Mo Zhou, Ph. D.

Assistant Professor of Forest Economics
School of Natural Resources, West Virginia University

E-mail: mo.zhou@mail.wvu.edu ● Phone: (304) 282-5755

EDUCATION

2001 – 2005 **Ph.D. in Forestry (Forest Economics and Management)**, University of Wisconsin-Madison
1998 – 2001 **M.S. in Forestry**, Technical University of Munich (TUM), Germany
1994 – 1998 **B.S. in MIS in Forestry**, Beijing Forestry University, China

ACADEMIC EMPLOYMENT

2011 – Present Assistant Professor of Forest Economics, School of Natural   Resources, WVU
2008 – 2011   Assistant Professor of Economics, School of Management, U. of Alaska
2005 – 2007   Research Associate, Dept. of Forest Ecology and Management, UW-Madison
2001 – 2005   Research Assistant, Dept. of Forest Ecology and Management, UW-Madison
1998 – 2000   Research Assistant, Faculty of Forest Sciences, TUM

TEACHING EXPERENCES

FMAN293A Natural Resource Data Analysis (2012 – 2016)
FMAN593C Analytical Methods for Temporal Data (2016)
FMAN693X Life Cycle Analysis (2013, 2014)
FMAN 393B Optimization in Natural Resource Management (2013)
ECON100 Political Economy (2009 – 2010)
ECON321 Intermediate Microeconomics (2008 – 2010)
ECON635 Renewable Resource Economics (2008 – 2010)

INTERNATIONAL SERVICES

- Steering Committee Member of the Global Biodiversity Initiative (GFBI), 2016 – present
- Associate Editor of *Canadian Journal of Forest Research*, 2015 – present
- Lead Guest Editor of *Forest Ecosystems* Special Issue – Uncertainty and Risk Analysis in Forest Ecosystem Dynamics 2014 – 2015
- Associate Editor of *Forest Ecosystems*, 2013 – present

COMPLETE LIST OF PUBLICATIONS (H-index=12)

1. **Zhou, M**. 2017. "Valuing Environmental Amenities through Inverse Optimization: Theory and Case Study". *Journal of Environmental Economics and Management* (Revision under review).

2. Buongiorno, J. and **Zhou, M***. 2017. "Multi-criteria Forest Decision Making under Risk with Goal-programming Markov Decision Process models. *Forest Science* (In press). *Corresponding and co-first author.

3. Ma, W. and **Zhou, M***. 2017. "Assessments of Management Impacts on Central Hardwood Forests under Climate and Fire Uncertainty". *Forest Science* (Revision under review). * Corresponding author.

4. Buongiorno, J., **Zhou, M**., Johnston, C. 2017. "Risk Aversion and Risk Seeking in Multi-criteria Forest Management: A MDP approach". *Canadian Journal of Forest Research* (Accepted).

5. Liang J, TW Crowther, N Picard, S Wiser, **M. Zhou**, et al.* 2016. "Positive Biodiversity–Productivity Relationship Predominant in Global Forests". *Science* 354, Issue 6309. DOI: 10.1126/science.aaf8957. * 89 authors in total.

6. Barrett, C. B., **M. Zhou**, P. B. Reich, T. W. Crowther, and J. Liang. 2016. Forest value: More than commercial—Response. *Science* 354:1541-1542.

7. Ma, W., J. Liang, J. R. Cumming, E. Lee, A. B. Welsh, J. V. Watson, **M. Zhou***. 2016. Fundamental Shifts of Central Hardwood Forests under Climate Change. *Ecological Modelling* 332: 28 – 41. * Corresponding author.

8. Liang, J., Watson, J. V., **M. Zhou**, X. Lei. 2016. Effects of Productivity on biodiversity in forest ecosystems across the United States and China. Conservation Biology. DOI: 10.1111/cobi.12636

9. *Zhou, M.* 2015. "Adapting Forest Management to Climate Policy Uncertainty: a Conceptual Framework". *Forest Policy and Economics* 59, 66-74.

10. Liang, J., **Zhou, M.**, Tobin, P.C., Reich, P., McGuire, A. D. 2015. Biodiversity Influences Plant Productivity through Niche-Efficiency. *PNAS* 112(18):5738-5743.

11. Buongiorno, J. and **M. Zhou**. 2015. Adaptive Economics and Ecological Forest Management under Risk. *Forest Ecosystems* 2:4 doi:10.1186/s40663-015-0030-y

12. Lee, E. Y. He, **M. Zhou**, J. Liang. 2015. "Potential Causal Effects of Recent Vegetation Changes on Summer Rainfall in the Sahel". *Physical Geography*. DOI: 10.1080/02723646.2015.1120139

13. Liang, J. and **M. Zhou**. 2014. Large-scale Geospatial Mapping of Forest Carbon Dynamics. *Journal of Sustainable Forestry* 33:S 104-S122.

