
**Contact
Information**

JINLONG ZHANG

Gender: Male

Date of Birth: June 20, 1982

Birthplace: Baodi, Tianjin, China

Marital Status: Single

Current Address: Flora Conservation Department, Kadoorie Farm and Botanic Garden, Lam Kam Road, Tai Po, NT, Hong Kong

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**Research
Interests**

I am interested in biodiversity and biogeography, with special regards to community phylogenetics and niche evolution. My work has focused on understanding the influences of ecological and historical factors that shaping plant distribution and assembly over various scales. I also keep interests in statistical programming using R and C to solve ecological problems.

Employment

Plant Identification and Records Officer, Kadoorie Farm and Botanic Garden, Hong Kong (2013 - Present).

Education

PhD in Ecology Institute of Botany, Chinese Academy of Sciences **2012**
Thesis Title: *Plant phylogenetic diversity patterns and their environmental determinants: from local to regional scales*
Supervisor: Professor **Ke-ping Ma**

MS in Plant Biology Northeast Agricultural University **2008**
Thesis Title: *Study on the floristic composition and distribution patterns of spring ephemerals in northeastern China*
Supervisors: Professor **Jing Li** and Professor **Ke-ping Ma**

BS in Biology Northeast Agricultural University **2005**

**Honors and
Awards**

- Merit student of Chinese Academy of Sciences in 2009 - 2010.
- Top class scholarship in 2009 - 2010, Institute of Botany, The Chinese Academy of Sciences
- Second class scholarship in 2008 - 2009, Institute of Botany, The Chinese Academy of Sciences
- Science Popularization Volunteer in National Science Popularization Day in 2008

**Professional
skills**

Molecular Ecology
DNA isolation, PCR, Agarose gel electrophoresis, Capillary electrophoresis (CE), SSR and Genotyping.

Programming Languages

R, C, FORTRAN, Python, SQL, L^AT_EX, html

Statistics with R:

ANOVA, MANOVA, PCA, CCA, DCA, clustering analysis, Multivariate regression trees(MRT), Linear Models(lm), Spatial Autoregressive Model(SAR), Generalized Linear Models(GLM), Generalized Linear Mixed Models(GLMM), Principal Coordinates of Neighbor Matrices(PCNM), Permutation Test, Quantile regression, Variation partitioning, Torus translations.

R packages contributed:

- **phylotools** Phylogenetic tools for ecologists
URL: <http://cran.r-project.org/web/packages/phylotools/index.html>
- **spaa** Species Association Analysis
URL: <http://cran.r-project.org/web/packages/spaa/index.html>
- **seqRFLP** Simulation and visualization of restriction enzyme cutting pattern from DNA sequences
URL: <http://cran.r-project.org/web/packages/seqRFLP/index.html>
- **dcv** Conventional Cross-validation statistics for climate-growth model
URL: <http://cran.r-project.org/web/packages/dcv/index.html>
- **gkm1** Download species distribution data from GBIF and CVH.

Phylogenetic Inference and Comparative Methods:

PAUP*, PHYLIP, MrBayes, PHYML, RAxML, r8s, BEAST, MEGA, Phylocom, Phylomatic, Mesquite, ape, geiger

GIS and niche based distribution models:

ArcGIS, raster, DIVA-GIS, Maxent

Plant identification:

I participated extensive field works during 2001 to 2012 across north eastern, central, eastern and south China. Plant photos taken in the wild during 2004 to 2011 have been uploaded to [Chinese Field Herbarium](#).

Teaching: Teaching assistant of Plant Biology **Mar. 2005 to Jul. 2006**

Experience **Field experience in plant collection or ecological data gathering**

Mengla, Xishuangbanna, Yunnan **Nov. 2012**
Field plant taxonomist and data collection of functional traits with Prof. Sandy Harrison and Prof. Collin Printice.

Ulvön Island, Örnsköldsvik, Sweden **May. 2012**

Field trip organized by the EMG, Umeå University

Series of field trips to the wild parks in Hong Kong **Sept.-Nov. 2011**
Hong Kong fern survey.

Liangshui and Fenglin, Heilongjiang **Jun. 2010**
DNA barcoding sample collection from two Forestry Dynamic Plots.

Maolan, Guizhou **Nov. 2009**
Plant identification and functional traits measurement in Maolan Natural Reserve, Guizhou

Baotianman, Henan **Sept - Nov. 2009**
Participated in the establishment in Baotianman 25ha Forestry Dynamic Plot.

