

# Yangbing XU

Ph.D. Candidate

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*Dedicate to explore ecology and evolution of eukaryotic phytoplankton and their viruses.*

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HKUST, Hong Kong SAR, China 📍

## EDUCATION

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### Ph.D. in Marine Environmental Science

02/2020 – Present

The Hong Kong University of Science and Technology

GPA: 4.075/4.3

Research Area: Eukaryotic genomics; Picophytoplankton; Host-virus interactions in marine ecosystem

### B.S. in Aquaculture (with honors)

09/2015 - 06/2019

Ocean University of China

GPA: 3.89/4.0

Thesis title: A study on the toxins and allelopathy of dinoflagellate *Alexandrium leei*

## PUBLICATIONS

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- Shang, L., **Xu, Y.**, Leaw, C. P., Lim, P. T., Wang, J., Chen, J., ... & Tang, Y. Z. (2021). Potent allelopathy and non-PSTs, non-spirolides toxicity of the dinoflagellate *Alexandrium leei* to phytoplankton, finfish and zooplankton observed from laboratory bioassays. *Science of The Total Environment*, 780, 146484.
- **Xu, Y.**, Leung, S. K., Li, T. M., & Yung, C. C. (2024). Hidden genomic diversity drives niche partitioning in a cosmopolitan eukaryotic picophytoplankton. *The ISME Journal*, wrae163.
- Xu, W., **Xu, Y.**, Sun, R., Redondo, E. R., Leung, K. K., Wan, S. H., ... & Yung, C. C. (2024). Revealing the intricate temporal dynamics and adaptive responses of prokaryotic and eukaryotic microbes in the coastal South China Sea. *Science of The Total Environment*, 176019.
- Rey Redondo, E., **Xu, Y.**, & Yung, C. C. (2024). Genomic characterisation and ecological distribution of *Mantoniella tinhausana*: a novel Mamiellophycean green alga from the Western Pacific. *Frontiers in Microbiology*, 15, 1358574.
- Thomy, J., Sanchez, F., Prioux, C., Yau, S., **Xu, Y.**, Mak, J., ... & Yung, C. C. (2024). Unveiling Prasinovirus diversity and host specificity through targeted enrichment in the South China Sea. *ISME Communications*, 4(1), ycae109.

## CONFERENCES

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- **Xu, Y.**, Leung, S. K., Wan, S., Yung, C. C. (2023). Unraveling virus-phytoplankton interactions using integrated cultivation and multi-omics. Confect Symposium: 2023 Marine Microbial Virus Ecology and Evolution, Bergen, Norway, 22-24 Aug. (Poster)
- **Xu, Y.** (2024). Tracking the seasonal interactions of virus-microbe in subtropical waters using multi-omics. Marine Microbes Gordon Research Seminar, Les Diablerets, Switzerland, 8-9 Jun. (Oral)
- **Xu, Y.**, Leung, S. K., Li, T. M., & Yung, C. C. (2024). Hidden genomic diversity drives niche partitioning in a cosmopolitan eukaryotic picophytoplankton. Marine Microbes Gordon Research Conference, Les Diablerets, Switzerland, 9-14 Jun. (Poster)
- **Xu, Y.** (2024). Exploring the Genomic Landscape: Diversity and Niche Adaptation in a Cosmopolitan Eukaryotic Picophytoplankton. International Webinar Series for Young Scholars: "Cutting-edge Research on Marine Science and Engineering", Hong Kong SAR, China, 27 Jun. (Oral)

## HONORS & AWARDS

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- HKUST RedBird Academic Excellence Award for Continuing PhD Students 2022, 2023, 2024
- Outstanding Graduates of Shangdong Province (5%) 2019
- Excellent Student Scholarship (*The highest honor for undergraduate of OUC*) 2018
- First Class Scholarship (5%) 2016, 2017, 2018
- National Scholarship (2%) 2016, 2017
- The Outstanding Young Volunteer 2017
- MEL Summer Undergraduate Research Fellowship 2017

## RESEARCH EXPERIENCE

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### **Phytoplankton-virus interactions across the Mediterranean and South China Sea: insights from the Mamiellales-Prasinovirus model system**

*Department of Ocean Science, The Hong Kong University of Science and Technology* 02/2020-Present

### **Identify host-virus pairs that are in the process of active infection using metagenomic Hi-C**

*Department of Ocean Science, The Hong Kong University of Science and Technology* 02/2020-Present

### **The role of histone proteins of *Alexandrium pacificum* in algal bloom**

*College of Marine Life Sciences, Ocean University of China* 08/2019-01/2020

### **The toxicity and allelopathic effect of dinoflagellate *Alexandrium leei***

*Institute of Oceanology, Chinese Academy of Sciences* 11/2017-08/2019

### **Effects of ocean acidification on *Synechococcus* under phosphorus deficiency**

*State Key Lab of Marine Environmental Science, Xiamen University* 07/2017- 08/2017

## TEACHING EXPERIENCE

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Graduate Teaching Assistant | The Hong Kong University of Science and Technology | Feb. 2020 – Present

- OCES 1001, The Earth as a Blue Planet | Spring 2021
- OCES 3003, Field Methods in Marine Studies | Fall 2022

## RESEARCH CRUISES

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- Cruises for Sai Kung PM7 monthly sampling | The Hong Kong University of Science and Technology | March 2020 – Present
- HKB-SCS-2021 Cruise | Hong Kong Branch (HKB) of the Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou) | 28 June – 10 July 2021

## OUTREACH AND PROFESSIONAL SERVICE

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- Oceanography Field Study in New Zealand 08/2018
- Volunteer of Volunteers for Campus Cleaning Club (OUC) 05/2016-05/2018
- Social survey on intangible cultural heritage 01/2016-08/2016

- Clear Water Project of Jane Goodall's Roots & Shoots
- Volunteer in community tutor
- Volunteer in "Sustainable Seafood Week" of WWF

07/2016

03/2016-06/2016

08/2015