

Zheng Li

Curriculum Vitae

Professional Employment

- NSF Postdoctoral Research Fellowship in Biology** 2022-present
University of Texas at Austin
Advisor: Dr. Nancy A. Moran & Dr. Edward Marcotte
- Postdoctoral Researcher** 2020-2021
University of Texas at Austin
Advisor: Dr. Nancy A. Moran

Education

- Ph.D. in Ecology and Evolutionary Biology** 2013-2020
University of Arizona, Tucson, Arizona
Advisor: Dr. Michael S. Barker
- B.S. in Botany; B.S. in Zoology** 2010-2013
Miami University, Oxford, Ohio
Advisor: Dr. Michael A. Vincent & Dr. R. James Hickey

Publications (* co-first or co-corresponding author)

30. **Li Z**, Y-Y Li, AZ Xue, V Dang, VR Holmes, JS Johnston, JE Barrick, NA Moran. (2022) The genomic basis of evolutionary novelties in a leafhopper. *Molecular Biology and Evolution*, 39 (9), msac184.
29. Marchant DB, et al. (2022) Dynamic genome evolution in a model fern. *Nature Plants*, 8, 1038–1051.
28. Zhu X-Y, S-Y Wu, Y-J Liu, Y Bai, C Román-palacios, **Z Li***, and Z-Q He*. (2022) *Goniurosaurus wangshu* sp. nov., a new Tiger Gecko species from Guangdong, China (Squamata: Eublepharidae). *Zootaxa*, 5188 (6), 544-558.
27. Wu S-Y, X-Y Zhu, Y-J Liu, GS de Miranda, C Román-palacios, **Z Li***, and Z-Q He*. (2022) A new species of whip spider, *Sarax sinensis* sp. nov., from Fujian, China (Arachnida: Amblypygi: Charinidae). *Zootaxa*, 5162 (4), 397-409.
26. Heckenhauer J, PB Frandsen, JS Sproul, **Z Li**, J Paule, AM Larracuenta, PJ Maughan, MS Barker, JV Schneider, RJ Stewart, SU Pauls. (2022) Genome size evolution in the diverse insect order Trichoptera. *GigaScience*, 11, giac011.
25. Jarvis DE, PJ Maughan, J DeTemple, V Mosquera, **Z Li**, MS Barker, LA Johnson, CJ Whipple. (2022) Chromosome-scale genome assembly of *Gilia yorkii* (Polemoniaceae) facilitates genetic mapping of morphological traits in an inter-species cross. *Genome Biology and Evolution*, 14 (3), evac017.

