

JianJun Jin, Ph.D.

Personal pronouns: He/Him

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NEW YORK BOTANICAL GARDEN

Plant Systematics | Genomics | Computational Biology

EDUCATION

Ph.D. 2018 Biochemistry and Molecular Biology
University of Chinese Academy of Sciences, Beijing, China &
Kunming Institute of Botany, CAS, Kunming, China ([Yi Lab](#))
B.Sc. 2012 Biology
Jilin University, Changchun, China

ACADEMIC APPOINTMENTS

2024–present Career-Track Assistant Curator, New York Botanical Garden
2024–present Adjunct Professor, Graduate School and University Center's Ph.D. Program in Biology, CUNY
2025–present Adjunct Associate Research Scientist, Department of Ecology Evolution and Environmental Biology, Columbia University
2020–2024 Postdoctoral Research Scientist, Columbia University ([Eaton Lab](#))
2019–2020 Postdoctoral Research Fellow, Columbia University ([Eaton Lab](#))
2018–2020 Researcher Scientist, Kunming Institute of Botany, Chinese Academy of Sciences ([Yi Lab](#))
2016–2017 Visiting Graduate Student, University of Michigan ([Smith Lab](#))

HONORS/AWARDS

2026 Young American Scientists, Scientific American
2024 Top Natural Science Award of Yunnan of 2023 (2023 年度云南省自然科学一等奖), Department of Science and Technology, Yunnan Province Government, China.
2021 *TOP 100 High-Impact International Academic Papers in China (2020)*, Institute of Scientific and Technical Information of China
2021 Outstanding Doctoral Dissertation Award (TOP 50), Yunnan Provincial Department of Education
2019 China Scholarship Council Study Abroad Fellowship for Postdocs (declined)
2018 Outstanding Graduates Award, University of Chinese Academy of Sciences
2017 Zhu Li Yue Hua Scholarship (朱李月华优秀博士生), Chinese Academy of Sciences

MANUSCRIPTS IN PREP

* Corresponding

- *Traversome: a likelihood framework for chromosome assembly and variant frequency estimation from mixed genome samples.* **Jian-Jun Jin**, Deren Eaton*.
- *A chromosome-scale genome assembly of *Pedicularis* reveals determinants of genetic variation in a biodiversity hotspot.* **Jian-Jun Jin**, Ting-Shuang Yi, Yu-Xing Xu, Nathaniel Alper, Patrick McKenzie, Jared Meek, Ree Richard, Deren Eaton*.
- *A Novel Framework for Evolutionary Analysis of 3D Morphologies.* **Jian-Jun Jin**, Yue Yang, Deren Eaton*.

LEAD AUTHOR PUBLICATIONS

† Contributed equally, * Corresponding

Google Scholar citations: 5000+, h-index: 15, i10-index: 15

- 2020 *GetOrganelle: a fast and versatile toolkit for accurate de novo assembly of organelle genomes.* **Jian-Jun Jin**†, Wen-Bin Yu†, Jun-Bo Yang, Yu Song, Claude W. dePamphilis, Ting-Shuang Yi*, De-Zhu Li*. **Genome Biology**. 21. <https://doi.org/10.1186/s13059-020-02154-5> # 3000+ citations
- 2020 *Exploration of Plastid Phylogenomic Conflict Yields New Insights into the Deep Relationships of Leguminosae.* Rong Zhang†, Yin-Huan Wang†, **Jian-Jun Jin**†, Greg Stull, Anne Bruneau, Domingos Cardoso, Luciano Paganucci de Queiroz, Michael J. Moore, Jian Wang, Shu-Dong Zhang, Si-Yun Chen, De-Zhu Li*, Ting-Shuang Yi*. **Systematic Biology**. 69: 613–622. <https://doi.org/10.1093/sysbio/syaa013>

