## PERSONAL INFORMATION


Family name, First name: **Glasl, Bettina**
Researcher unique identifier(s): ORCID: 0000-0002-6812-868X
Research ID: DWU-0149-2022
Date of birth: 17.06.1989
Nationality: Austria
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## EDUCATION

2020 **PhD in Biology**
College of Science and Engineering, James Cook University, Australia
Healthy and Resilient Great Barrier Reef, Australian Institute of Marine Science, Australia
*Supervisor:* Prof. Dr. David G. Bourne and Dr. Nicole S. Webster

2015 **MSc in Ecology** (Specialization in Marine Biology)
Department of Limnology and Bio-Oceanography, University of Vienna, Austria
*Supervisor*: Prof. Dr. Gerhard Herndl

2012 **BSc in Biology** (Specialization in Ecology)
University of Vienna, Austria

## CURRENT POSITION

since 2020 Postdoctoral researcher
Centre for Microbial Ecology and Environmental Systems Science, Division of Microbial Ecology, University of Vienna, Austria

## FELLOWSHIPS AND AWARDS

2023 Best Poster Award, Gordon Research Seminar (GRS), Italy
2020 Hertha-Firnberg Postdoctoral Fellowship, Austrian Science Fund (FWF), Austria
2020 Reinforcing Women in Research (REWIRE) and Marie Skłodowska-Curie Actions COFUND Programme, European Commission (awarded but not pursued)
2018 Tropical Water Quality Hub Award, James Cook University, Australia
2017 Science for Management Award, Great Barrier Reef Marine Park Authority, Australia
2016 Advance Queensland PhD Scholarship, Queensland Government, Australia
2015 AIMS@JCU PhD Scholarship, AIMS@JCU, Australia
2015 ERASMUS$^+$ mobility grant, Agency for International Cooperation in Education and Research, Austria
2015 International communication grant, Austrian Research Association, Austria
2014 Research grant, University of Vienna, Austria
2014 Siegfried Ludwig research grant, Siegfried Ludwig Foundation, Austria
2013 ERASMUS mobility grant, Agency for International Cooperation in Education and Research, Austria
2013 NÖ Top Stipendium, NÖ Forschungs- und Bildungsges.m.b.H. (NFB), Austria

## SUPERVISION OF STUDENTS

since 2020 one PhD student as main supervisor, one PhD student as co-advisor, one MSc student, three BSc students, one research volunteer
Centre for Microbial Ecology and Environmental Systems Science, Division of Microbial Ecology, University of Vienna, Austria

2016 – 2020 two MSc students, two Honours degree students, three research volunteers
Healthy and Resilient Great Barrier Reef, Australian Institute of Marine Science, Australia

## TEACHING ACTIVITIES

2023 Guest lecturer – Coral reefs in the Anthropocene, University of Vienna, Austria
2022 Tutor – Microbial symbiosis in nature, University of Vienna, Austria

## ORGANISATION OF SCIENTIFIC MEETINGS

2022 Session chair – AIMS@JCU Student Seminar, Australia
2020 Session organizer – Basal Metazoa: microbe interactions in the present and future ocean, ASLO Aquatic Science Meeting, Spain
2015 Organizing assistant – AutReef: a workshop on reef research made in Austria, Austria

## REVIEWING ACTIVITIES

Since 2023 Associate Editor, Microbiome
Since 2023 Associate Editor, Environmental Microbiome
Since 2016 Peer reviewer for: Environmental Microbiology and Molecular Ecology, mSystems, The ISME Journal, Applied and Environmental Microbial Ecology

## MAJOR COLLABORATIONS

**Michael Wagner** (Mentor) – Centre for Microbial Ecology and Environmental Systems Science, Division of Microbial Ecology, University of Vienna, Austria
**Heidi M. Luter** Australian Institute of Marine Science, Australia,
**Nicole S. Webster** (PhD supervisor) Australian Institute of Marine Science, Australia
**David G. Bourne** (PhD supervisor) College of Science and Engineering, James Cook University, Australia
**Torsten Thomas** Faculty of Science, University of New South Wales, Australia,
**Manuel Liebeke** Christian Albrechts University, Germany
**Australian Microbiome Initiative** https://www.australianmicrobiome.com

## CONFERENCE PRESENTATIONS

2024 International Symposium on Microbial Ecology (ISME19), Cape Town, South Africa. Oral presentation (Session: Microbial interactions between organisms, species and kingdoms)
2023 Animal-Microbe Symbiosis Gordon Research Conference (GRC) and Seminar (GRS), Lucca, Italy. Poster (Best Poster Award)
2022 International Symposium on Microbial Ecology (ISME18), Lausanne, Switzerland. Invited speaker (Session: Host-microbe associations across the animal Tree of Life and beyond)
2022 World Sponge Conference, Leiden, The Netherlands. Oral presentation
2020 International Coral Reef Symposium (ICRS), Virtual Conference. Oral presentation
2018 International Symposium on Microbial Ecology (ISME17), Leipzig, Germany. Oral presentation
2018 Great Barrier Reef Marine Park Authority, Townsville, Australia. Invited speaker
2015 Conference of the Association of Marine Laboratories of the Caribbean, Willemstad, Curaçao. Poster

