

Binbin Li

Assistant Professor in Environmental Sciences, Duke Kunshan University

Phone: +8613810251904, Email: bl113@duke.edu

EDUCATION

Duke University, Nicholas School of the Environment (Durham, NC, USA)

- **Ph.D**, Environment, Aug 2012 – May 2017.
- Major Advisor: Stuart Pimm
- Committee members: Jeff Vincent, Alex Pfaff, Jennifer Swenson

University of Michigan, School of Natural Resources and Environment (Ann Arbor, MI, USA)

- **Master of Science**, Natural Resources and Environment: Conservation biology and Environmental Informatics, Aug 2010 - April 2012
- Thesis: Effects of feral cats on the evolution of antipredator behaviors in the Aegean island lizard *Podarcis erhardii*.

Peking University (Beijing, China)

- **Bachelor of Arts**, Life Sciences with dual degree in Economics, Sep 2006 - Jul 2010
- Peking University Student Government, President of Dept. of International Communication
Student Government of School of Environmental Sciences, President of Dept. of Activity, planning student orientation and social events
- Thesis: Influence of Monoculture on Fauna diversity - Comparison of biodiversity in Japanese Larch (*Larix kaempferi*) monoculture and native secondary forest.

WORK EXPERIENCE

Duke Kunshan University, Environmental Research Center (Kunshan, Jiangsu, China)

Assistant Professor of Environmental Sciences, Jul 2017-now

- Responsible for teaching in Environmental Policy Master Program at Duke Kunshan University
- Research on conservation biology

AWARDS AND FUNDING

- Young Conservation Leader, Birdlife International (2018)
- Candidate for Young Champions of the earth, China, UNEP (2018)
- International Dissertation Research Travel Award, Duke University (2016)
- Aleane Webb Dissertation Research Award, Duke University (2016)
- Ocean Park Conservation Foundation Hong Kong (2015), Co-PI
- China State Forestry Department: Giant Panda International Collaboration Fund (2014), PI
- The Exploration Fund, Explorer's Club (2014)
- Best presentation for students, US-IALE (2014)
- NASA-MSU Professional Enhancement Award, NASA-MSU (2014)
- Chinese government fellowship (2012-2016)
- Rackham Graduate Student Research Grant, University of Michigan Rackham Graduate School (2011)

- SNRE Master's Thesis Research Funding, University of Michigan of School of Natural Resources and Environment (2011)
- SNRE fellowship, University of Michigan of School of Natural Resources and Environment (2010)
- “The most popular teaching assistant” in summer course in Guangxi Province held by Peking University
- Third Prize of ‘Challenge Cup’ May-4th Youth Science of Peking University for the research of ‘The Effects of Temperature and Heat Stress on Juvenile Giant Pandas’ (2009)
- Best Actress of Peking University Drama Festival (2007)
- First Prize in Olympic Biology Competition, Beijing Area (2006)
- Excellent Award in MESE (Management and Economic Simulation Exercise) of Global Business Challenge (2004)
- “Best speech” in Red Cross Speech Competition in Beijing (1997)

RESEARCH INTERESTS AND EXPERIENCE

Research Interests: priority setting in large scale, protected areas, conservation of wildlife in developing countries, biodiversity responses to management practices, ecosystem services, impacts of invasive species and feral animals.

Duke University, Nicholas School of the Environment, Thesis Research (Durham, NC) Jun 2013-Present

- Studied the effects of flagship species - giant pandas in protecting other endemism in China, identify the patterns of endemism distribution in China and gaps in current national nature reserve system (GAP analysis), published in Conservation Biology in 2015
- Identified 10 prefectures to establish national nature reserves or upgrade local ones to national level
- Developed footprint identification technique for giant pandas with WildTrack
- Identified the priority setting in Southeast Asia considering the influence from tree plantation such as oil palm and rubber and evaluate the coverage and effectiveness of current protected area network, published in PLOS One
- Studied the effects of livestock grazing on panda habitats (inside and outside national nature reserves) including using sign transects, species distribution modeling, remote sensing and GPS collar tracking
- Studied the socio-economic drivers for increasing livestock including the effects of national environmental policies like Grain for Green
- Served as the Principal Investigator for the funding from Ocean Park Conservation Foundation and Giant Panda International Collaboration Funding from China State Forestry Department
- Advised under Dr. Stuart Pimm

