

MORITZ DAVID LÜRIG

Postdoctoral scholar

Eawag Kastanienbaum | Room C03
Seestrasse. 79 | 6047 Kastanienbaum | CH
moritz.luerig@eawag.ch | <https://luerig.net>

ETH Zürich | Eawag | Aquatic Ecology



EDUCATION

- 09/2019 | **Dr. Sc. ETH Zürich (Defense: 28.06.2019)**, Eidgenössische Technische Hochschule Zürich (Department of Environmental Systems Science). Supervisors: Blake Matthews and Jukka Jokela. Opponent: Stewart Plaistow. Thesis: *Species interactions - from phenotypes to ecosystems*
- 02/2015 | **M. Sc.** (Marine Environmental Sciences), University of Oldenburg and UC Davis. Supervisors: Jay Stachowicz (UC Davis) and Helmut Hillebrand. Thesis: *Microhabitat partitioning in seagrass mesograzers is driven by consistent species choices across multiple predator and competitor contexts* (published)
- 12/2010 | **B. Sc.** (Environmental Sciences), University of Oldenburg and University of Bremen. Supervisors: Andreas Kunzmann (Uni Bremen) and Meinhard Simon. Thesis: *Effects of short term aragonite undersaturation and elevated temperature on the physiology of Stylophora pistillata* (published)

PROFESSIONAL EXPERIENCE

- starting 07/2020 | Lund University: Postdoc with Erik Svensson. Project: Phenomics and evolution of sexual dimorphism and female colour polymorphism in damselflies
- starting 01/2020 | Eawag: Postdoc with Ole Seehausen, Jukka Jokela, and Jan Wegner. Project: Development of a high throughput phenotyping toolbox.
- 04/2015-09/2019 | ETH Zürich: PhD candidate with Blake Matthews and Jukka Jokela at Eawag and ETH Zürich's ACE center (Adaptation to a Changing Environment). Thesis: *Species interactions - from phenotypes to ecosystems*.
- 10/2019 | Hokkaido University: Invited research project with Osamu Kishida. **Expertise:** natural history of isopods (Asellidae), phenotypic variation across environmental gradients, image analysis.
- 10/2018-12/2018 | Eawag: Funded participation in the ADASen initiative (Anomaly detection for adaptive sensor network maintenance). **Expertise:** time series analysis, anomaly detection, machine learning.
- 01/2018 | Institut des Sciences de l'Evolution de Montpellier (ISEM): Guest stay with Vasilis Dakos. **Expertise:** time series analysis, multidimensional data, variance partitioning, ecological disturbances.
- 05/2013-11/2013 | Bodega Marine Laboratory (BML), UC Davis: Research assistant as part of the Zostera Experimental Network (ZEN). **Expertise:** biodiversity monitoring, community ecology, species interactions.

09/2009-02/2012 | Leibniz Center for Tropical Marine Ecology (ZMT): Research assistant in New Zealand (Leigh Marine Lab) and Israel (Interuniversity Institute Eilat). **Expertise:** metabolism of corals and fish, local and global gradients of animal ecophysiology.

PUBLICATIONS

01/2019 | **Lürig, M.D.**, Best, R.J., Svitok, M., Jokela, J., Matthews, B. The role of plasticity in the evolution of cryptic pigmentation in a freshwater isopod. *Journal of Animal Ecology*, 88/4, 612–623. <https://doi.org/10.1111/1365-2656.12950>

01/2016 | **Lürig, M.D.**, Best, R.J., Stachowicz, J.J. Microhabitat partitioning in seagrass mesograzers is driven by consistent species choices across multiple predator and competitor contexts. *Oikos*, 125, 1324-1333. <https://doi.org/10.1111/oik.02932>

01/2015 | **Lürig, M.D.**, Kunzmann A. Effects of short term aragonite undersaturation and elevated temperature on the physiology of *Stylophora pistillata*. *Journal of Sea Research*, 99, 26–33. <https://doi.org/10.1016/j.seares.2015.01.005>

In review | *Lürig, M.D., Best, R.J., Dakos, V., Matthews, B. Submerged macrophytes affect the variability of aquatic ecosystems - In review at Limnology and Oceanography*

