

## CURRICULUM VITAE

### YIN-LONG QIU

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Ann Arbor, MI 48103  
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### EMPLOYMENT and EDUCATION

2008-present Associate Professor (tenured) of Ecology and Evolutionary Biology

2003-2008 Assistant Professor of Ecology and Evolutionary Biology

Department of Ecology and Evolutionary Biology

University of Michigan, Ann Arbor

Research interests: origin and evolution of land plants

2000-2002 Assistant Professor of Biology

Biology Department, University of Massachusetts, Amherst

Research interests: land plant phylogeny, basal angiosperm phylogeny,  
organellar genome evolution in land plants

1998-1999 Assistant University Professor of Systematic Botany

Institute of Systematic Botany, University of Zurich, Switzerland

Research interests: land plant phylogeny, basal angiosperm phylogeny,  
organellar genome evolution in land plants

1996-1997 NIH Postdoctoral Fellow

1994-1995 Postdoctoral Fellow

Department of Biology, Indiana University, Bloomington

Research area: molecular evolution

Advisor: Prof. Jeffrey D. Palmer

1986-1993 Ph.D. in Biology

Department of Biology, University of North Carolina, Chapel Hill

Research area: plant molecular systematics

Advisors: Profs. Clifford R. Parks and Mark W. Chase

1984-1986 graduate study (no degree)

Jiangsu Institute of Botany, Nanjing, China  
 Research area: plant genetics and breeding  
 Advisor: Prof. Shan-An He

1980-1984 B.S. in Agricultural Sciences  
 Department of Horticultural Sciences  
 Nanjing Agricultural University, Nanjing, Jiangsu, China

## **PROFESSIONAL ACTIVITIES**

### **Service on Editorial Boards:**

Journal of Systematics and Evolution (China) (2007 – 2013, Co-Editor-in-Chief)  
 Journal of Molecular Evolution (USA) (2009 – 2012)  
 BMC Plant Biology (2009 – 2012)  
 Journal of Integrative Plant Biology (China) (2004 – 2010)  
 Tropical Plant Biology (USA) (2007 – 2009)  
 International Journal of Plant Sciences (USA) (2000 – 2009)  
 Genomics, Proteomics, and Bioinformatics (China) (2003 – 2007)  
 Journal of Plant Research (Japan) (2000 – 2005)

### **Manuscript and grant proposal reviewing (1994-Present):**

reviewed grant proposals for NSF (US), NSFC (China), NASA (US), Swiss NSF  
 reviewed manuscripts for:

American Fern Journal  
 American Journal of Botany  
 American Naturalist  
 Annals of Botany  
 Basic and Applied Ecology  
 Bioessay  
 BMC Biology  
 BMC Evolutionary Biology  
 BMC Genomics  
 BMC Plant Biology  
 Biochemical Genetics  
 Botanical Journal of the Linnaean Society  
 Current Microbiology  
 DNA Research  
 Environmental and Experimental Botany  
 Evolution  
 Frontier in Plant Science  
 Gene  
 Genomics, Proteomics and Bioinformatics  
 International Journal of Plant Sciences  
 Journal of Integrative Plant Biology  
 Journal of Molecular Evolution  
 Journal of Phycology

Journal of Plant Research  
 Mitochondrion  
 Molecular Biology and Evolution  
 Molecular Genetics and Genomics  
 Molecular Phylogenetics and Evolution  
 Nature  
 New Phytologist  
 Nucleic Acids Research  
 Oecologia  
 OMICS - A Journal of Integrative Biology  
 Perspectives in Plant Ecology, Evolution and Systematics  
 Plant Biology  
 Plant Cell  
 Plant Journal  
 Plant Physiology  
 Plant Systematics and Evolution  
 PLoS One  
 Proceedings of the National Academy of Sciences, USA  
 Proceedings of the Royal Society of London, Series B, Biological Sciences  
 RNA Journal  
 Sida  
 Systematic Botany  
 Taxon  
 Trends in Plant Science

