# Jianguo (Jack) Liu

## Curriculum Vitae

### **Contact Information:**

Center for Systems Integration & Sustainability Department of Fisheries and Wildlife Michigan State University East Lansing, MI 48824-1222, USA 517-432-5234 (phone) jackliu.csis (Skype) liuji@msu.edu (email) http://www.csis.msu.edu

#### **Education**:

Harvard University, Cambridge, MA, USA. Postdoctoral Study; 1992-1994

University of Georgia. Athens, GA, USA. Ph.D.; 1992

Chinese Academy of Sciences; Beijing, China. M.S.; 1986

Hunan Agricultural University; Changsha, China. B.S.; 1983

## **Professional Appointments:**

Michigan State University, East Lansing, MI.

Rachel Carson Chair in Sustainability, 2004-present

University Distinguished Professor, 2005-present

Director, Center for Systems Integration and Sustainability, 2004-present

Assistant / Associate / Full Professor, Dept. of Fisheries & Wildlife, 1995-2005

Member, Biometry Group, 1997-present

Member, Ecology, Evolutionary Biology, and Behavior (EEBB) Program, 1995-present

Member, Environmental Science and Policy Program, 2003-present

Princeton University, Princeton, NJ

Visiting Scholar, Dept. of Ecology and Evolutionary Biology, 2009 (Host: Simon Levin)

Harvard University, Cambridge, MA

Visiting Scholar, Sustainability Science Program, Kennedy School of Government, 2008 (Host: Bill Clark)

Research Associate, Harvard Institute for International Development, 1992-1994

Stanford University, Stanford, CA.

Visiting Scholar, Center for Conservation Biology, 2001-2002 (Hosts: Paul Ehrlich and Gretchen Daily)

University of Michigan, Ann Arbor, MI.

Research Affiliate, Population Studies Center, Institute of Social Research, 2002-present.

Chinese Academy of Sciences, Beijing, China.

Guest Professor, State Key Lab of Urban and Regional Ecology, 1998-present Research Assistant, Department of Systems Ecology, 1986-1988.

**Select Awards and Honors** (More awards and honors are listed at the end of CV):

Member, American Philosophical Society (APS), 2015 (elected)

Fellow, American Association for the Advancement of Science (AAAS), 2010 (elected in recognition of "distinguished contributions to the integration of ecology with social sciences and policy for understanding and promoting environmental sustainability.")

Guggenheim Fellowship Award, John Simon Guggenheim Memorial Foundation, 2006.

CAREER Award, U.S. National Science Foundation. 1997.

President-elect (2007-2008) and President (2008-2010), US-IALE (US Regional Association, International Association for Landscape Ecology).

Honorary Professor, Lanzhou University, China. 2010-present

## **Keynote, Plenary, and Named Lectures (examples)**

- Keynote speaker, International Conference "The Environment: Issues & Strategies in China & the U.S.". University of California at Santa Barbara, 2016
- Featured speaker, Provost's Forum "Protecting Nature: Keep People Out, or Let Them In", Duke University, 2015
- Keynote speaker, Symposium on Sustainability Science: Roots and Branches. University of Massachusetts, Boston. 2015
- Keynote speaker, Meeting on Ecosystem Services and Poverty Alleviation, sponsored by UK's Natural Environment Research Council, London, 2014
- Keynote speaker, US-IALE (US Regional Association, International Association for Landscape Ecology), Alaska, 2014
- Keynote speaker, Pathways 2014 Conference: Integrating Human Dimensions into Fisheries and Wildlife Management, Colorado, 2014
- Keynote speaker, National Landscape Ecology Conference, Changsha, China, 2013
- Plenary speaker, Megacity Water Science and Technology Conference, Beijing, 2013
- Plenary speaker, Forty-years of China's Environmental Protection. Chinese University of Hong Kong, Hong Kong, 2013.
- Keynote speaker, All Scientists Meeting, Long-Term Ecological Research, KBS, 2011.

Keynote speaker, Global Food Safety – China Executive Program, 2011.

Anderson Lecturer, University of Florida, 2011

Keynote speaker, First National Ph.D. Forum in Landscape Ecology. Peking University, China. 2010

Keynote speaker, International Meeting on Ecosystem Processes and Services, Florida, 2010.

Plenary speaker, Symposium on Designing for Wildlife. Dumbarton Oaks, Washington, DC. 2010

Keynote speaker, Congress of the Ecological Society of China, Beijing, 2009.

Keynote speaker, Anthropogenic Influences on Wildlife: A KBS K-12 Partnership Workshop sponsored by the US National Science Foundation. W. K. Kellogg Biological Station, Michigan, 2008.

Keynote speaker, International Conference of International Union of Forest Research Organization (IUFRO): Landscape Ecology and Forest Management, 2008.

Dean's Lecturer, School of Natural Resources and the Environment, Univ. of Michigan, 2008.

Keynote speaker, EcoSummit (an international conference on ecological complexity and sustainability). 2007

Plenary speaker, 6th Biennial National Conference on University Education in Natural Resources, East Lansing, MI, 2006

Keynote Speaker, International Conference on "Emerging Issues on Urban/Rural Interfaces: Linking Science and Society," Atlanta, Georgia, 2005

Plenary speaker, Broad International Business Forum. East Lansing, MI, 2005.

Weaver Lecturer, Auburn University, 2003

Keynote Speaker, Ecology Symposium, University of Georgia, 2003

# Invited Presentations at Conferences/Workshops/Symposia of Professional Societies and Other Institutions (examples):

Harvard University, Yale University, Princeton University, Stanford University, Duke University, University of California at Berkeley, Brown University, National Social-Environmental Synthesis Center, Peking University (China), American Association for the Advancement of Science (AAAS), National Academies of Sciences, National Institutes of Health, NASA, National Science Foundation, Chinese Academy of Sciences (e.g., Research Center for Eco-Environmental Sciences, Institute of Geography and Natural Resources, Changchun Institute of Geography and

Agro-Ecology), American Geophysical Union, Arizona State University, Capital Area Audubon Society, China Agricultural University, China Council for International Cooperation on Environment and Development (CCICED), Conservation International, Ecological Society of America, Ecological Society of China, Fudan University (China), Heilongjiang Academy of Agricultural Sciences (China), International Association for Ecology, International Association for Landscape Ecology, International Society of Ecological Modeling, Landcare Research (New Zealand), Lanzhou University (China), Miami University, Michigan State University, Population Association of America, Purdue University, Royal Swedish Academy of Sciences, Rutgers University, San Diego State University, San Diego Zoo, Society of Environmental Journalists, The Wildlife Society, USDA, University of California at Santa Cruz, University of Florida, University of Georgia, University of Michigan at Ann Arbor, University of Wisconsin at Madison, World Wildlife Fund.

#### **Publications:**

#### Publications in Peer-reviewed Journals and Books:

- Liu, Jianguo, Harold Mooney, Vanessa Hull, Steven J. Davis, Joanne Gaskell, Thomas Hertel, Jane Lubchenco, Karen C. Seto, Peter Gleick, Claire Kremen, Shuxin Li. 2015. Systems integration for global sustainability. **Science** 347:1258832. DOI: 10.1126/science.1258832 (Featured in the news media; "Hot Paper" and "Highly Cited Paper" according to Essential Science Indicators [SM]).
- Liu, Jianguo, Gretchen Daily, Paul Ehrlich, and Gary Luck. 2003 Effects of household dynamics on resource consumption and biodiversity. Nature 421:530-533. (Cover-story paper and featured in News and Views Nature 421:489-490; Chosen as "Science Highlights from 2003" by the National Science Foundation [other highlights included Nobel Prize Winners in 2003]; Featured in the news media)
- Liu, Jianguo, Marc Linderman, Zhiyun Ouyang, Li An, Jian Yang, Hemin Zhang. 2001. Ecological degradation in protected areas: The case of Wolong Nature Reserve for giant pandas. Science 292: 98-101. (Subject of a special report for China's high-level government officials by China's official Xinhua News Agency; Featured in the news media)
- Liu, Jianguo and Jared Diamond. 2005 China's environment in a globalizing world. Nature 435:1179-1186 (Cover-story paper; accompanied by a News Feature article, pp.1152-1154; Featured in the news media; Translated into Chinese and published/reprinted in a number of important outlets in mainland China and Taiwan as "Authoritative Voice").
- Liu, Jianguo, Thomas Dietz, Stephen Carpenter, Marina Alberti, Carl Folke, Emilio Moran, Alice Pell, Peter Deadman, Timothy Kratz, Jane Lubchenco, Elinor Ostrom, Zhiyun Ouyang, William Provencher, Charles Redman, Stephen Schneider, and William Taylor. 2007 Complexity of Coupled Human and Natural Systems. Science 317:1513 1516. (Helped the establishment of the "International Network of Research on Coupled Human and

- Natural Systems" funded by the National Science Foundation and led by Liu, which now has 1,200 members from natural and social sciences and humanities worldwide.)
- Liu, Jianguo, Zhiyun Ouyang, Stuart L. Pimm, Peter H. Raven, Xiaoke Wang, Hong Miao, Nianyong Han 2003. Protecting China's biodiversity. **Science** 300:1240-1241. (*Featured in the news media*)
- Liu, Jianguo and Jared Diamond 2008. Revolutionizing China's environmental protection.

