

Zhehao Hu

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EDUCATION

UNIVERSITY OF HAMBURG

Master of Science in Biology

Hamburg, Germany

10/2023 - 11/2025

Courses:

- Marine Deep-Sea Benthic Habitats and Biodiversity
- Community Ecology
- Evolutionary Systematics
- Network Analysis in Ecology and Beyond
- Molecular Parasitology (offered by BNITM)
- Cellular and Molecular Immunology (offered by BNITM)

Courseworks:

- Influence of Microhabitats on Tadpole Composition in Ranomafana, Madagascar
- Big Stew: Microbial Community Difference Along Water Columns in Mediterranean Sea

UNIVERSITY OF HAMBURG

Bachelor of Science in Biology

Hamburg, Germany

10/2020 - 3/2024

Courses:

- Biological Oceanography and Fisheries Science
- Methods of Open Field Ecology
- Biodiversity of Fungi
- Introduction of Geographic Information System
- Molecular Methods of Animal Physiology
- Data Analysis in Ecology with R

Courseworks:

- Gradient Analysis of Floodplain Grassland: Species Composition (German)
- Understanding Hemocyanin Evolution Using Molecular and Biochemical Methods (German)

Thesis: Various *Wolbachia* communities in the female-biased flea beetle *Altica lythri*

- Supervisor: Prof. Dr. Susanne Dobler, Dr. Kim Rohlfing

EXPERIENCE

RESEARCH ASSISTANT

German Centre for Marine Biodiversity Research (DZMB)

01/2025 - Present

Hamburg, Germany

- Species description of *Acanthocope* sp. nov.

ONBOARD TAXONOMIST

Ocean Census

02/2025 - 03/2025

R/V *Falkor* (too)

- Assisted ROV operation and sampling preservation during the expedition Ocean Census GoSouth: Searching for New Species in South Sandwich Islands (FKt250220)

RESEARCH ASSISTANT INTERNSHIP

German Centre for Marine Biodiversity Research (DZMB)

10/2024 - 12/2024

Hamburg, Germany

- Species delimitation analysis of Atlantic *Acanthocope* (Isopoda: Asellota: Munnopsidae) with specimens collected from expeditions IceAGE3 (2020), IceDivA1 (2021), IceDivA2 (2021).
- Integrative taxonomy approach combining morphology (bright-field microscopy, CLSM), genetics (DNA barcoding), and proteomics (MALDI-TOF) to assess biogeographic assessment.

RESEARCH ASSISTANT

University of Hamburg, Group Neurophysiology

07/2024 - Present

Hamburg, Germany

- Assisted genotyping of the experimental animals.

STUDENT ASSISTANT

08/2023 - 03/2024

University of Hamburg, Group Molecular Evolutionary Biology

Hamburg, Germany

- Assisted DNA/RNA-extraction and laboratory organization.
- Developed novel protocols for rapid and bulk extraction of DNA or RNA.

LABORATORY TECHNICIAN

06/2023 - 07/2023

Eurofins BioTesting Service Nord GmbH

Hamburg, Germany

- Operated *in vitro* diagnostic tests (ISO 17822) for testing *Salmonella spp.*, *Listeria monocytogenes* and *Vibrio spp.* from marketed food products.
- Developed laboratory skills to navigate a fast-paced working environment while maintaining standardized procedures and ensuring compliance with safety regulations in a biosafety level 2 laboratory.

TEACHING EXPERIENCE

EVOLUTIONARY ECOLOGY | Teaching Assistant

11/2023 - 11/2023

University of Hamburg

Hamburg, Germany

1 class, 12 students

- 3rd year elective practical course for the B.Sc. Biology program.
- Supported and advised students on molecular experiments (PCR, gel-electrophoresis, ICC, result interpretation)

ANIMAL PHYSIOLOGY | Teaching Assistant

10/2022 - 11/2023

University of Hamburg

Hamburg, Germany

24 classes, 200+ students total

- 2nd year mandatory practical course for the B.Sc. Biology program.
- Supported in assessing course plan, assisted students on molecular experiments (cell counting, SDS-PAGE, ECG, enzyme activity measurement, basic data interpretation)

CONFERENCE ACTIVITIES

Detecting *Wolbachia* Infection With Real-time PCR in Female-biased Flea Beetle *Altica lythri*

115th Annual Conference of the German Zoological Society

09/2023

Poster

Kassel, Germany

EXPEDITIONS

Ocean Census GoSouth: Searching for New Species in South Sandwich Islands (FKt250220)

R/V *Falkor* (too)

02/2025 - 03/2025 (35 Days)

Ocean Census Onboard Taxonomist (Generalist, Isopoda)

South Sandwich Islands

Chief Scientist: Prof. Dr. Michelle Taylor

Onboard Principle Investigator: Joe Sharman (Head of Expedition), Dr. Jenny Gales (Leader of GoSouth)

Corresponding Gears:

- Remotely Operated Vehicle ROV *SuBastian*

Experiences:

- Served as generalist with focus on Isopoda as an Ocean Census taxonomist to assist marine life discovery.
- Assisted ROV operation, species identification, and specimens preservation.
- Developed R scripts for rapid access to ROV visual files and seelog data.

SKILLS

Molecular Biological Tools: PCR techniques, SDS-PAGE, Western blot, MALDI-TOF, Cloning

Cell Biology and Immunology Techniques: ICC, Cell culture, ELISA, ELISpot, FACS, CLSM

Programming Languages and Technical Writing: R, Python 3, HTML, CSS, L^AT_EX, Typst, Quarto

Data Analysis Tools: Multivariate analysis, BLAST, ImageJ (Fiji), Adobe Creative Softwares, DaVinci Resolve, R/Python-based GIS

Languages: German, English, Mandarin (Native), Japanese (Limited)