Zhehao Hu

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EDUCATION

University of Hamburg

Hamburg, Germany 10/2023 - 11/2025

Master of Science in Biology

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

Hamburg, Germany 10/2020 - 3/2024

Bachelor of Science in Biology

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 beatle *Altica lythri*

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

EXPERIENCE

RESEARCH ASSISTANT

01/2025 - Present

German Centre for Marine Biodiversity Research (DZMB)

• Species description of Acanthocope sp. nov.

Hamburg, Germany

Onboard Taxonomist

02/2025 - 03/2025

Ocean Census

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

10/2024 - 12/2024 Hamburg, Germany

German Centre for Marine Biodiversity Research (DZMB)

• 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

07/2024 - Present

University of Hamburg, Group Neurophysiology

· Assisted genotyping of the experimental animals.

Hamburg, Germany

STUDENT ASSISTANT

08/2023 - 03/2024

University of Hamburg, Group Molecular Evolutionary Biology

- 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

Hamburg, Germany

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

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)

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)

Conference Activities

Detecting Wolbachia Infection With Real-time PCR in Female-biased Flea Beatle 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

Corresponding Gear:

• Remotely Operated Vehicle (ROV)

TECHNICAL 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, LATEX, 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)