  Science 319:46-47. (Subject of a special report for China's high-level government officials by China's official Xinhua News Agency; Featured in the news media).
- Liu, Jianguo 2010. China's Road to Sustainability. <u>Science</u> 328:50. (Subject of a special report for China's high-level government officials by China's official Xinhua News Agency; Featured in the news media)
- Liu, Jianguo and Wu Yang, 2012 Water sustainability for China and beyond. <u>Science</u> 337: 649-50 (featured in the news media)
- Ma, Zhijun, David S. Melville, Jianguo Liu, Ying Chen, Hongyan Yang, Wenwei Ren, Zhengwang Zhang, Theunis Piersma, Bo Li 2014 Rethinking China's new great wall. <a href="Science">Science</a> 346:912-914 (Featured in the news media)
- He, G., L. Zhang, A. P.J. Mol, Y. Lu, J. Liu. 2013 Revising China's environmental law. <u>Science</u> 341:133. (*Featured in the news media*).
- Liu, Z., D. Guan, D. Crawford-Brown, Q. Zhang, K. He, and J. Liu 2013. A low-carbon road map for China. **Nature**. 500: 143-145. (*Featured in the news media*).
- Bawa, Kamaljit S., Lian Pin Koh, Tien Ming Lee, Jianguo Liu, P.S. Ramakrishnan, Douglas W. Yu, Ya-ping Zhang, and Peter H. Raven. 2010. China, India, and the Environment. **Science** 327: 1457-1459. (*Featured in the news media*)
- Liu, Jianguo, Shuxin Li, Zhiyun Ouyang, Christine Tam, and Xiaodong Chen. 2008 Ecological and socioeconomic effects of China's policies for ecosystem services. Proceedings of the National Academy of Sciences USA (PNAS) 105: 9477–9482. (Featured in the news media)
- Liu, J. and W. Yang. 2013. Integrated assessments of payments for ecosystem services programs. **PNAS.** 110(41):16297–16298. www.pnas.org/cgi/doi/10.1073/pnas.1316036110
- Yang, W., W. Liu, A.Viña, M. Tuanmu, G. He, T. Dietz, J. Liu 2013. Nonlinear effects of group size on collective action and resource outcomes. **PNAS** 110: 10916–10921 (Early Edition, June 17). doi/10.1073/pnas.1301733110. (*Featured in the news media*).
- Carter, Neil, Binoj K. Shrestha, Jhamak B. Karki, Narendra Man Babu Pradhan, Jianguo Liu 2012 Coexistence between wildlife and humans at fine spatial scales. **PNAS** 109: 15360-15365

- (DOI: 10.1073/pnas.1210490109). (featured in the news media; Recommended by Faculty of 1000 as being of "special significance", and Highlighted by Science and Nature).
- Chen, X., F. Lupi, G. He, and J. Liu 2009. Linking social norms to efficient conservation investment in payments for ecosystem services. **PNAS** 106: 11812-11817. (*Featured in the news media*).
- Yu, E. and J. Liu. 2007. Environmental impacts of divorce. **PNAS** 104: 20629–20634 (*Highlighted in Science*; *Featured in the news media*).
- Mao-Ning Tuanmu, Andrés Viña, Julie A. Winkler, Yu Li, Weihua Xu, Zhiyun Ouyang, and Jianguo Liu 2012 Climate change impacts on understory bamboo species and giant pandas in China's Qinling Mountains. <a href="Mature Climate Change">Nature Climate Change</a> 3:249-253 (Published online November 11, 2012 DOI: 10.1038/NCLIMATE1727 (featured in the news media; including NBC, Los Angeles Times, Discovery, BBC, AFP; see <a href="http://storify.com/Suenic/climate-change-threatens-giant-pandas-bamboo-buffe#publicize">http://storify.com/Suenic/climate-change-threatens-giant-pandas-bamboo-buffe#publicize for more)</a>.
- Liu, Jianguo, Vanessa Hull, Mateus Batistella, Ruth DeFries, Thomas Dietz, Feng Fu, Thomas W. Hertel, Roberto César Izaurralde, Eric F. Lambin, Shuxin Li, Luiz Antonio Martinelli, William McConnell, Emilio F. Moran, Rosamond Naylor, Zhiyun Ouyang, Karen R. Polenske, Anette Reenberg, Gilberto de Miranda Rocha, Cynthia S. Simmons, Peter H. Verburg, Peter M. Vitousek, Fusuo Zhang, Chunquan Zhu. 2013 Framing sustainability in a telecoupled world. <a href="mailto:Ecology and Society">Ecology and Society</a> 18 (2): 26. [online] URL: <a href="http://www.ecologyandsociety.org/vol18/iss2/art26/">http://www.ecologyandsociety.org/vol18/iss2/art26/</a> (the paper was selected to receive the "Best Paper Award" as the most novel paper published in 2013 in Ecology and Society that integrates different streams of science to assess fundamental questions in the ecological, political, and social foundations for sustainable social-ecological systems." The selection is a result of the votes from the editorial board of the journal.
- Liu, Jianguo, Thomas Dietz, Stephen R. Carpenter, Carl Folke, Marina Alberti, Charles L. Redman, Stephen H. Schneider, Elinor Ostrom, Alice N. Pell, Jane Lubchenco, William W. Taylor, Zhiyun Ouyang, Peter Deadman, Timothy Kratz, William Provencher. 2007 Coupled human and natural systems. <a href="Market Methods: Ambio"><u>Ambio</u> 36:639-649 (Helped the establishment of the "International Network of Research on Coupled Human and Natural Systems"; Ranked as one of the "Most Read Papers" in <a href="Ambio"><u>Ambio</u></a>, as of January 2010).
- Liu, Jianguo, Wu Yang, and Shuxin Li. 2016 Framing ecosystem services in the telecoupled Anthropocene. **Frontiers in Ecology and the Environment**. 14(1): 27-36. (*Featured in the news media*.)
- Viña, Andrés, William McConnell, Hongbo Yang, Zhenci Xu, and Jianguo Liu (2016). Effects of conservation policy on China's forest recovery. **Science Advances** 10.1126/sciadv.1500965 (*Featured in the news media.*)

- Tuanmu, Mao-Ning, Andrés Viña, Wu Yang, Xiaodong Chen, Ashton M. Shortridge and Jianguo Liu. 2016. Effects of payments for ecosystem services on wildlife habitat recovery.

  <u>Conservation Biology</u>. DOI: 10.1111/cobi.12669 (*Featured in the news media.*)
- Viña, Andrés, Wei Liu, Shiqiang Zhou, Jinyan Huang, and Jianguo Liu 2016. Land surface phenology as an indicator of biodiversity patterns. **Ecological Indicators**. 64:281-288. (*Featured in the news media.*)
- Connor, Thomas, Vanessa Hull, and Jianguo Liu (2016). Telemetry research on elusive wildlife: an ecological synthesis of studies on giant pandas. **Integrative Zoology**. doi:10.1111/1749-4877.12197. (*Featured in the news media*.)
- Fang, Baling, Yi Tan, Canbing Li, Yijia Cao, Jianguo Liu, Pia-Johanna Schweizer, Haiqing Shi, Bin Zhou, Hao Chen, Zhuangli Hu 2016. Energy sustainability under the framework of telecoupling. **Energy**. (in press)
- Hull, Vanessa and Jianguo Liu. (2016) A global icon for nature in the human-dominated world. Pp. 3-14. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Liu, Jianguo, Vanessa Hull, Neil Carter, Andrés Viña, Wu Yang (2016). Framing Sustainability of Coupled Human and Natural Systems. Pp.15-32. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Hull, Vanessa, Wu Yang, Wei Liu, Yingchun Tan, Jian Yang, Hemin Zhang, Zhiyun Ouyang, and Jianguo Liu (2016) Peek into a Home for Pandas and People. Pp.37-48. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Hull, Vanessa, Jindong Zhang, Wei Liu, Jinyan Huang, Shiqiang Zhou, Scott Bearer, Weihua Xu, Mao-Ning Tuanmu, Andrés Viña, Hemin Zhang, Zhiyun Ouyang, and Jianguo Liu (2016) Pandas-People Coexistence and Competition. Pp.37-48. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Yang, Wu, Thomas Dietz, Wei Liu, and Jianguo Liu (2016) Quantifying Human Dependence on Ecosystem Services. Pp.60-71. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Viña, Andrés, Jianguo Liu (2016) Landscape Changes in Space and Time. Pp.72-83. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu,

- Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Viña, Andrés, Mao-Ning Tuanmu, Jianguo Liu (2016) Panda Habitat Transition. Pp.84-95. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- An, Li, Wu Yang, Zai Liang, Ashton Shortridge, Jianguo Liu (2016) Demographic Decisions and Cascading Consequences. Pp.96-108. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Yang, Wu, Frank Lupi, Thomas Dietz, and Jianguo Liu (2016) Dynamics of Economic Transformation. Pp.109-119. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Liu, Wei, Andrés Viña, Wu Yang, Frank Lupi, Zhiyun Ouyang, Hemin Zhang, and Jianguo Liu (2016) Energy Transition from Fuelwood to Electricity. Pp.102-133. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Chen, Xiaodong, Wu Yang, Vanessa Hull, Li An, Thomas Dietz, Ken Frank, Frank Lupi, and Jianguo Liu (2016) Social Capital and Social Norms Shape Human-Nature Interactions. Pp.134-147. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Yang, Wu, Andrés Viña, Thomas Dietz, Vanessa Hull, Daniel Kramer, Zhiyun Ouyang, Jianguo Liu (2016) Vulnerability and Adaptation to Natural Disasters. Pp.148-159. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Chen, Xiaodong, Vanessa Hull, Wu Yang, and Jianguo Liu (2016) Human-Nature Interactions under Policy Interventions. Pp.160-171. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Hull, Vanessa, William McConnell, Marc Linderman, Jianguo Liu (2016) Toward a Sustainable Future. Pp.172-186. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.