QingAn County, NingAn County, Maoershan Moutain, Heilongjinang
May - Jun. 2008
Specimen collection

Mengla, Xishuangbanna, Yunnan **Nov. 2007**
Identification of tropical plants for two weeks.

Gutianshan FDP, Zhejiang **Dec. 2007**
Revisitation studies in Gutianshan Forestry Dynamic Plot.

Revisitation studies: 30 Natural reserves in South China **Jul. 2006 - Oct. 2007**

Revisited about 30 natural reserves and 81 sites with Dr. Guoke Chen(IBCAS) to find the species in IUCN red list according to historical records. More than 60,000 photos of plants taken in the wild have been uploaded to Chinese Field Herbarium. Natural reserves that I've ever been to include:

Guangdong: Dinghu Mountain, Luofu Mountain, Nankun Mountain, Nanling Natural Reserve, Shierdushui

Guangxi: Huaping Natural Reserve, Qifen Moutain, Maoershan Natural Reserve, Jiuwanshan Natural Reserve, Shengtang Moutain;

and Luquan, Huize in **Yunnan**, Fanjingshan in **Guizhou**, Jinfoshan in **Chongqing**, Shengnongjia in **Hubei**, Mangshan in **Hunan**, Tianmushan and Qingliangfeng Natural reserve in **Zhejiang**.

Qianshan, Liaoning **during the summer in 2004, 2005 and 2006**
Teaching assistant for plant field work practice.

Academic Presentations **Introduction of Phylogenetic Comparative Methods** **Sept. 2012**
Invited One day Workshop at Beijing Forestry University, Beijing.

Ice Break of R: An introduction to the R Statitistical Language **Oct. 2011**
Kadoorie Farm and Botanic Garden, Hong Kong.

Evolutionary Ecology and R: An Introduction to Phylogenetic Compar-

ative Methods **May, 2011**
Invited lecture for the 4th R conference in China, Renmin University, Beijing.

Introduction of R Statistical Language **Oct. 2010**
Workshop for density dependence by Dr. Liza S. Comita (NCEAS) and Dr. Simon A. Queenborough. IBCAS, Beijing.

Community phylogenetic analysis using Phylocom **Aug. 2010**
Workshop for community phylogenetic analysis by Dr. Nathan Swenson. IBCAS, Beijing.

Niche evolution using R: principles and methods **Nov. 2010**
Ninth National Conference on the Conservation and Sustainable Utilization of Biodiversity. Xiamen University, Fujian.

Methods in phylogenetic diversity analysis **Sep. 2009**
The first national conference on biodiversity informatics. Hilinhot, Inner Mongolia.

Determinants of community phylogenetic diversity and distances **Jul. 2009**
Third symposium of biodiversity conservation and natural reserve management, Ecological Society of China. Dehua, Fujian.

Peer Review for Journals *Journal of Plant Ecology, Plant Ecology and Diversity.*

Manuscripts submitted **Jinlong Zhang**, Nancai Pei, Xiaojuan Liu, Keping Ma. The importance of imperfect sampling and phylogenetic inequality on the accuracy of community phylogenetic structure analysis.

Rong Zhang, Tong Liu, **Jinlong Zhang**, Xiaoling Zeng, Bai-Lian Li Regional distribution and species diversity of plant communities in southern Gurbantunggut Desert, China

Publications 2013

17. Hong Qian, Nathan Swenson, **Jinlong Zhang** (2013) Phylogenetic beta diversity of angiosperms in North America, *Global Ecology and Biogeography* (In Press)

16. Lingfeng MAO, Shengbin CHEN, **Jinlong ZHANG**, Yanhui HOU, Guangsheng ZHOU, Xinshi ZHANG (2013) Vascular plant diversity on the roof of the world: spatial patterns and environmental determinants. *Journal of Systematics and Evolution* (DOI:10.1111/j.1759-6831.2012.00240.x)

15. Jihong Huang, **Jinlong Zhang**, Yong Yang, Keping Ma. (2013). Advances in methods for measuring patterns of endemic plant diversity *Biodiversity Science*, 21 (1): 99110 (In Chinese (Doi: 10.3724/SP.J.1003.2013.12175))

14. Liu, X., N.G. Swenson, J. Zhang, and K. Ma. (2013) The environment and space, not phylogeny, determine trait dispersion in a subtropical forest. *Functional Ecology* 264272 (DOI: 10.1111/1365-2435.12018).

