

SHENG Dong 盛东

PhD cand. @ [SASE Lab](#), School of Engineering, Westlake University.

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RESEARCH INTEREST

Pollination, Microplastic Pollution, Climate Change, Agroecology, Ecosystem Services, Artificial Intelligence, Computer Vision.

EDUCATION

PhD candidate in Environmental Sciences & Engineering 2023 Sept – Present

School of Engineering, Westlake University

Sustainable Agricultural Systems & Engineering Lab (PI: [Thomas Cherico Wanger](#))

Bachelor of Science in Environmental Sciences 2019 Sept – 2023 Jun

College of Environmental & Resource Sciences, Zhejiang University

General GPA = 3.81/4.00

Thesis: “Negative effects of microplastics on bumblebees at colony and individual level” (supervised by [Yili Huang](#) and Thomas Cherico Wanger)

Minor in Advanced Honor Class of Engineering Education 2020 Sept – 2023 Jun

Chu Kochen Honors College, Zhejiang University

PUBLICATIONS

Sheng, D., Jing, S., He, X., Klein, A.-M., Köhler, H.-R., & Wanger, T. C. (2024). Plastic pollution in agricultural landscapes: An overlooked threat to pollination, biocontrol and food security. *Nature Communications*, 15(1), 8413. <https://doi.org/10.1038/s41467-024-52734-3>

Darras, K. F., Balle, M., Xu, W., Yan, Y., Zakka, V. G., Toledo-Hernández, M., **Sheng, D.**, Lin, W., Zhang, B., Lan, Z., Fupeng, L., & Wanger, T. C. (2023). Eyes on nature: Embedded vision cameras for multidisciplinary biodiversity monitoring. *bioRxiv (Cold Spring Harbor Laboratory)*. <https://doi.org/10.1101/2023.07.26.550656>

Sheng, D., Chen, M., Chen, Q., Huang, Y. (2022). Opposite selection effects of nZVI and PAHs on bacterial community composition revealed by universal and sphingomonads-specific 16SrRNA primers. *Environmental Pollution*, 311, 119893. <https://doi.org/10.1016/j.envpol.2022.119893>

PATENTS

In process: CHN application No. 202311686500.0; US application No. 18/607,745

CONFERENCES & PRESENTATIONS

Sheng, D., & Wanger, T. C. (2024, August 8). *Latebreaking poster: Long-term exposure to microplastics and heat affects bumblebee colony development, behavior patterns and social networks*. The 2024 Annual Meeting of the Ecological Society of America (ESA), Long Beach, California, US.

OTHER EXPERIENCES

Visiting student at SASE Lab, Westlake University	2022 May – 2023 Aug
Bioinformatics analysis (supervised by Dr. Yili Huang) at Zhejiang University	2021 Nov – 2022 Sept
Internship at Zhejiang Ecology & Environment Design and Research Institute	2022 Jul – 2022 Sept
Summer session at University of California, Berkeley. Environmental Earth Sciences (ESA20), A-	2021 Aug

SELECTED AWARDS

Zhejiang University-Jiande Scholarship (second prize)	2021
Zhejiang University Scholarship (second prize)	2019
“Challenge Cup” Provincial College Student Curricular Academic Science and Technology Works Competition (silver award)	2023
Interdisciplinary Contest in Modeling (honorable mention)	2022
Zhejiang Province College Physics Innovation (Theory) Competition (first prize)	2020

SKILLS

Python, MATLAB, R, C/C++, CAD, SolidWorks, SketchUp, etc.