Yingjie Li



Center for Systems Integration and Sustainability
Department of Fisheries and Wildlife
Michigan State University

Email: <u>liyj@msu.edu</u>

EDUCATION

- 2017-2022 Ph.D. Candidate, Fisheries and Wildlife, Environmental Science and Policy (doctoral dual major), Center for Systems Integration and Sustainability, Department of Fisheries and Wildlife, Michigan State University. Advisor: Jianguo (Jack) Liu; Committee: Emilio F. Moran, Anthony Kendall, Scott Swinton
- 2014-2017 *M.S.*, *Geography (Ecosystem Services and Global Environment Change)*; Department of Geography, Shaanxi Normal University. *Advisors*: Junping Yan, Liwei Zhang
- 2010-2014 *B.M.*, *Land Resource Management*; College of Resources and Environmental Science, Hunan Normal University. *Advisors*: Weisheng Xia, Dehua Mao

RESEARCH INTERESTS

Metacoupling • Ecosystem Services Flow • Global Seafood and Agrifood Trade • Sustainability Science SDGs • Land-Food-Water Nexus • Remote Sensing • Climate and Land-Use Change

PEER-REVIEWED PUBLICATIONS

28 published/accepted (*Google Scholar*); 15 under reviews/in preparation

First-authored Papers

- 1. Xu, Z.[†], **Li, Yingjie**[†], Chau, S.N., Dietz, T., Li, C., Wan, L., Zhang, J., Zhang, L., Li, Yunkai, Chung, M.G., Liu, J. 2020. Impacts of International Trade on Global Sustainable Development. *Nature Sustainability*. 1-8 ([†] Share first authorship)
- 2. **Li, Y.**, Zhang, L, Qiu, J., Yan, J., Wan, L., Wang, P., Hu, N., Cheng, W., Fu, B. 2017. Spatially Explicit Quantification of the Interactions among Ecosystem Services. *Landscape Ecology*, 32(6):1181-1199.
- 3. **Li, Y.,** Zhang, L., Wang, P., Hu, N., Yan, J., Cheng, W., Fu, B. 2017. Mapping the Hotspots and Coldspots of Ecosystem Services in Conservation Priority Setting. *Journal of Geographical Sciences*, 27(6): 681-696.
- 4. **Li, Y.,** Yan, J., Liu, Y. 2016. Research on the Relationship between Dryness/Wetness and Precipitation Heterogeneity in North and South of the Qinling Mountains. *Arid Zone Research*, 33(3):619-627. (in Chinese with English abstract)
- 5. **Li, Y.,** Yan, J., Wang, P. 2016. Temporal and Spatial Change and Causes Analysis of the Reference Crop Evapotranspiration in Farming-Pastoral Ecotone of Northern China. *Chinese Journal of Agrometeorology*, 37(2):177-184. (in Chinese with English abstract)
- 6. **Li, Y.,** Yan, J., Tang, B., Wang, W. 2016. Tendency Judgement of Mw ≥ 6.8 Earthquake in San Andreas Fault. *The Chinese Journal of Geological Hazard and Control*, 27(4): 56-63. (in Chinese with English abstract)
- 7. **Li, Y.,** Xia, W., Liu, X., Zhang, Y., Li, H., Han, Y. 2015. Design and Implementation of Agricultural Land Circulation Platform Based on J2EE. *Journal of Agriculture*, 5(4):85-94. (in Chinese with English abstract)

Co-authored Papers

- 8. Xu, Z., Chen, X., Liu, J., Zhang Y., Chau, S., Bhattarai N., Wang, Y., **Li, Yingjie**., Connor, T., Li, Yunkai. Impacts of irrigated agriculture on food–energy–water–CO2 nexus across metacoupled systems. *Nature Communications*
- 9. Xu, Z., Chau, S.N., Chen, X., Zhang, J., **Li, Yingjie.**, Dietz, T., Wang, J., Winkler, J.A., Fan, F., Huang, B., Li, S., Wu, S., Herzberger, A., Tang, Y., Hong, D., Li, Yunkai, Liu, J., 2020. Assessing progress towards sustainable development over space and time. *Nature* 577, 74–78 (*Nature Cover Feature*)