- Viña, Andrés, Weihua Xu, Zhiyun Ouyang, Jianguo Liu (2016) Applying Methods from Local to Regional Scales. Pp.189-202. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Carter, Neil, Li An, Jianguo Liu (2016) Cross-Site Synthesis of Complexity in Coupled Human and Natural Systems. Pp.203-217. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Liu, Jianguo, Vanessa Hull, Junyan Luo, Wu Yang, Wei Liu, Andrés Viña, Christine Vogt, Zhenci Xu, Hongbo Yang, Jindong Zhang, Li An, Xiaodong Chen, Shuxin Li, Zhiyun Ouyang, Weihua Xu, Hemin Zhang (2016) Socioeconomic and Environmental Interactions over Distances. Pp.218-239. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Liu, Jianguo, Vanessa Hull, Wu Yang, Andrés Viña, Li An, Neil Carter, Xiaodong Chen, Wei Liu, Zhiyun Ouyang, Hemin Zhang (2016) Lessons from Local Studies for Global Sustainability. Pp.240-252. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Liu, Jianguo, Vanessa Hull, Zhiyun Ouyang, Hemin Zhang (2016) Future Directions for Coupled Human and Natural Systems Research. Pp.255-268. *In* Pandas and People: Coupling Human and Natural Systems for Sustainability. Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, Hemin Zhang (eds). Oxford University Press, Oxford, UK.
- Deines, Jillian M., Xiao Liu, Jianguo Liu 2015 Telecoupling in urban water systems: an examination of Beijing's imported water supply. **Water International**. http://dx.doi.org/10.1080/02508060.2015.111348 (*Featured in the news media*.)
- Liu, Jianguo, Vanessa Hull, Junyan Luo, Wu Yang, Wei Liu, Andres Vina, Christine Vogt, Zhenci Xu, Hongbo Yang, Jindong Zhang, Li An, Xiaodong Chen, Shuxin Li, Zhiyun Ouyang, Weihua Xu, Hemin Zhang. 2015 Multiple telecouplings and their complex interrelationships. <a href="Ecology and Society"><u>Ecology and Society</u></a> 20 (3):44. <a href="http://www.ecologyandsociety.org/vol20/iss3/art44/">http://www.ecologyandsociety.org/vol20/iss3/art44/</a> (Featured in the news media.)
- Sun, Jing, Wenbin Wu, Huajun Tang, and Jianguo Liu. 2015 Spatiotemporal patterns of non-genetically modified crops in the era of expansion of genetically modified food.

  <u>Scientific Reports</u> http://www.nature.com/articles/srep14180. (*Featured in the news media.*)
- Liu, Wei, Christine A. Vogt, Frank Lupi, Guangmin He, Zhiyun Ouyang, Jianguo Liu 2015 Evolution of Tourism in a Flagship Protected Area of China. <u>Journal of Sustainable</u> Tourism. doi: 10.1080/09669582.2015.1071380

- van Vliet, Jasper, Nick Magliocca, Bianka Büchner, Elizabeth Cook, José M. Rey Benayas, Erle C. Ellis, Andreas Heinimann, Eric Keys, Tien Ming Lee, Jianguo Liu, Ole Mertz, Patrick Meyfroidt, Mark Moritz, Christopher Poeplau, Brian E. Robinson, Ralf Seppelt, Karen C. Seto, Peter H. Verburg. 2015 Meta-studies in land use science: current coverage and prospects. **Ambio**. DOI 10.1007/s13280-015-0699-8
- Hull, Vanessa, Mao-Ning Tuanmu, and Jianguo Liu 2015 Synthesis of human-nature feedbacks. **Ecology and Society** 20 (3): 17.
- Yang, Wu, Thomas Dietz, Daniel Boyd Kramer, Zhiyun Ouyang, Jianguo Liu. 2015 An integrated approach to understanding the linkages between ecosystem services and human well-being. **Ecosystem Health and Sustainability** 1(5):19. http://dx.doi.org/10.1890/EHS15-0001.1
- Liu, Jianguo 2015 Promises and perils for the panda. Science 348:642.
- Zhao, Zhiqiang, Jianguo Liu, Jian Peng, Shuangcheng Li, Yanglin Wang 2015. Nonlinear features and complexity patterns of vegetation dynamics in the transition zone of North China. **Ecological Indicators** 49: 237-246
- Carter, Neil, Micah Jasny, Bhim Gurung, and Jianguo Liu 2015 Impacts of tigers, prey, and human presence on leopard spatiotemporal activity patterns: implications for conservation in human-dominated landscapes. **Global Ecology and Conservation.** 3:149–162
- Zhao, Zhiqiang, Jianbo Gao, Yanlin Wang, Jianguo Liu, Shuangcheng Li 2015 Exploring spatially variable relationships between NDVI and climatic factors in a transition zone using geographically weighted regression. <a href="https://doi.org/10.1001/jhen.2015-07-519">Theoretical and Applied Climatology</a>. 120:507-519.
- Zhang, Jindong, Vanessa Hull, Jinyan Huang, Shiqiang Zhou, Weihua Xu, Hongbo Yang, William J. McConnell, Rengui Li, Dian Liu, Yan Huang, Zhiyun Ouyang, Hemin Zhang, Jianguo Liu. 2015 Activity patterns of the giant panda (Ailuropoda melanoleuca). **Journal** of Mammalogy. DOI: <a href="http://dx.doi.org/10.1093/jmammal/gyv118">http://dx.doi.org/10.1093/jmammal/gyv118</a> (Featured in the news media.)
- Hull, Vanessa, Jindong Zhang, Shiqiang Zhou, Jinyan Huang, Rengui Li, Dian Liu, Weihua Xu, Yan Huang, Zhiyun Ouyang, Hemin Zhang, Jianguo Liu 2015 Space use by endangered giant pandas. **Journal of Mammalogy** 96(1): 230-236. (*Featured in the news media*.)
- Li, Canbing, Yijia Cao, Mi Zhang, Jianhui Wang, Jianguo Liu, Haiqing Shi and Yinghui Geng 2015. Hidden benefits of electric vehicles for addressing climate change. **Scientific Reports** 5, Article number: 9213 doi:10.1038/srep09213 (*Featured in the news media.*)

- Seppelt, Ralf, Ameur Manceur, Jianguo Liu, Eli Fenichel, Stefan Klotz 2014 Synchronized peak rate years of global resources use. <a href="Melicology and Society 19"><u>Ecology and Society 19 (4): 50.</u></a>
  <a href="http://www.ecologyandsociety.org/vol19/iss4/art50/">http://www.ecologyandsociety.org/vol19/iss4/art50/</a> (Highlights in Nature, Featured in the news media, "Top 3 Papers in 2014" of Ecology and Society)
- Liu, Jianguo and Andres Vina 2014. Pandas, plants, and people. **Annals of the Missouri Botanical Garden.** 100:108-125.
- Hull, V., G. Roloff, J. Zhang, W. Liu, S. Zhou, J. Huang, W. Xu, Z. Ouyang, H. Zhang, and J. Liu. 2014 A synthesis of giant panda habitat selection. <u>Ursus</u> 25(2):148-162. (*Featured in the news media.*)
- Zhao, Zhiqiang, Shuangcheng Li, Jianguo Liu, Jian Peng, Yanglin Wang 2014. The distance decay of similarity in climate variation and vegetation dynamics. **Environmental Earth**Sciences 73(8): 4659-4670 (http://link.springer.com/article/10.1007/s12665-014-3751-2)
- Carter, Neil H., Andrés Viña, Vanessa Hull, William J. McConnell, William Axinn, Dirgha Ghimire, and Jianguo Liu 2014. Coupled human and natural systems approach to wildlife research and conservation. **Ecology and Society** 19 (3): 43.
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## Book/Software Review:

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- Liu, J. 1996. Dealing in Diversity -- America's Market for Nature Conservation (by V. Edwards; Cambridge University Press; 1995). <u>Choice -- Current Review of Academic Books</u> (Association of College and Research Libraries) 33:1500.
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- Liu, J. 1996. Conserving Wildlife: International Education and Communication Approaches (ed. by S. K. Jacobson, Columbia University Press, 1995). <u>Choice -- Current Review of Academic Books</u> 33: 817.
- Liu, J. 1987. China's Agricultural Ecological Engineering (eds., S. Ma and S. Li; Science Press; Beijing, China; 1987). **Journal of Ecology** (China) 5:22-23.

