

# Zihui Shen

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## Research Interests

Marine Invertebrates

Genomic basis of deep-sea adaptations and diversity

Siboglinidae-bacteria symbiosis

## Education

**Hong Kong Baptist University**

September 2025-present

Ph.D. (HKPFS) in Biology

Thesis: Multi-omics Analysis on Symbiosis, Adaptations and Diversity of Deep-sea Tubeworms

Principal Supervisor: Prof. Jianwen Qiu

**Scripps Institution of Oceanography, University of California, San Diego** September 2022-August 2023

M.S. in Marine Biology

Thesis: Two New Species of Wood-Associated Sea Stars (Asteroidea: Caymanostellidae) from the Pacific Margin of Costa Rica

Principal Supervisor: Prof. Greg Rouse

**University of California, San Diego**

2018-2022

B.S. in Marine Biology

Cumulative GPA: 3.82/4.00 (Cum Laude)

## Research Experience

**Senior Research Assistant** Hong Kong Baptist University

February 2025 – August 2025

Supervisor: Prof. Jianwen Qiu

**Volunteer**

Scripps Institution of Oceanography,  
UC San Diego

November 2019 – March 2020;  
October 2023 – October 2024

Supervisor: Prof. Greg Rouse

**Student Volunteer**

Scripps Institution of Oceanography,  
UC San Diego

March 2022 – March 2023

Project Topic: Low oxygen effect on juvenile splitnose rockfish optomotor response

Supervisor: Dr. Lillian McCormick

**Volunteer (Remote)**

Hongshan Biodiversity Investigation  
Program, Nanjing Hongshan Forest Zoo

July 2021 – October 2021

**Research Assistant**

Center for Research and Education on Biological  
Evolution and Environment, Nanjing University

July – August 2021

Project topic: Construction of foraminifera image database

Supervisor: Prof. Yukun Shi

**Research Intern**

Wang Yaqiong Lab,  
Nanjing Institution of Geology and Paleontology,  
Chinese Academy of Sciences

December 2020 – April 2021

Project topic: Environmental factors affecting species distribution/zonation of ostracods in the sediments of East  
China Sea near Yangtze Estuary

Advisor: Prof. Yaqiong Wang

**Student Volunteer**

Benthic Invertebrate Collection at Scripps  
Institution of Oceanography

October 2019 – December 2021

Supervisor: Dr. Charlotte Seid

**Lab Assistant**

Molpharm Laboratory, Nanjing University  
Life Science Department

July – September 2019

Advisor: Prof. Qiang Xu

## Publications

2024

**Shen, Z., Koch, N.M., Seid, C.A., Tilic, E. & Rouse, G.W. (2024) Three New Species of Deep-Sea Wood-Associated Sea Stars (Asteroidea: Caymanostellidae) from the Eastern Pacific. *Zootaxa* 5536, 351–388. <https://doi.org/10.11646/zootaxa.5536.3.1>**

## Conferences/Symposiums

**Scripps Student Symposium (S<sup>3</sup>) 2023**

September 27 2023

Oral presentation: “Two New Species of Wood-Associated Sea Stars (Asteroidea: Caymanostellidae) from the Deep Sea at the Pacific Margin of Costa Rica”

**Society for Integrative and Comparative Biology (SICB) 2024 Annual Meeting**

January 2 – 6 2024

Participant

**Deep-Sea Biology Symposium (17DSBS)**

January 12 – 17 2025

Poster: Three New Species of Deep-Sea Wood-Associated Sea Stars (Asteroidea: Caymanostellidae) from the Eastern Pacific

**Forum on International Day for Biological Diversity 2025 cum Nature Education Forum,**

May 10 2025

**Hengqin**

Oral presentation: Transcriptomics and Proteomics of Tubeworms from Hong Kong Local Waters Unravel Tube Diversity and Evolution in Annelida

## Research Expeditions

**R/V Robert Gordon Sproul Cruise SP2407**

May 18 – 23 2024

Southern California DDT ocean dumpsite characterization, benthic sampling Phase 2

## Work/Teaching Experience

**Teaching Assistant**

Scripps Institution of Oceanography,  
UC San Diego

March– June 2023

Class: SIO 181 Marine Biochemistry (Dr. Lauren Shipp)

**Summer Camp Assistant**

Birch aquarium at Scripps Institution of  
Oceanography

June – August 2022

Campers age group: 5-10

**Tutor**

School of Biological Sciences,  
UC San Diego

June – July 2022

Class: BIEB 102 Intro to Ecology/Organisms & Habitats (Prof. Shannon Butler)

**Undergraduate Instructional Apprentice**

School of Biological Sciences,  
UC San Diego

January – March 2022

Class: BIEB 150 Evolution (Prof. Lin Chao)

## Activities

**Popular Science Volunteer**

Nanjing Hongshan Forest Zoo

December 2020 – October 2021

**Tour Guide/Zookeepers Assistant**

“Feline in China” Enclosure,  
Nanjing Hongshan Forest Zoo

December 2020 – September 2021

**Volunteer Guide**

Nanjing Paleobiology Museum, Nanjing  
Institution of Geology and Paleontology,  
Chinese Academy of Sciences

2016-2018