and machine learning in oceanography, Université Laval, Canada.
M.Sc.	2012	Spatial modeling in nature conservation, Lincoln Univ., New Zealand; Univ. of Göttingen, Germany
B.Sc.	2010	Biology, University of Göttingen, Germany

### PROFESSIONAL EXPERIENCE:

2017-Ongoing	Postdoc, Hatfield Marine Science Center, Oregon State University
2013-16	Volunteer data analyst for The Ocean Cleanup
2009	Research assistant, Max-Planck-Institute (MPI) for Biophysical Chemistry, Göttingen, Germany

### RELEVANT PUBLICATIONS:

- Briseño-Avena, C., Schmid, M.S., Swieca, K., Sponaugle, S., Brodeur, R., Cowen, R. (in review): **Three-dimensional cross-shelf zooplankton distributions off the Central Oregon Coast during anomalous oceanographic conditions.** *Progress in Oceanography*.
- Schmid, M.S., Fortier, L., (in review). **The intriguing co-distribution of the copepods *Calanus hyperboreus* and *Calanus glacialis* in the subsurface chlorophyll maximum of Arctic seas.** *Elementa: Science of the Anthropocene* (in review).
- Lieske, D.J., Schmid, M.S., Mahoney, M. (2018): **Ensembles of ensembles: combining the predictions from multiple machine learning methods.** In: Humphries, G., et al. (eds.) *Machine Learning for Ecology and Sustainable Natural Resource Management*. Springer Switzerland. [https://doi.org/10.1007/978-3-319-96978-7\\_5](https://doi.org/10.1007/978-3-319-96978-7_5).
- Schmid, M.S., Maps, F., Fortier, L. (2018): **Lipid load triggers migration to diapause in Arctic *Calanus* copepods—insights from underwater imaging.** *Journal of Plankton Research*, 40:311-325. <https://doi.org/10.1093/plankt/fby012>.
- Schmid, M.S., Aubry, C., Grigor, J., Fortier, L. (2016): **The LOKI underwater imaging system and an automatic identification model for the detection of zooplankton taxa in the Arctic Ocean.** *Methods in Oceanography*, 15-16:129-160. <http://dx.doi.org/10.1016/j.mio.2016.03.003>.
- Kooi, M., Reisser, J., Slat, B., Ferrari, F., Schmid, M.S., Cunsolo, S., Brambini, R., Noble, K., Sirks, L-A., Linders, T.E.W., Schoeneich-Argent, R., Koelmans, A.A. (2016): **In Depth: correcting plastic sea surface measurements for vertical mixing.** *Scientific Reports* 6, 33882. <http://dx.doi.org/10.1038/srep33882>.
- Huettmann, F., Schmid, M.S., Humphries, G.R.W. (2015): **A first overview of open access digital data for the Ross Sea: complexities, ethics, and management opportunities.** *Hydrobiologia*, 761:97–119. <http://dx.doi.org/10.1007/s10750-015-2520-x>.
- Huettmann, F. and Schmid, M.S. (2014): **Climate change and predictions of pelagic biodiversity components.** In: De Broyer, C., et al. (eds.) *Biogeographic Atlas of the Southern Ocean*. Scientific Committee on Antarctic Research, Cambridge, pp. 390-396.

**AWARDS:**

- 11/2016 John W. Davies Memorial Award from the Society of Naval Architects and Marine Engineers, Arctic Section (SNAME AS) for achievements in underwater imaging and machine learning
- 06/2016 Foundation Richard-Bernard Award for excellence in doctoral studies
- 11/2014 Best oral presentation, Québec-Océan Conference 2014, Rivière-du-Loup, Québec, Canada. Title: Automated zooplankton identification for Baffin Bay and adjacent waters
- 01/2013 Best poster presentation, Arctic Frontiers Conference 2013, Tromsø, Norway. Title: *In-situ* imaging of mesozooplankton in order to assess fine scale spatiotemporal variability

**SELECTED PROFESSIONAL CERTIFICATIONS:**

- 1) R Programming, Coursera, taught by Roger Peng et al., Johns Hopkins University
- 2) Machine learning, Coursera, taught by Andrew NG, Stanford University
- 3) Introduction to interactive programming in Python (part 1), Coursera, taught by Joe Warren et al., Rice University
- 4) Introduction to interactive programming in Python (part 2), Coursera, taught by Joe Warren et al., Rice University

**SELECTED GRANTS, FELLOWSHIPS AND SCHOLARSHIPS:**

- 01/2017 Fellowship from the Research Council of Norway to attend Emerging Leaders 2017 in conjunction with the Arctic Frontiers conference 2017, Tromsø (Norway).
- 11/2012 – 11/2014 Scholarship of Excellence in Scientific Leadership and Sustainable Development, Université Laval, Québec City (Canada).

**SELECTED SYNERGISTIC ACTIVITIES:**

- 2014 –16 Student representative of the PhD program in oceanography at Université Laval
- 2014 – 16 Member of the ArcticNet Student Association outreach section
- 2012 – 15 Board member of the Canadian National Committee of the Association of Polar Early Career Scientists (APECS)

**SERVICE TO PROFESSION:**

Reviewer for 1) Marine Ecology Progress Series, 2) Earth System Science Data Discussions, 3) Marine Biology Research, and 4) International Journal of Biodiversity and Conservation.