- 10. Li, X., Zhang, L., O'Connor, P.J., Yan, J., Wang, B., Liu, D.L., Wang, P., Wang, Z., Wan, L. and Li, Y., 2020. Ecosystem Services under a Climate-Change-Impacted Water Infrastructure in a Highly Forested Basin. *Water*, 12(10), p.2825.
- 11. Wang, Z., Zhang, L., Li, X., **Li, Y.**, Frans, V., Yan, J. 2020. A network perspective for mapping freshwater service flows at the watershed scale. *Ecosystem Services* 45.
- 12. Wang, Z., Zhang, L., Li, X., Li, Y., Wang, P., Yan, J. 2020. Spatio-temporal pattern of supply-demand risk of ecosystem services at regional scale: a case study of water yield service in Shaanxi province. *Acta Ecologica Sinica* 40 (6): 1887-1900.
- 13. Zheng, H., Zhang, L., Wang, P., **Li, Y.** 2019. The Net Primary Productivity-Based Composite Indicator for Assessing the Variations of Water Provision Services at the National Scale. *Water*. 11(8), 1628.
- 14. Chikowore N, Collier J, Djenontin I, **Li, Y.**, Ward K. 2019. Addressing PFAS in the State of Michigan. *ESPPulse*, 4, 12-31. (Alphabetical order)
- 15. Xu, Z., **Li, Y.**, Herzberger, A., Gong, M., Kapsar, K., Hovis, C, Whyte, J., Tang, Y., Li, Y., Liu, J. 2019. Interactive National Virtual Water-Energy Nexus Networks. *Science of The Total Environment*. 673 (2019): 128-135.
- 16. Kapsar, K., Hovis, C., Buchholtz, E., Carlson, A., Dou, Y., Du, Y., Furumo, P., Li, Y., Torres, A., Wan, H., Silva, R., Yang, D., Zaehringer, J., Liu, J. 2019. Telecoupling Research: The First Five Years. *Sustainability*, 11(4), 1033
- 17. Xu, Z., Chau, S., Ruzzenenti, F., Connor, T., **Li, Y.**, Tang, Y., Li, D., Gong, M. Liu, J., 2018. Evolution of Multiple Global Virtual Material Flows. *Science of The Total Environment*, 658,659–668
- 18. Carlson, A, Zaehringer, J, Garrett, R, Felipe, Bicudo Silva R., Furumo. P., Raya, Rey A., Torres, A., Chung, G.M., Li, Y, Liu, J. 2018. Toward Rigorous Telecoupling Causal Attribution: A Systematic Review and Typology. *Sustainability*, 10(12), 4426.
- 19. Wang Z., Zhang L., Li X., Wang P., **Li, Y.**, Lu Y., Yan J. 2019. The Spatial-Temporal Pattern of Hot Spots and Cold Spots of Ecosystem Services at the Watershed Scale. *Acta Ecologica Sinica*, 39(3): .
- 20. Wang, P., Zhang, L., **Li, Y.**, Jiao, L., Wang, H., Yan J, Lü Y, Fu B. 2018. Spatio-temporal Variations of the Flood Mitigation Service of Ecosystem under Different Climate Scenarios in the Upper Reaches of Hanjiang River Basin, China. *Journal of Geographical Sciences*, 28(10), 1385-1398.
- 21. Wang, P., Zhang, L., **Li, Y.,** Jiao, L., Wang, H., Yan, J., Lü, Y., Fu, B. 2017. Spatio-temporal characteristics of the Trade-off and Synergy Relationships among Multiple Ecosystem Services in the Upper Reaches of Hanjiang River Basin. *Acta Geographica Sinica*, 72 (11): 2064- 2078. (in Chinese with English abstract)
- 22. Zhang, L., Fu, B., Lü, Y., Dong, Z., **Li, Y.,** Zeng, Y., Wu, B. 2016. The Using of Composite Indicators to Assess the Conservation Effectiveness of Ecosystem Services in China. *Acta Geographica Sinica*, 05(71):768-780. (in Chinese with English abstract)
- 23. Liu, Y., Yan, J., Cen, M., Fang, Q., Liu, Z., **Li, Y**. 2016. A Graded Index for Evaluating Precipitation Heterogeneity in China. *Journal of Geographical Sciences*, 26(6), 673-693.
- 24. Wan, L., Zhang, Z., **Li, Y**., Zhang, J., Ye, C. 2017. Temporal and Spatial Analysis of Extreme Temperature and Precipitation Events in the Hanjiang River Basin during the Past 50 Years. Journal of China Agricultural University, 22(9): 133-144. (in Chinese with English abstract)
- 25. Wang, W., Yan, J., Liu, Y., Li, Y. 2016. Characteristics of Droughts in the Haihe Basin Based on Meteorological Drought Composite Index. Arid Land Geography, 39(02): 336-344. (in Chinese with English abstract)
- 26. Wang, H., Yan, J., Tang, B., **Li, Y**. Space-time symmetry and tendency judgment of Mw ≥ 6.9 earthquake in Peru. Journal of Zhejiang University (Science Edition), 2018, 45(1): 001-009. (in Chinese with English abstract)
- 27. Yan, J., **Li, Y.**, Li, S., Tang, B., Wang, W. 2017. Review on the Spatiotemporal Symmetry Methodology of Natural Disaster. *Journal of Catastrophology*. 32(1): 149-154, 182. (in Chinese with English abstract)

