

Qin Li 李勤

Field Museum of Natural History, Chicago, IL 60605, USA

✉ qli@fieldmuseum.org · ☎ (+1) 312-973-7748 · 🔗 <https://qli.github.io>

Research Interests

I am generally interested in ecology, evolution, and biogeography, to understand patterns of biodiversity, processes of diversification, and mechanisms of species co-existence, across spatiotemporal scales.

Academic Position

Interdisciplinary Postdoctoral Fellow, Field Museum of Natural History 2018 – present
Negaunee Integrative Research Center & Grainger Bioinformatics Center | Supervisor: Dr. Richard H. Ree

Education

Ph.D. in Botany, University of British Columbia 2012 – 2017

Department of Botany & Biodiversity Research Centre | Supervisor: Dr. Amy L. Angert

Thesis title: Ecological niche divergence and evolution in western North American monkeyflowers.

M. Sc. in Ecology, Beijing Normal University 2008 – 2011

College of Life Sciences | Supervisor: Dr. Xiaojun Kou, Dr. Jianguo Wu (Arizona State University)

Thesis title: Estimating population densities of prey species of Amur tigers using camera traps.

B. Sc. in Biology, Beijing Normal University 2004 – 2008

College of Life Sciences & Liyun College

Thesis title: Assessment of land-use and land-cover changes and drivers in Beijing by remote sensing.

Publications

1. Li, Q., Sun, H., Boufford, D.E., Bartholomew, B., Fritsch, P.W., Chen, J., Deng, T., Ree, R.H. 2021. Grade of Membership models reveal geographical and environmental correlates of floristic structure in a temperate biodiversity hotspot. *New Phytologist*, 232: 1424–1435.
2. Li, Q., Kou, X. 2021. *WiBB*: an integrated method quantifying relative importance of predicting variables. *Ecography*, 44: 1–11.
3. Wang, H., Liu, P.-L., Li, J., Yang, H., Li, Q., Chang, Z.-Y. 2021. Why more leaflets? The role of natural selection in shaping the spatial pattern of leaf shape variation in *Oxytropis diversifolia* (Fabaceae) and two close relatives. *Frontiers in Plant Science*, 12: 1685.
4. Li, Q., Grossenbacher D., Angert, A.L. 2018. The effect of range overlap on ecological niche divergence depends on spatial scale in monkeyflowers. *Evolution*, 72(10): 2100–2113
5. Li, Q., Kou, X., Beierkuhnlein, C., Liu, S., Ge, J. 2018. Global patterns of non-analogous climates in the past and future derived from thermal and hydraulic factors. *Global Change Biology*, 24(6): 2463–2475
6. Lee-Yaw, J.A., Kharouba, H.M., Bontrager, M., Mahony, C., Csergő, A.M., Noreen, A.M., Li, Q., Schuster, R. and Angert, A.L. 2016. A synthesis of transplant experiments and ecological niche models suggests that range limits are often niche limits. *Ecology Letters*, 19(6): 710–722
7. Kou, X., Li, Q., Beierkuhnlein, C., Zhao, Y. and Liu, S. 2014. A new tool for exploring climate change induced range shifts of conifer species in China. *PLoS ONE*, 9(9): e98643
8. Li, Q., Wu, J., Kou, X., Feng, L. 2013. Applications of camera trap in wildlife population ecology. *Chinese Journal of Applied Ecology*. 24(4): 947–955 (in Chinese)
9. Kou X., Li, Q., Liu, S. 2011. Quantifying species' range shifts in relation to climate change: A case study of *Abies* spp. in China. *PLoS ONE*. 6(8): e23115

10. Kou X., **Li, Q.**, Liu, S. 2011. High-resolution bioclimatic dataset derived from future climate projections for plant species distribution modeling. *Ecological Informatics*. 6: 196-204

Manuscripts under review/revision (available upon request)

1. **Li, Q.**, Angert, A.L. The diversification and evolution of niche breadth across spatial scales in western North American monkeyflowers.
2. Zhang, L.[#], **Li, Q.**[#], Kou, X., Ouyang, Z. The responses of two endemic ungulates to future climate change at the Qinghai-Tibet Plateau. ([#]equal contribution)
3. **Li, Q.**, Wang, S. Coevolution of song and egg coloration: multimodal mating signals?

Manuscripts in preparation

1. **Li, Q.**, Ree, R. Regional co-occurrence patterns of *Rhododendron* species across spatiotemporal scales.
2. **Li, Q.**, Ree, R. Genomic structure and local adaptation of alpine *Rhododendron*.

