

Chakriya Sansupa

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Education

- PhD. Applied Microbiology.** Department of Biology, Faculty of Science, Chiang Mai University, Thailand. 2016 – 2022
Thesis: Comparisons of soil microbial communities in opencast limestone mine and mine rehabilitation plots
- BSc. Biology (First Class Honours).** Department of Biology, Faculty of Science, Chiang Mai University, Thailand. 2012 – 2015
Thesis: The effects of fertilizer and aspirin on propagation of *Ficus* species from seed

Scholarship

- Science Achievement Scholarship of Thailand (SAST)** 2012 – 2022
โครงการพัฒนากำลังคนด้านวิทยาศาสตร์ (ทุนเรียนดีวิทยาศาสตร์แห่งประเทศไทย)

Publications

- Sansupa, C;** Suphaphimol, N; Nonthijun, P; Ronsuek, T; Yimklan, S; Semakul, N; Khrueraya, T; Suwannarach, N; Purahong, W; Disayathanoowat T. 2023. Life on the Wall: The Diversity and Activity of Microbes on 13th - century AD. Lan Na Mural Painting. *Frontier in Microbiology*, 14.
- Sansupa C,** Purahong W, Nawaz A, Wubet T, Suwannarach N, Chantawannakul P, Chairuangri S, Disayathanoowat T. 2022. Living Fungi in an Opencast Limestone Mine: Who Are They and What Can They Do? *Journal of Fungi*, 8(10), 987.
- Sansupa, C.,** Purahong, W., Wubet, T., Tiansawat, P., Pathom-Aree, W., Teaumroong, N., Chantawannakul, P., Buscot, F., Elliott, S. and Disayathanoowat, T., 2021. Soil bacterial communities and their associated functions for forest restoration on a limestone mine in northern Thailand. *PLoS one*, 16(4), p.e0248806.
- Sansupa, C.,** Fareed Mohamed Wahdan, S., Disayathanoowat, T. and Purahong, W., 2021. Identifying hidden viable bacterial taxa in tropical forest soils using amplicon sequencing of enrichment cultures. *Biology*, 10(7), p.569.
- Sansupa, C.,** Wahdan, S.F.M., Hossen, S., Disayathanoowat, T., Wubet, T. and Purahong, W., 2021. Can we use functional annotation of prokaryotic taxa (FAPROTAX) to assign the ecological functions of soil bacteria?. *Applied Sciences*, 11(2), p.688.
- Nonthijun, Paradha, Natasha Mills, Nantana Mills, Rujipas Yongsawas, **Chakriya Sansupa**, Nakarin Suwannarach, Churdsak Jaikang, Kannipa Motanated, Pattarasuda Chayapakdee, Surachai Jongjitngam, and et al. 2023. Seasonal Variations in Fungal Communities on the Surfaces of Lan Na Sandstone Sculptures and Their Biodeterioration Capacities. *Journal of Fungi*, 9(8), 833.
- Arunrat, N., Sreenonchai, S., **Sansupa, C.,** Kongsurakan, P., & Hatano, R. 2023. Effect of Rice Straw and Stubble Burning on Soil Physicochemical Properties and Bacterial Communities in Central Thailand. *Biology*, 12(4), 501.
- Arunrat, N., **Sansupa, C.,** Kongsurakan, P., Sreenonchai, S., & Hatano, R. 2022. Soil Microbial Diversity and Community Composition in Rice–Fish Co-Culture and Rice Monoculture Farming System. *Biology*, 11(8), 1242.

- Wahdan, S, Ji, L., Schädler, M., Wu, Y.T., **Sansupa, C.**, Tanunchai, B., Buscot, F. & Purahong, W. **2022**. Future climate conditions accelerate wheat straw decomposition alongside altered microbial community composition, assembly patterns, and interaction networks. *The ISME Journal*, 1-14
- Purahong, W., Wahdan, S.F.M., Heinz, D., Jariyavidyanont, K., Sungkapreecha, C., Tanunchai, B., **Sansupa, C.**, Sadubsarn, D., Alaneed, R., Heintz-Buschart, A. and Schädler, M., **2021**. Back to the future: decomposability of a biobased and biodegradable plastic in field soil environments and its microbiome under ambient and future climates. *Environmental Science & Technology*, 55(18), pp.12337-12351.
- Wahdan, S.F.M., Tanunchai, B., Wu, Y.T., **Sansupa, C.**, Schädler, M., Dawoud, T.M., Buscot, F. and Purahong, W., **2021**. Deciphering *Trifolium pratense* L. holobiont reveals a microbiome resilient to future climate changes. *MicrobiologyOpen*, 10(4), p.e1217.
- Wahdan, S.; Hossen, S.; Tanunchai, B.; **Sansupa, C.**; Schädler, M.; Noll, M.; Wu, Y.-T.; Buscot, F.; Purahong, W., **2021**. Life in the wheat litter: effects of future climate on microbiome and function during the early phase of decomposition. *Microbial Ecology*.
- Wahdan, S.F.M., Heintz-Buschart, A., **Sansupa, C.**, Tanunchai, B., Wu, Y.T., Schädler, M., Noll, M., Purahong, W. and Buscot, F., **2021**. Targeting the active rhizosphere microbiome of *trifolium pratense* in grassland evidences a stronger-than-expected belowground biodiversity-ecosystem functioning link. *Frontiers in microbiology*, 12, p.73.
- Purahong, W., Sadubsarn, D., Tanunchai, B., Wahdan, S.F.M., **Sansupa, C.**, Noll, M., Wu, Y.T. and Buscot, F., **2019**. First insights into the microbiome of a mangrove tree reveal significant differences in taxonomic and functional composition among plant and soil compartments. *Microorganisms*, 7(12), p.585.