28. Tang, B., Yan, J., **Li, Y**. 2015. Changes in the Accumulated Temperature above 10 °C in East China. Chinese Journal of Agrometeorology, 36(6):674-682. (in Chinese with English abstract)

Under Review

- 29. **Yingjie Li**, Ruishan Chen, Matthias Vollbracht, Racheline Maltese, Zilong Xia, Yuqian Zhang, Roland Schatz, Jianguo Liu. Global Business Giants' Commitment to Sustainable Development Goals (*under review*)
- 30. Chen, R.[†], **Li, Y.**[†], Zhang, Y., Wu, X., Liu, J. Epidemics in the hyperconnected world need flow-based governance ([†] Share first authorship, *Nature Medicine, under review*)
- 31. Canbing Li, Xubin Liu, Zhenci Xu, Bin Zhou, Mohammad Shahidehpour, Yijia Cao, Jianguo Liu, Kai Sun, Qiuwei Wu, Hui Liu, Xinyu Chen, Yongjun Zhang, Chen Chen, Dawei Chen, Yingjie Li, Nikos Hatziargyriou, Wentao Huang, Cong Zhang. Deployment of Artificial Fault Points in Electric Power Systems for Promoting the Integration of Clean Energy (*Nature Energy, under review*)
- 32. Yang, H., Dietz, T., **Li, Y.**, Dou, Y., Liu, J. Unraveling complex interrelationships among sustainable development goals. (*Uner review*)
- 33. Wang, Z., Zhang, L., Li, X., Li, Y., Fu, B. Spatiotemporal evolution characteristics of supply and demand risks of ecosystem services. *Acta Geographica Sinica*. (*Under review*)
- 34. Chung M., **Li, Y.**, Liu J. Global red and processed meat trade and non-communicable diseases (*Under review*)

In Preparation

- 35. **Li, Y.,** Nguyen L., Wan H.Y., Seeley M., Li, Y., Liu J. Mapping Marine Dead Zones using Random Forest Machine Learning Algorithm on Google Earth Engine (*In prep.*)
- 36. **Li, Y.**, Li M., Chen, R., Malik A., Lenzen M., Xu Z., Liu J. Impacts of metacouplings on achieving global SDGs (In prep.)
- 37. Li, Y., Liu, J. Exporting Agricultural Food Damages Domestic Seafood Security (In prep.)
- 38. **Li, Y.**, Liu, J. Ecosystem Services Dynamics and Interactions in Globalized Agricultural Landscapes (*In prep.*)
- 39. **Li, Y.**, Yan, M., Xie, Y, Hu., Y., Liu, J. Food Insecurity in Cities: Evidence from Mobile Phone Geolocations Big Data (*In prep.*)
- 40. **Li, Y**., Dahlin, K., Liu, J. Impacts of Dam Construction on Landscape and Ecosystem Services Change (*In prep.*)
- 41. Li, Y., Qi, J., Irrigation Dynamics in Northern China Derived from Landsat (*In prep.*)
- 42. Dou, Y., **Li, Y.**, Herzberger, A., Hovias, C., Wu, W., Liu, J. International Trade Reduces the FEW Nexus Efficiency in Importing Countries: Evidence of Soybean Trade. (*In prep.*, Target journal: *Nature Sustainability*)
- 43. Yang H., **Li, Y.,** Liu J. Conservation Policies in Rural Areas Mitigate Flooding Risk to Urban Centers (*In prep.*)
- 44. Li, Y., Zhang L. Urban ecosystem services dynamic in changing land use (*In prep.*)

