Curriculum vitae Dr. Jens Daniel Müller

Date of birth 5. Februar 1986

Berlin

Address Leibniz Institute for Baltic Sea Research Warnemünde

Seestr. 15

18119 Rostock

Germany

Phone +49 381 5197 3458

E-Mail [jens.mueller@io-warnemuende.de](mailto:jens.mueller@io-warnemuende.de)

Homepage <https://jens-daniel-mueller.github.io>

ORCID [0000-0003-3137-0883](https://orcid.org/0000-0003-3137-0883)

Twitter [@Jens\_D\_Mueller](https://twitter.com/Jens_D_Mueller)

Github [jens-daniel-mueller](https://github.com/jens-daniel-mueller)

**Education**

**07 / 2014 – 06 / 2018 PhD**

Leibniz-Institute for Baltic Sea Research Warnemünde (IOW)

Supervisor: Prof. Dr. Gregor Rehder

Title: [Ocean Acidification in the Baltic Sea: Involved Processes, Metrology of pH in Brackish Waters, and Calcification under Fluctuating Conditions](http://rosdok.uni-rostock.de/resolve/id/rosdok_disshab_0000001963)

Grade: With honors (Summa cum laude)

**09 / 2010 – 08 / 2012 MSc Biological Oceanography**

GEOMAR Helmholtz Centre for Ocean Research Kiel

Grade: 1.2 (ECTS grade A “Excellent”)

**09 / 2009 – 08 / 2010 Biology courses in preparation for master program**

Christian-Albrechts-University Kiel

Grade: 1.2 (ECTS grade A “Excellent”)

**09 / 2008 – 08 / 2009 BSc Chemistry**

Phillips-University Marburg

Grade: 1.7 (ECTS grade B “Very good”)

**09 / 2006 – 08 / 2008 Intermediate diploma Chemistry**

Humboldt-University of Berlin

Grade: 2.0 (ECTS grade B “Very good”)

**Employment**

**Since 07 / 2018**  **PostDoc**

Leibniz-Institute for Baltic Sea Research Warnemünde

EU project BONUS [INTEGRAL](https://www.io-warnemuende.de/integral-home.html)

**07 / 2014 – 06 / 2018** **PhD student**

Leibniz-Institute for Baltic Sea Research Warnemünde

EU project BONUS [PINBAL](https://www.io-warnemuende.de/pinbal-home.html)

**10 / 2013 – 03 / 2014** **Scientific Employee**

GEOMAR Helmholtz Centre for Ocean Research Kiel

Benthic Ecology | Prof. Dr. M. Wahl

Marine Biogeochemistry | Prof. Dr. U. Riebesell

**07 – 10 / 2013 Sailing Instructor**

Kiel Marketing GmbH | Camp 24/7

**01 – 03 / 2013 Divemaster**

Al Dive dive centre | Loubiere, Dominica

**05 – 08 / 2010 Research Assistant**

GEOMAR Helmholtz Centre for Ocean Research Kiel

Evolutionary Ecology of Marine Fishes | Prof. Dr. T. Reusch

**Additional skills and experience**

**Since 03 / 2011 Certified Scientific Diver**

200+ logged dives, dive mission leader, Nitrox-diver

Expeditions:

Off-shore mesocosm experiment, Gran Canaria, Spain (2 months)

Huinay Scientific Field Station, Patagonia, Chile (3 months)

**09 / 2014 Summer Field Course**

*Cutting Edge Observational Technology in Marine Biogeochemistry*

Sven Lovén Centre for Marine Sciences, Tjärnö; Sweden

**Since 2010 Member of the Academic Sailing Association (ASV e.V.) Kiel**

Several sailing campaigns including ocean crossings

Holder of boat driver, safety and radio certificates

**2006 – 2009 Founder and Chairman of** [**Growtogether e.V**](http://www.growtogether.wordpress.com/)

Association to support developmental cooperation

**Funding received**

**10 / 2019** SPECTROPHABS

**Spectro**photometric **pH**-measurements for monitoring of marine **a**cidification in the **B**altic **S**ea

Co-applicant

**03 / 2018 Early-Career Grant, National Geographic Society**

Financial and outreach support for Bloomsail expedition

**Scholarships awarded by the German Academic Scholarship Foundation**

07 / 2014 – 06 / 2018 PhD scholarship (ideational)

