

CURRICULUM VITAE

Dr. Shenglai Yin

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Education

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| 2014 – 2018 | Wageningen University & Research, the Netherlands.
Ph.D. in Ecology |
| 2010 – 2014 | Nanjing University, China
MSc in Ecology |
| 2006 – 2010 | Nanjing University of Information Science & Technology, China
BSc in Ecology |

Professional Appointments

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| 2022 – present | Postdoctoral Research Associate, University of Oklahoma and Eastern Ecology Research Center, USGS, USA |
| 2021 – 2022 | Postdoctoral Research Associate, Nanjing Normal University, China |
| 2019 – 2021 | Director of the Nature Education Department and Strategic Cooperation Department, Nanjing University Ecological Research Institute of Changshu, China |

Research Interests and Expertise

Disease ecology, zoonotic disease, animal movement, agent-based modeling, network analysis, high-performance computing, machine learning, GIS, spatial analysis, global change biology, invasive ecology, and wetland ecology

Language Proficiency

Chinese Mandarin (Native speaker)

English (Fluent)

GRANTS, PROJECTS, AWARDS, and CERTIFICATES

Grants

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| 2024 | NSF Ecology and Evolution of Infectious Diseases (EEID) (senior personnel and grant writer) |
| 2023 | NSF Predictive Intelligence for Pandemic Prevention Phase II: International Center for Avian Influenza Pandemic Prediction and Prevention (senior personnel and grant writer); |
| 2013 | Funding of China Scholarship Council (independent applicant and grant writer); ¥550,000 (\$77,000). |

Projects

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| 2022 – present | US-China Workshop on Frontiers in Ecology and Evolution of Infectious Diseases (EEID) [NSF award number: 1817884, postdoc research associate] |
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- 2022 – present PIPP Phase 1: International Center for Avian Influenza Pandemic Prediction and Prevention (PIPP Phase I) [NSF award number: 2200310, postdoc research associate]
- 2014 – 2018 Ph.D. Project: How does the migration of geese influence the dispersal and perpetuation of avian influenza viruses?
- 2012 – 2013 NSFC Project: Investigation project of soil properties in South-north Lake, Jiangsu, China (field technician)
- 2010 – 2014 NSFC Project: Research of assessment techniques for the role of coastal wetlands in global climate change (field and lab technician, Master's thesis project)
- 2010 – 2011 National Science and Technology Major Project for Water Pollution Control and Treatment of China (field and lab technician)
- 2009 – 2010 NSF Project: Effects of land-use type on soil carbon flux (field technician, Bachelor's thesis project)
- 2008 – 2009 NSF: Numerical Simulation Research of Coupled Effects from Enhanced Surface UV-B and O₃ on Crops (field technician)

Awards

- 2017 Funding of Fonds Landbouw Export-Bureau 1916/1918 by Wageningen University & Research
- 2013 Graduate Thesis Award by International Symposium on Modern Ecology series
- 2013 Distinguishing Graduate Student Poster by International Symposium on Modern Ecology series
- 2010 Graduation Scholarship (the 2nd rank), Nanjing University of Information Science and Technology
- 2010 Outstanding Graduates, Nanjing University of Information Science and Technology

Certificates

- 2021 Certified Professional Wetland Scientist (issued by the Society of Wetland Scientist Certification Program)
- 2021 Certificate for Volunteer Translator (issued by the East Asia-Australasian Flyway Partnership)

PUBLICATIONS, REPORTS, BOOKS, and PATENTS

[Google scholar](#): citation = 385, h-index = 8, i10-index = 6 (updated to October 2024)

(*corresponding authorship; †equal contribution)

Representative peer-reviewed publications

Shenglai Yin et al., 2024. Strong and consistent associations of waterbird community composition with HPAI H5 occurrence in European wild birds, *Ecological Applications*.

Shenglai Yin, et al. 2023. Functional traits explain waterbirds' host status, subtype richness, and community-level infection risk for highly pathogenic avian influenza. *Ecology Letters*.

Shenglai Yin, et al. 2022. Habitat loss facilitates infection outbreak and pathogen dispersal: An agent-based model of infected migratory waterfowl. *Plos Computational Biology*.

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Shenglai Yin, et al. 2020. Effects of migration network configuration and migration synchrony on infection prevalence in geese. *Journal of Theoretical Biology*.

Other peer-reviewed publications

Li Pan, Xiangming Xiao*, Baihong Pan, Cheng Meng, Russell Doughty, Yuanwei Qin, Chenchen Zhang, Yuan Yao, Chenglong Yin, **Shenglai Yin**. 2024. VPM v3.0 model and improved estimates of terrestrial gross primary production from individual eddy flux tower sites to the globe. In review.