University of Michigan, School of Natural Resources and Environment, Research Assistant and University Delegate (Ann Arbor, Michigan) Sep 2011-Jun 2012

- Participated in the Distributed Graduate Research Seminar on "Dimensions of Biodiversity" a new National Science Foundation-funded initiative (PIs: J. Parrish - [University of Washington] and S. Andelman [Conservation International]).
- Applied meta-analysis on how biodiversity enhances ecosystem services and yields stability in agroecosystems in the context of a changing climate.
- Selected to be the University of Michigan delegate and attend the November Meeting (2011) of Dimensions of Biodiversity, Distributed Graduate Research Seminar in Seattle.
- Advised under Dr. I. Perfecto, Dr. J. Vandermeer and Dr. B. Cardinale

University of Michigan, School of Natural Resources and Environment, Thesis Research (Naxos, Greece) May 2011-Jul 2011

- Studied the effects of feral cats on island endemic species Aegean Wall lizard (*Podarcis erhardii*), directed by Dr. J. Foufopoulos and Dr. P. Bednekoff.
- Designed, implemented, and analyzed field and laboratory approaches using a diversity of observational and experimental methods (ecological data collection, transects, focal observations, behavioral assays vegetation surveys etc.).
- Preliminary analyses demonstrate that feral cats have a negative influence on lizard populations. Presence of cats has led to the evolution of distinct antipredator defenses.

University of Michigan School of Natural Resources and Environment, Research Assistant (Ann Arbor, MI) Oct 2010 – Apr 2011

- Studied fuel efficiency and emissions for various industries including: agriculture, manufacture and service sector such as tourism using life cycle assessment, under the direction of Dr. Xu Ming
- Conducted a literature review for four years of data and completed the corresponding life cycle analysis.

Peking University, School of Life Sciences, Bachelor Thesis Research (Changqing Nature Reserve, China) Sep 2009–Jun 2010

- Completed a thesis titled: Influence of Monoculture on Fauna diversity - Comparison of biodiversity in Japanese Larch (*Larix kaempferi*) monoculture and native secondary forest, directed by Dr. Lu Zhi and Dr. Wang Dajun
- Provided guidelines for best management practices for Changqing Nature Reserve
- Employed diversity of field methods including infrared camera trapping, sign transect, vegetation transect and GIS, SPSS for statistics.

Peking University, Center for Nature and Society, Research Assistant (Beijing, China) 2009-2010

- In cooperation with the China Ministry of Transportation prepared and presented a proposal for constructing crossing structures for the Przewalski's Gazelle over Tibetan railways.

Peking University, Center for Nature and Society, Independent Researcher (Beijing, China) Jun 2008–Sep 2009

- Under the sponsorship of Dr. Yoke K. Mo's YKM Entrepreneurship Education Foundation, I authored an English paper titled 'The Effects of Temperature and Thermal Stress on Juvenile Giant Panda in captivity from Wolong Nature Reserves', directed by Dr. Yin Lijie and Liu Wei (PhD candidate of Dr. Jack Liu in Michigan State University).
- Won Third Prize of 'Challenge Cup' Youth Science of Peking University
- Applied behavioral observation: Focal sampling and instantaneous scan sampling. Used GIS to analyze spatial pattern and SPSS for statistics

Institute of Zoology, Chinese Academy of Science, Research Assistant (Qinghai Province, China) Jun 2009–Sep 2009

- Participated in an ecological investigation and a biodiversity survey of Qinghai Lake on the Tibetan Plateau, under the direction of Dr. Jiang Zhigang.
- Managed and updated the database for the mammal records of China.
- Recorded species and analyzed density of animals in a variety of habitats including wetlands, grasslands, deserts and lakes using the distance transect method and GPS

Peking University, Center for Nature and Society, Student Assistant (Guangxi Province, China) Mar 2009-May 2009

- Assisted Dr. Yin Lijie in a project investigating the relationship between infant killing and social structure in White-headed leaf monkey (*Presbytis leucocephalus*) in Chongzuo Reserve, Guangxi Province, China
- Applied behavior observation, literature review and translation of paper to English