PROFESSIONAL PRESENTATIONS

Oral presentations

- 1. **Li, Y.** Remote Sensing of Coastal Dead Zones. *Environmental Science & Policy Program Fall Research Symposium*. East Lansing, USA, November 11, 2020. (Oral)
- 2. **Li, Y.** Impacts of International Trade on Global Sustainable Development. *GeoInsider Webinar*, August 13, 2020. (Oral, invited)
- 3. **Li, Y.** Observing Marine Dead Zones From Space. *Google Booth Talks, AGU Fall Meeting.* San Francisco, CA, USA, December 11, 2019. (Oral, invited)
- 4. **Li, Y.,** Nguyen L., Wan H.Y., Seeley M., Li, Y., Liu J. Complex Spatiotemporal Dynamics of Global Coastal Dead Zones. *AGU Fall Meeting*. San Francisco, CA, USA, December 12, 2019. (Oral)
- 5. **Li, Y.,** Liu J. Ecosystem Services Dynamics and Interactions in Globalized Agricultural Landscapes. *KBS LTER All Scientist Meeting*. Hickory Corners, MI, USA, Sep 19-20, 2019. (Oral)

- 6. **Li, Y.,** Liu J. Exporting Agricultural Food Damages Domestic Seafood Security and Coastal Ecosystems. *The 2019 IALE Annual Meeting*, Fort Collins, CO, USA, April 7-11, 2019. (Oral)
- 7. **Li, Y.** Food-Water Nexus in and beyond Watershed Systems. *Environmental Science & Policy Program Fall Research Symposium: Balancing Act: Food, Water, Energy, Climate.* East Lansing, USA, November 1, 2018. (Oral)
- 8. **Li, Y.,** Xu Z., Liu J. Impacts of International Trade on Global Sustainable Development. *The 2018 IALE Annual Meeting*, Chicago, USA, April 9-13, 2018. (Oral)
- 9. **Li, Y.,** Zhang L. Quantifying Spatial Heterogeneity in Ecosystem Services Interactions. *Shaanxi Normal University Graduate Academic Forum*, Xi'an, China, 2017. (Oral)
- 10. **Li, Y,** Zhang L., Wang P., Yan J., Cheng W., Fu B. Spatial-explicitly Quantifying the Ecosystem Services Interactions for Land-Use Management. *Pre IGU 2016 Conference Workshop Land Use and Rural Sustainability*, Xi'an, China, 2016. (Oral)
- 11. **Li, Y.,** Yan J., Liu Y. 2016. Research on the Relationship between Dryness/Wetness and Precipitation Heterogeneity in north and south of the Qinling Mountains. *Annual Meeting of the Geographical Society of Shaanxi Province*, Xi'an, China. (Oral)
- 12. **Li, Y.,** Zhang L., Yan J. 2016. Mapping the hotspots and coldspots of soil conservation service in Shaanxi Province. *Shaanxi Normal University Graduate Academic Forum*, Xi'an, China. (Oral)
- 13. **Li, Y.,** Yan J., Wang P. 2016. Temporal and Spatial Change and Sensitivity analysis of the Reference Crop Evapotranspiration in Farming-Pastoral Ecotone of Northern China. *Annual Meeting of the Geographical Society of Northwestern China*, Ghulja, China. (Oral)
- 14. **Li, Y.,** Xia W.. 2014. Design and Implementation of Agricultural Land Circulation Platform Based on J2EE. *Graduate Academic Forum of Tourism and Environment College*, Xi'an, China. (Oral)

Poster presentations

- 15. **Li, Y.,** Zhang L., Wang P., Yan J. Mapping the Hotspots and Coldspots of Ecosystem Services in Conservation Priority Setting. *The 33rd International Geographical Congress Shaping Our Harmonious World*, Beijing, China, August 22, 2016. (Poster)
- 16. **Li, Y.** 2014. Spatiotemporal characteristics of drought in Serbia, *Simulated International Academic Conferences of Shaanxi Normal University*, Xi'an, China. (Poster)

RESEARCH EXPERIENCE

2019 - 2020 Research Assistant

- CNH2-L: Uncovering Metacoupled Socio-Environmental Systems (#1924111, Supported by the National Science Foundation. PI/co-PI(s): Jianguo 'Jack' Liu, Emilio Moran, Thomas Hertel, Andres Vina, Sue Nichols)
- LTER: KBS Mechanisms of Resilience in Agricultural Landscapes (#1832042, PI/co-PI(s): G. Philip Robertson, Nicholas Haddad, Stephen Hamilton, Jennifer Lau, Sarah Evans)