2012

13. **Jinlong Zhang**, Nathan G. Swenson, Shengbin Chen, Xiaojuan Liu, Zongshan Li, Jihong Huang, Xiangcheng Mi and Keping Ma.(2012) Phylogenetic beta diversity in tropical forests: Implications for the roles of geographical and environmental distance, *Journal of Systematics and Evolution* (DOI:10.1111/j.1759-6831.2012.00220.x)

12. Swenson, N.G., D.L. Erickson, X. Mi, N.A. Bourg, J. Montana-Forero, X. Ge, R. Howe, J.K. Lake, X. Liu, K. Ma, N. Pei, J. Thompson, M. Uriarte, A. Wolf, S.J. Wright, W. Ye, **J. Zhang**, J.K. Zimmerman, and W.J. Kress (2012). Phylogenetic and functional alpha and beta diversity in temperate and tropical tree communities. *Ecology*(Online preview)
(<http://dx.doi.org/10.1890/11-0402.1>)

11. Xiaojuan Liu, Nathan Swenson, S. Joseph Wright, Liwen Zhang, Kai Song, Yanjun Du, **Jinlong Zhang**, Xiangcheng Mi, Haibao Ren, and Keping Ma, Covariation in plant functional traits and soil fertility within two species-rich forests *PLoS ONE* 7(4): e34767. (DOI:10.1371/journal.pone.0034767)

10. Gang Feng, **Jinlong Zhang**, Nancai Pei, Mide Rao, Xiangcheng Mi, Haibao Ren, and Keping Ma (2012) Comparison of phylobetadiversity indices. *Chinese Science Bulletin* Vol. 57, pp. 623-630, (DOI: 10.1007/s11434-011-4869-1).

2011

9. Zongshan Li, Chunming Shi, Yongbo Liu and **Jinlong Zhang**. (2011). Winter drought variations based on tree-ring data in Gaoligong Mountain, Northwestern Yunnan, China, A. D. 1795-2004. *Pakistan Journal of Botany* Vol. 43, pp:2469-2478 (URL)

8. Jihong Huang, Bin Chen, Canran Liu, Jiangshan Lai, **Jinlong Zhang** and Keping Ma (2011) Identifying hotspots of Chinese endemic woody seed plant diversity. *Diversity and Distributions* (DOI: 10.1111/j.1472-4642.2011.00845.x)

7. Shengbin Chen, Gaoming Jiang, **Jinlong Zhang**, Yonggeng Li and Hong Qian.(2011). Species turnover of amphibians and reptiles in eastern China: disentangling the relative effects of geographic distance and environmental difference. *Ecological Research* Volume 26, pp 949-956(DOI:10.1007/s11284-011-0850-3)

6. Zongshan Li, ChunMing Shi, Yongbo Liu, **Jinlong Zhang** and Keping Ma.(2011). Summer minimum temperature variations inferred from tree-ring data in Baimang Snow Mountain, Northwestern Yunnan, China, A. D. 1754-2005. *Climatic Research* (DOI:10.3354/cr01012)

5. Li Zongshan, Liu Guohua, Fu Bojie and **Zhang Jinlong**.(2011) The potential influence of monthly climate variables on the net primary production of forests in eastern China. *Environmental Management* Vol. 48, pp. 1173-81 (DOI: 10.1007/s00267-011-9710-8)

4. Nancai Pei, **Jinlong Zhang**, Xiangcheng Mi and Xuejun Ge.(2011). Plant

DNA barcodes promote the development of community phylogenetic ecology, *Biodiversity Science* Vol. 19, pp.284-294 (in Chinese with English abstract) (DOI: [10.3724/SP.J.1003.2011.11250](https://doi.org/10.3724/SP.J.1003.2011.11250)).

2009

3. **Jinlong Zhang** and Baozhong Hu.(2009). Research advance in spring ephemerals. *Journal of Northeast Agricultural University*, Vol. 40, pp. 122-126, ([in Chinese with English abstract](#))

2. Guoke Chen, Marc Kery, **Jinlong Zhang** and Keping Ma.(2009). Factors affecting detection probability in plant distribution studies. *Journal of Ecology*, Vol. 97, pp. 319-322 (DOI: [10.1111/j.1365-2745.2009.01560.x](https://doi.org/10.1111/j.1365-2745.2009.01560.x))

2004

1. **Jinlong Zhang**, Youjia Zhou, Min Hu, Lei Zhu and Da Zhang.(2004). The effects of low-temperature stress on chilling resistance ability of maize seedlings. *Journal of Northeast Agricultural University*, Vol. 35, pp. 191-194, ([in Chinese with English abstract](#))

Referees

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