- 2020 *The Loss of the Inverted Repeat in the Putranjivoid Clade of Malpighiales*. Dong-Min Jin, Susann Wicke, Lu Gan, Jun-Bo Yang*, **Jian-Jun Jin***, Ting-Shuang Yi*. **Frontiers in Plant Science**. 11. <https://doi.org/10.3389/fpls.2020.00942>
- 2020 *Born Migrants: historical biogeography of cosmopolitan family Cannabaceae*. **Jian-Jun Jin**, Mei-Qing Yang, De-Zhu Li, Peter W. Fritsch, Ting-Shuang Yi*. **Journal of Systematics and Evolution**. 58: 461-473. <https://doi.org/10.1111/jse.12552>
- 2019 *Plastid phylogenomic insights into the evolution of Caryophyllales*. Gang Yao†, **Jian-Jun Jin†**, Hong-Tao Li, Jun-Bo Yang, Venkata Shiva Mandala, Matthew Croley, Rebecca Mostow, Norman A. Douglas, Mark W. Chase, Maarten J. M. Christenhusz, Douglas E. Soltis, Stephen A. Smith, Samuel F. Brockington, Michael J. Moore, Ting-Shuang Yi*, De-Zhu Li*. **Molecular Phylogenetics and Evolution**. 134: 74-86. <https://doi.org/10.1016/j.ympev.2018.12.023>
- 2017 *Diversification of Rosaceae since the Late Cretaceous based on plastid phylogenomics*. Shu-Dong Zhang†, **Jian-Jun Jin†**, Si-Yun Chen, Mark W. Chase, Douglas E. Soltis, Hong-Tao Li, Jun-Bo Yang, De-Zhu Li*, Ting-Shuang Yi*. 2017. **New Phytologist**. 214: 1355-1367. <https://doi.org/10.1111/nph.14461> **ESI field hot papers (Top 1%)

SELECTED OTHER PUBLICATIONS

† Contributed equally, * Corresponding

- 2026 Hybridization and incomplete lineage sorting characterize the evolutionary history of two East Asian clades of *Stewartia* (Theaceae). Han-Yang Lin, Miao Sun, **Jian-Jun Jin**, Cheng-Xin Fu, Douglas E. Soltis, Pamela S. Soltis, Yun-Peng Zhao*. **Molecular Phylogenetics and Evolution**. 108472. <https://doi.org/10.1016/j.ympev.2025.108472>
- 2025 *Phylogenetic Resolution and Conflict in the Species-Rich Flowering Plant Family Leguminosae*. Rong Zhang, Gregory W. Stull, **Jian-Jun Jin**, Yin-Huan Wang, Ying Guo, Zhi-Yun Yang, Hong-Tao Li, Kai-Lun An, Joseph L. M. Charboneau, Ryan Folk, Domingos Cardoso, Luciano de Queiroz, Anne Bruneau, Pamela Soltis, Douglas Soltis, Stephen Smith, De-Zhu Li*, Ting-Shuang Yi*. **Systematic Biology**. 75(2):236-258. <https://doi.org/10.1093/sysbio/syaf057>
- 2023 *More than a spiny morphology: plastome variation in the prickly pear cacti (Opuntieae)*. Matias Köhler, Marcelo Reginato, **Jian-Jun Jin**, Lucas C. Majure. **Annals of Botany**. 132(4): 771-786. <https://doi.org/10.1093/aob/mcad098>
- 2022 *Comparative genomics of orobanchaceous species with different parasitic lifestyles reveals the origin and stepwise evolution of plant parasitism*. Yu-Xing, Xu, Jing-Xiong Zhang, Can-Rong Ma, Yun-Ting Lei, Guo-Jing Shen, **Jian-Jun Jin**, Deren A. Eaton, Jian-Qiang Wu*. **Molecular Plant**. 15: 1384-1399. <https://doi.org/10.1016/j.molp.2022.07.007>
- 2022 *Phylogenomic analysis of the hemp family (Cannabaceae) reveals deep cyto-nuclear discordance and provides new insights into generic relationships*. Xiao-Gang Fu†, Shui-Yin Liu†, Robin van Velzen, Gregory W. Stull, Qin Tian, Yun-Xia Li, Ryan A. Folk, Robert P. Guralnick, Heather R. Kates, **Jian-Jun Jin**, Zhong-Hu Li, Douglas E. Soltis, Pamela S. Soltis, Ting-Shuang Yi*. **Journal of Systematics and Evolution**. 61(5): 806–826. <https://doi.org/10.1111/jse.12920>
- 2021 *Plastid phylogenomic insights into relationships of all flowering plant families*. Hong-Tao Li†, Yang Luo†, Lu Gan†, Peng-Fei Ma†, Lian-Ming Gao†, Jun-Bo Yang†, Jie Cai†, Matthew A. Gitzendanner, Peter W. Fritsch, Ting Zhang, **Jian-Jun Jin**, Chun-Xia Zeng, Hong Wang, Wen-Bin Yu, Rong Zhang, Michelle van der Bank, Richard G. Olmstead, Peter M. Hollingsworth, Mark W. Chase, Douglas E. Soltis, Pamela S. Soltis, Ting-Shuang Yi*, De-Zhu Li*. **BMC Biology**. 19: 1-13. <https://doi.org/10.1186/s12915-021-01166-2>
- 2020 *Plastome structural conservation and evolution in the clusioid clade of Malpighiales*. Dong-Min Jin, **Jian-Jun Jin**, Ting-Shuang Yi*. **Scientific Reports**. 10: 9091. <https://doi.org/10.1038/s41598-020-66024-7>
- 2020 *Plastid phylogenomics improve phylogenetic resolution in the Lauraceae*. Yu Song, Wen-Bin Yu, Yun-Hong Tan, **Jian-Jun Jin**, Bo Wang, Jun-Bo Yang*, Bing Liu*, Richard T. Corlett*. **Journal of Systematics and Evolution**. 58: 423-439. <https://doi.org/10.1111/jse.12536>
- 2019 *Assembly and comparative analyses of the mitochondrial genome of *Castanospermum australe* A.Cunn. & C.Fraser (Papilionoideae, Leguminosae)*. Rong Zhang, **Jian-Jun Jin**, Michael J. Moore, Ting-Shuang Yi*. **Australian Systematic Botany**. 32: 484-494. <https://doi.org/10.1071/SB19014>
- 2018 *Plastome characteristics of Cannabaceae*. Huan-Lei Zhang, **Jian-Jun Jin**, Michael J. Moore, Ting-Shuang Yi*, De-Zhu Li*. **Plant Diversity**. 40: 127-137. <https://doi.org/10.1016/j.pld.2018.04.003>