2017 – 2019 Research Assistant

• Complex Dynamics of Telecoupled Human and Natural Systems (Supported by the National Science Foundation, PI: Jianguo 'Jack' Liu)

2014 – 2016 Research Assistant

- Simulation of the Ecosystem Services Spatial Flows in Yanhe River Watershed (Supported by the National Natural Science Foundation of China, PI: Liwei Zhang)
- Ecosystem Services Tradeoffs and Synergies in the Upstream of Hanjiang River (Supported by China Postdoctoral Science Foundation, PI: Liwei Zhang)
- Spatiotemporal Symmetry of Major Natural Disasters: Structure, Mechanism and Adapting Strategies (Supported by National Natural/ Social Science Foundation of China, PI: Junping Yan)

2010 – 2014 Undergraduate Project Lead Investigator

• Causes and Solutions to Agricultural Land Abandonment in Rural China (Supported by Undergraduate Student Innovation Research Project Funds in Central Universities)

GRANTS, AWARDS, and SCHOLARSHIPS

2020 MSU Cloud Computing Fellowship

- 2020 2021 Graduate School Writing Fellow (\$2,000)
- 2020 ESPP Research Grant, for Socio-Environmental Sensing Research, MSU (\$2,400)
- 2020 ESPP Summer Research Fellowship, for Global Dead Zones Mapping Research, MSU (\$7,000)
- 2020 Summer Critical Needs Fellowship, College of Agriculture and Natural Resource, MSU (\$3,500)
- 2019 Travel Funding from the Graduate School, MSU (\$350)
- 2019 Travel Funding from the College of Agriculture and Natural Resource's Office of Academic and Student Affairs, MSU (\$400)
- 2019 Travel Funding from the Department of Fisheries and Wildlife, MSU (\$200)
- 2019 Second Place Winners for the SSDA Data Visualization Challenge, SSDA MSU
- 2019 George H. Lauff Scholarship, for Enhancing Linkages between Math and Ecology (ELME) Program Tuition Award (full tuition and full room & board scholarships), KBS MSU (~\$1,000)
- 2019 Travel Grants for Social and Ecological Network Analysis Course at SESYNC (~\$2,500)
- 2019 KBS LTER Summer Research Fellowship (\$6,500)
- 2019 US-IALE 2019 Student Volunteer Award (\$200)
- 2019 ESPP Interdisciplinary Conference Travel Grants (\$500)
- 2018 Graduate Student Workshop on Socio-Environmental Synthesis, National Socio-Environmental Synthesis Center (SESYNC, Fully funded for selected attendees, ~\$2,000)
- 2017 ESPP Doctoral Recruiting Fellowships, MSU (\$25, 000)
- 2017 Outstanding Graduates, Shaanxi Normal University (SNNU)
- 2017 Outstanding Speakers in the Graduate Academic Forum, SNNU
- 2017 Graduate Innovation Scholarship, SNNU (1%, \$880)
- 2017 Special Fund to Foreign Language Excellence, SNNU (\$150)
- 2017 The First-Prize Scholarship, SNNU (\$1,700)
- 2016 The First-Prize Scholarship, SNNU (2 awards totaling \$2,000)
- 2016 Outstanding Speakers in the Graduate Academic Forum, SNNU
- 2016 Outstanding Graduate Student, SNNU
- The Second-Prize Scholarship, SNNU (2 awards totaling \$1,500)
- 2014 The Outstanding Undergraduate Thesis, Hunan Normal University (HNU)
- 2014 Travel Grant, State Key Lab of Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS), Wuhan University (~\$700)
- 2013 Travel Grant, Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences (\$500)
- 2013 National Endeavor Fellowship
- 2012 National Endeavor Fellowship
- 2011 National Endeavor Fellowship, The Second-Prize Scholarship
- 2010 The First-Prize Scholarship

PROFESSIONAL SERVICES

Reviewer

- Global Ecology and Conservation (2; 2019/12, 2020/10)
- Science of the Total Environment (1; 2018/12)
- One Ecosystem (4)
- PeerJ Life & Environment (2)
- Irrigation Science (2; 2018/06, 2019/04)

Organizing committee

- Spotlight Magazine (2018, 2019)
- Graduate Student Organization Symposium (2018)