Teaching experience

Microbial technology: Microbial technology and forest restoration December 2022
 Department of Biology, Faculty of Science, Chiang Mai University,
 Thailand

Research and Internship

Postdoctoral Researcher. Department of Biology, Faculty of Science, Chiang Mai University, Thailand June 2022 – May 2023

Research Assistant. Department of Biology, Faculty of Science, Chiang Mai University, Thailand 2021
 - Soil microbiome in restoration field

Research Assistant. Environmental Science Research Center, Faculty of Science, Chiang Mai University, Thailand 2021
 - Microbiome in PM2.5 samples

Student Internship. Bioinformatics & Systems Biology Program, King Mongkut's University of Technology Thonburi, Thailand Jan 2021 – Feb 2021
 - Metagenome analysis (amplicons sequencing and whole genome sequencing)

Visiting Researcher (Germany). Department of Soil Ecology, Helmholtz Centre for Environmental Research – UFZ, Germany August 2018 – July 2019
 - Next generation sequencing, community analysis, statistical analysis, soil enzyme analysis, PLFA

Visiting Researcher (Japan). SAKURA Science Program, Faculty of Life Sciences, Ritsumeikan University, Japan	June 2018
- Soil environmental DNA, DNA extraction, Kjeldahl analysis, DGGE	
Research Student. Forest Restoration Research Unit, Department of Biology, Faculty of Science, Chiang Mai University, Thailand.	2014
- Topic: Soil respiration in opencast limestone mine, Lampang, Thailand	
Research Student. Forest Restoration Research Unit, Department of Biology, Faculty of Science, Chiang Mai University, Thailand.	2013
- Topic: Tracking the recovery of plant communities after fire in forest restoration plots, Ban Mae Sa Mai, Chiang Mai, Thailand	

Mentorship

Student Thesis Support. Department of Biology, Faculty of Science, Chiang Mai University, Thailand	2022 – 2023
- Train and advise one master student and two undergraduate students on basic bioinformatic and amplicon-sequencing data analysis	
Student Thesis Support. Department of Biology, Faculty of Science, Chiang Mai University, Thailand	2021 – 2022
- Train and advise one undergraduate students in molecular work, basic bioinformatic and amplicon-sequencing data analysis	
Student Thesis Support. Department of Biology, Faculty of Science, Chiang Mai University, Thailand	2017 – 2018
- Trained and advised one undergraduate students in soil sampling, microbiological work and data analysis	

Scientific Knowledge

Microbiome, Basic Bioinformatics, Next Generation Sequencing, Community Analysis, Network Analysis, Microbial Ecology, Ecological Restoration, Microbiology, Soil Enzymes, Soil Respiration, DNA Extraction, PCR, Plant Performance Monitoring, Seed Germination Assessment

Relevant Skills

R Statistical Program, PAST program, STAMP, Unix (basic), QIIME2, DADA2, Gephi, Microbial Functional Prediction Tools (PICRUSt2, FAPROTAX, FUNGUILD, FungalTrait), Microsoft office

References

1. Assoc. Prof. Dr. Terd Disayathanoowat, Lecturer
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2. Dr. Witoon Purahong, Scientist/Group Leader
Department of Phytopathology, KWS SAAT, SE CO. KGaA and Department of Soil Ecology,
Helmholtz-Centre for Environmental Research-UFZ, Halle (Saale), Germany
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3. Assoc. Prof. Dr. Stephen Elliott, Lecturer/Scientist
Forest Restoration Research Unit, Faculty of Science, Chiang Mai University, Thailand
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