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Education:

1982: B.Sc., Biology, Xiamen University, China

1987: M.Sc., Ecology, Univ. of Science & Technology, China

1994: Ph.D., Ecosystem Science, Colorado State University, Colorado

1996: Postdoctoral, Climate Change, Marine Biology Laboratory, MA

Academic Appointments:

1982-1984: Research Associate, Institute of Geography, Chinese Academy of Sciences, China

1987-1990: Research Associate, Institute of Botany, Chinese Academy of Sciences, China

1996-1997: Research Associate, Marine Biological Laboratory, Woods Hole, MA, USA

1997-2003: Research Assistant Professor, EOS, University of New Hampshire, NH

2004-2008: Research Associate Professor, EOS, University of New Hampshire, NH

2008-present: Professor, Dept. of Botany and Microbiology, University of Oklahoma, OK

Other Professional Experiences and Memberships:

1994-present: Member, Ecological Society of America

1997-present: Member, American Geophysical Union

Awards and Honors:

Research Support:

Current:

Past:

- 2011-2014: NASA, "Quantifying changes in agricultural intensification, expansion and gross primary production in monsoon Asia during 2000 – 2010", Role: PI, Awarded: \$898,698

- 2011-2016: DOI, "DOI USGS South-Central Climate Science Center, Role: Co-I, Awarded: \$3,992,893
- 2012-2017: USDA, "Resilience and vulnerability of beef cattle production in the Southern Great Plains under changing climate, land use and market", Role: Co-PI, Awarded: \$9,567,331
- 2012-2016: IAIGCR, Effects of anthropogenic habitat perturbation on rodent population dynamics and risk of rodent-borne diseases, Role, Co-PI, Awarded: \$884,870
- 2013-2018: NSF, Adapting socio-ecological systems to increased climate variability, Role, Co-I, Awarded: \$20,000,000
- 2013-2017: NIH, Transmission dynamics and spillover risk of avian influenza under changing agricultural intensification and landscapes, Role: PI, Awarded: \$1,947,970
- 2014-2017: NASA, Mapping industrial plantations in tropical monsoon Asia through Landsat, PALSAR and JERS-1 imagery, Role: Co-PI, Awarded: \$1,179,834
- 2006-2011: NIH/FIC, "Ecology-based risk assessment and early warning of highly pathogenic avian influenza in Asia", Role: PI, Awarded: \$1,557,579
- 2008-2010: NASA, "Advancing our understanding of the Earth systems through coupled carbon-climate modeling and observations", Role: Co-I, Awarded: \$1,218,151
- 2008-2010: NASA, "Developing land cover classification products in monsoon Asia over the period of through integration of Landsat and ALOS/PALSAR images", Role: PI, Awarded: \$690,255
- 2009-2012: NSF, EPSCoR RII Track 2 Oklahoma and Kansas, "A CyberCommons for Ecological Forecasting", Role: Co-PI, Awarded: \$6,000,000
- 2010-2013: NSF, "Acquisition of extensible Petascale storage for data intensive research", Role: Co-PI, Awarded: \$792,925
- 2011-2013: NASA, "Integrating Earth observation and satellite telemetry of wild birds for decision support system of avian influenza", Role: PI, Awarded: \$149,43

Selected Publications:

