

Verena Schrameyer  
D.O.B. 28/02/1981  
Nationality: German/Australian



I am an enthusiastic and ambitious early-career scientist of proven scientific excellence in aquatic ecophysiology research, as can be seen in my publication record of first- and co-authored papers in specialized international peer-review journals (cf. publications list) as well as multidisciplinary areas of research. My research expertise ranges from extensive fieldwork expertise (ecological monitoring of aquatic environments), paleoclimate research on coral cores, coral ecophysiology and plastic pollutant impact studies. In my early career research phase I have resided and took part in various tropical marine research groups in Australia from 2006-2017. This led to an extensive active professional network reaching across the globe, which I will retain and seek out for future research opportunities.

### ACADEMIC EDUCATION

- 2013** **PhD** – University of Technology (UTS), Sydney (AU)  
**2006** **MSc** – University of Bremen (GER), University of North Carolina, Wilmington (USA), Westfälische Wilhelms University Münster, (GER), University of Queensland, Brisbane (AU) – (Marine Biology, Zoology, Ecology) finalised with High distinction  
**2003** **BSc** – Justus-Liebig University Giessen (GER)

### CAREER BREAKS IN RESEARCH

- 21/08/2013 – 01/05/16** Maternity break, Duration in months: 32.  
I have two children (born 21.8.2013 (stillborn), 17.11.2014)

### PROFESSIONAL WORK EXPERIENCE

- June 2017 - ongoing** Individual Postdoctoral Research Fellow, Marie Skłodowska-Curie actions, University of Copenhagen (KU) (DK)  
**May 2016 – May 2017** Contracted Postdoctoral Research Assistant – Macquarie University, Dept. of Chemistry and Biomolecular Sciences, Sydney (AU)  
**Jan 2014** Contracted Technical Assistant – Diagnostic biosensors project, UTS (AU)  
**June 2013** Contracted Technical Assistant – Walz GmbH in Sydney (AU)  
**2012-2013** Contracted Researcher – UTS, James Cook University, Cairns (AU)  
**2010** Contracted Researcher – Algal biofuels project, UTS (AU)  
**2009-2013** PhD candidature – UTS (AU)  
**2007-2009** Production Technician – Inverness Medical, Brisbane (AU)  
**2004-2006** Contracted Researcher – Leibniz Center for Tropical Marine Ecology (ZMT), Bremen (GER)  
**2002** Contracted Researcher – Federal Research Center for Fisheries, Hamburg (GER)  
**2001,2003-2004** Laboratory Technician – Microbial Diagnostics Laboratory (PC2, PC3), Chamber of Agriculture, North Rhine-Westfalia (GER)

### INVITED PRESENTATIONS

- 2018** Guest Lecture ‘Corals in a Changing World’ for MSc Programme ‘Climate Change – an interdisciplinary challenge’ Dept. Geoscience and Natural Resource Management, University of Copenhagen

## Curriculum Vitae - Verena Schrameyer

- 2018 Invited talk to public viewing 'Chasing Coral' documentary and host for Q&A session, Doku2200, Copenhagen (DK)
- 2013 'Defining the bio-energetic limits of *Symbiodinium* sp.'s host-symbiont relationship under future climate scenarios', UTS, Sydney (AU)

### TEACHING EXPERIENCE

- 2019 Teaching Associate, University of Copenhagen (DK)  
- Marine Microbiology and Virology
- 2018 Teaching Associate, University of Copenhagen (DK)  
- Marine Microbiology and Virology  
- Microsensors in Environmental Science
- 2017 Teaching Associate, University of Copenhagen (DK)  
- Marine Biology
- 2014 Private Tutor – Jumbunna, University of Technology Sydney (UTS, AU)
- 2009-2014 Teaching Associate – UTS (AU)

### AWARDS AND SCHOLARSHIPS

- 2017 Individual Postdoctoral Research Fellow, Marie Skłodowska-Curie actions – DENOCS #747464 (DKK 1.580,777)
- 2012 UTS Vice Chancellor's Postgraduate Research Students Conference Fund (DKK 5660)
- 2010 UTS Faculty of Science Travel Scholarship (DKK 5660)
- 2010 Terry Walker Prize, Australian Coral Reef Society (DKK 11790)
- 2009 UTS International Research Scholarship for Students of Exceptional Research Potential (DKK 377.372)
- 2009 UTS Plant Functional Biology and Climate Change Cluster Scholarship (DKK 297.181)
- 2005 Travel scholarship/Tuition Fee Waiver (DKK 24.440)  
Center for Marine Science Research at  
*University of North Carolina, Wilmington*