Other services

- Leading Organizer, Metacoupling Seminars (2020-)
- SSDA Associate (2019), MSU Social Science Data Analytics Student Engagement Program (SSDA-SEP)

• Leading Organizer, Weekly Lab Meetings (2019 Fall)

TEACHING, MENTORING, and LEADERSHIP EXPERIENCE

Teaching/Workshops lead

- Spring 2020: FW 893-731 Metacoupling Science: Interdisciplinary Frontiers and Global Applications
- Telecoupling GeoApp: An Integrated Cloud-based Platform for Understanding Complex Socio-Ecological Systems. *International Summer School on Governance of Socio-Ecological Systems in Coastal Cities*. Shanghai, China. July 9, 2019 (invited, remote presentation)
- Data Visualization in R (workshop lead). *SSDA Special Workshop Series*. MSU Social Science Data Analytics. Lansing, USA. June 25, 2019.

TECHNICAL SKILLS

Computer skills and competencies

- **Specialized software**: Proficient in *ArcGIS* (spatial analysis), *ENVI* (remote sensing image processing), *Fragstats*, *InVEST*, *Dyna-CLUE* (Land use change scenarios modeling), *SWAT*, *SPSS*, *Photoshop*, *CorelDRAW*, *Adobe Illustrator*.
- **Programming**: *R* (Statistical analyses, Spatial analysis), *Python* (Geospatial analysis, Agent-based modeling), *Google Earth Engine* (*JavaScript*), *NetLogo* (Agent-based modeling)

Licenses & certifications

• NLP: Twitter Sentiment Analysis; Coursera; Issued November 2020.

Language ability

• English and Chinese (Mandarin)

PROFESSIONAL TRAINING

- 2019 Social and Ecological Network Analysis Course. National Socio-Environmental Synthesis Center (SESYNC), June 10-14, Annapolis, MD, USA.
- 2019 Community Engaged Scholarship Training for the Great Lakes Center for Fresh Waters and Human Health. Michigan Sea Grant, MSU Extension, and MSU Outreach and Engagement, May 20-23, 2019, Oregon, OH, USA
- 2019 LandSCaPeN: an Expansive Toolbox to Measure, Model, and Map Landscapes in Google Earth Engine. US-IALE 2019 Annual Meeting Workshop. April 11, Fort Collins, Colorado
- 2019 FUTURES Land-change Modeling for Evaluating Innovative Conservation Scenarios. US-IALE 2019 Annual Meeting Workshop. April 9, Fort Collins, Colorado
- 2018 Graduate Student Workshop on Socio-Environmental Synthesis, National Socio-Environmental Synthesis Center (SESYNC)
- 2016 Computational Social Science Workshop. Center for Social Survey, Sun Yat-sen University, Aug 2-11, Guangzhou, China. http://isg.sysu.edu.cn/node/217
- Spatial Statistics and Big Data Analysis. GeoInformatics Summer School organized by the State Key Lab of Information Engineering in Surveying, Mapping and Remote Sensing, Wuhan University, June 4-14, Wuhan, China. http://www.lmars.whu.edu.cn/geosummerschool/index.jsp
- 2014 Remote Sensing Application Technology using ENVI/IDL, ESRI China, Xi'an, China

EXTRACURRICULAR & SOCIAL ACTIVITIES

2019 - 2020

- Member, Telecoupling Research Towards Sustainable Transformation of Land Systems Working Group
- Member, American Geophysical Union (AGU)

2018 - 2019

- Member, U.S. International Association for Landscape Ecology (US-IALE)
- Member, Young Ecosystem Services Specialists (YESS)
- Member, Graduate Employees Union, Michigan State University

2014 - 2015

- Member, China Geographical Graduate Union
- Vice-President of the Graduate Union in Tourism and Environment College at SNNU

2011 - 2014

- Founding President of the Runners Association at Hunan Normal University
- Excellent Student Cadre at Hunan Normal University

REFERENCES

Ph.D. Major Advisor

Dr. Jianguo (Jack) Liu

Rachel Carson Chair in Sustainability

University Distinguished Professor of fisheries and wildlife

Director of the Center for Systems Integration and Sustainability

Michigan State University

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Ph.D. Guidance Committee

Dr. Emilio F. Moran

John A. Hannah Distinguished Professor

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Department of Geography, Environment, and Spatial Sciences

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Ph.D. Guidance Committee

Dr. Scott Swinton

University Distinguished Professor

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Ph.D. Guidance Committee

Dr. Anthony Kendall

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