PROFESSIONAL EXPERIENCE

Saving Species, Project Manager (Durham, U.S.A.) Jan 2015- Present

- Designed the project of impacts and socio-economic drivers for increasing livestock grazing in giant panda habitats
- Raised and managed fund for the whole project
- Organized stakeholder meetings with State Forestry Administration, Sichuan Forestry Administration, managers from Wanglang, Jiuzhai Valley, Meigu, Mabian and Tangjiahe National Nature Reserves, managers from Tianyou Tourism Company, Pingwu County officials and local communities from Baima Township.
- Organized the local team to carry out survey and interviews
- Drafted progress reports, peer-review paper and government reports.

World Wildlife Fund (WWF), Agriculture Supply Chain Intern (Washington, D.C., U.S.) Jun 2012-Aug 2012

- Researched the production methods of agricultural commodities and the socio-economic state of the countries from which they are being sourced in China and the US
- Conducted assessment of environmental, social, economic and supply risks associated with commodity sourcing
- Drafted a report illustrating pattern, economic growth, social drivers and environmental concerns for each meat production sectors
- Identified alternate and improved sources for data

World Wildlife Fund (WWF), Intern (Beijing, China) Aug 2011–Sep 2011

- Surveyed the landscape of Voluntary Sustainability Standards including Marine Stewardship Council (MSC) and Aquaculture Stewardship Council (ASC) and Roundtable on Sustainable Palm Oil (RSPO) in China by conducting informational interviews with stakeholders including key officials of international standards, the Chinese government and industry associations
- Drafted a white paper to lay out a roadmap for further promotion of Voluntary Sustainability Standards in China

Conservation International–Shanshui Conservation Center, Student Assistant (Beijing, China) Feb 2008–Jul 2010

- Organized the Gongfu Giant Panda seminar to discuss research and cooperation with government of protection of Giant Panda, with participation of over 50 people.
- Designed and organized the Carbon Deduction Actions for citizens in Beijing, included calculating carbon footprint and offering suggestions on how to reduce carbon footprint
- Participated in the translation of *The Bridge at the Edge of the World* written by Gus Speth, professor at Yale
- As the liaison person between the Beijing Biological Conversation Circle and the Shanshui Organization, I facilitated communication between researchers, government officials, universities and public media

Life Science Seminar of University Union in China, Seminar Speaker, (Beijing, China) Nov 2009

- Elected as one of the five delegates to present research on the Giant Panda for 150 students and professors
- Won the most popular research project presentation as voted by students and professors

Global Climate Change Youth Congress 2009-Model UN COP15, Beijing Representative (Beijing, China) Nov 2009

- Proposed 5 climate change actions, 50 action ideas discussed and had an output for the COP15 Chinese Youth Delegation in the Global Climate Change Youth Congress 2009, which is hold by AIESEC Mainland of China, the Embassy of Denmark in China and Model United Nations

Delegate for China, Ministry of Environment of the Government of Japan, (Nagoya, Japan) Aug 2009

- Attended the Asia Youth Biodiversity Conference in Nagoya, Japan
- Made a national presentation on China's Biodiversity Conservation for 85 participants from Asia and ministry staff
- Participated in the creation of the Asian Biodiversity Map, drafted the Action Plan of Asian Biodiversity Protection, and wrote the Asian Youth Statement on Biodiversity

National Taiwan University, National Delegate for Peoples Republic of China (Taiwan, China) Aug 2008

- I was selected as one of eight delegates from mainland China universities to participate in the Cross-Strait University-Student's Summer Camp of Ecology and Environmental Protection in Taiwan

TEACHING INTERESTS AND EXPERIENCE

Teaching Interests: Ecology, Environmental History, International Environmental Policy, Qualitative Methods, and Community Based Conservation.