In review | *Lürig, M.D., Matthews, B. Dietary-based developmental plasticity affects juvenile survival in an aquatic detritivore - In review at Evolution*

PRESENTATIONS

10/2019 | **Invited talk: Lürig, M.D.** *Asellus aquaticus* as an emerging model system in ecology and evolutionary research. University of Hokkaido, Tomakomai, Japan

09/2019 | **Invited talk: Lürig, M.D.** Isopods (*Asellus aquaticus*) as an emerging model system for eco-evo-devo. University of Ljubljana, Slovenia

08/2019 | **Lürig, M.D.**, Matthews, B. Diet-based developmental plasticity and fitness in a detritivorous isopod (*Asellus aquaticus*). European Society for Evolutionary Biology, Annual Meeting, Turku, Finland

12/2018 | **Lürig, M.D.**, Narwani, A., Spaak, P., Matthews, B. Species interactions and the resilience of aquatic ecosystems to nutrient perturbation. British Ecological Society Annual Meeting, Birmingham, UK

09/2018 | **Lürig, M.D.**, Best, R.J., Svitok, M., Jokela J., Matthews, B. The role of developmental plasticity in the evolution of crypsis in a freshwater isopod. Talking Evolution Meeting, Plön, Germany

02/2018 | **Lürig, M.D.**, Dakos, V., Matthews, B. Species interactions and the stability of aquatic ecosystems. Center for Adaptation to a Changing Environment - Closing Conference. Borgen/Hocken, Switzerland

10/2017 | **Lürig, M.D.**, Best, R.J., Svitok, M., Jokela J., Matthews, B. Interactive effects of selection and plasticity during rapid evolution of a freshwater isopod. Dynatrait Programme Conference. Stephansstift, Hannover, Germany

11/2013 | **Lürig, M.D.**, Best, R.J., Stachowicz, J.J. Microhabitat selection by seagrass mesograzers: effects of predation, trait variation and species interactions. Western Society of Naturalists Annual Meeting. Oxnard, CA, USA

AWARDS AND GRANTS

11/2020	SNF Postdoc Mobility Fellowship: 18 month postdoc project, SNF (80 000 CHF)
09/2020	Eawag discretionary funding: 6 month postdoc project (co-author on grant, 56 000 CHF)
09/2016	CEEB Poster Award: Best PhD Student Poster, Eawag Kastanienbaum (200 CHF)
04/2015	PhD Fellowship: Adaptation to a Changing Environment, ETH Zürich (150 000 CHF)
05/2014	Travel Scholarship of the Department of Mathematics and Science, Oldenburg University (500 Euro)
03/2013	Masters Thesis Abroad Scholarship PROMOS, DAAD (1500 Euro)

TEACHING AND MENTORING

01/2018- 12/2018	MSc co-mentor for Kim Kaltenbach: The Role of Predator-Mediated Selection on Iso-pod Pigmentation (at Eawag Kastanienbaum)
06/2013- 10/2013	BSc co-mentor for Elena Huynh: Effects of epiphyte-cover on the microhabitat preference of <i>C. californica</i> (at BML)
07/2011	Instructor for 'Practical Applications in Aquaculture' ("ISATEC" masters program, Uni. Bremen)
08/2010- 12/2010	Co-Instructor for 'Scientific Diving' (Uni. Oldenburg, 5.12.230/1)
06/2007- 06/2010	Teaching Assistant for field classes 'Introduction to the German Coastal Zone' and 'Geomorphology of the northwestern German Coastal Zone' (Uni. Oldenburg, 5.12.021/111)
06/2007	Student-body tutor for 'Basic and Inorganic Chemistry' (Uni. Oldenburg, 5.07.701)

OTHER PROFESSIONAL ACTIVITIES

since 06/2018	Author and maintainer of the python package: <i>phenotype - a phenotyping pipeline for python</i>
05/2016	Main organizer of the Aquatic Ecology PhD Symposium at Eawag (Invited speaker: David Reznick).
since 05/2016	Review of manuscripts for Ecology and Society, Marine Biology and Zoology
since 01/2016	Member of the European Society for Evolutionary Biology
since 08/2015	Member of the British Ecological Society
06/2009	(equivalent to PADI *** / NAUI Dive Instructor), certified by the Examination board for scientific divers