

Svenja Schällicke

Contact

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Links:



Scientific Career

- since 2015 PhD student, Theoretical Aquatic Ecology and Ecophysiology group, University of Potsdam, Germany
- 2015 Master Thesis with Dr. Alexander Wacker and Dr. Apostolos Koussoroplis, Theoretical Aquatic Ecology and Ecophysiology group, University of Potsdam, Germany
- 2014 Scientific Assistant, Ecology and Ecosystem Modelling, University of Potsdam, Germany
- 2013 Scientific Assistant, Dept. Biology and Ecology of Fishes, Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) Berlin, Germany
- 2012-2015 Master of Science in 'Ecology, Evolution and Conservation', University of Potsdam, Germany
- 2012 Bachelor Thesis with Prof. Dr. Robert Arlinghaus, Project 'Besatzfisch', Dept. Biology and Ecology of Fishes, Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) Berlin, Germany
- 2010-2011 Two semesters abroad, study focus 'Marine Biology', Universidad de La Laguna, Spain
- 2008-2012 Bachelor of Science in 'Biology', Freie Universität Berlin, Germany

Publications

- 2019 Koussoroplis A.-M.*, **Schällicke S.***, Raatz M.*, Bach M. & Wacker A. – Feeding in the frequency domain: coarser-grained environments increase consumer sensitivity to resource variability, covariance and phase. *Ecology Letters* 22(7): 1104-1114. doi: [10.1111/ele.13267](https://doi.org/10.1111/ele.13267) *shared first authorship
- 2019 **Schällicke S.**, Sobisch L.-Y., Martin-Creuzburg D. & Wacker A. – Food quantity-quality co-limitation: Interactive effects of dietary carbon and essential lipid supply on population growth of a freshwater rotifer. *Freshwater Biology* 64(5): 903-912. doi: [10.1111/fwb.13272](https://doi.org/10.1111/fwb.13272)
- 2018 Raatz M., **Schällicke S.**, Sieber M., Wacker A. & Gaedke U. – One man's trash is another man's treasure – the effect of bacteria on phytoplankton-zooplankton interactions in chemostat systems. *Limnology and Oceanography: Methods* 16 (10), 629-639. doi: [10.1002/lom3.10269](https://doi.org/10.1002/lom3.10269)

- 2015 Hühn D., **Schälicke S.**, Emmrich M., Pagel T., Lewin W.-C. & Arlinghaus R. – Fischbesatz und Fischbiodiversität in der Deutschen Angelfischerei: Ufergebundene Fischartenvielfalt anglerisch gehogter Baggerseen. In: Hand in Hand für eine nachhaltige Angelfischerei: Ergebnisse und Empfehlungen aus fünf Jahren praxisorientierter Forschung zu Fischbesatz und seinen Alternativen. Berichte des IGB Vol. 28: 28-31.
- 2014 Emmrich M., **Schälicke S.**, Hühn D., Lewin C. & Arlinghaus R. – No differences between littoral fish community structure of small natural and gravel pit lakes in the northern German lowlands. *Limnologica* 46: 84-93. doi: [10.1016/j.limno.2013.12.005](https://doi.org/10.1016/j.limno.2013.12.005)
- 2013 **Schälicke S.**, Hühn D. & Arlinghaus R. – Strukturierende Faktoren der litoralen Fischartengemeinschaft angelfischereilich bewirtschafteter Baggerseen in Niedersachsen. Research report, project Besatzfisch, Leibniz-Institute of Freshwater Ecology and Inland Fisheries, Berlin, 73 pages. www.besatz-fisch.de

Congress contributions

- 2018 **Schälicke S.**, Teubner J., Martin-Creuzburg D. & Wacker A. – Intraspecific differences in the response to biochemical food quality among *Brachionus calyciflorus* strains. *Association for the Sciences of Limnology and Oceanography Summer Meeting*, Victoria, Canada. Oral presentation.
- 2018 Raatz M., **Schälicke S.**, Sieber M., Wacker A. & Gaedke U. – Not to be ignored: How bacteria may impact chemostat experiments. *DynaTrait Meeting*, Potsdam, Germany. Poster presentation.
- 2018 **Schälicke S.**, Raatz M. & Wacker A. – Food quality-mediated coexistence and potential trait changes in a chemostat system. *DynaTrait Meeting*, Potsdam, Germany. Poster presentation.
- 2017 **Schälicke S.**, Martin-Creuzburg D. & Wacker A. – Food quantity and quality co-limitation of an aquatic consumer. *British Ecological Society Annual Meeting*, Ghent, Belgium. Poster presentation.
- 2017 Raatz M., **Schälicke S.**, Bach M., Wacker A. & Koussoroplis A.-M. – Nutritional (co-)limitation in variable environments: How the temporal scale of diet variability affects consumer performance. *British Ecological Society Annual Meeting*, Ghent, Belgium. Poster presentation.
- 2017 **Schälicke S.**, Martin-Creuzburg D. & Wacker A. – Do food quality constraints change along a food quantity gradient in an aquatic consumer? *DynaTrait conference*, Hannover, Germany. Oral presentation.
- 2017 Raatz M., **Schälicke S.**, Sieber M., Wacker A. & Gaedke U. – On the importance of bacteria in chemostats. *DynaTrait conference*, Hannover, Deutschland. Oral presentation.
- 2017 **Schälicke S.**, Raatz M., Bach M., Wacker A. & Koussoroplis A.-M. – Hungry for nutrients in heterogeneous environment: temporal nutrient variance and covariance effects on the performance of co-limited individuals. *Association for the Sciences of Limnology and Oceanography Aquatic Sciences Meeting*, Honolulu, USA. Oral presentation.
- 2014 **Schälicke S.**, Emmrich M., Hühn D., Lewin C. & Arlinghaus R. – Die Struktur litoraler Fischartengemeinschaften künstlich entstandener Baggerseen und kleiner Naturseen Norddeutschlands im Vergleich. Deutscher Fischereitag, Fulda, Germany. Poster presentation.

2013 **Schälicke S.**, Emmrich M., Hühn D. & Arlinghaus R. – Factors affecting the littoral fish community in small artificial lakes in north-west Germany. *Symposium for European Freshwater Sciences*, Münster, Germany. Oral presentation.

Awards

2010-2015 Scholarship, Friedrich Ebert Foundation, Promotion of young talents

2010-2011 ERASMUS Scholarship

Research interests

- Ecology of aquatic organisms (fish, plankton)
- Effects of food quality on predator-prey dynamics and trait variation
- Effects of variance and covariance of limiting factors on consumer fitness (e.g. *Daphnia*)
- Determinants of fish communities in lakes
- Conservation of aquatic habitats and organisms

Work techniques

- Cultivation and experimental research of plankton organisms
- Basics of limnological laboratory work (chemostat systems, biochemical analysis, ...)
- Basics of limnological field work (Sampling of lake descriptors and fish communities)

Current and recently completed research

- Food quality as a driver of fitness response variations between and within species.
- Effects of food quality (essential biochemical compounds) on predator-prey dynamics of algae species and *Brachionus*
- Different scales of temporal dietary phosphorus and cholesterol fluctuation and their effect on growth of *Daphnia magna* (Master thesis)
- Covariance effects of food quantity and temperature on *Daphnia* fitness (Vertiefungspraktikum)
- Factors affecting the littoral fish community in small artificial lakes in north-west Germany (Bachelor thesis)
- Anthropological threats and conservation measures of fish in streams