

Curriculum Vitae

Wenyun Zuo

Ph.D. (Biology)
University of New Mexico, 2011

Email: margaretwy@gmail.com

Research Interests

Environmental impacts on gene expression and adaptation; Population dynamics; Demography; Energy budgets at different scales; Environmental effects on energy budgets; Community structure; Biodiversity; Life history theory; Quantitative and theoretical analysis of macro-patterns in evolutionary ecology;

Academic History:

2016-present Research Scientist, Department of Biology, Stanford University, Palo Alto, CA, USA (Supervisor: Dr. Shripad Tuljapurkar)
2014-2015 Research Assistant, Biological Sciences Department, Missouri University of Science and Technology, MO, USA (Host: Dr. Chen Hou)
2012-2013 Visiting Scholar, Department of Biology, Stanford University, Palo Alto, CA, USA (Host: Dr. Shripad Tuljapurkar)
2011-2012 Visiting Scholar, Biological Sciences Department, Missouri University of Science and Technology, MO, USA (Host: Dr. Chen Hou)
2011 Postdoc, New England Complex System Institute, Cambridge, MA, USA (Host: Dr. Yaneer Bar-Yam)
8/2006-5/2011 Doctoral Degree in Ecology, Biology Department, University of New Mexico, NM, USA (advisor: Dr. James H. Brown)
9/2003-7/2006 Master's Degree of Ecology, Center of Ecology, Institute of Botany, Chinese Academy of Science, Beijing, China (advisor: Dr. Keping Ma)
9/1999-7/2003 Bachelor degree of Environment Science, College of Environmental Sciences, Peking University, Beijing, China (advisor: Dr. Jinsheng He, *et al.*)

Awards & Distinctions

2011 2010 Chinese Government Award for Outstanding Self-financed Chinese Students Study Abroad, China Scholarship Council, China
2010 Grove Research Scholarship, Department of Biology, UNM
2009 Gaudin Research Scholarship, Department of Biology, UNM
2008 Grove Summer Scholarship, Department of Biology, UNM
2008/09/10 Three Student Research Allocations Committee (SRAC) grants, UNM
2007-2009 Four Student Enrichment Opportunity Grants from *PIBBS*, UNM
2006-2008 Howard Hughes Medical Institute Interfaces Scholars at UNM.

Publications

Shiva Kumar, Devaraja G Mudeppa, Ambika Sharma, Anjali Mascarenhas, Rashmi Dash, Ligia Pereira, Riaz Basha Shaik, Jennifer N Maki, John White, **Wenyun Zuo**, Shripad Tuljapurkar, Manoj T Duraisingh, Edwin Gomes, Laura Chery, Pradipsinh K Rathod. 2016. Distinct genomic architecture of *Plasmodium falciparum* populations from South Asia. *Molecular and Biochemical Parasitology*, 210 (1): 1-4.

Curriculum Vitae

Laura Chery, Jennifer N Maki, Anjali Mascarenhas, Jayashri T Walke, Pooja Gawas, Anvily Almeida, Mezia Fernandes, Marina Vaz, Rakesh Ramanan, Diksha Shirodkar, Maria Bernabeu, Suresh Kumar Manoharan, Ligia Pereira, Rashmi Dash, Ambika Sharma, Riaz Basha Shaik, Rimi Chakrabarti, Prasad Babar, John White, Devaraja G Mudeppa, Shiva Kumar, **Wenyun Zuo**, Kristen M Skillman, Usheer Kanjee, Caeul Lim, Kathryn Shaw-Saliba, Ashwani Kumar, Neena Valecha, VN Jindal, Anar Khandeparkar, Pradeep Naik, Sunanda Amonkar, Manoj T Duraisingh, Shripad Tuljapurkar, Joseph D Smith, Nagesh Dubhashi, Roque GW Pinto, Maria Silveria, Edwin Gomes, Pradipsinh K Rathod. 2016. Demographic and clinical profiles of Plasmodium falciparum and Plasmodium vivax patients at a tertiary care centre in southwestern India. *Malaria Journal*, 15 (1): 569.

Joseph R Burger, Craig D Allen, James H Brown, William R Burnside, Ana D Davidson, Trevor S Fristoe, Marcus J Hamilton, Norman Mercado-Silva, Jeffrey C Nekola, Jordan G Okie, **Wenyun Zuo**. 2015. The Macroecology of Sustainability. *Climate Change Mitigation: Greenhouse Gas Reduction and Biochemicals*. Editors: Jimmy Alexander Faria Albanese and M. Pilar Ruiz. Apple Academic Press, Oakville, ON, Canada. 33-50.