02 / 2007 – 06 / 2012 Full student scholarship

01 – 03 / 2012 Field work grant, Patagonia, Chile

03 / 2010 Advanced English course, Bath, England

09 / 2010 Summer academy, San Giovanni, Italy

**Awards**

**2019 Dissertation award**

Baltic Sea Research Foundation

**2019 Dissertation award**

German Water Chemical Society

sponsored by Walter-Kölle foundation

**02 / 2019 Briese Award for outstanding PhD thesis in Marine Research**

**06 / 2017 Best poster presentation by newcomers**

Baltic Sea Science Congress

**07 / 2005 Book-price for extraordinary achievements during the Abitur**

**Publications**

**Peer-reviewed articles** Wanninkhof, R., … , **Müller J.D.**, et al. (2019)  
**A Surface Ocean CO2 Reference Network, SOCONET and Associated Marine Boundary Layer CO2 Measurements**  
Front. Mar. Sci. | [doi:10.3389/fmars.2019.00400](https://www.frontiersin.org/article/10.3389/fmars.2019.00400)

**Müller, J.D.** and Rehder, G. (2018)

Metrology of pH measurements in brackish waters - part 2: Experimental characterization of purified m-Cresol Purple for spectrophotometric pHT measurements

Front. Mar. Sci. | [doi:10.3389/fmars.2018.00177](https://www.frontiersin.org/articles/10.3389/fmars.2018.00177/full)

**Müller, J.D.**, Bastkowski, F., Sander, B., Seitz, S., Turner, D.R., Dickson, A.G., and Rehder, G. (2018)

Metrology for pH measurements in brackish waters – part 1: Extending electrochemical pHT measurements of TRIS buffers to salinities 5 – 20

Front. Mar. Sci. | [doi:10.3389/fmars.2018.00176](https://www.frontiersin.org/articles/10.3389/fmars.2018.00176/full)

Staudinger, C., Strobl, M., Fischer, J., … , **Müller, J.D.**, Achterberg, E., Borisov, S., and Klimant, I. (2018)

A versatile optode system for oxygen, carbon dioxide, and pH measurements in seawater with integrated battery and logger

Limnol. Oceanogr. Methods, 16: 459-473 | [doi:10.1002/lom3.10260](https://aslopubs.onlinelibrary.wiley.com/doi/full/10.1002/lom3.10260)

Wahl, M., Schneider Covachã, S., Saderne, V., Hiebenthal, C., **Müller, J.D.**, Pansch, C., et al. (2018)

Macroalgae may mitigate ocean acidification effects on mussel calcification by increasing pH and its fluctuations

Limnol. Oceanogr., 63: 3-21 | [doi:10.1002/lno.10608](https://aslopubs.onlinelibrary.wiley.com/doi/full/10.1002/lno.10608)

**Müller, J.D.**, Schneider, B., Aßmann, S., and Rehder, G. (2017)

Spectrophotometric pH measurements in the presence of dissolved organic matter and hydrogen sulfide

Limnol. Oceanogr. Methods, 16: 68-82 | [doi:10.1002/lom3.10227](https://aslopubs.onlinelibrary.wiley.com/doi/full/10.1002/lom3.10227)

Fritzsche, E., Gruber, P., Schutting, S., Fischer, J. P., Strobl, M., **Müller, J.D.**, et al. (2017)

Highly sensitive poisoning-resistant optical carbon dioxide sensors for environmental monitoring

Anal. Methods, 9: 55–65 | [doi:10.1039/C6AY02949C](https://pubs.rsc.org/en/content/articlelanding/2017/ay/c6ay02949c#!divAbstract)

**Müller, J.D.**, Schneider, B., and Rehder, G. (2016)

Long-term alkalinity trends in the Baltic Sea and their implications for CO2-induced acidification