## PUBLICATIONS

18 publications (11 as first author) in international peer-reviewed journals including high impact journals such as ***Microbiome*** (IF = 19.4), ***The ISME Journal*** (IF = 11), ***Communications Biology*** (IF = 5.9), and ***Environmental Microbiology*** (IF = 5.1). I have currently received **1,413 citations**, and my H-Index scores at 14 (Google Scholar, 01.06.2024). My full publication list is available at: https://scholar.google.com/citations?hl=de&tzom=-60&user=EGuKRFsAAAAJ.

**Five selected publications**
(publication 1 and 5 are without my PhD advisors,[#] corresponded author, [&] mentored student)

1. **Glasl B**[#], Luter HM, Damjanovic K, Kitzinger K, Mueller AJ, Mahler L[&], Engelberts JP, Rix L, Osvatic J, Hausmann B, Séneca J, Daims H, Pjevac P, Wagner M (2024) Co-occurring nitrifying symbiont lineages are vertically inherited and mediate nitrification in marine sponges. ***ISME J*** wrae069 https://doi.org/10.1093/ismejo/wrae069

The present study characterizes two novel genera of ammonia-oxidizing archaea and nitrite-oxidizing bacteria, which are ubiquitously present in marine sponges and corals. The diversification of these two symbiont lineages may be intertwined with the early evolution of animals and provide key insights into the genomic adaptation of sponge symbionts.

2. Robbins SJ, Song W, Engelberts JP, **Glasl B**, Slaby BM, Boyd J, Marangon E, Botté ES, Laffy PW, Thomas T, Webster NS[#] (2021) A genomic view of the microbiome of coral reef demosponges. ***ISME J*** 15, 1641–1654. https://doi.org/10.1038/s41396-020-00876-9

This research represents the most extensive collection of metagenome-assembled genomes recovered from marine sponges to date. As part of an international team of sponge-microbiome researchers, I contributed to the analysis and interpretation of the functional potential of 1200 metagenome-assembled genomes of 25 microbial phyla. This work was highlighted by the reviewers as setting a new standard for sponge-microbiome research for years to come. This article is in the top 5% of all research outputs ever tracked by Altmetric. (91 citations, Google Scholar)

3. **Glasl B**[#], Robbins SJ, Frade PR, Marangon E, Laffy PW, Bourne DG, Webster NS (2020) Comparative genome-centric analysis reveals seasonal variation in the function of coral reef microbiomes. ***ISME J*** 14, 1435–1450. https://doi.org/10.1038/s41396-020-0622-6

This study assessed the functions of sponge, macroalgal and seawater microbiomes using genome-centric metagenomics and demonstrated how environmental perturbations can affect microbially mediated processes in coral reefs. The results presented in this work have been pivotal for the integration of the recently launched Microbial Monitoring Initiative into ongoing reef monitoring programmes on the Great Barrier Reef. (57 citations, Google Scholar)

4. **Glasl B**[#], Bourne DG, Frade PR, Thomas T, Schaffelke B, Webster NS (2019) Microbial indicators of environmental perturbations in coral reef ecosystems. ***Microbiome*** 7, 94. https://doi.org/10.1186/s40168-019-0705-7

This study provides a comprehensive microbial reference database for the Great Barrier Reef as part of the Australian Microbiome Initiative and assesses the diagnostic value of different microbiomes to infer reef health. This study forms the foundation for the recently launched Great Barrier Reef Microbial Monitoring Initiative and I was awarded the prestigious Advance Queensland PhD Scholarship. This article is in the top 25% of all research outputs ever tracked by Altmetric. (175 citations, Google Scholar)

5. **Glasl B**, Herndl GJ, Frade PR[#] (2016) The microbiome of coral surface mucus has a key role in mediating holobiont health and survival upon disturbance. ***ISME J*** 10, 2280–2292. https://doi.org/10.1038/ismej.2016.9

In this seminal work, we investigated the fate of coral holobionts upon depletion of their natural mucus microbiome using antibiotics and subsequent reintroduction to the reef. Our results highlight that the mucus microbiome acts as defense barrier against pathogenic microbes and contributes to holobiont health. This article is in the top 10% of all research outputs ever tracked by Altmetric. (351 citations, Google Scholar)