

International Forum on Ecology & Evolution of Avian Influenza

A webinar series by leading scientists (5/2021 - 12/2024)

December 21, 2021, Tuesday, 9pm – 10pm, China

December 21, 2021, Tuesday, 8am- 9am, EDT, USA



Shenglai Yin

College of life science,
Nanjing Normal University
shenglai.yin@outlook.com

Shenglai Yin obtained his Ph.D. in ecology from Wageningen University. In 2019-2020, he worked as the director of nature education department and strategic collaboration department in Nanjing University Ecological Research Institute of Changshu. He is currently working as a postdoc researcher in Nanjing Normal University. His research interests focus on how waterfowl migration and host community composition influence the transmission of avian influenza viruses. As a certified professional wetland scientist, issued by the Society of Wetland Scientist Certification Program, he is interested in wetland science, especially the ecology of invasive species, and wetland restoration. He actively participates in conservation, nature education, ecotourism and CEPA (Communication, Education, Participation and Awareness) programs in local communities.

Migration networks and community composition influence avian influenza infection in waterfowl

Spread and transmission of avian influenza viruses (AIV) are affected by different combinations of biotic and abiotic factors that operate at different spatial scales. The long-distance spread is mainly influenced by waterfowl seasonal migration at the flyway scale, whereas the local transmission is mainly driven by the interactions among wild and poultry in local communities. Here I will illustrate these effects of both scales. At the flyway scale, we examined the spatiotemporal correlations between waterfowl migration, and AIV spread in a key host species, the white-fronted goose. Using modelling approaches, we analyzed the effects of migration strategy, network connectivity and habitat loss on the spatial differences in AIV dynamics. At the local scale, we analysed the role of biodiversity (species richness, phylogenetic diversity, and functional diversity) in facilitating H5N1 and H5N8 AIV outbreaks, using data of AIV outbreaks and waterfowl community composition in Europe.

Registration at

<https://www.ceom.ou.edu/outreach/workshops/current/>

Organizers: University of Oklahoma, St. Jude Children's Research Hospital, USGS EESC;
Sun Yat-sen University; China Agricultural University; CNIC, IVDC, China CDC

Organizing Committee Chairs: Xiangming Xiao (University of Oklahoma, USA), and Yuelong Shu (Sun Yat-sen University, China)