

# Curriculum Vitae

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## Wenyun Zuo

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

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## Research Interests

Energy budgets at different scales, such as organisms, populations, communities and ecosystems; Population dynamics; Community structure; Biodiversity; Life history theory; Quantitative and theoretical analysis of macro-patterns in evolutionary ecology; System behaviors of various complex systems

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## Education

**9/2006-5/2011**, Doctoral Degree in Ecology, Biology Department, University of New Mexico, NM, USA (advisor: 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: Keping Ma)

**9/1999-7/2003**, Bachelor degree of Environment Science, College of Environmental Sciences, Peking University, Beijing, China (advisor: Jinsheng He, *et al.*)

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## 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.

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## Publications

Charnov, Eric L., **Wenyun Zuo**. 2011. Growth, mortality, and life-history scaling across species. *Evolutionary Ecology Research* [in press]

**Zuo, Wenyun**, Melanie E. Moses, Geoffrey B. West, Chen Hou, and James H. Brown. 2011. A general model for effects of temperature on ectotherm ontogenetic growth and development. *Proceedings of the Royal Society of London, Series B* [in press]

Charnov, Eric L., **Wenyun Zuo**. 2011. Human hunting mortality threshold rules for extinction in mammals (& fish). *Evolutionary Ecology Research* [in press]

Sibly, Richard, **Wenyun Zuo**, Astrid Kodric-Brown, James H. Brown. 2011. Rensch's rule in large herbivorous mammals derived from metabolic scaling. *American Naturalist* [in press]

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 CO<sub>2</sub> 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 CO<sub>2</sub> and temperature: observations from 10 plant species grown in temperature and CO<sub>2</sub> gradients. *Acta Ecologica Sinica*, 25 (3): 565-574. (in Chinese with English abstract)

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)

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### **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. New Mexico Museum of Natural History & Science, Albuquerque, NM, USA
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### **Teaching Experience**

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

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**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).

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### **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.

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### **Reviewer Experience**

Proceedings of National Academy of Sciences (PNAS)

American Naturalist

Journal of Thermal Biology

The International Journal of Avian Science (IBIS)