Fuchao Zheng, Dehua Zhao, **Shenglai Yin**, et al., 2024. Water N/P ratios influence emergent plant nutrient uptake and growth by altering the microbial activities of rhizosphere soil. *Applied Soil Ecology*.

Margaret C. McEachran, Johanna A. Harvey, Riley O. Mummah, Molly C. Bletz, Claire S. Teitelbaum, Elias Rosenblatt, F. Javiera Rudolph, Fernando Arce, **Shenglai Yin**, et al. 2024. Reframing wildlife disease management problems with decision analysis. *Conservation Biology*.

Diann Prosser†, C. Teitelbaum†, **Shenglai Yin**†, et al. 2023. Climate impacts on birds migration and highly pathogenic avian influenza. *Nature Microbiology*.

John Takekawa, Diann Prosser, Jeffery Sullivan, **Shenglai Yin**, et al. 2023. Potential effects of habitat change on migratory bird movements and avian influenza transmission in the East Asian-Australasian Flyway. *Diversity*.

Shanyong Zhang, Ning Li, Mingshuai Xu, Zheng YX Huang, Zhujun Gu, **Shenglai Yin***. 2022. Urbanization and habitat characteristics associated with the occurrence of *Peste des Petits ruminants* in Africa. *Sustainability*.

Fuchao Zheng, Xiaoming Mou, Jinghua Zhang, Tiange Zhang, Lu Xia, **Shenglai Yin**, et al. 2022. Gradual enhancement of the assemblage stability of the reed rhizosphere microbiome with recovery time. *Microorganisms*.

Fuchao Zheng, Tiange Zhang, **Shenglai Yin**, et al. 2022. Comparison and interpretation of freshwater bacterial structure and interactions with organic to nutrient imbalances in restored wetlands. *Frontiers in Microbiology*.

Shenglai Yin, et al. 2021. Do contrasting patterns of migration movements and disease outbreaks between congeneric waterfowl species reflect differing immunity? *Geospatial Health*.

Yanjie Xu, Yali Si, John Takekawa, Qiang Liu, Herbert Prins, **Shenglai Yin**, et al. 2020. A network approach to prioritize conservation efforts for migratory birds. *Conservation Biology*.

Yanjie Xu, Yali Si, **Shenglai Yin**, et al. 2019. Species-dependent effects of habitat degradation in relation to seasonal distribution of migratory waterfowl in the East Asian–Australasian Flyway. *Landscape Ecology*.

Shenglai Yin, et al. 2017. No evidence that migratory geese disperse avian influenza viruses from breeding to wintering ground. *PLoS ONE*.

Shenglai Yin, et al. 2015. *Spartina alterniflora* invasions impact CH₄ and N₂O fluxes from a salt marsh in eastern China. *Ecological Engineering*.

Lingyan Zhou, **Shenglai Yin***, et al. 2015. *Spartina alterniflora* invasion alters carbon exchange and soil organic carbon in the eastern salt marsh of China. *CLEAN–Soil, Air, Water*.

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Lijun Ren, Lili Xu, Yuyuan Zhang, Wei Pan, **Shenglai Yin**, et al. 2015. Effects of connection mode and hydraulic retention time on wastewater pollutants removal in constructed wetland microcosms. *CLEAN–Soil, Air, Water*.

Wen Yang, Hui Zhao, Xinglong Chen, **Shenglai Yin**, et al. 2013. Consequences of short-term C₄ plant *Spartina alterniflora* invasions for soil organic carbon dynamics in a coastal wetland of Eastern China. *Ecological Engineering*.

Reports

Shuqing An, **Shenglai Yin**. 2012. Technical evaluations about the role of coastal wetlands in global climate change.

Books and dissertations

2023 Shuqing An, **Shenglai Yin**, et al. Chapter 29 Wetlands. In the *Wetzel's Limnology, Fourth Edition*. 2023. Elsevier.

2018 **Shenglai Yin**. Consequences of Seasonal Migration: How goose relocation strategies influence infection prevalence and pathogen dispersal [D]. 2018. Wageningen: Wageningen University & Research.

2014 **Shenglai Yin**. Investigation of greenhouse gas emission patterns and the main influential factors in coastal wetlands in Yancheng, Jiangsu Province [D]. 2014. Nanjing: Nanjing University.

