

Ming-Ming Sun

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Address:

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Education

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| Sep, 2009-Aug, 2011 | Hong Kong University of Science and Technology
Division of Life Science, Marine ecology laboratory
Supervisor: Dr. Hongbin Liu | MPhil |
| Sep, 2004-Aug, 2008 | Ocean University of China
Marine biology | Bachelor |

Research & working Experience

- Sep, 2011-present Marine Ecology lab, Division of Life Science, HKUST**
Research assistant
- Mainly studied the response of marine microalgae to different ambient nutrient conditions by using transcriptomic and proteomic technologies
 - Cooperated with other lab members in several research projects
 - Took in charge of a research group as group leader.
- Feb, 2011-May, 2011 Division of Life Science, HKUST**
Teaching assistant
- Course: Environmental Conservation and Public Health in Hong Kong, Coordinator: Dr. Ice Ko.
 - Help the coordinator organize the field trip to Mai Po nature reserve and give marks to the students.
- Sep, 2009-Aug, 2011 Marine Ecology lab, Division of Life Science, HKUST**
Student researcher
- Studied the molecular mechanisms of resistance to environmental P-limitation in a persistent blooming alga (Texas Brown Tide alga).
 - Learned the skills of searching the information, analyzing the data, and presenting the research results in oral and writing format.
- Sep, 2008-Jun, 2009 Biomining Technology Research Group, Shandong University, China.**
Graduate student researcher
- Participated the project of constructing an engineering bacterium with higher resistance to the toxic metals in the biomining process.
- Feb, 2008-Jun, 2008 , Luoyang Ship Material Research Institute, State Key laboratory for Marine Corrosion and Protection.**
Undergraduate researcher
- Project: Optimizing the fermentation of a bio-antifouling bacteria (undergraduate thesis)
 - Practiced the statistics and orthogonal experiment design

Research Cruise

- March, 2010. Hong Kong AoE cruise. A survey on bacterial production and respiration in Victoria Harbor and western coastal water. My role: measured the bacterial respiration rate.
- May, 2012. Hong Kong Agriculture, Fisheries and Conservation Department regular survey cruise. My role: sampled for Chla and nutrient in fish farm.

Publication

- **Ming-Ming Sun**, Jin Sun, Jian-Wen Qiu, Hongmei Jing and Hongbin Liu. Characterization of the proteomic profiles of the Brown Tide Alga *Aureoumbra lagunensis* under phosphate- and Nitrogen-limiting conditions and of its phosphate limitation-specific protein with alkaline phosphatase activity. *Appl. Environ. Microbiol.* 2012, 78:2025
- **Ming-Ming Sun**, Chen Liu, Hongbin Liu. Characterization of two alkaline phosphatases in the diatom *Phaeodactylum tricornutum*. (under review)
- **Ming-Ming Sun**, Hongmei Jing, Liangliang Kong, Emma Rocke, Hongbin Liu. The transcriptome of “Texas Brown Tide alga”-*Aureoumbra lagunensis* revealed multiple phosphate deficit tolerance response. (in prep)
- **Ming-Ming Sun**, Jin Sun, Liping Zheng, Cheng Li, Yue Him Wong, Pei-Yuan Qian, Hongbin Liu. Differential protein expression profiling by iTRAQ-2DLC-MS/MS of diatom *Phaeodactylum tricornutum* in co-stress of acidification and phosphate-limitation. (in prep)
- Jie Xu, Hongmei Jing, Liangliang Kong, **Mingming Sun**, Paul J Harrison, Hongbin Liu. Effect of seawater-sewage cross-transplants on bacterial metabolism and diversity. *Microbial Ecology*. 2013, 66:60-72
- Jie Xu, Hongmei Jing, **Mingming Sun**, Paul J Harrison, Hongbin Liu. Regulation of bacterial metabolic activity by dissolved organic carbon and viruses. (under review)
- Cheng Li, Shuwen Zhang, **Ming-Ming Sun**, Wang Guo, Cui Guo, Gongguo Wu, Shuqun Song, Hongbin Liu. Snapshot peptidomics of the red tide species *Noctiluca Scintillans* with contents in the food vacuole. (in prep)

Presentation & Poster

- **Ming-Ming Sun**, Jin Sun, Hongbin Liu. Proteomic profiles of “Texas Brown Tide Alga”-*Aureoumbra lagunensis* in response to P and N depletion stress. Feb, 2010. **Association for the Sciences of Limnology and Oceanography (ALSO) conference, San Juan, Puerto Rico.** (Oral presentation)
- **Ming-Ming Sun**, Jin Sun, Chen Liu, Hongbin Liu. Characterization of alkaline phosphatases in marine pelagophyte *Aureoumbra lagunensis* and diatom *Phaeodactylum tricornutum*. July 2012, **The First Student Union of China Ocean Sciences (SUCOS) Academic Forum – Marine biological pump: present processes and sediment records. Qingdao, China.** (Poster)

Honors/Scholarships/Awards

- 2010 Hong Kong government Student fellowship
- 2008 Excellent Graduation Thesis of Ocean University of China
- 2008 Excellent Undergraduate Students of Shandong Province

- 2007 Scholarship of National Base of Life Science and Technology Education
- 2005 Excellent student of Ocean University of China

Training/Skills

- Croucher Summer Course: **Climate Change and Marine Ecosystems**. June, 2013 Hong Kong
- Workshop on the cutting-edge Technologies in **bioinformatics**. Dec, 2012 Shenzhen
- Cultivation of marine microalgae
- Basic molecular biology and proteomics technologies
- Transcriptome analysis
- Perl language
- Photo and video editing, website construction