#### **Grants Received:**

(Since 1995 as a faculty member at Michigan State University. They are listed in the order of title, funding agencies, amount, duration, and principal or co-principal investigator if any.)

- Complex dynamics of telecoupled human and natural systems. National Science Foundation. \$1.8 million, 2015-2018. (PI, with Emilio Moran, Thomas Hertel, Andres Vina and Sue Nichols).
- Complex effects of climate change on nature reserve networks at macroscales. National Science Foundation. \$2.3 million, 2014-2018. (PI, with Andres Vina and Julie Winlker).
- Food security and land use: The telecoupling challenge. Belmont Forum, 1.5 million Euros, 2015-2019. (Co-PI, with Luiz Martinelli, Emilio Moran, Charles Godfrey, Huajun Tang, Mateus Batistella et al.).
- Enhancing the professional development of landscape ecologists of future generations. NASA. 2016-2018. \$90,000. (PI)
- Groundwater and Economic Sustainability in Agricultural Systems under Climate Change: A Coupled Human-Natural Systems Approach. NASA. 2014-2017. \$90,000. (PI, with Jill Deines).
- Spatio-Temporal Dynamics of Animal Habitat Selection Across a Coupled Human and Natural System. NASA. 2011-2014. \$90,000. (PI, with Vanessa Hull).
- International Network of Research on Coupled Human and Natural Systems. National Science Foundation. \$499,908. 2008-2015. (PI, with Bill McConnell).

- Enhancing the professional development of landscape ecologists of future generations. NASA. 2010-2015. \$180,000. (PI)
- A Systems Approach to Water Sustainability in Megacities under Global Change. Water Initiative Research Grants. \$99,991. 2013-2015. (PI, with Dave Hyndman et al.)
- Effects of Cross-Boundary Processes on Human-Nature Dynamics. National Science Foundation \$1,493,879. 2007-2011. (PI, with collaborators Sandra Batie, Zai Liang, William McConnell, Zhiyun Ouyang, Andrés Viña, Christine Vogt, Hemin Zhang, Yong Zhao)
- Complex interactions among pandas, people, and policies. National Science Foundation (Biocomplexity Program). 2002-2009. \$1,111,407. (PI, with collaborators/consultants Sandra Batie, Richard Groop, Zai Liang, Angela Mertig, Jiaguo Qi, Zhiyun Ouyang, Hemin Zhang)
- Spatial and temporal interrelationships between human population and the environment.

  National Institutes of Health. 2001-2006. \$1,178,450. (PI, with collaborators/consultants -- Sandra Batie, Richard Groop, Zai Liang, Angela Mertig, Zhiyun Ouyang, Hemin Zhang)
- Integrating ecology and economics for managed forest landscapes: A systems approach. USDA (National Research Initiative), 2006-2010. \$498,939. (PI, with Frank Lupi, Michael Walters, Kimberly Hall)
- PIRE (Partnerships for International Research and Education) Collaborative Research and Training in Social Context, Population Processes, and Environmental Change. National Science Foundation. \$2,492,303. 2007-2013. (Co-PI, with Bill Axinn).
- Interactive Effects of Conservation and Development Policies on Land Cover and Panda Habitat in the Sichuan Giant Panda Sanctuary (China). NASA. \$399,284. 2008-2011. (PI, with Co-PIs Andres Vina, Sandra Batie, Zhiyun Ouyang, and Zai Liang.
- Spatial-temporal dynamics of understory vegetation under different climate change scenarios: Implications for wildlife conservation. NASA. 2010-2012. \$60,000 (PI, with Mao-Ning Tuanmu).
- Coupled human and natural systems approach to tiger conservation in Chitwan National Park and beyond. U.S. Fish and Wildlife Service. 2010-2012. \$42,859 (PI, with Neil Carter).
- Supplement to the International Network of Research on Coupled Human and Natural Systems. National Science Foundation. \$24,999. 2010. (PI, with Bill McConnell).
- Support for the US-IALE 25<sup>th</sup> anniversary meeting. USDA. \$10,000. 2009-2010. (PI).
- Reciprocal Interactions between Population and Environment. National Institutes of Health. \$1,039,836. 2009-2011. (Co-PI, with Bill Axinn).

- Coupled Human and Natural Systems Approach to Tiger Conservation. NASA. 2009-2012. \$90,000 (PI, with Neil Carter).
- Evaluating Ecological Effects of the May 12, 2008 Wenchuan Earthquake (China). \$30,158 NASA. 2009. (PI, with collaborators Andres Vina and Zhiyun Ouyang).
- Forest Structure and Distribution across the Geographic Range of the Giant Panda: Up-scaling from Plots to the Entire Region. NASA. \$368,693. 2006-2009. (PI with collaborators: Zhiyun Ouyang, Jiaguo Qi, Andres Vina)
- The Use of GPS Collars to Track the Behavior of Giant Pandas in the Wild. NSF. \$68,300. 2007-2008.
- Trading habitat patches for the Red Cockaded Woodpecker: Incorporating the role of landscape structure and uncertainty in decision making. Department of Defense (Strategic environmental research and development program), 2006-2007, \$100,000 (PI, Mike Jones)
- Enhancing the professional development of landscape ecologists of future generations. NASA. 2006-2008. \$60,000. (PI)
- Integrating remotely-sensed imagery and social surveys for sustainability: The case of US/Mexico Borderlands. NASA, \$72,000, 2006-2009. (PI, with Nils Peterson).
- Multi-scale Impacts of Land-Use/Land-Cover Change on Giant Panda Habitats. NASA. 2006-2007. \$39,476.(PI with collaborators: Sandra Batie, Richard Groop, Zai Liang, Zhiyun Ouyang, Jiaguo Qi, Andres Vina)
- Applications of Remotely-Sensed Imagery to Meet the Needs of Wandering Wildlife and Human Activity. NASA, \$72,000, 2004-2006. (PI, with Anita Morzillo).
- 3-D Landscapes: Theory, Methodology, and Application. National Natural Science Foundation of China. 400,000 RMB. 2004-2007. (PI, with Zhiyun Ouyang).
- Budweiser Conservation Scholarship. National Fish and Wildlife Foundation. \$10,000. 2004-2005 (Sponsor for Nils Peterson).
- Integrating ecology and economics for managed forest landscapes. USDA (National Research Initiative), 2002-2005. \$240,000. (PI, with Frank Lupi and Michael Walters)
- Using the precision of Landsat imagery to extrapolate pattern-process relationships of wildlife across landscapes: GRAIN and HABICLASS. NASA, \$72,000, 2003-2005. (PI, with Ed Laurent).
- Determining the social feasibility of a Louisiana Black Bear Reintroduction. Western National Parks Association. \$7,000. 2003-2004. (with Anita Morzillo.)

- Feasibility of a Louisiana black bear reintroduction in southeast Texas. National Fish and Wildlife Foundation. \$10,000. 2003-2004. (with Anita Morzillo.)
- Budweiser Conservation Scholarship. National Fish and Wildlife Foundation. \$10,000. 2003-2004 (Sponsor for Ed Laurent).
- A systems approach to assessing impacts of multiple human activities on the giant panda habitat in Wolong Nature Reserve landscape. National Science Foundation. 1997-2002. \$275,000. (PI)
- Enhancing the professional development of landscape ecologists of future generations. NASA. 2003-2005. \$45,000. (PI)
- Ecological and economic effects of forest and wildlife management: a framework and tools for holistic management across landscapes. (PI, with Frank Lupi and Michael Walters). 2000-2004. Michigan Department of Natural Resources. \$232,522.
- Planning for bird conservation in managed forests: Does simple demographic data improve output from a spatially-explicit model? (Sponsor, Smith Postdoctoral Fellowship for Kim Hall), The Nature Conservancy, 2002-2003. \$120,000.
- Integrating ecology and economics for forest and wildlife management. (Co-PI, with Michael Walters and Frank Lupi). USDA MacIntire-Stennis Program. 2001-2002.\$24,590.
- NASA IKONOS Data Grant (PI, with Marc Linderman). NASA. 2000. \$20,000.
- Mapping bamboo distribution using remote sensing and neural network techniques. (PI, with Marc Linderman). NASA. 1998-2001. \$66,000.
- The effect of landscape change on breeding birds in a rapidly urbanizing watershed. (sponsor, STAR Fellowship for Chris Lepczyk), USEPA, 2000-2002. \$82,353.
- Statistical Consulting Center. (Co-PI, with other members of the Biometry Group). MSU College of Agriculture and Natural Resources and Michigan Agricultural Experimental Station. 1999-2001. \$47,000.
- Statistical Consulting Center. (Co-PI, with other members of the Biometry Group). MSU College of Agriculture and Natural Resources and Michigan Agricultural Experimental Station. 2001-2002. \$32,250.
- Statistical Consulting Center. (Co-PI, with other members of the Biometry Group). MSU College of Agriculture and Natural Resources and Michigan Agricultural Experimental Station. 2002-2003. \$22,500.
- Biometry Seminar Series. (Co-PI, with other members of the Biometry Group). Michigan Agricultural Experimental Station. 2001. \$1,500.