### ACADEMIC MERIT AND OUTREACH

- Scientific Society member: International Coral Reef Society since 2010, Marie Curie Alumni Association
- 2018 Organizing Team (Vol.) of International Coral Reef Society meeting 2020 in Bremen
- 2018 Review Editor on Editorial Board for *Frontiers in Marine Science* and *Frontiers in Marine Microbiology*
- 2017 Co-supervision Master student at University of Copenhagen (KU), Marine Biological Section Helsingør (DK)
- 2017 Organiser of Denmark's Kick-off event for 'International Year of the Reef 2018', Introductory talk, coral documentary screening, virtual dive experience, Q&A session at KU, Marine
- 2017 Ad-hoc review for Journal 'Biology Open'
- 2016 Co-supervision of PhD student, Macquarie University, Sydney (AU)
- 2016 Co-supervision of Master student, Macquarie University, Sydney (AU)
- 2013 Ad-hoc review for Journal 'Coral Reefs'
- 2012 Co-representative for the Australian Coral Reef Society at the International Coral
- 2012 Co-supervision Honours Student, UTS (AU)
- 2011 Postgraduate student representative on the Faculty board of Science, UTS (AU)
- 2011 Presenting my fieldwork research during a TV interview, Channel 10, Australia

## Curriculum Vitae - Verena Schrameyer

- 2010** Design and prototype testing of novel algae photobioreactor (Algae-Growth Pulse-Amplitude-Modulated fluorimeter) for science and industrial applications, KU, Marinebiological Section Helsingør (DK) and UTS (AU)
- 2010** 'Microsensor analysis in the environmental sciences' course, KU, Marine Biological Section
- 2009** 'Microbial Imaging and Live Cell Microscopy' course, UTS (AU)
- 2005** Graduate 'Coral Reef Research Course', University of North Carolina, Wilmington (USA) and Curaçao Marine Biology Institute, Willemstad (AN)

## RESEARCH AND TECHNICAL SKILLS

### Fieldwork Expertise

- Scientific Diver for AAUS, Rescue Diver PADI
- Motor boating License (Germany, Australia)
- First Aid training
- Coral reef monitoring techniques (diving, snorkeling)
- Ship-based water sampling (Niskin-bottle deployment)
- Fishery ecology techniques

### Laboratory Expertise

- Optical Oxygen Sensor Applications
- Functional Chlorophyll *a* Fluorescence Measurements (Pulse Amplitude Modulated fluorometers for Photosystem II and I, Flash Fluorescence, NADPH fluorescence)
- Electrochemical Microsensor Technique
- Biochemical Assays (Bradford Protein Determination, Protein Carbonyl, other ELISA-based techniques)
- Microalgae Culturing Techniques, Marine Organism Rearing
- Confocal, Epifluorescence, Brightfield Microscopy

## INTERNATIONAL COLLABORATORS

- Prof. Doris Abele, Alfred Wegener Institute in Bremerhaven, Germany
- Dr. Julia Strahl, Carl von Ossietzky University of Oldenburg, Germany
- em. Prof. Anthony W.D. Larkum, Climate Change Cluster, University of Technology, Sydney, Australia
- Prof. Imre Vass, Biological Research Centre of the Hungarian Academy of Sciences, Centre of Excellence of the European Union
- Prof. Ove Hoegh-Guldberg, Global Change Institute, University of Queensland, Brisbane, Australia
- Prof. Doug Campbell, Biology Department, Mount Allison University, Sackville, New Brunswick, Canada
- Prof. Christine Ferrier-Pagès, Monaco Scientific Centre, Monaco
- Dr. Milan Szabo, Biological Research Centre of the Hungarian Academy of Sciences, Centre of Excellence of the European Union