24. Lu R-S, Y Chen, X-Y Zhang, Y Feng, HP Comes, **Z Li**, Z-S Zheng, Y Yuan, L-Y Wang, Z-J Huang, Y Guo, J Chen, Y-X Qiu. (2022) Genome sequencing and transcriptome analyses provide insights into the origin and domestication of water caltrop. **Plant Biotechnology Journal**, 20, 761–776.
23. Zhu X-Y, S-Y Wu, Y-J Liu, CR Reardon, C Román-palacios, **Z Li***, and Z-Q He*. (2021) A new species of whip spider, *Weygoldtia hainanensis* sp. nov., from Hainan, China (Arachnida: Amblypygi: Charinidae). **Zootaxa**, 5082 (1), 65-76.
22. Wickell D, L-Y Kuo, H-P Yang, AD Ashok, I Irisarri, A Dadrás, S de Vries, J de Vries, Y-M Huang, **Z Li**, MS Barker, NT Hartwick, TP Michael, F-W Li. (2021) Underwater CAM photosynthesis elucidated by *Isoetes* genome. **Nature Communications**, 12 (6348), 1-13.
21. Zhu X-Y, G-Y Chen, C Román-palacios, **Z Li***, and Z-Q He*. (2021) *Goniurosaurus chengzheng* sp. nov., a new species of Leopard Gecko from Guangxi, China (Squamata: Eublepharidae). **Zootaxa**, 4996 (3), 540-554.
20. Liu Y-F*, Wang B*, Shu S-H*, **Li Z***, et al. (2021) The *Coptis chinensis* genome and diversification of protoberberine-type alkaloids. **Nature Communications**, 12 (3276), 1-13.
19. **Li Z**, MTW McKibben, GS Finch, PD Blischak, BL Sutherland, MS Barker. (2021) Patterns and processes of diploidization in land plants. **Annual Review of Plant Biology**, 72, 387-410.
18. Marx HE, SA Jorgensen, E Wisely, **Z Li**, KM Dlugosch, MS Barker. (2021) Progress towards plant community transcriptomics: pilot RNA-Seq data from 24 species of vascular plants at harvard forest. **Applications in Plant Sciences**, 9 (2), e11409.
17. Zhu X-Y, G-Y Chen, C Román-palacios, **Z Li***, and Z-Q He*. (2020) *Goniurosaurus gezhi* sp. nov., a new gecko species from Guangxi, China (Squamata: Eublepharidae). **Zootaxa**, 4852 (2), 211-222.
16. Lv Q-D, Qiu J, **Z Li**, W-T Zhang, Q Wang, J Fang, J-J Pan, Z-D Chen, W-L Cheng, MS Barker, X-H Huang, X Wei, K-J Cheng (2020) The *Chimonanthus salicifolius* genome provides insight into magnoliid evolution and flavonoids biosynthesis. **The Plant Journal**, 103, 1910-1923.
15. Zhu X-Y, C-Z Shen, Y-F Liu, L Chen, **Z Li***, and Z-Q He*. (2020) A new species of *Goniurosaurus* from Hainan Island, China based on molecular and morphological data (Squamata: Sauria: Eublepharidae). **Zootaxa**, 4772 (2), 349-360.
14. Li F-W, T Nishiyama, M Waller, E Frangedakis, J Keller, **Z Li**, et al. (2020) *Anthoceros* genomes illuminate the origin of land plants and the unique biology of hornworts. **Nature Plants**, 6, 259-272.
13. **Li Z**, MS Barker. (2020) Inferring putative ancient whole genome duplications in the 1000 Plants (1KP) initiative: access to gene family phylogenies and age distributions. **GigaScience**, 9 (2), g1aa004.
12. One Thousand Plant Transcriptomes Initiative. (2019) A phylogenomic view of

evolutionary complexity in green plants. *Nature*, 574, 679-685.

11. **Li Z**, GP Tiley, RJ Rundell, MS Barker. (2019) Reply to Nakatani and McLysaght: Analyzing deep duplication events. *PNAS*, 116 (6), 1819-1820.
10. Li F-W, et al. (2018) Fern genomes elucidate land plant evolution and cyanobacterial symbioses. *Nature Plants*, 4 (7), 460-472.
9. **Li Z***, Tiley GP*, S Galuska, CR Reardon, TI Kidder, RJ Rundell, MS Barker. (2018) Multiple large-scale gene and genome duplications during the evolution of hexapods. *PNAS*, 115 (18), 4713-4718.
8. Landis JB, DE Soltis, **Z Li**, HE Marx, MS Barker, DC Tank, and PS Soltis. (2018) Impact of whole-genome duplication events on diversification rates in angiosperms. *American Journal of Botany*, 105 (3), 348-363.
7. Mandáková T, **Z Li**, MS Barker, MA Lysak. (2017) Diverse genome organization following 13 independent mesopolyploid events in Brassicaceae contrasts with convergent patterns of gene retention. *The Plant Journal*, 91 (1), 3-21.
6. Barker MS, **Z Li**, TI Kidder, CR Reardon, Z Lai, LO Oliveria, M Scascitelli and LH Rieseberg. (2016) Most Compositae (Asteraceae) are descendants of a paleohexaploid and all share a paleotetraploid ancestor with the Calyceraceae. *American Journal of Botany*, 103 (7), 1203-1211.
5. **Li Z**, AE Baniaga, EB Sessa, M Scascitelli, SW Graham, LH Rieseberg and MS Barker. (2015) Early genome duplications in conifers and other seed plant. *Science Advances*, 1 (10), e1501084.
4. Barker MS, N Arrigo, AE Baniaga, **Z Li** and DA Levin. (2015) On the relative abundance of autopolyploids and allopolyploids. *New Phytologist*, 210, 391-398.
3. Rybczynski SM, **Z Li**, and RJ Hickey. (2014) Next generation botany: Adding plant biology to the curriculum. *The Science Teacher*, 81 (7), 53-59.
2. Vincent, M.A. and **Z. Li**. *Ptelea* (Rutaceae). In: Flora of North America Editorial Committee, eds. **Flora of North America north of Mexico**. Vol. 13. Magnoliophyta: Sapindales, Geraniales and Apiales. Oxford University Press, New York. (accepted)
1. **Li, Z.** and M.A. Vincent. *Atropa* Linnaeus (Solanaceae). In: Flora of North America Editorial Committee, eds. **Flora of North America north of Mexico**. Vol. 14. Magnoliophyta: Gentianaceae to Hydroleaceae. Oxford University Press, New York. (accepted)