- Enhancing the professional development of landscape ecologists of future generations. NASA. 1999-2002. \$40,000. (PI)
- Classification of panda habitats using remote sensing data. National Science Foundation. 1998-2001. \$46,000. (PI)
- Attitudes and perceptions of local residents towards panda and biodiversity conservation in Wolong. China Bridge International and National Natural Science Foundation of China. 1998-2000. \$45,000 (Chinese currency). (PI, with Zhiyun Ouyang)
- Landscape Ecology Conference of U.S. Regional Association of the International Association for Landscape Ecology, which was held at Michigan State University, March 17-21, 1998. (PI or Co-PI with William W. Taylor). \$49,000.
  - Michigan Department of Natural Resources: \$10,000.
  - Michigan State University (College of Agriculture and Natural Resources, and Office of Vice President for Research and Graduate Studies): \$11,000.
  - National Aeronautics and Space Administration: \$10,000.
  - United States Environmental Protection Agency: \$5,000.
  - United States Fish and Wildlife Service: \$5,000.
  - United States Forest Service: \$3,000.
  - United States Geological Survey: \$5,000.
- Peer review as an active learning mechanism. Lilly Endowment Teaching Fellow Program and Office of the Provost at Michigan State University. 1998-99. \$7,000. (PI)
- Sixty-year land use/cover change in two Michigan watersheds: Patterns and implications for wildlife management. Michigan Department of Natural Resource. 1998-99. \$25,000. (PI, with Daniel Rutledge)
- Understanding and predicting landscape dynamics: Integration of ecological and human dimensions for ecosystem management. (PI, with P. Soranno and A. Mertig). Michigan Agricultural Experiment Station and MSU College of Social Sciences. 1997-2001. \$222,482.
- Integrated wildlife research and management in Michigan (PI, Dale Rabe), US Fish and Wildlife Service, 1996-2001, approximately \$10,000,000.
- Impacts of human population on biodiversity in Wolong Nature Reserve: Underlying mechanisms and policy implications. (PI, with Z. Ouyang, R. Groop, Z. Chen, and H. Zhang.) American Association for the Advancement of Science (AAAS)/The John D. and Catherine T. MacArthur Foundation. 1997-98. \$20,000.
- Analysis of species diversity and economic returns in a rain forest. Smithsonian Institution. 1997. \$3,000. (PI)

- A comprehensive computer model for balancing economic development and conservation of Giant Pandas in the Wolong Natural Reserve. All-University Research Initiation Grant, Michigan State University. 1996-1997. \$14,800. (PI)
- Diversity description of ecological units Minnesota Region. (Co-PI, with Henry Campa and Scott Winterstein.) Boise Cascade Corporation. 1996-1998. \$244,440.
- Response of fish and wildlife macro-habitat to changes in land use and land cover (Co-PI, with D. Hayes and R. Groop). Michigan Agricultural Experiment Station. 1995-1998. \$170,000.
- Landscape comparisons of forest management practices (Co-PI, with Henry Campa and Scott Winterstein). Michigan Department of Natural Resources. 1996-2000. \$69,500.
- Foundations of ecosystem management: integrating sociological and ecological components (Co-PI, with S. Winterstein, B. Peyton and R. Campa). Michigan Agricultural Experiment Station and Michigan Department of Natural Resources. 1995-1998. \$184,835.
- Impacts of land use changes and habitat fragmentation on nature reserves for the Giant Pandas (Co-PI, with Z. Ouyang and W. Li). National Natural Science Foundation of China. 1995-97. \$100,000 (Chinese currency).
- An ecological economic approach to managing nature reserves. Global Competence Fund. Michigan State University. 1995-1996. \$4,000. (PI)
- Impact of agricultural practices on panda habitat. Institute for International Agriculture, Michigan State University. 1996-97. \$1,000. (PI)
- A landscape model of deer biology and management (PI, with H. Campa, J. Sikarski, S. Winterstein). Michigan Department of Natural Resources. 1995-2000. \$179,000.

## **Professional Service**

#### Editorial Board

Board of Reviewing Editors, Science. 2011-.

Ad Hoc Editor, <u>Proceedings of the National Academy of Sciences of the United States of America</u> (PNAS), 2009-.

Editorial Board, Journal of Asia and the Pacific Policy Studies, 2012-

Editorial Board, Ecology and Society, 2010-

Editorial Board, Ecological Processes, 2011-2014

Editorial Board, Journal of Resources and Ecology, 2010-

Assigning Editor, Conservation Biology, 2003-2005

Editorial Board, Acta Ecologica Sinica (International Journal), 2009-2012.

Editorial Board, Landscape Ecology, 2005

Editorial Board, Population and Environment, 2004-2008

Editorial Board, Ecosystems, 2002-2007.

Editorial Board, <u>Ecological Modelling</u> (an international journal on systems ecology and ecological modelling), 1999-present.

Editorial Board, Landscape and Urban Planning, 2001-2011.

Editorial Board, Journal of Plant Ecology, 2007-2011

Editorial Board, Ecologia Sinica (official journal of the Ecological Society of China). 1998-

Editorial Board, <u>Journal of Applied Ecology</u> (official journal of the Ecological Society of China). 1995-.

Guest Editor, <u>Ecological Modelling</u> (an international journal on systems ecology and ecological modeling). 1998-2000.

## Advisory Board, Panelist and Discussion Leader (examples)

Review Panel, European Research Council, 2015-

Review Panel, Population and Social Science. NIH, 2012-

Advisory Board, Odum School of Ecology, University of Georgia, 2011-

External Experts Advisory Committee, NSF-Alaska EPSCoR, 2013-

Reviewer, Outstanding Research Award, National Science Council, Taiwan. 2010

Reviewer, Current Status and Future Plans of Fudan University's School of Life Science, 2009.

Member, Giant Panda Expert Team of the IUCN/SSC Bear Specialist Group (BSG). 2009-2013.

Review Panel, NASA, July, 2006

- Review Panel, NIH, 2005-
- Advisory Board, State Key Lab of Urban and Regional Ecology, Beijing, China. 2006-present.
- Advisor, Giant Panda Species Survival Group, American Zoo and Aquarium Association. 2004-.
- Advisory Panel, Biocomplexity in the Environment Program, National Science Foundation. March 4-5, 2004.
- Panelist, New Directions in Population and Environment, University of Michigan, Ann Arbor, February 2, 2004
- Advisory Panel, Biocomplexity in the Environment Program, National Science Foundation. Feb 6-7, 2003.
- Review Panel, The Nature Conservancy, March 6-8, 2003
- Review Panel. Health, Environment and Economic Development. NIH, April 13-15, 2003.
- Discussion Leader, "Outreach and Dissemination Strategies", Biocomplexity in the Environment Awardees Meeting, National Science Foundation, Arlington, VA, September 15-17, 2003.
- Discussion Leader, "Data Collection and Information Sharing", Biocomplexity in the Environment Awardees Meeting, National Science Foundation, Arlington, VA, September 15-17, 2003.
- Discussion Leader, "The Future of Biocomplexity in the Environment", Biocomplexity in the Environment Awardees Meeting, National Science Foundation, Arlington, VA, September 15-17, 2003.
- Panelist, Proposal Review Panel of the National Institute of Child Health and Human Development, National Institutes of Health, November 2002.
- Panelist, Proposal Review Panel of the National Institute of Child Health and Human Development, National Institutes of Health, June 2002.
- Panelist, NASA's Earth System Science Fellowship Program. June 6, 2000. Washington, DC.
- Panelist, Panel on "National Survey of the Giant Panda" (Organized by World Wildlife Fund, WWF China). October 16, 2000. Panda2000: An International Conference on Conservation Priorities for the New Millennium. San Diego, CA.
- Panelist, Panel on "Assessing the Habitat of Giant Pandas: Methods and Issues" (Organized by World Wildlife Fund, WWF US). October 17, 2000. Panda2000: An International Conference on Conservation Priorities for the New Millennium. San Diego, CA.

# Organizer/Chair or Co-organizer for Conferences, Symposia, Workshops, and Paper Sessions

- Organizer (With Vanessa Hull), Workshop on Telecoupling Framework for Studying Cross-border and Cross-scale Interactions. World Congress of Landscape Ecology, 2015
- Organizer (with Hal Mooney at Stanford University), Symposium on Ecological Sustainability in a telecoupled world. Ecological Society of America, 2013.
- Chair, Organizing Committee (with Dave Hyndman et al.), International Workshop on Systems Approach to Water Sustainability. East Lansing, MI; July 30—August 4, 2013.
- Organizer (with Chunmiao Zheng, Zhiyun Ouyang, and Qingyi Meng). International Forum on Water Sustainability in Megacities under Global Change. Peking University, Beijing, January 15, 2013
- Organizer (with Chunmiao Zheng, Zhiyun Ouyang). Workshop on Systems Approach to Water Sustainability in Megacities under Global Change. Beijing, January 12-16, 2013.
- Coordinator, AGU Sessions on "Resilience and Adaptation of Coupled Human and Natural Systems to Global Change" (also organizer), "Water Resources Management and Policy in a Changing World -- Multi-Attribute Assessment and Decision Making", "Water Resources Management and Policy in a Changing World -- Integrated Planning and Assessment", "Sociohydrology: Discovering Patterns in Coupled Human-Water Resource Systems", "Engaging with Coupled Human and Natural Systems" (also organizer), Annual Meeting of American Geophysical Union, Dec 3-7, 2012.
- Organizer (with Andres Vina, Tom Evans, and Tom Baerwald), Resilience and adaptation of coupled human and natural systems. AGU meeting, 2012, San Francisco)
- Organizer (with Bill McConnell and Tom Baerwald), Symposium "Telecoupling of Human and Natural Systems". AAAS Meeting, Feb 17-21, 2011, Washington DC
- Chair, 5 sessions on coupled human and natural systems at the annual meeting of the Association of American Geographers (AAG), April 14-16, 2010. Washington DC
- Organizer (with Bill McConnell and Tom Baerwald), Symposium on Frontiers in Research on Coupled Human and Natural Systems: Current Progress and Future Opportunities. National Science Foundation. April 15, 2010.
- Organizer (with Bill McConnell), symposium on Complexity of Human-Nature Interactions across Landscapes. US-IALE Conference, Utah, April 12-15, 2009.
- Organizer (with Bill McConnell), workshop on Opportunities and Challenges on Research on Coupled Human and Natural Systems. US-IALE Conference, Utah, April 12-15, 2009.