## SCIENTIFIC RESEARCH CONFERENCES

- 2018** Danish Microbiological Society Annual Congress, Copenhagen, DK. Line L., Schrameyer V., Østrup Jensen P., Bjarsholt T., 'Oxygen release by *Pseudomonas aeruginosa*', Poster
- 2018** Oxygen Radicals, Ventura, US. Schrameyer V., Kühl M., 'Nitrosative stress and its effect upon photophysiological processes in coral symbionts - *Symbiodinium* sp.', Oral presentation
- 2017** Danish Microbiological Society Annual Congress, Copenhagen, DK. Line L., Schrameyer V., Østrup Jensen P., Bjarsholt T., 'Oxygen accumulation by nitric oxide reductase mutant *Pseudomonas aeruginosa*', Poster
- 2017** European Coral Reef Symposium, Oxford, UK. Schrameyer V., Mosshammer M., Koren K., Kühl M., 'Diversity and function of coral symbionts of the genus *Symbiodinium* – sentinels of coral resilience', Oral presentation
- 2016** International Coral Reef Society, Hawaii. Slavov C., Schrameyer V., Reus M., Ralph P.J., Hill R., Larkum A.W.D., Holzwarth A.R., 'Super-quenching state protects *Symbiodinium* from thermal stress: implications for coral bleaching' Oral presentation

## Curriculum Vitae - Verena Schrameyer

- 2012** International Symbiosis Society, Krakow, Poland. Schrameyer V., Wangpraseurt D., Behrendt L., Gademann R., Hill R., Kühl M., Larkum A.W.D., Ralph P.J., 'A closed chamber system to quantify photosynthetic capacity and bio-energetic fluxes of scleractinian corals'. Oral presentation
- 2012** International Coral Reef Society, Cairns, Australia. Schrameyer V., Krämer W., Hill R., 'Species-specific dependencies of energy dissipation pathways in two hardcoral species'. Oral presentation
- 2012** International Coral Reef Society, Cairns, Australia. Schrameyer V., Gademann R., Hill R., Behrendt L., Larkum A.W.D., Ralph P.J., 'Combined photosynthetic estimates of coral'. Oral presentation
- 2010** International Society for Reef Studies (ISRS), Wageningen, Netherlands. Schrameyer V., Krämer W., Hill R., Doblin M., Bischof K., Ralph P.J., 'Nutritional status of scleractinian coral host influences photosynthetic capacity of *Symbiodinium* sp. and vitality of the holobiont.' Oral presentation
- 2010** Annual Australian Coral Reef Society, Coffs Harbour, Australia. Schrameyer V., Krämer W., Hill R., Doblin M., Bischof K., Ralph P., 'The influence of heterotrophic feeding on photoprotection and photorepair of corals exposed to high light stress'. Poster

## SCIENTIFIC PUBLICATIONS

My research output so far has led to 16 scientific publications. I prepared 3 first-authored manuscripts (+4 in preparation), and through extensive collaborations, I contributed to a total of 12 manuscripts where the published articles have been received well in the science community (see citation indices in the table). Most of these research articles contributed to the coral science sector, but also encompass technical advances relevant to applied life science (Publication 7 and 13), picocyanobacteria ecophysiology (Publication 14) and seagrass ecology (Publication 11 and 12).

Personal citation indices at well-known science databases	Research Gate	Google Scholar
Citations	142	142
h-index	7	6
RG-Score	19.74	

### 2018

- 18 Schrameyer, V.,** Ortega, K., Strahl, J., Abele, D., Kühl, M., Quantitative hydrogen-peroxide measures of coral explants – a feasible coral model?, *in progress*
- 17 Schrameyer, V.,** Gammon, L., Davies, M., Grover, R., Ferrier-Pagès, C., Kühl, M., Cellular oxidative stress scenario under acute thermal stress conditions in two scleractinian corals, *in progress*
- 16 Schrameyer, V.,** Szabo, M., Vass, I., Kühl, M., Nitric Oxide exposure has differential impact on key photophysiological traits of two *Symbiodinium* subclades, *in progress*
- 15 Schrameyer V.,** Duley M., Larkum A.W.D., Kühl M, Ralph P., Simulating ecologically relevant freshwater impact tells physiological limits of hyposalinity stress in *Pocillopora damicornis*. *in progress*
- 14 Tetu S.,** Sarker I., **Schrameyer V.,** Pickford R., Elbourne L.D.H., Moore L.R., Paulsen I., Impact of plastic leachates on marine *Prochlorococcus*. *in review Nature Communications*
- 13 Moßhammer M., Schrameyer V.,** Jensen P., Koren K., Kühl M., Extracellular Hydrogen Peroxide Measurements Using a Flow Injection System in Combination with Microdialysis Probes – Potential and Challenges. *Free Radical Biology & Medicine*, 2018, Vol. 128, pp. 111-123.
- 12 Schrameyer V.,** York P.A., Chartrand K., Ralph P.J., Kühl M., Brodersen K.E., Rasheed M. A. Contrasting impacts of light reduction on sediment biogeochemistry in deep- and shallow-water tropical seagrass assemblages (Green Island, Great Barrier Reef). *Marine Environmental Research*, 2018, Vol. 136, pp38-47.