Limnol. Oceanogr., 61: 1984–2002 | [doi:10.1002/lno.10349](https://aslopubs.onlinelibrary.wiley.com/doi/full/10.1002/lno.10349)

Wahl, M., Buchholz, B., Winde, V., Golomb, D., Guy-Haim, T., **Müller, J.**, et al. (2015)

A mesocosm concept for the simulation of near-natural shallow underwater climates: The Kiel Outdoor Benthocosms (KOB)

Limnol. Oceanogr. Methods, 13: 651–663. | [doi:10.1002/lom3.10055](https://aslopubs.onlinelibrary.wiley.com/doi/full/10.1002/lom3.10055)

**Monography**  Schneider, B. and **Müller, J.D.** (2017)

Biogeochemical Transformations in the Baltic Sea: Observations Through Carbon Dioxide Glasses

Springer International Publishing | [doi:10.1007/978-3-319-61699-5](https://www.springer.com/de/book/9783319616988)

**Selected conference** **Müller J.D.**

**presentations** Neue pH-Messmethode ermöglicht erstmals die Überwachung weiter Ostseebereiche

Talk | BSH Meeresumwelt-Symposium 2019 | Hamburg | 04.06.2019

**Müller J.D.**

Ocean Acidification in the Baltic Sea - Involved Processes, Metrology of pH in Brachish Waters, and Calcification under Fluctuating Conditions

Talk | Wasser 2019 | Erfurt | 27.05.2019

**Müller J.D.**

Ozeanversauerung in der Ostsee: pH-Veränderungen mit neuer Messtechnik und Langzeit-Studien auf der Spur

Talk | Briese award ceremony | Warnemünde | 19.02.2019

**Müller J.D.**, Schneider B., Rehder G.

Long-term alkalinity increase in the Baltic Sea buffers CO2-induced acidification

Talk | Ocean Sciences Meeting | Portland | 12.02.2018

**Müller J.D.**, Bastkowski F., Schneider B., Rehder G.

Updating pH measurements in brackish waters: Characterization of the indicator dye m-Cresol purple based on newly available TRIS buffers

Poster | Baltic Sea Science Congress | Rostock | 17.06.2017

**Müller J.D.**, Schneider B.

High-resolution pCO2 measurements on a cargo ship in the Baltic Sea: Patterns and trends derived from a synoptic look at 13 years of observations,

Poster | Baltic Sea Science Congress | Rostock | 17.06.2017.

**Müller J.D.**, Schneider B., Rehder G.

Long-term alkalinity trends in the Baltic Sea and their implications for CO2-induced acidification

Talk and Poster | 1st Baltic Earth Conference | Nida | 17.06.2016

**Müller J.D.**, Aßmann S., Turner D., Schneider B., Rehder G.

PINBAL: Development of a spectrophotometric pH-measurement system for monitoring in the Baltic Sea

Talk | Quasimeme Ocean Acidification Workshop | Southampton | 04.02.2016

**Müller J.**, Schneider B., Rehder G.

Long-term alkalinity trends in the Baltic Sea and their implications for CO2-induced acidification

Talk | IOW symposium “Little salts and many protons: Acid-Base System Studies in the Baltic Sea” | 04.12.2015

**Müller J.D.**, Schneider B., Rehder G.

Take time! Long-term Alkalinity Trends in the Baltic Sea and their Implications for CO2-induced Acidification

Invited Talk | HZG Seminar talk | Helmholtz-Zentrum Geesthacht | 27.11.2015

**Müller J.**, Schneider B., Aßmann S., Hammer K., Rehder G.

Spectrophotometric pH measurements in the Baltic Sea: necessity, challenges and solutions

Talk | Wasser 2015 | Schwerin | 11.05.2015

**Müller J.**, Schneider B., Aßmann S., Hammer K., Rehder G.

Spectrophotometric pH measurements in the Baltic Sea: necessity, challenges and solutions

Talk | ASLO 2015 - Aquatic Sciences Meeting | Grenada | 23.02.2015