#### **Service on Committees:**

Member and Chair of Publicity Committee, American Society of Plant Taxonomists, 2004-7  
 Member of Karlin Award Committee, Botanical Society of America, 2000  
 Outside reviewer for Kunming Institute of Botany, Chinese Academy of Sciences, 2006  
 Outside reviewer for tenure promotion/hiring, New York Botanical Garden; Fudan University  
 External dissertation examiner, University of British Columbia

#### **Symposia Organized**

- 2009 **Organizer**, “Genome, Phenome, Environment, and Evolution of Land Plants”, the Annual Meeting of the Botanical Society of America and American Society of Plant Taxonomists, July, 2009, Snowbird, Utah, USA.
- 2007 **Co-organizer**, with Zhiduan Chen and Deyuan Hong (Institute of Botany, Chinese Academy of Sciences) and Michael J. Donoghue (Yale University); "Evolutionary Biology in the 21<sup>st</sup> Century – Tracing Patterns of Evolution through the Tree of Life”, June, 2007, Beijing, China. Some papers presented were published in a special issue of Journal of Systematics and Evolution in 2008.
- 2005 **Organizer**, "Origin and Early Evolution of Land Plants: Current Perspectives – Part I: Molecular Phylogenetics and Organellar Genomics; Part II (William E. Friedman, University of Colorado, Boulder as the organizer): Developmental Biology, Paleobotany,

and Ecology ", XVII International Botanical Congress in Vienna, Austria. Some papers presented were published in a special section of the June issue of International Journal of Plant Sciences in 2007.

- 1999 **Co-organizer;** with Elizabeth A. Zimmer (Smithsonian Institutions, Washington DC, USA), "Current Perspective on Basal Angiosperms: Molecular and Developmental Aspects", XVI International Botanical Congress in St. Louis, Missouri, USA. All papers presented were published in a special issue of International Journal of Plant Sciences in 2000.

**Talks:**

- 2015 Environment and origin of land plants. **Invited talk** given at the 2015 Journal of Systematics and Evolution Symposium, Chengdu, Sichuan, China
- 2014 Problems and their remedies in molecular clock analyses: An example from land plants. **Invited talk** given at The Symposium on Systematic and Evolutionary Botany and the 11th Young Botanists' Symposium in China, Hangzhou, China
- 2013 A temporal framework of land plant evolution. **Invited Talk** given in Department of Biology, Hope College, Holland, Michigan
- 2012 Mycorrhizas and colonization of land by plants. **Invited talk** given in Department of Plant Biology, Rutgers University, New Jersey
- 2011 Environment and evolution of land plants. **Invited talk** given at the 2011 Journal of Systematics and Evolution Symposium, Linzhi, Tibet, China
- 2010 How to gain confidence on reconstructed phylogenetic relationships, an example from rosids? **Invited talk** given at New Frontier in Plant Systematics and Evolution, Beijing, China
- 2009 Evolution of life cycle in land plants. **Invited talk** given at Darwin & China 200 Conference, Beijing, China
- Phylogeny and evolution of early land plants. **Invited talk** given at School of Life Sciences, Nanjing University, Nanjing, China
- Evolution of life cycle in land plants. **Invited talk** given at Jiangsu Institute of Botany, Nanjing, China
- An angiosperm phylogeny inferred from nucleotide sequences of four mitochondrial genes. **Invited talk** given at the colloquium "Assembling the Plant Trees of Life: Progress and Challenges" at the Annual Meeting of the Botanical Society of America, Snowbird, Utah.
- Phylogeny and evolution of early land plants. **Invited talk** given at Plant Biology

Program, Washington University, St. Louis, Missouri

Phylogeny and evolution of early land plants. **Invited talk** given at School of Life Sciences, Peking University, Beijing, China.

- 2008 Diversity, phylogeny, and development: a natural history of life cycles in land plants. **Invited talk** given at School of Life Sciences, Fudan University, Shanghai, China.

Diversity, phylogeny, and development: a natural history of life cycles in land plants. **Invited talk** given at Biology Department, Oberlin College, Oberlin, Ohio.

Diversity, phylogeny, and development: a natural history of life cycles in land plants. **Invited talk** given at Department of Biological Sciences, Western Michigan University, Kalamazoo, Michigan.

