

柯宜宏 (Ke, Yi-Hong)

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1105 N University Ave, Ann Arbor, MI 48109

Education

Duke University

Ph.D., Biology

2022

National Taiwan University

B.S., Life Science

2015

Academic Appointments

University of Michigan

Postdoctoral Research Fellow, Ecology and Evolutionary Biology

2023–present

Awards/Scholarships

Duke University Summer Research Fellowship

2019, 2021

Duke Graduate School Conference Travel Award

2019, 2017

Taiwan Hung-Duke University Fellowship

2016–2018

Mitchell Meritorious Research Travel Award

2017

Dean's Award of College of Life Science

2015

Teaching Experience

Teaching Assistantships

BIO201 Molecular Biology

Duke University

BIO212 General Microbiology

Duke University

BIO540 Mycology

Duke University

BIO557 Microbial Ecology and Evolution

Duke University

BIO723 Statistical Computing for Biologists

Duke University

Publications

Y.-H. Ke, A. Bazzicalupo, J. Ruytinx, L. Coninx, J. Colpaert, N. Nguyenm, S. Branco, R. Vilgalys. Global population structures and introduction history of pine-associated ectomycorrhizal fungus *Suillus luteus*. (in review)

Rachel A. Swenie, Brian P. Looney, **Yi-Hong Ke**, Marc A. Cubeta, Gitta J. Langer, Rytas Vilgalys, P. Brandon Matheny. (2023) PacBio high-throughput multi-locus sequencing reveals high genetic diversity in mushroom-forming fungi. *Molecular Ecology Resources*. doi:10.1111/1755-0998.13885.

Y.-H. Ke, S. Branco, A. Bazzicalupo, N. Nguyen, H.-L. Liao, P. Kennedy, A. Kuo, I. Grigoriev, K. Barry, R. Vilgalys. (2023) Genomic determination of breeding systems and trans-specific evolution of *HD MAT* genes in suilloid fungi. *Genetics* 224(2):iyad069

Y.-H. Ke, G. Bonito, H.-L. Liao, B. Looney, A. Rojas-Flechas, J. Nash, K. Hameed, C. Schadt, F. Martin, J. Labbé, D. Jacobson, M. Doktycz, C. Veneault-Fourrey, K. Barry, I. V. Grigoriev, and R. Vilgalys. Convergent genome expansion in fungi linked with evolution of root-endophyte symbiosis (in review)

A. Bazzicalupo, J. Ruytinx, **Y.-H. Ke**, L. Coninx, J. Colpaert, N. Nguyenm, R. Vilgalys, S. Branco. (2020) Fungal heavy metal adaptation through single nucleotide polymorphisms and copy-number variation. *Molecular Ecology* 29(21):4157-4169

Y.-H. Ke, and Ju, Y.-M. (2015) Two rare ophiocordycipitaceous fungi newly recorded in Taiwan. *Botanical Studies* 56(1):30

Invited Presentations

- 45th New Phytologist Symposium - Ecological and evolutionary consequences of plant–fungal invasions, Campinas, Brazil** **scheduled 2024**
“Global population genomics of *Suillus luteus*, a pine co-introduced ectomycorrhizal fungus associated with exotic forestry and invasion”
- Biology Seminar Series, Eastern Michigan University, Ypsilanti, Michigan** **2023**
“Global population genomics of pine-co-introduced ectomycorrhizal fungus *Suillus luteus*”
- New Zealand Fungal Foray, Lake Brunner, New Zealand** **2018**
“Mating gene alleles in introduced fungal populations”
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Conference Presentations

- Mycological Society of America Meeting** **2023**
”Development of a genome-wide library of loss of heterozygosity in *Saccharomyces* using transposon insertion”
- Botany 2021** **2021**
“Global introduction patterns of the pine ectomycorrhizal fungus *Suillus luteus*”
- Biological System Sciences Division Principal Investigators’ Meetings** **2021**
“Plant-Microbe Interfaces: Comparative genome evolution of *Populus* root endophytes”
- Mid-Atlantic States Mycology Conference** **2021**
“Comparative genome evolution of *Populus* root endophytes”
- Mycological Society of America Meeting** **2019**
“Population genomic study of an introduced ectomycorrhizal fungus *Suillus luteus*”
- Mid-Atlantic States Mycology Conference** **2019**
“Population genomic study of an introduced ectomycorrhizal fungus *Suillus luteus*”
- International Mycological Conference** **2018**
“Mating loci and their population genetics in *Suillus brevipes*”
- Fungal Genetics Conference** **2017**
“Mating system and mating gene evolution in *Suillus brevipes*”
- Mycological Society of America Meeting** **2017**
“Mating system and mating gene evolution in *Suillus brevipes*”
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Service and Outreach

Journal Peer Review

G3, Fungal Biology

Presentation Judging

2023 - Graduate Oral and Poster, Mycological Society of America Meeting

2021 - Undergraduate Poster, Mycological Society of America Meeting

Outreach

2023 - University of Michigan Museum of Natural History ID Day, Ann Arbor, Michigan

2023 - Midwest American Mycological Information Annual Foray, Clear Lake Education Center, Michigan

2018 - Mushroom Cultivation Workshop, Duke Campus Farm, North Carolina

2018 - New Zealand Fungal Foray, Lake Brunner, New Zealand

2016 - North American Mycological Association Annual Foray, Shenandoah National Park, Virginia

Membership in Professional Societies

Mycological Society of America (2016-present)

Genetics Society of America (2017-present)

Society for the Study of Evolution (2019-present)