- Organizer (with Vanessa Hull, Anita Morzillo, and John Wiens), Sources, Sinks, and Sustainability. US-IALE Conference, Madison, Wisconsin, April 6-10, 2008.
- Organizer (With Rusong Wang (president of the Ecological Society of China)), Multi-scale Integration for Ecological Sustainability. Joint Meeting of the Ecological Society of America and International Association for Ecology. Montreal, Canada, August, 2005.
- Organizer (with Thomas J. Baerwald at NSF), Frontiers in Biocomplexity Science: Reciprocal Interactions Between Human and Natural Systems. Annual Meeting of the American Association for the Advancement of Science (AAAS). Seattle, February, 2004.
- Organizer, "Population, Water Resources, Health and Development", Annual Meeting of Population Association of America, Boston, April, 2004.
- Organizer (with Rebecca Clark at NIH as a co-organizer), Complex Interactions between Human Population and the Environment: Integrating Demographic, Socioeconomic, and Ecological Perspectives. Annual Meeting of the Ecological Society of America, Portland, Oregon, August, 2004.
- Organizer, Session on "Human Impacts on the Environment", Annual Meeting of the Population Association of America, May 1-3, 2003, Minneapolis, Minnesota.
- Organizer (with Barbara Entwisle as co-organizer), Session on "Population and Land Use", Annual Meeting of the Population Association of America, May 1-3, 2003, Minneapolis, Minnesota.
- Organizer (with Rebecca Clark at NIH), Workshop on "Non-Traditional Funding for Ecologists: Opportunities at the National Institute of Child Health and Human Development", Annual Meeting of the Ecological Society of America, Augusta, Georgia, August 6, 2003
- Organizer (with Rebecca Clark at NIH), Workshop on "Non-Traditional Funding for Ecologists: Opportunities at the National Institute of Child Health and Human Development", Annual Meeting of the Ecological Society of America, Tucson, Arizona, August 4, 2002.
- Chair, Paper Session on "A New Paradigm for Panda Research and Conservation: Integrating Ecology, Demography, Human Behavior, and Socioeconomics". October 18, 2000. Panda2000: An International Conference on Conservation Priorities for the New Millennium. San Diego, CA.
- Chair, Session on Patterns of Landscape Changes. 15<sup>th</sup> Annual Conference of U.S. Regional Association of the International Association for Landscape Ecology & The second Conference of the Walt Dineen Society. April 15-19, 2000, Ft. Lauderdale, Florida.
- Host and Chair (with William W. Taylor), Planning Committee for the Landscape Ecology Conference of U.S. Regional Association of the International Association for Landscape Ecology (US-IALE). Kellogg Center, Michigan State University. March 17-21, 1998.

- Moderator, Session on Land Use Management, The 5<sup>th</sup> World Congress of the International Association for Landscape Ecology (July 29-August 3, 1999, Snowmass, Colorado).
- Rapporteur, Meeting on Population, Consumption and Environment Initiative. Organized by the American Association for the Advancement of Science (AAAS) and the John D. and Catherine T. MacArthur Foundation. Washington, DC. March 5-8, 1997.
- Organizer (with William W. Taylor), Dialogue between NASA-MSU Professional Enhancement Awardees and Leading Landscape Ecologists at the Landscape Ecology Conference of U.S. Regional Association of the International Association for Landscape Ecology. Michigan State University. March 17-21, 1998.
- Organizer (with W. W. Taylor and S. Riffell), Workshop on "Preparing Landscape Ecologists for the 21<sup>st</sup> Century." Michigan State University. March 18, 1998. Panel members were Drs. Taber Allison (National Science Foundation), Lenore Fahrig (Carleton University, Canada), Richard Forman (Harvard University), Frank Golley (University of Georgia), Eugene P. Odum (University of Georgia), and Paul Seelbach (Michigan Department of Natural Resources).
- Organizer (with W. W. Taylor and P. Soranno), Workshop on "Bridging the Gap between Landscape Ecology and Natural Resource Management." Michigan State University. March 20, 1998. Panel members were Drs. Tom Crow (U.S. Forest Service), Dale Rabe (Michigan Department of Natural Resources), Charles Rabeni (U.S. Geological Survey), Monica Turner (University of Wisconsin-Madison), Kristiina Vogt (Yale University), and John Wiens (Colorado State University).
- Chair, Landscape Ecology Session. Ecological Society of America Meeting. Providence, Rhode Island. August 10-14, 1996.
- Convener, National Conference on Rural Development and Environmental Issues. Jiansu Province, China. Nov. 5-9, 1986.

Co-organizer, National Symposium of Young Biologists. Beijing, China. Nov. 11-15, 1986.

### Reviewer/Advisor/Consultant/Judge

External Reviewer, Faculty Recruitment, Harvard University, 2015.

External Reviewer, Faculty Tenure and Promotion, University of British Columbia, 2015.

Scientific Review Committee, National Socio-Environmental Synthesis Center, 2012-2013

External Reviewer, Faculty Promotion, University of Wisconsin-Madison, 2011

External Reviewer, Faculty Promotion, Rutgers University, 2010

External Reviewer, Faculty Promotion, NC State University, 2010

External Reviewer, Faculty Promotion, University of Michigan – Ann Arbor, 2009, 2012.

Reviewer, Belgian Science Policy Office. 2008, 2009

Member, College of Reviewers for the Canada Research Chairs Program, Canada, 2008

External Reviewer, Faculty Tenure and Promotion, Iowa State University, 2008.

Reviewer, Candidates for Lang Chair in Environmental Anthropology, Stanford University, 2006

Reviewer, Proposal for Academy of Finland, 2006.

Reviewer, Proposal for Austrian Science Fund (Humanities and Social Sciences), 2004.

Correspondence Reviewer, Chinese Academy of Sciences (at the invitation of the President of CAS), 2004-present

External Reviewer, Fudan University, Shanghai, China, 2004-present

External Reviewer, Faculty Tenure and Promotion, University of Missouri-Columbia, 2004.

External Referee, Steacie Fellowship (to up to six outstanding Canadian scientists), Natural Sciences and Engineering Research Council of Canada (NSERC), 2003.

Reviewer, Proposal for Natural Sciences and Engineering Research Council of Canada, 2003.

Reviewer, Proposal for National Geographic Society, 2003.

External Reviewer, Faculty Tenure and Promotion, University of South Carolina, 2002.

External Examiner, Faculty of Graduate Studies, University of British Columbia, Canada, August, 2001.

Proposal Reviewer, National Science Foundation (NSF). 1995-.

Proposal reviewer, NASA. 2000-.

Reviewer, proposals for Field Research Grants. EarthWatch. 1996.

Proposal reviewer for U.S. Civilian Research and Development Foundation (CRDF) for the Independent States of the Former Soviet Union (1999).

Consultant, The National Program for Basic Research for the First Decade in the Twenty-First Century. The People's Republic of China. 1997.

Judge, National Envirothon. East Lansing, Michigan. August 1, 1998.

Consultant, Committee on Scholarly Communication with China. U.S. National Academy of Sciences. 1994-95.

Judge, Buell/Braun Awards. Ecological Society of America. 1994.

Judge, Best Presentation Award. Midwest Fisheries and Wildlife Conference. 1995.

Invited reviewer, Fox Squirrel Model, U.S. Fish and Wildlife Service, 2003.

Book Reviewer, Purdue University Press, 2002.

Invited reviewer, A Computer Model for Kirtland's Warbler. U.S. Forest Service. 1998.

Book proposal reviewer for Cambridge University Press (1999,2001).

Reviewer, Choice Magazine. American Library Association. 1995-1999.

Reviewer, Agricultural Eco-Engineering (ed., W. Li; publisher: UNESCO). 1997.

Reviewer, Master Plan for the Shiawassee River State Game Area. Michigan Department of Natural Resources. 1995.