- 2018 *Plastid genome evolution in the early-diverging legume subfamily Cercidoideae (Fabaceae)*. Yin-Huan Wang, Susann Wicke, Hong Wang, **Jian-Jun Jin**, Si-Yun Chen, Shu-Dong Zhang, De-Zhu Li*, Ting-Shuang Yi*. **Frontiers in Plant Science**. 9: 403. <https://doi.org/10.3389/fpls.2018.00138>
- 2017 *Multiple measures could alleviate LBA (long-branch attraction) in phylogenomic reconstruction of Cupressoideae (Cupressaceae)*. Xiao-Jian Qu, **Jian-Jun Jin**, Shumiaw Chaw, De-Zhu Li*, Ting-Shuang Yi*. **Scientific Reports**. 7: 41005. <https://doi.org/10.1038/srep41005>
- 2017 *Evolutionary Comparisons of the Chloroplast Genome in Lauraceae and Insights into Loss Events in the Magnoliids*. Yu Song, Wen-Bin Yu, Yun-Hong Tan, Bing Liu, Xin Yao, **Jian-Jun Jin**, Michael Padmanaba, Jun-Bo Yang*, Richard T. Corlett*. **Genome Biology and Evolution**. 9: 2354-2364

GRANTS/FUNDING

In addition to serving as a PI, I contributed to grant writing as a non-PI on three funded projects

- 2019–2020 **PI**, *Plastome Structure Evolution of Fabaceae*, **RMB 100,000**, Source: “Cross-Cooperative Team” of the Germplasm Bank of Wild Species
- 2016–2018 **Participating Researcher**, *Reconstruction of the Diversity Pattern of Representative Taxa in the Southwest Mountains in China* (西南山地代表类群的多样性格局重建), **RMB 1,020,000**, Source: National Key Basic Research and Development Program Sub-project (国家重点基础研究发展计划-973 计划子课题)
- 2018–2022 **Participating Researcher**, *Reconstruction of the global diversified spatiotemporal pattern of Rosales* (蔷薇目全球多样化时空格局重建), **RMB 2,852,000**, Source: National Fund Key International Cooperation Research Project (国家基金重点国际合作研究项目)