14. Hand, M.S., Gebert, K.M., Liang, J., Calkin, D.E., Thompson, M.P., **Zhou**, **M**. 2014. The Economics of Wildfire Management: Development and Application of Suppression Cost Models. SpringerBriefs in Fire. 71pp.

15. **Zhou, M**., J. Buongiorno, and J. Liang. 2012. Bootstrap Simulation, Markov Decision Process Models, and Role of Discounting in the Valuation of Ecological Criteria in Uneven-Aged Forest Management. *Continuous Cover Forestry*. 2nd Ed. Springer. 296 p.

16. **Zhou, M.**, and J. Liang. 2012. Modeling Alaska Boreal Forests with a Controlled Trend Surface Approach. Gen. Tech. Rep. SRS-157. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 299 p.

17. **Zhou, M.** and J. Buongiorno. 2011. Effects of Stochastic Interest Rates in Decision Making under Risk: a Markov Decision Process Model for Forest Management. *Forest Policy and Economics* 13: 402-410.

18. J. Buongiorno and **M. Zhou.** 2011. Further Generalization of Faustmann's Formula for Stochastic Interest Rates. *Journal of Forest Economics* 17(3): 248-257.

19. Liang, J., **M. Zhou**, D. Verbyla, L. Zhang, AL. Springsteen, T. Malone. 2011. Mapping Forest Dynamics under climate change: a matrix model. *Forest Ecology and Management* 262: 2250-2262.

20. Liang, J. and **M. Zhou**. 2010. A Geospatial Model of Forest Dynamics with Controlled Trend Surface. *Ecological Modelling* 221: 2339-2352.

21. **Zhou, M.**, J. Liang, and J. Buongiorno. 2008. Adaptive versus Fixed Policies for Economic or Ecological Objectives in Forest Management. *Forest Ecology and Management* 254: 178-187.

22. **Zhou, M.**, J. Buongiorno, J. Liang. 2008. Economic and Ecological Effects of Diameter Caps: A Markov Decision Model for Douglas-fir/Western Hemlock Forests. *Forest Science* 54(4): 397-407.

23. Liang, J, J. Buongiorno, R.A. Monserud, E.L. Kruger, **M. Zhou**. 2007. Effects of Diversity of Tree Species and Size on Forest Basal Area Growth, Recruitment, and Mortality. *Forest Ecology and Management* 243: 116-127.

24. **Zhou, M.** and J. Buongiorno. 2006. Space-time Modeling of Timber Prices. *Journal of Agricultural and Resource Economics* 31(1): 40-56.

25. **Zhou, M.** and J. Buongiorno. 2006. Forest Landscape Management in a Stochastic Environment, with an Application to Mixed Loblolly Pine-hardwood Forests. *Forest Ecology and Management* 223: 170 – 182.

26. Rollin, F., J. Buongiorno, **M. Zhou**, J.-L. Peyron. 2005. Management of Mixed-species, Uneven-aged Forests in the French Jura: from Stochastic Growth and Price Models to Decision Tables. *Forest Science* 51(1): 64-75.

27. **Zhou, M.** and J. Buongiorno. 2005. Price Transmission between Products at Different Stages of Manufacturing in Forest Industries. *Journal of Forest Economics* 11(1): 5-19.

28. Buongiorno, J. and **M. Zhou**. 2005. The Use of Markov Optimization Models in the Economic and Ecological Management of Forested Landscapes under Risk. Proceedings of the 3rd Iberian American Symposium on Forest Management and Economics and 11th Symposium on System Analysis in Forest Resources. Sep. 18 – 21, 2005. Luiz Carlos Estraviz Rodriguez. Série Técnica, 35(15): 47 – 57.

29. **Zhou, M.** and J. Buongiorno. 2004. Nonlinearity and Noise Interaction in a Model of Forest Growth. *Ecological Modelling* 180: 291-304.

30. Ince, P., X. Li, **M. Zhou**, J. Buongiorno, and M. Reuter. 2001. United States Paper, Paperboard, and Market Pulp Capacity Trends by Process and Location, 1970 – 2000. U.S. Forest Service Research Paper FPL-RP-602.

HONORS AND AWARDS

• 2013 International Scholar Recognition Award, WVU
• 2009 Certificate of Appreciation for Faculty, UAF
• 2006 Graduate School Research Committee Award, UW-Madison. With Dr. Joseph Buongiorno
• 2005 John N. McGovern Family Scholarship, University of Wisconsin – Madison
• 2004 Best student presentation award at the Midwest Forest Economists and Mensurationists Conference. October 17 - 19, 2004, Grand Rapids, Michigan