Referee for journals (examples): Science, Nature, Proceedings of the National Academy of
Sciences (USA), Ecology, Conservation Biology, Ecological Modelling, Ecological
Applications, Ecology Letters, Biological Conservation, Landscape Ecology, American
Midland Naturalist, Forest Science, Ecosystems, Ecological Economics, Population and
Environment, Remote Sensing of Environment, Landscape and Urban Planning,
Photogrammetric Engineering & Remote Sensing

#### **Invited Participant** (Examples)

Stockholm Summit on Natural Capital, Stockholm, May 2015.

Workshop on "Land systems in a telecoupled world", organized by Global Land Project, Switzerland, 2014

Moving Beyond Business as Usual Roundtable, Copenhagen, Denmark, November 2013.

Meeting on Development of Global Agriculture Monitoring Network, Bill & Melinda Gates Foundation, Seattle, January 2011

Workshop on Science Agenda and Functions of the Intergovernmental Platform on Biodiversity and Ecosystem Services. Sponsored by US Department of the Interior and US Department of State, May, 2010.

- Workshop on CoMSES Network, sponsored by NSF. Feb. 18-20, 2010. Tempe, ASU.
- Workshop on "Toward a Science of Sustainability" (organized by Simon Levin at Princeton University and Bill Clark at Harvard University), sponsored by the National Science Foundation, November, 2009.
- Workshop on "Integrating Social Science into NSF Observatories", January 24-25, 2007, Washington, D.C.
- China-US Climate Change Forum, University of California at Berkeley, May 22-24, 2006
- Workshop "Conservation priorities: can we have our biodiversity and ecosystem services too?" (organized by Peter Kareiva, Taylor Pickett, Gretchen Daily, Steven Polasky). National Center for Ecological Analysis and Synthesis, Santa Barbara, CA, September 26-30, 2005.
- Congressional Visits Day, 2004, organized by Ecological Society of America and a number of other national professional societies. September 28-29., Washington, D.C.
- Workshop on Population and Environment, National Research Council, January 2004.
- Smith Postdoctoral Fellows Program, The Nature Conservancy. October, 2002, Virginia Beach, Virginia.
- Workshop on Linking Remote Sensing and Household Data, sponsored by the National Science Foundation and held in the East-West Center, Honolulu, Hawaii, Jan. 3-8, 2002.
- Workshop on Assessing the Effectiveness of Biodiversity Conservation Programs. U.S. National Academy of Sciences. December 2, 2001.
- Smith Postdoctoral Fellows Program, The Nature Conservancy. October 12-14, 2001, Lake Tahoe, California.
- Workshop on Population and Environment, National Institutes of Health, September 8, 2001.
- National Meeting on the Future of CAREER Program (formerly Presidential Young Investigator Award Program). Organized by the National Science Foundation (NSF). Washington, DC. January 10-12, 1999.
- Symposium on "Synthesis in Ecology: Applications, Opportunities, and Challenges" at the National Center for Ecological Analysis and Synthesis. Sponsored by the National Science Foundation. Santa Barbara, California. Nov. 17-20, 1996.

#### Committees (Examples)

Member, Scientific Committee, World Congress of the International Association for Landscape Ecology, 2010-2011.

- Member, Committee on Independent Scientific Review of Everglades Restoration Progress, National Academy of Sciences, 2004-2006
- Member, Task Force on Financial Mechanisms for Environmental Protection, The China Council for International Cooperation on Environment and Development (CCICED) 2005-2006.
- Councilor at Large, US Regional Association of the International Association for Landscape Ecology (US-IALE), 2004-2006
- Member, Public Affairs Committee, Ecological Society of America. 2004-2006.
- Member, Nominating Committee, Ecological Society of America. 2004.
- Member, Steering Committee, The Population-Environment Research Network (International Union for the Scientific Study of Population and International Human Dimensions Programme on Global Environmental Change, 2004-2006.
- Member, Strategic Planning Committee, US-IALE (International Association for Landscape Ecology), 2003
- Organizer, Five-year Reunion of NASA-MSU Awardees with Leading Landscape Ecologists. Lincoln, Nebraska, at the US-IALE meeting, April 2002.
- Member, Funding Committee. 1999 World Congress of the International Association for Landscape Ecology. Snowmass, Colorado. July 29 August 3.
- Member, Ad Hoc Committee on the journal Landscape Ecology. 1996.
- Member, Committee on International Relations. Ecological Society of America. 1994-97.
- Member, Committee on Foreign Traveling Scholar Awards. U.S. Regional Association of the International Association for Landscape Ecology. 1995-97.
- Member, Analysis Procedures Committee. Ecosystem Management Team, Michigan Department of Natural Resources. 1995-.
- President, Sino-Ecologists Club Overseas (SINO-ECO). 1989-90.
- Negotiator, "Review of China's Grassland Studies" (a project with the U.S. National Academy of Sciences). 1990.
- Board Member, Society of Chinese Young Ecologists. 1990-1994.
- Member of Executive Committee and Board of Directors, SINO-ECO. 1990-91.

- Editor-in-Charge, SINO-ECO Newsletter. 1989.
- Member, Steering Committee on Land Use and Natural Resources. Michigan State University-State of Michigan-Business-Special Interests Groups. 1999-2000.
- Advisory Committee, Workshop on Deer Management 101. Michigan Department of Natural Resources. 2000-2001.

## *University/Departmental Service* (Examples)

- Member, Search Committee for Dean of College of Agriculture and Natural Resources, MSU, 2015-2016 (appointed by MSU Provost)
- Member, Search Committee for Vice President for Research and Graduate Studies, MSU, 2012 (appointed by MSU President)
- Member, Task Force "Expand International Research", MSU. 2006 (appointed by MSU Provost).
- Member, All-University Awards Committee (selecting Teacher-Scholar Awards and Excellence in Teaching Citations), Michigan State University, 2004
- Member, Search Committee for a Hannah Distinguished Professorship in Ecology. Appointed by the Provost. Michigan State University. 2000-01.
- Member, Search Committee for BC Endowed Chair in Wildlife and Policy, MSU, 2009-2010.
- Member, Graduate Committee, Department of Fisheries and Wildlife, MSU, 2013-
- Member, Reappointment/Promotion/Tenure Committee, Lyman Briggs College, MSU, 2009-2010.
- Co-chair, Search Committee for two faculty positions in environmental policy, Environmental Science and Policy Program, MSU. 2004-2005
- Alternate, Promotion and Tenure Committee, College of Agriculture and Natural Resources. MSU, 2005-2008.
- Member, Search Committee for the Director of Center for Global Change and Earth Observation, MSU, 2005.
- Chair, Proposal Review Panel, Sustainable Michigan Endowment Project, Michigan State University, 2004
- Member, Executive Committee, Sustainable Michigan Endowment Project, Michigan State University, 2004-

- Member, Land Policy Council, Michigan State University, 2004-2006
- Chair, Advisory Committee, Department of Fisheries and Wildlife, Michigan State University, 2004-2005.
- Panelist, Workshop on "How to Succeed in Funding Your Research Program", Michigan State University, September 19, 2003.
- Member, Department Advisory Committee, Department of Fisheries and Wildlife, Michigan State University, 2002-2004
- Member, Search Committee for a faculty position in forest management and geographic information systems. Department of Forestry, Michigan State University. 1999-2000.
- Member, Graduate Committee, Department of Fisheries and Wildlife, Michigan State University. 1999-2000.
- Proposal Reviewer, IRGP Program, Office of the Vice President for Research and Graduate Studies, Michigan State University, 1999, 2002.
- Member, Search Committee for Assistant Professor in Remote Sensing. Department of Geography, Michigan State University. 1998-1999.
- Member, Search Committee for Tenured Professor in Economic Geography. Department of Geography, Michigan State University. 1998-1999
- Member, Search Committee for Fish and Wildlife Economist. Department of Agricultural Economics and Department of Fisheries and Wildlife, Michigan State University. 1998.
- Member, *Ad hoc* Computer Committee. Department of Fisheries and Wildlife, Michigan State University, 1998.
- Chair, *Ad hoc* Internet Committee. Department of Fisheries and Wildlife, Michigan State University, 1996-98.
- Member, Search Committee for Applied Landscape Ecologist. Department of Fisheries and Wildlife, Michigan State University. 1997-98.
- Member, Lecture Series Committee. Department of Fisheries and Wildlife, Michigan State University. 1997.
- Reviewer, Proposal for All University Research Grant (AURG). College of Social Sciences, Michigan State University. 1996.
- Reviewer, Proposals for Michigan Agricultural Experiment Station. 1996-.

- Member, Search Committee for Fish Geneticist. Department of Fisheries and Wildlife, Michigan State University. 1996.
- Member, Search Committee for Tenured Professor in Remote Sensing. Department of Geography, Michigan State University. 1995-1996
- Chair, Search Committee for Applied Terrestrial Ecosystem Ecologist. Department of Fisheries and Wildlife, Michigan State University. 1995-1996
- Member, Curriculum Committee. Department of Fisheries and Wildlife, Michigan State University. 1995-98.
- Alternate Delegate from Michigan State University to the National University Consortium for GIS. 1995-96.
- Co-Organizer, Classic City Computing Conference. Athens, Georgia. Nov. 3, 1990.
- Chairman, Peanut Butter (Ecology) Club. Institute of Ecology, University of Georgia. 1990.

## **Teaching Experience:**

1995-Present. Michigan State University. East Lansing, Michigan.