TEACHING EXPERIENCE

- 2022 Guest Lecturer, *Principles and Applications of Modern DNA Sequencing* (EEEB GU4055), Columbia University. Contributed to the development of class materials and gave guest lectures on genome assembly.
- 2022 Guest Lecturer, *Computational Phylogenetics*, Columbia University. Contributed to the development of class materials and gave guest lectures on likelihood methods for phylogenetic inference and character evolution.
- 2012 Teaching Assistant, Botanical Field Course in Changbai Mountains. For 2nd-year undergraduate students of the School of Life Sciences, Jilin University

WORKSHOPS (Organized & Led)

- 2025 Lecturer, *Principles and Practice for Plant Phylogenomics*. Xishuangbanna Tropical Botanical Garden.
- 2020 Lecturer, *Organelle Genome Assembly and Applications in Phylogenetics*. For participants of the *Chinese Plant Systematic and Evolutionary Conference*, Menglun, China.
- 2020 Lecturer, *Organelle Genome Assembly and Applications in Phylogenetics*. For participants of *Plant Barcoding v2.0 & Phylogenomics Forum*, Kunming, China.
- 2020 Lecturer, *Organelle Genome Assembly*. For participants of the *Botany meeting 2020*, Virtual, U.S.A.
- 2017 Lecturer, *Introduction to Python Programming*. For grad students in the lab, Kunming, China.

PRESENTATIONS

Invited Talks

- 01/02/2025 *Organelle Genome Assembly Updates*. Kunming Institute of Botany, Chinese Academy of Sciences
- 12/19/2024 *Integrating Systematics, Genomics, 3D morphometrics, and More for Plant Biodiversity Research*. Wuhan Botanical Garden, Chinese Academy of Sciences
- 12/18/2024 *Integrating Systematics, Genomics, 3D morphometrics, and More for Plant Biodiversity Research*. Huazhong Agriculture University
- 12/13/2024 *Integrating Systematics, Genomics, 3D morphometrics, and More for Plant Biodiversity Research*. South China National Botanical Garden, Chinese Academy of Sciences
- 07/2023 Kunming Institute of Botany, Chinese Academy of Sciences — Germplasm Bank of Wild Species
- 02/2023 Columbia University — E3B Seminars
- 03/2021 Zhejiang University — School of Life Sciences
- 12/2020 Botanical Society of Yunnan & KIB, Chinese Academy of Sciences — Plant Barcoding v2.0 & Phylogenomics Forum
- 10/2019 Nanjing Agricultural University — College of Plant Protection
- 12/2018 China National GeneBank — Biodiversity Megadata Youth Forum

Conferences

- 07/2025 Oral & Poster, *Botany meeting*, Palm Spring, CA, U.S.A.
- 06/2024 Oral & Poster, *Botany meeting*, Grand Rapids, MI, U.S.A.
- 06/2023 Oral & Poster, *Evolution meeting*, Albuquerque, NM, U.S.A.
- 07/2022 Oral, *Botany meeting*, Anchorage, AK, U.S.A.
- 06/2021 Oral, *Evolution meeting*, virtual, U.S.A.
- 11/2020 Oral, *Chinese Plant Systematic and Evolution Conference*, Menglun, China.
- 08/2018 Oral & Poster, *7th International Legume Conference*, Sendai, Japan.
- 07/2017 Poster, *XIX International Botanical Congress*, Shenzhen, China.
- 11/2014 Oral, *Chinese Plant Systematic and Evolution Conference*, Hangzhou, China.

SERVICE**Journal Reviews (counts)**

- *Bioinformatics* (4)
- *Frontiers in Plant Science / Frontiers in Genetic* (3)
- *Genome Biology* (1)
- *Genome Biology and Evolution* (1)
- *Horticulture Research* (1)
- *Molecular Biology and Evolution* (1)
- *Plant Diversity* (1)
- *The Innovation* (1)

Journal Editing

- Associate Editor, *The Botanical Review*
- Guest Associate Editor for Research Topic: *Towards standards for organelle genome studies and applications*, *Frontiers in Plant Science*

Professional Society Membership

- Society of Systematic Biologists (SSB)
- Botanical Society of America (BSA)