Manuscript in Review

1. Yang LH, AJ Harris, F Wen, **Z Li**, C Feng, H-H Kong, M Kang. Phylogenomic analyses reveal an ancient allopolyploidization facilitated the explosive diversification of core Didymocarpaceae (Gesneriaceae), In revision.

Fellowships, Grants, and Awards

NSF Postdoctoral Research Fellowships in Biology (\$138,000)

2022-2024

Peter Buck Postdoctoral Fellowship, Smithsonian NMNH (Awarded but Declined)	2020
Robert W. Hoshaw Memorial Award, Dept. of EEB, U of A (\$2,000)	2020
The College of Science Galileo Circle Scholarship, U of A (\$4,000)	2017-2020
Darwin/Wallace Biodiversity Scholar, Dept. of EEB, U of A (\$1,000)	2019
GPSC Travel Grant, U of A (\$500)	2019
The Outstanding Student Award, International Botanical Congress (\$500)	2017
IBC Travel Award, Botanical Society of America (\$2,000)	2017
NSF GRFP Honorable Mention	2015
Award for Outstanding Achievement in Botany, Miami U	2013
Homer & Henrietta Abegglen Scholarship, Dept. of Botany, Miami U	2012
Arthur & Anna Evans Scholarship, Dept. of Botany, Miami U	2011

Presentations

Invited Talks

Polyploidy Webinar, Online	2020
Zhejiang University, Dept. of Ecology, Hangzhou, China	2019
Nanjing Normal University, Dept. of Biology, Nanjing, China	2019
China Agricultural University, College of Plant Protection, Beijing, China	2019
Institute of Botany, CAS, Beijing, China	2019
Xishuangbanna Tropical Botanical Garden, CAS, Mengla, China	2019
South China Botanical Garden, CAS, Guangzhou, China	2019
Zhejiang University, Dept. of Ecology, Hangzhou, China	2018
South China Botanical Garden, CAS, Guangzhou, China	2018
International Botanical Congress, Shenzhen, China	2017
Phylogenomics and the 1000 plants(1KP) initiative Colloquium at Botany, Edmonton, Alberta, Canada	2015
Genomics and Transcriptomics of Ferns and Lycophytes Colloquium at Next Generation Pteridology, Washington, D.C.	2015

Contributed Talks

Society for the Study of Evolution annual meeting, Online	2021
Botanical Society of America annual meeting, Online	2021
Botanical Society of America annual meeting, Tucson, Arizona	2019
Botanical Society of America annual meeting, Rochester, Minnesota	2018

Society for the Study of Evolution annual meeting, Austin, Texas 2016

Contributed Posters

Arthropod Genomics Symposium, University of Notre Dame, Indiana 2022

International Conference on Polyploidy,
Hybridization, and Biodiversity, Rovinj, Croatia 2016

Botanical Society of America annual meeting, Boise, Idaho 2014

Deep Genomics Symposium, Tucson, Arizona 2014

Teaching Assistantships at the University of Arizona

Introduction to Biology Lab II (ECOL 182L) 2015-2016, 2019-2020

Evolution (ECOL 335) 2018

Bioinformatics (ECOL 346) 2014

Ecology (ECOL 302) 2013

Undergraduate Mentees

Shiyang Wu (UC Berkeley) 2021-present

Allen Z. Xue (UT Austin) 2021-present

Mallika Singh (UT Austin) 2021-2022

Sally R. Galuska (U of Arizona) 2016-2018

Thomas I. Kidder (U of Arizona) 2015-2018

Chris R. Reardon (U of Arizona) 2015-2018

Service

Judge for UT Austin College of Natural Sciences Undergraduate Research Forum 2022

Early Career Advisory Board for the Botanical Society of America 2019-2021

Field Trip Coordinator for the Botany 2019 conference in Tucson, AZ 2018-2019