Herda Gdalen, Amaç, **Wenyun Zuo**, Alexander Gard-Murray, Yaneer Bar-Yam. 2013. An exploration of social identity: The geography and politics of news-sharing communities in twitter. *Complexity*, 19 (2): 10-20

Zuo, Wenyun, Felisa A. Smith, Eric L. Charnov. 2013. A life history approach to the late Pleistocene megafaunal extinction. *American Naturalist*, 182 (4): 524-531.

Burger, Joseph R., Craig D. Allen, James H. Brown, William R. Burnside, Ana D. Davidson, Trevor S. Fristoe, Marcus J. Hamilton, Norman Mercado-Silva, Jeffrey C. Nekola, Jordan G. Okie, **Wenyun Zuo**. 2012. The Macroecology of Sustainability. *PLoS Biol*, 10(6): e1001345. doi:10.1371/journal.pbio.1001345.

Deng, Jianming, **Wenyun Zuo**, Zhiqiang Wang Zhexuan Fan, Mingfei Ji, Genxuan Wang, Jinzhi Ran, Changming Zhao, Jianquan Liu, Karl J. Niklas, Sean T. Hammond, and James H. Brown. 2012. Insights into plant size-density relationships from models and agricultural crops. *Proceedings of the National Academy of Sciences*, 109(22): 8600-8605.

Zuo, Wenyun, Melanie E. Moses, Geoffrey B. West, Chen Hou, and James H. Brown. 2012. A general model for effects of temperature on ectotherm ontogenetic growth and development. *Proceedings of the Royal Society of London, Series B*, 279: 1840-1846.

Sibly, Richard, **Wenyun Zuo**, Astrid Kodric-Brown, James H. Brown. 2012. Rensch's rule in large herbivorous mammals derived from metabolic scaling. *American Naturalist*, 179: 169-177.

Curriculum Vitae

Charnov, Eric L., **Wenyun Zuo**. 2011. Growth, mortality, and life-history scaling across species. *Evolutionary Ecology Research*, 13: 661-664.

Charnov, Eric L., **Wenyun Zuo**. 2011. Human hunting mortality threshold rules for extinction in mammals (& fish). *Evolutionary Ecology Research*, 13: 431-437.

Brown, James H., William R. Burnside, Ana D. Davidson, John P. DeLong, William C. Dunn, Marcus J. Hamilton, Jeffrey C. Nekola, Jordan G. Okie, Norman Mercado-Silva, William H. Woodruff, **Wenyun Zuo**. 2011. Energetic limits to economic growth. *Bioscience*, 6: 19-26. [Cover paper]

Zuo, Wenyun, Melanie E. Moses, Chen Hou, William H. Woodruff, Geoffrey B. West, and James H. Brown. 2009. Response to Comments on “Energy Uptake and Allocation During Ontogeny”. *Science*, 325: 1206-c.

Hou, Chen, **Wenyun Zuo**, Melanie E. Moses, William H. Woodruff, James H. Brown, and Geoffrey B. West. 2008. Energy uptake and allocation during ontogeny. *Science*, 322: 736-739.

Zuo, Wenyun, Ni Lao, Yuying Geng, and Keping Ma. 2008. GeoSVM: an efficient and effective tool to predict species' potential distributions. *Journal of Plant Ecology*, 1(2): 143-145.

Moses, Melanie E., Chen Hou, William H. Woodruff, Geoffrey B. West, Jeffery C. Nekola, **Wenyun Zuo** and James H. Brown. 2008. Revisiting a Model of Ontogenetic Growth: Estimating Model Parameters from Theory and Data. *American Naturalist*, 171(5): 632-645.

Zuo, Wenyun, Ni Lao, Yuying Geng, and Keping Ma. 2007. Predicting Species Potential Distribution — SVM Compared with GARP. *Journal of Plant Ecology (Chinese Version)*, 31(4): 711-719. (in Chinese with English abstract).

Han, Mei, Chengjun Ji, **Wenyun Zuo**, and Jinshen He. 2007. Interactive effects of elevated CO₂ and temperature on the anatomical characteristics of leaves in eleven species. *Frontiers of Biology in China*, 2(3): 333-339.

He, Jinshen, Zhiheng Wang, Xiangping Wang, Bernhard Schmid, **Wenyun Zuo**, Meng Zhou, Chengyang Zheng, Mingfeng Wang, and Jingyun Fang. 2006. A test of the generality of leaf trait relationships on the Tibetan Plateau. *New Phytologist*, 170(4): 835-848.