Teaching Experiences

- Teaching Assistant, Fundamentals of Ecology, University of British Columbia Spring 2016 – Fall 2017
- Teaching Assistant, Fundamentals of Evolution, University of British Columbia Fall 2015
- Teaching Assistant, Lecture Series of Biology, Beijing Normal University Fall 2009, Spring 2010
- Teaching Assistant, Landscape Ecology, Beijing Normal University Fall 2008

Grants

- Negaunee postdoctoral research fund, \$17000, Field Museum, 2018–2019

Fellowships and Awards

- Postdoctoral fellowship, Grainger Bioinformatics Center, Field Museum, 2020–present
- Negaunee postdoctoral fellowship, Field Museum, 2018–2019
- Travel award for the International Biogeography Society Biennial Conference, 2019
- Travel award for the XIX International Botanical Congress, 2017
- Travel award for the International Biogeography Society Biennial Conference, 2015
- Faculty of Science Graduate Award & International Tuition Award, UBC, 2012–2016
- Excellent Graduate Student Award, Beijing, 2008
- Academic Scholarship, Beijing Normal University, 2005, 2006, 2007
- Outstanding Student Scholarship, National Institute of Biological Sciences Education Fund, 2006
- Excellent Student Award, Beijing Normal University, 2005, 2006

Invited Talks

- International Humboldt Day Event – Biomes and Biochoria (online) Sept. 2021
Geographical and environmental correlates of floristic structure in Hengduan Mountains.
- The Biodiversity Symposium at Chengdu Institute of Biology (online) Sept. 2020
Floristic structure and its correlates in Hengduan Mountains Biodiversity Hotspot.
- Young Scientists' Forum at Nanjing University (online) May. 2020
Floristic structure and its correlates in Hengduan Mountains Biodiversity Hotspot.
- International Forum of Young Scientists at Eastern China Normal University (online) May. 2020
Biodiversity across scales: insights from niche evolution.
- Young Scientists' Forum at Sun Yat-sen University Shenzhen, China, Dec. 2019
Biodiversity across scales: insights from niche divergence and overlap.
- Young Scientists' Forum at Beijing Normal University Beijing, China, Nov. 2019
Invited talk. Patterns of biodiversity and turnover in Hengduan Mountains.

Conference Presentations

- | | |
|---|-----------|
| ▪ The Evolution Meeting (Talk , online), USA | Jun. 2021 |
| ▪ The Grainger Bioinformatics Center Symposium of Field Museum (Talk , online), USA | Nov. 2020 |
| ▪ The International Biogeography Society Humboldt Meeting (Talk), Quito, Ecuador | Aug. 2019 |
| ▪ The 9th Biennial Conference of IBS (Poster), Malaga, Spain | Jan. 2019 |
| ▪ The XIX International Botanical Congress (Talk), Shenzhen, China | Jul. 2017 |
| ▪ The Evolution Meeting (Talk), Portland, USA | Jun. 2017 |
| ▪ The Canadian Society for Ecology & Evolution Meeting (Poster), Victoria, Canada | May 2017 |
| ▪ The 7th Biennial Conference of IBS (Poster), Bayreuth, Germany | Jan. 2015 |
| ▪ The 96th Annual Meeting of ESA (Talk), Austin, USA | Aug. 2011 |
| ▪ The 95th Annual Meeting of ESA (Poster), Pittsburgh, USA | Aug. 2010 |

Special Skills and Training

- | | |
|---|-----------|
| ▪ Workshop in Hierarchical Modelling of Species Communities (online), Helsinki, Finland | Nov. 2020 |
| ▪ Workshop in Fuzzy logic in biogeography, Malaga, Spain | Jan. 2019 |
| ▪ Workshop in Model testing in historical biogeography, Bayreuth, Germany | Jan. 2015 |
| ▪ Workshop in Species Distribution Modeling, Vancouver, Canada | Apr. 2014 |
| ▪ Workshop in Applied Phylogenetics, Bodega Bay, USA | Mar. 2014 |

Professional Activities

- Associate Editor (Editorial Academy): Journal of Biogeography (Oct. 2020 – Sept. 2022)
- Journal peer reviewer: New Phytologist, Journal of Biogeography, Ecology and Evolution, Frontiers in Ecology and Evolution.
- Chinese Genomics Meet-up, Executive Committee and meeting organizer (2021.05 – 09)
- Member, Society for the Study of Evolution, International Biogeography Society, Sino-Ecologists Association Overseas

Languages

- Chinese (native) | English (fluent) | Tibetan (entry-level)

Professional References

Dr. Richard H. Ree

Curator of Flowering Plants | Co-Director, Grainger Bioinformatics Center
The Field Museum of Natural History, Chicago, IL, 60605 USA
Faculty Associate, Committee on Evolutionary Biology, University of Chicago
Email: rree@fieldmuseum.org; Lab link: www.reelab.net

Dr. Amy L. Angert

Associate Professor | Canada Research Chair in Conservation Ecology
Department of Botany & Zoology and Biodiversity Research Centre
University of British Columbia, Vancouver, B.C. V6T 1Z4 Canada
Email: angert@mail.ubc.ca; Lab link: angert.github.io

Dr. Xiaojun Kou

Professor
College of Life Sciences
Beijing Normal University, Beijing, 100875, China
Email: xj_kou@bnu.edu.cn