I am Haodong Xu (Carraway). I am currently PhD 1st year student of the Graduate School of Agriculture and Life Science, the University of Tokyo. My doctor research is about estimation the past 75 years of distribution and transport of microplastics in the North Pacific Ocean. I am passionate to study the microplastics that is the anthropogenic consequences due to the mismanagement of plastic waste. We live in a world that cannot be separated from plastics materials and both terrestrial and marine environmental have already been widely polluted. Moreover, this will continue if human being cannot change their living ways, greenize industrial production. In my study, most experimental apparatuses are made of quartz glass and stainless steel to output best and trustful results. I wish that my study can further understand the microplastics’ behavior and quantify the microplastics pollution not only in the surface but also in the water column and sediments. The teleology of my research is to improve the consciousness of protecting the ocean environment and to provide the latest knowledge and insights of ocean to the public.

My research interests:

Microplastics; plastic pollution; marine environment issues; marine science

My daily-life interests include discussing science, nature and culture; doing sports; researching and investigating in the sea.

Education:

2015-2019: Major of Marine technology, School of Marine Science, Shanghai Ocean University, obtaining B.S in June 2019

Dissertation: Comparison of particle size distribution of three sampling methods (Bucket, Neuston Net, Pump)

2019-2021: Department of Marine Resources and Environment, Gradual school of Marine Science and Technology, obtaining M.S. in September 2021

Dissertation: The study of sampling method and analysis method of small microplastics (<350 μm).

Working experience:

1. 2021.10-2022.7 Personnel of Product and Business Division, Zhoushan Oceanthink Marine Science and Technology Co., LTD.
2. 2022.8-2022.11 Project Personnel, Department of Offshore Technology Development, Qingdao NCS Testing and Corrosion protection Co., LTD.

The international and domestical conferences/symposium that I attended and presented:

1. [Oral Presentation, reviewed, Symposia, Domestic] Haodong Xu, Hisayuki Arakawa, Development of Sampling & Processing of Small Microplastics. **Joint Seminar of Microplastics Research** in Tokyo University of Marine Science and Technology, Online, December 23, 2020.

2. [Oral Presentation, Reviewed, Conference, Domestic] Haodong Xu, Haruka Nakano, Tadashi Tokai, Hisayuki Arakawa. Attempt to collect small microplastics from the sea surface using Neuston Net. **JpGU 2021**, Section: M-IS20-11, Online, June 5, 2021.

The publications:

1. Yehao Wang, Haruka Nakano, Haodong Xu, Hisayuki Arakawa, Contamination of seabed sediments in Tokyo Bay by small microplastics particles. Estuarine, Coastal and Shelf Science, Elsevier, 261(2021)107552. https://doi.org/10.1016/j.ecss.2021.107552. [Peer reviewed]

2. Haodong Xu, Hisayuki Arakawa, Determination of appropriate particle quantity on a filter for small microplastics analysis by microscopy. Methodx 9, Elsevier, (2022)101646. https://doi.org/10.1016/j.mex.2022.101646. [Peer reviewed]

3. Haodong Xu, Haruka Nakano, Tadashi Tokai, Tadashi Miyazaki, Hiroaki Hamada, Contamination of sea surface water offshore the Tokai region and Tokyo Bay in Japan by small microplastics. Marine Pollution Bulletin, Elsevier, 185(2022)114245. https://doi.org/10.1016/j.marpolbul.2022.114245. [Peer reviewed]

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