### 2017

- 11 Brodersen K.E.,** Hammer K.J., **Schrameyer V.,** Floytrup A., Rasheed M. A., Ralph P.J., Kühl M., Pedersen O., Sediment resuspension and deposition on seagrass leaves impedes internal plant aeration and promotes phototoxic H<sub>2</sub>S intrusion. *Frontiers in Plant Science*, 2017, Vol. 8, Article 657.
- 10 Tonk L.,** Sampayo E.M., **Schrameyer V.,** Chai A., Hoegh-Guldberg O., *Symbiodinium* (Phyrrhophyta) community patterns in invertebrate hosts from inshore marginal reefs of the southern Great Barrier Reef, Australia. *Journal of Phycology*, 2017, Vol. 53, pp. 589 – 600.

### 2016

- 9 **Schrameyer V.**, Krämer W.E., Hill R., Jeans J., Larkum A.W.D., Bischof K., Campbell D.A., Ralph P.J., Under high light stress two Indo-Pacific coral species display differential photodamage and photo repair dynamics. *Marine Biology*, 163(8), 1-13.
- 8 Slavov C., **Schrameyer V.**, Reus M., Ralph P. J., Hill R., Larkum A.W.D., Holzwarth A.R., Super-quenching” state protects Symbiodinium from thermal stress-Implications for coral bleaching. *BBABioenergetics*, 2016, Feb8.pii:S0005-2728(16)30021-4.doi: 10.1016/j.bbabbio.2016.02.002
- 7 Ros M., Pernice M., Le Guillou S., Doblin M., **Schrameyer V.**, Laczka O., 2016. Colorimetric detection of Caspase 3 activity and oxygen derivatives: potential early indicators of thermal stress in corals. *Journal of Marine Biology*. Vol. 2016 (2016), Article ID: 6825949.
- 2014**
- 6 **Schrameyer V.**, Wangpraseurt D., Hill R., Kühl M., Larkum A.W.D., Ralph P.J., Light respiratory processes and gross photosynthesis in two scleractinian corals. *PlosOne*, 2014, Vol. 9(10), e110814. doi:10.1371/journal.pone.0110814
- 5 Tonk L., Sampayo E. M., LaJeunesse T.C., **Schrameyer V.**, Hoegh-Guldberg O., *Symbiodinium* (Dinophyceae) diversity in reef- invertebrates along an offshore to inshore reef gradient near Lizard Island, Great Barrier Reef. *Journal of Phycology*, 2014, Vol. 40 (3), pp. 552-563. DOI: 10.1111/jpy.12185
- 2012**
- 4 Krämer W., **Schrameyer V.**, Hill R., Ralph P. J., and Bischof K., PSII activity and pigment dynamics of *Symbiodinium* in two Indo-Pacific corals exposed to short-term high-light stress. *Marine Biology*, 2012, Vol 160, Issue 3, pp. 563-577.
- 3 Hill R., Larkum A.W.D., **Schrameyer V.**, Gustafsson M., Ralph P.J., 2012. Response to Biogeoscience Discussion, 2012, Vol. 9, pp. 8111-8139.
- 2 Behrendt L., **Schrameyer V.**, Qvortrup K., Lunding L., Sorensen S., Larkum A.W.D., Kühl M., 2012. Biofilm growth and near infrared radiation- driven photosynthesis of the chlorophyll-d-containing cyanobacterium *Acaryochloris marina*. *Applied Environmental Microbiology*, 2012, Vol. 78, pp. 3896-3904.
- 2008**
- 1 Jupiter S., Roff G., Marion G., Henderson M., **Schrameyer V.**, Hoegh Guldberg O., Linkages between coral assemblages and coral proxies of terrestrial exposure along a cross-shelf gradient of the southern Great Barrier Reef. *Coral Reefs*, 2008, Vol. 27, pp. 887- 903.