Duke University, Teaching Assistant

- TA for Dr. Stuart Pimm in the workshop of "Communicating Science"
- TA for Conservation Biology at Duke

Peking University, Teaching Assistant (Guangxi Province, China) Jun 2010–Aug 2010

- Led discussion sections on faunal and floral diversity and the conservation issues faced by national reserves for high school students attending the 2010 summer course held by Peking University
- Assisted in plant and animal identification during field trips in Chongzuo Preserve
- Surveyed students to gather feedback on the course and wrote an evaluation report which was published on the public course website
- Named "the most popular teaching assistant" by professors and students

National Zoological Park of Smithsonian Institute, Course Assistant (Changqing Nature Reserve, China) March 2010–April 2010

- Assisted in teaching and presentation during an Infrared Camera Monitoring Workshop for 50 staff coming eight nature reserves in China
- Translated teaching materials to English and assisted with communication between Dr. Bill McShea and local staff

PUBLICATION

Li, B.V., Pimm, S.L., Li, S. Luo, C. & Zhao, L. (2017) Free-ranging livestock threaten the long-term survival of giant pandas. *Biological Conservation*, 216: 18-25.

Li, B.V., Alibhai, S., Jewell, Z.,* Li, D. & Zhang, H. (2017) Using footprints to identify and sex giant pandas. *Biological Conservation* 218:83-90.

Pimm, S.L., Harris, G., Jenkins, C.N., Ocampo-Peñuela, N. & Li, B.V. (2017) Unfulfilled promise of data-driven approaches: response to Peterson et al. *Conservation Biology*, DOI: 10.1111/cobi.12928

Belasen, A., Brock, K., Li, B., Chremou, D., Valakos, E., Pafilis, P. & Foufopoulos, J. (2017). Fine with heat, problems with water: microclimate alters water loss in a thermally adapted insular lizard. *Oikos*, 126(3), 447-457.

Ocampo-Peñuela, N., Jenkins, C. N., Vijay, V., Li, B.V., & Pimm., S.L. (2016) Incorporating explicit geospatial data shows more species at risk of extinction than the current Red List. *Science Advances*, 2(11), e1601367.

Li, B. V., Hughs, A., Jenkins, C. N., Ocampo-Peñuela, N. & Pimm., S.L. (2016) Remotely sensed data informs Red List evaluations and priorities mountainous areas for endemism conservation in Southeast Asia. *PLoS ONE* 11(8): e0160566. doi:10.1371/journal.pone.0160566.

Li, B. V., & Pimm, S. L. (2015). China's endemic vertebrates sheltering under the protective umbrella of the giant panda. *Conservation Biology*. DOI: 10.1111/cobi.12618

Li, B., Belasen, A., Pafilis, P., Bednekoff, P., & Foufopoulos, J. (2014). Effects of feral cats on the evolution of anti-predator behaviours in island reptiles: insights from an ancient introduction. *Proceedings of the Royal Society of London B: Biological Sciences*, 281(1788), 20140339.

Li, B., Belasen, A. and Foufopoulos, J. (2012) Geographic distribution: *Chalcides ocellatus*. *Herpetol Rev.* 43(1): 102.

Online Publication

Li, B. 2011. "Procapra przewalskii" (On-line), Animal Diversity Web. Accessed at http://animaldiversity.ummz.umich.edu/site/accounts/information/Procapra_przewalskii.html.

Book

Li, B. (2002). Race the sun, Chapter 6 Imagination. The experimental high school attached to Beijing Normal University, *Colorful wind* (p.54-59). Beijing. Kaiming Press.

ASSOCIATIONS

- IUCN Small Mammal Specialist Group (2017-present)
- Board Member of Duke Stories for Nature and Science (2015-present)
- Vice President of Duke Chinese Students and Scholars Association (2014-present)
- Member of Duke Kunshan Student Ambassador Council (2015-2015)
- Member of Sigma Xi (2012-present)
- Member of Society for Conservation Biology (SCB) (2009-present)
- Society for the Study of Amphibians and Reptiles (2011-present)
- Member of “Zhen Shi Yin” Drama Club in the University of Michigan (2010-present)
- Member of Drama Association in Peking University (2006-2010)

OTHERS

- Served on science advisory board for Disney Nature documentary “Born in China”
- Computer Skills: Microsoft Office (Word, Excel, PowerPoint), Adobe Software, SPSS, R, STELLA, STATA, ArcGIS, ERDAS, GeoDa, Photoshop
- Certified by US National Association of Interpretation