- Developed and taught "Coupling Human and Natural Systems"
- Developed and taught "Systems Modeling and Simulation."
- Developed and taught "Emerging Issues in Landscape Ecology."
- Developed and taught "Frontiers in Landscape Ecology."
- Led the development of "Applications of GIS in Natural Resources Management" and participated in teaching this course.
- Guest lecturer, "Ecological Problem Solving", "Principles of Fisheries and Wildlife
  Management", "Conservation Biology", "Resource Ecology", "Environmental Issue
  Seminar", "Applied Systems Modeling and Simulation in Natural Resource
  Management", "Advances in Remote Sensing", "Principles of Fish and Wildlife
  Management", "Provost Freshman Seminar (Science and Public Policy:
  Environmental Policy in the Era of Globalization)", "Environmental Victimization:
  Prevention and Enforcement", "Global Issues in Fisheries and Wildlife", "Plant
  Biology Senior Seminar"
- Undergraduate Advising (Department of Fisheries and Wildlife).
- 1994. Harvard University. Cambridge, Massachusetts.
  - Guest lecturer, "Forest Ecology and Economics."
- 1992. United Nations Environment Programme (UNEP).
  - Guest lecturer, "Applications of Modeling and GIS." (an environmental training program for mid-career professionals from more than 30 countries, held at Tufts University. Medford, Massachusetts.)

- 1991. University of Georgia. Athens, Georgia.
  - Guest lecturer, "Theoretical Ecology."
  - Guest Lecturer, "Leadership in Environment and Conservation Program."

### Mentoring of Students and Junior Scholars at MSU and Worldwide

- Founder and Chair, Committee on "NASA-MSU Professional Enhancement Awards" which has supported approximately 380 outstanding students from more than 140 institutions in the US and foreign countries attending the annual meetings of US-IALE (US Regional Association, International Association for Landscape Ecology), with financial assistance from NASA and MSU, 1998-present
- Founder and Chair, CHANS Fellows Program (which has supported 64 junior faculty, junior researchers, postdoctoral associates, and students who are interested in coupled human and natural systems (CHANS)) to attend and receive mentoring at professional meetings (US-IALE 2009-2010, Association of American Geographers in 2010, American Association for the Advancement of Science in 2011, American Geophysical Union in 2012, Ecological Society of America 2013), with financial support from the National Science Foundation.
- Founder, USDA-NIFA Professional Enhancement Awards Program (which has supported 10 students to attend the 2010 meeting of US-IALE), with financial support from USDA's NIFA (National Institute of Food and Agriculture).
- Advisor to several dozen undergraduate students, graduate students, postdoctoral associates and high school students working in Liu lab. Many of them have received prestigious awards and honors. They are/were supported by research grants and various fellowships (e.g., from NSF, NASA, USEPA, and Ford Foundation). Former trainees have taken positions or have continued more advanced studies at universities (e.g., Harvard, Yale, Princeton, Dartmouth, University of North Carolina-Chapel Hill, University of Michigan- Ann Arbor), NGOs (e.g., The Nature Conservancy), and industries (e.g., Boeing).
- Mentor, Meredith Gore (Assistant Professor), Department of Fisheries and Wildlife and School of Criminal Justice, Michigan State University, 2008-present
- Mentor, Dana Infante (Assistant Professor), Dept. of Fisheries and Wildlife, MSU, 2007-present
- Mentor, Lilly Teaching Fellow (Z. Huang, Assistant Professor in Entomology), MSU, 2002-03.
- Mentor, Scott Peacor (Assistant Professor), Department of Fisheries and Wildlife, Michigan State University and NOAA, 2002-2009

**News Media Interviews and Features** (which have reached billions of readers/listeners/viewers around the world. Example outlets are listed below):

The New York Times
The Los Angeles Times

The Washington Post

The Wall Street Journal

National Public Radio (NPR)

Newsweek

Time magazine

Time for Kids

**BBC** 

**NBC** 

**ABC** 

CNN

**USA** Today

Discovery Channel

The Guardian

The Associated Press (AP)

Reuters

United Press International (UPI)

Xinhua News Agency of China

CCTV (China Central Television Network)

People's Daily (China)

Southern Weekend (China)

Canadian Broadcasting Corporation (CBC)

**Business Journal** 

National Geographic Channel

The Boston Globe

Radio Station of Germany

New Zealand Herald

**Environment News Service** 

Fox News

Times of London

Times of India

Harper's

The Australian

Grist Magazine

Geotimes

Irish Radio Station

Chinesenewsnet.com

China News Digest

Divorce Magazine

# **Additional Awards and Honors**

"Hot Paper" and "Highly Cited Paper", for the paper "Systems Integration for Global Sustainability" (Liu et al. 2015 Science)

Farm Lane Society (inaugural class), 2016, Michigan State University College of Agriculture and Natural Resources Alumni Association

- Top 3 Paper of 2014, *Ecology and Society*, for the paper by Seppelt, R., Manceur, A., Liu, J., Fenichel, E., & Klotz, S. Synchronized peak rate years of global resources use. Ecology and Society, 19(4), article 50
- Best Paper Award, *Ecology and Society*, for the paper "Framing sustainability in a telecoupled world" (J. Liu et al. 2013) "as the most novel paper published in 2013 in *Ecology and Society* that integrates different streams of science to assess fundamental questions in the ecological, political, and social foundations for sustainable social-ecological systems." The selection is a result of the votes from the editorial board of the journal.
- Highly Cited Paper in Social Sciences, "Framing sustainability in a telecoupled world" (J. Liu et al. 2013 *Ecology and Society*), by Web of Science 2014
- Highly Cited Paper in Social Sciences, "Complexity of coupled human and natural systems" (J. Liu et al. 2007 *Science*), by Web of Science 2014
- Certificate of Appreciation for Outstanding Service, National Research Council of The National Academies, 2007.
- Distinguished Service Award, US-IALE (United States Regional Association of the International Association for Landscape Ecology), 2006.
- Aldo Leopold Leadership Fellow, Ecological Society of America. 2001.
- Editors' Choice by Science, Paper by Yang et al. PNAS 2013
- Recommended by Faculty of 1000 as being of "special significance", Paper by Cater et al. PNAS 2012
- Highlights by Nature and Science, Paper by Carter et al. PNAS 2012
- Best Presentation Award, Meeting of US-IALE (US Regional Association, International Association for Landscape Ecology), 2011 (Tuanmu et al.)
- Debater, Room for Debate, The New York Times, 2010.
- TOP25 Hottest Articles in Remote Sensing of Environment, April June 2010 (Tuanmu et al.)
- Certificate of Appreciation for Outstanding Service as President of US-IALE, 2010. US-IALE (US Regional Association, International Association for Landscape Ecology).
- Served with Distinction, Organizers of the 25<sup>th</sup> Anniversary Meeting of US-IALE. 2010.
- Top Three Most Highly Cited Papers in Environmental Sciences (Liu and Diamond 2005, <u>Nature</u>), National Science Library of China, Chinese Academy of Sciences. 2009.

- Research profiled in <u>Conservation Magazine</u> (July-September, 2008; 9(3):22-27). Ecological Freakonomics (by Jonah Lehrer, former Rhodes Scholar)
- Research highlighted in <u>Nature</u> (September 18, 2008, 455:266) and recommended by <u>Faculty of</u> 1000 (on the paper by N. Peterson, X. Chen, and J. Liu, Conservation Biology 2008)
- Research highlighted in Science (Dec.11, 2007, p 1531, on a paper Yu and Liu, 2007 PNAS).
- Ralph H. Smuckler Award for Advancing International Studies and Programs, Michigan State University, 2007.
- Outstanding Paper Award, United States Regional Association of the International Association for Landscape Ecology, 2006. (An et al., 2005, <u>Annals of Association for American Geographers</u>)
- Hayward Fellowship Award, Landcare Research, New Zealand, 2006
- "10 Persons of the Year (2005) for China's Environmental Protection", *New Economy Weekly* (China's State Council).
- Distinguished Faculty Award, MSU College of Agriculture and Natural Resources Alumni Association, 2005.
- Research Collaboration Award. National Natural Science Foundation of China. 2004-2007.
- "Science Highlights from 2003" (on the household and biodiversity study published as a coverstory paper by Liu et al. in *Nature*, January 30, 2003. Other highlights include some Nobel Prize Winners in 2003), National Science Foundation, 2003.
- "FY2003 Performance Highlights" (on the programmatic achievements regarding the study that better understands the challenges to the pandas' habitat and human impacts), National Science Foundation, 2003.
- Scholarly Contribution Recognition, Michigan State University, 2003.
- Teacher-Scholar Award, Michigan State University. 2001.
- The Honor Society of Phi Kappa Phi. 1999.
- Lilly Endowment Teaching Fellowship. Lilly Endowment Teaching Fellows Program and Michigan State University. 1998.
- CBI Fellowship, China Bridges International (CBI) (North America) and National Natural Science Foundation of China. 1998.
- Certificate of Appreciation, US-IALE. 1998.

Postdoctoral Fellowship. Harvard University (supported by The John D. and Catherine T. MacArthur Foundation). 1992-1994.

Odum Research Award. Odum Ecological Foundation. 1991.

Prize for the Best Paper. Entomological Society. Beijing, China. 1988