1. Gilbert, M., Xiao, X., Chaitaweesub, P., Kalpravidh, W., Premasathira, S., Boles, S., and Slingenbergh, J., 2007, Bird flu, domestic ducks and rice agriculture in Thailand, *Agriculture, Ecosystems and Environment*, 119 (3-4): 409-415.
2. Xiao, X., Gilbert, M., Slingenbergh, J., Lei, F., and Boles, S., 2007, Remote sensing, ecological variables and wild bird migration related to outbreaks of highly pathogenic H5N1 bird flu, *Journal of Wildlife Diseases*, 43(3, Supplement):S40-S46.
3. Gilbert, M., Xiao, X., Pfeiffer, D.U., Epprecht, M., Boles, S., Czarnecki, C., Chaitaweesub, P., Kalpravidh, W., Minh, P.Q., Otte, M.J., Martin, V., and Slingenbergh, J., 2008, Mapping H5N1 highly pathogenic avian influenza risk in Southeast Asia, *The Proceedings of the National Academy of Sciences of the United States of America*, 105(12): 4769-4774.
4. Martin, V., Pfeiffer, D.U., Zhou, X., Xiao, X., Prosser, D.J., Guo, F., Gilbert, M., 2011, Spatial distribution and risk factors of highly pathogenic avian influenza (HPAI) H5N1 in China, *PLoS Pathogens*, 7(3): e1001308, doi:10.1371/journal.ppat.1001308.
5. Gilbert, M., Newman, S., Takekawa, J.Y., Loth, L., Biradar, C., Prosser, D., Balachandran, S., Subba Rao, S., Mundkur, T., Yan, B., Xing, Z., Hou, Y., Batbayar, N., Natsagdorjiin, T., Hogwerwerf, L., Slingenbergh, J., and Xiao, X., 2011, Flying over an infected landscape: distribution of highly pathogenic avian influenza H5N1 risk in South Asia and satellite tracking of wild waterfowl, *EcoHealth*, DOI:10.1007/s10393-010-0672-8.
6. Prinn, R. Jacoby, H., Sokolov, A., Wang, C., Xiao, X., Yang, Z., Eckaus, R., Stone, P., Ellerman, D., Melillo, J., Fitzmaurice, J., Kicklighter, D., Liu, Y., and Holian, G., 1999, Integrated global system model for climate policy analysis: Feedbacks and sensitivity studies. *Climatic Change*, 41:469-546.
7. Xiao, X., Boles, S., Froking, S., Li, C., Babu, J.Y., Salas, W., and Moore, B., III, 2006, Mapping paddy rice agriculture in South and Southeast Asia using multi-temporal MODIS images. *Remote Sensing of Environment*, 100:95-113.
8. Gilbert, M., Xiao, X., Domenech, J., Lubroth, J., Martin, V., and Slingenbergh, J., 2006, The ecology of Anatidae migration in the western Palaearctic and the spread of highly pathogenic avian influenza H5N1 virus, *Emerging Infectious Diseases*, 12(11):1650-1656.
9. Gilbert, M., Slingenbergh, J., and Xiao, X., 2008, Climate change and avian influenza, *Rev. Sci. Tech. Off. Int. Epiz.*, 27(2):459-466. (OIE Scientific and Technical Review)
10. Xiao, X., Biradar, C., Czarnecki, C., Alabi, T., and Keller, M., 2009, A simple algorithm for large-scale mapping of evergreen forests in tropical America, Africa and Asia, *Remote Sensing*, 1(3): 355-374.

11. Takekawa, J.Y., Prosser, D.J., Newman, S.H., Muzaffar, S.B., Hill, N.J., Yan, B., Xiao, X., Lei, F., Li, T., Schwarzbach, S.E., and Howell, J.A., 2010, Victims and Vectors: highly pathogenic avian influenza H5N1 and the ecology of wild birds, *Avian Biological Research*, 3(2): 51-73.
12. Loth, L., Gilbert, M., Osmani, M.G., Kalam, A.M., and Xiao, X., 2010, Risk factors and clusters of highly pathogenic avian influenza H5N1 in Bangladesh, *Preventive Veterinary Medicine*, 96:104-113.
13. Paul, M., Tavoranpanich, S., Abrial, D., Gasqui, P., Charras-Garrido, M., Xiao, X., Gilbert, M., Roger, F., and Ducrot, C., 2010, Anthropogenic factors and the risk of highly pathogenic avian influenza H5N1: prospects from a spatial-based model. *Veterinary Research* 41(3):28.
14. Takekawa, J.Y., Newman, S.H., Xiao, X., Prosser, D.J., Spragens, K.A., Palm, E.C., Yan, B., Li, T., Lei, F., Zhao, D., Douglas, D.C., Muzaffar, S.B., and Ji, W., 2010, Migration of waterfowls in the East Asian flyway and spatial relationship to HPAI H5N1 outbreaks, *Avian Diseases*, 54, 466-476.
15. Bodbyl-Roels, S., Peterson, A.T., and Xiao, X., 2011, Comparative analysis of remotely-sensed data products via ecological niche modeling of avian influenza case occurrences in Middle Eastern poultry, *International Journal of Health Geographics*, 10:21, <http://www.ijhealthgeographics.com/content/10/1/21>.