Patents

2011 Shuqing An, Lijun Ren, Xiaoyan Wang, **Shenglai Yin**, et al. 2011. Multi-level constructed wetland system and application. China: 201110091785.4, 2011-04-13.

TEACHINGS, MENTORING, PROFESSIONAL SERVICES, and JOURNAL REVIEWS

Teachings

2017 – 2018 Teaching assistant in Disease Ecology (modeling part), Wageningen University & Research

2015 – 2017 Teaching assistant in Ecology Method (statistic part), Wageningen University & Research

2015 – 2017 Teaching assistant in Animal Ecology (modeling part), Wageningen University & Research

Mentoring

(*master student, **Ph.D. student)

Nanjing University

**Fuchao Zheng, 2020 – 2022

Nanjing Normal University

*Shanyong Zhang, 2021 – 2022

Professional Services

2023 – present Youth editorial board member for the journal *Avian Research*

2022 – present Committee member of the webinar series *Asian Flyways Collaborative for Waterbirds*

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- 2022 – present Coordinator of webinar series International Forum on Ecology and Evolution of Avian Influenza
- 2021 – 2022 Volunteer translator for the East Asian-Australasian Flyway Partnership
- 2019 – 2022 Natural education instructor at Nanjing University Ecological Research Institute of Changshu
- 2016 – 2017 Committee member of Wageningen Evolution and Ecology Seminars, Wageningen University & Research
- 2011 Coordinator in the 6th International Symposium on Modern Ecology Series, China
- 2011 Coordinator in the 2nd International Young Ecologist Forum, China

Journal Reviews

Journal of Animal Ecology (2), Ecology and Evolution (1), Avian Research (2), Journal of Applied Ecology (1), Wildlife Letter (1), PLoS ONE (3).

CONFERENCE, WORKSHOPS, and SEMINARS

- 2024 Symposium on the Ecology & Evolution of Influenza Viruses, University of Georgia, Athens, GA, USA
- 2024 The annual meeting of the Ecological Society of America, Long Beach, CA, USA [Presentation]
- 2024 Ecology and Evolution of Infectious Diseases (EEID) Conference, Stanford University, CA, USA [Poster]
- 2023 IUCN 20th Goose Specialist Group Meeting, Mongolia [Presentation]
- 2022 [Webinar] International Forum on Ecology & Evolution of Avian Influenza [Presentation]
- 2022 [Webinar] Asian Flyways Collaborative for Waterbirds [Presentation]
- 2022 20th Conference of Ecological Society of China, China [Presentation]
- 2022 9th International Congress of East Asian Federation of Ecological Societies, China [Presentation]
- 2017 Summer School in Individual- and Agent-Based Modeling, Germany [Presentation]
- 2017 Impact of Environmental Change on Infectious Diseases, Italy [Poster]
- 2017 Masterclass One Health Approach to Infectious Disease, the Netherlands [Presentation and poster]
- 2016 Netherlands Annual Ecology Meeting 2016, the Netherlands [Presentation and coordination]
- 2015 Netherlands Annual Ecology Meeting 2015, the Netherlands [Poster]
- 2015 Ph.D. Symposium 2015, Wageningen University & Research, the Netherlands
- 2014 Netherlands Annual Ecology Meeting 2014, the Netherlands
- 2013 The 7th International Symposium on Modern Ecology Series, China [Awarded poster]
- 2011 The 6th International Symposium on Modern Ecology Series [Poster]
- 2011 The 2th International Young Ecologist Forum, China [Poster]
- 2011 Annual Meeting of Ecological Society of China
- 2011 The 8th Ecology Summer School in Fudan University, China

PUBLIC WELFARE SERVICES

- 2014 – present Meditation instructor

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2022	Invited nature education lecturer in Poyang Lake National Wetland Park
2021	Invited nature education lecturer in Changshu Meili Middle School
2020 – 2021	Invited nature education lecturer in Shajiabang National Wetland Park
2020 – 2021	Invited nature education lecturer in Changshu Experimental Primary School
2020 – 2021	Invited nature education lecturer in Changshu Dayi Center Primary School
2020 – 2021	Invited nature education lecturer in Changshu Xingfu Primary School

POPULAR PRESS

2023	The role of waterfowl functional morphology in the transmission of avian influenza. Click for Link (in Mandarin)
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REFERENCES

Dr. Fred de Boer, Associate Professor, Wageningen University & Research, Wageningen, The Netherlands (Ph.D. supervisor)

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Dr. Herbert H.T. Prins, Emeritus Professor, Wageningen University & Research, Wageningen, The Netherlands (Ph.D. promoter)

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