Zuo, Wenyun and Keping Ma. 2005. The development of DIVERSITAS. *Advances in Biodiversity Conservation and Research in China VI*. China Meteorological Press, Beijing, China. 9-16. (in Chinese)

Zuo, Wenyun, Jinshen He, Mei Han, Chengjun Ji, Dan F. B. Flynn, and Jingyun Fang. 2005. Responses of plant stomata to elevated CO₂ and temperature: observations from 10 plant species grown in temperature and CO₂ gradients. *Acta Ecologica Sinica*, 25 (3): 565-574. (in Chinese with English abstract)

Curriculum Vitae

Yang, Yuanhe, Sheng Rao, Huifeng Hu, Anping Chen, Chengjun Ji, Biao Zhu, **Wenyun Zuo**, Xuanran Li, Haihua Shen, Zhiheng Wang, Yanhong Tang, and Jingyun Fang. 2004. Plant species richness of alpine grasslands in relation to environmental factors and biomass on the Tibetan Plateau. *Biodiversity Science*, 12 (1): 200-205. (in Chinese with English abstract)

Presentations & Posters

07/2010 Rensch's Rule Derived from Metabolic Scaling Relationship. Gordon Research Conference: Metabolic Basis of Ecology. University of New England, Biddeford, ME, USA

06/2010 A general model for effects of temperature on ectotherm ontogenetic growth and development. NIBIB Training Grantees Meeting. National Institute of Health, Bethesda, MD, USA.

09/2009 A quantitative model of the effect of temperature on ontogenetic growth of ectotherms. Annual Meeting of British Ecological Society. University of Hertfordshire, Hatfield, UK.

08/2009 Food of life; Fire of life. Annual Conference of Ecological Society of America. Albuquerque Convention Center, Albuquerque, NM, USA.

09/2008 Energy Uptake and Allocation During growth. Meeting of HHMI-NIBIB Interfaces Scholars. HHMI, Chevy Chase, MD, USA

07/2008 Heating up growth—explaining temperature size rule. Gordon Research Conference: Metabolic Basis of Ecology. University of New England, Biddeford, ME, USA

07/2008 Food of life; Fire of life—energy budget during growth. Gordon Research Seminar: Metabolic Basis of Ecology. University of New England, Biddeford, ME, USA

06/2008 Food of life; Fire of life—energy budget during growth. Annual Conference of Physiological Ecology. White Mountain Research Institute, Bishop, CA, USA

08/2007 Modeling distribution of *Rhododendron* in China by SVM. Annual Conference of Ecological Society of America. San Jose McEnery Convention Center, San Jose, CA, USA.

04/2007 Modeling distribution of *Rhododendron* in China by SVM. Annual Research Day. The department of biology, UNM, Albuquerque, NM, USA.

11/2006 GEO-SVM—predicts species potential distribution basic on Support Vector Machine (SVM). STARTUP: Albuquerque and the Personal Computer Revolution.

Curriculum Vitae

New Mexico Museum of Natural History & Science, Albuquerque, NM, USA

Teaching Experience

01/2011-05/2011 Teaching Assistant. Biology Lab (Bio 202).

08/2010-12/2010 Teaching Assistant. Introduction of Mathematical Biology, Bio 492/592.

01/2010-05/2010 Instructor. NETWORKS: An introduction to network theory and its applications in social, biological, and technological systems (Bio 402 or 502, also taught as CS 491/591, Stat/Math 479/579, Phyc 480/580, ECE 495/595 or Anth 460/560).

08/2008-05/2009 Teaching Assistant. Biology Lab (Bio 202).

01/2008-05/2008 Teaching Assistant. Biology Lab (Bio 124).

Research & Professional Experience

08/2006-07/2011 Research team member. Studying the relation of food intake and body size over ontogeny. Department of Biology in UNM and Santa Fe Institute (SFI), ABQ and Santa Fe, NM, USA.

06/2007 Research team member. Implemented a dating model in NetLogo in Complex System Summer School, Santa Fe Institute, Santa Fe, NM, USA.

01/2007 Workshop attended. *Complex Networks and their Applications*, Georgia Institute of Technology, Atlanta, GA, USA.

Reviewer Experience

12/2008 Proceedings of National Academy of Sciences (PNAS)

7/2010 Journal of Thermal Biology

5/2011 American Naturalist

11/2011 The International Journal of Avian Science (IBIS)

2/2012 Journal of Theoretical Biology

3/2012 The International Journal of Avian Science (IBIS)

7/2012 Evolutionary Ecology Research

11/2012 Ecological Entomology

3/2013 Ecological Entomology

5/2013 Ecological Entomology

8/2013 Ecological Letters

6/2014 Systems

5/2015 Journal of Theoretical Biology

6/2015 Journal of Plankton Research

Curriculum Vitae

9/2016 Elsevier

11/2016 FONDECYT Regular 2017 grant competition, an initiative of the Chilean National Science and Technology Commission