Curriculum vitae — Dr. Jens Daniel Müller

Date of birth	5. Februar 1986 Berlin
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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
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

07 / 2014 – 06 /2018	**PhD student** Leibniz-Institute for Baltic Sea Research Warnemünde EU project BONUS PINBAL
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** 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 CO_2 Reference Network, SOCONET and Associated Marine Boundary Layer CO_2 Measurements
Front. Mar. Sci. | doi: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 pH_T measurements
Front. Mar. Sci. | doi:10.3389/fmars.2018.00177

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 pH_T measurements of TRIS buffers to salinities 5 – 20
Front. Mar. Sci. | doi:10.3389/fmars.2018.00176

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

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

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

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

Müller, J.D., Schneider, B., and Rehder, G. (2016)
Long-term alkalinity trends in the Baltic Sea and their implications for CO_2-induced acidification
Limnol. Oceanogr., 61: 1984–2002 | doi: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

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

Selected conference presentations

Müller J.D.
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 CO_2-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 pCO_2 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 CO_2-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 CO_2-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 CO_2-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