- 2007 The origin and early evolution of land plants: patterns of life cycle changes inferred from a plant tree of life. **Invited talk** given at the symposium "Evolutionary Biology in the 21<sup>st</sup> Century – Tracing Patterns of Evolution through the Tree of Life", June, 2007, Beijing, China.

The origin and early evolution of land plants: patterns of life cycle changes inferred from a plant tree of life. **Invited talk** given at College of Life Sciences, Zhejiang University, Hangzhou, China.

- 2006 A Land Plant Phylogeny Inferred from Eight Chloroplast, Mitochondrial, and Nuclear Genes. **Invited talk** given at the symposium "Land Plant Evolution: Phylogenetics and Beyond" at the Annual Meeting of the Botanical Society of America, Chico, California

Phylogenetic Relationships Among Early Land Plants Inferred from Phylogenomic Evidence. **Invited talk** given at the Sixth International High-tech Symposium on Conservation and Utilization of Biodiversity, Beijing, China.

Phylogenetic Relationships Among Early Land Plants Inferred from Phylogenomic Evidence. **Invited talk** given at Department of Ecology and Evolutionary Biology, Fudan University, Shanghai, China.

The Tree of Life: Exploring Evolutionary Pathways from Extant Life. **Invited talk** given at Origins: The Universe, Earth, and Life, an Evolution Theme Semester Symposium organized by the College of Literature, Science, and Arts, the University of Michigan, Ann Arbor.

- 2005 Phylogenetic Reconstruction and Age Estimation of Land Plants and Their Subclades Using DNA Sequences. **Invited talk** given at the symposium "Origin and Early Evolution of Land Plants: Current Perspectives – Part I: Molecular Phylogenetics and Organellar Genomics" at XVII International Botanical Congress in Vienna, Austria.

- Utility of Mitochondrial DNA in Plant Phylogenetic Reconstruction. **Invited talk** given at the symposium “Mitochondrial DNA Sequences in Plant Phylogenetics and Evolution” at XVII International Botanical Congress in Vienna, Austria (presented by my coauthor Malini Jane Sridharan).
- Using DNA to Trace the Plant Family Tree. **Invited talk** given at Michigan Botanical Club.
- 2004 Land Plant Phylogeny: Insights from Genes and Genomes. **Invited talk** given at Department of Evolution, Ecology and Organismal Biology, Ohio State University, Columbus.
- Land Plant Phylogeny: Insights from Genes and Genomes. **Invited talk** given at The Field Museum, Chicago.
- 2003 Land Plant Phylogeny: Insights from Genes and Genomes. **Invited Plenary Talk** given at Xiangshan Science Conference, Beijing, China.
- Land Plant Phylogeny: Insights from Genes and Genomes. **Invited talk** given at Institute of Botany, Chinese Academy of Sciences, Beijing, China.
- Land Plant Phylogeny: Insights from Genes and Genomes. **Invited talk** given at Molecular Systematics of Bryophytes: Progress, Problems, and Perspectives, An International Symposium held at Missouri Botanical Garden, St. Louis.
- Land Plant Phylogeny: Insights from Genes and Genomes. **Invited talk** given at Department of Ecology and Evolutionary Biology, University of Arizona, Tucson.
- 2002 Evolution of Land Plants: Genes, Genome, and Phylogeny. **Invited talk** given at VI International Congress of Systematics and Evolutionary Biology, Patras, Greece.
- Evolution of Land Plants: Genes, Genome, and Phylogeny. **Invited talk** given at The Symposium of Molecular Systematics and Evolution, Beijing, China.
- Evolution of Land Plants: Genes, Genome, and Phylogeny. **Invited talk** given at Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs.
- Mitochondrial genome evolution and land plant phylogeny. **Invited talk** given at Department of Biology and Biotechnology, Worcester Polytechnic Institute, Worcester, Massachusetts.
- A multigene approach to reconstructing land plant phylogeny. **Invited talk** given at New England Botanical Club, Boston, Massachusetts.
- 2001 Land plant phylogeny: insights from genes and genomes. **Invited talk** given at Department of Biology, Providence College, Rhode Island.

- 2000 Mitochondrial genome evolution and land plant phylogeny. **Invited talk** given at Department of Ecology and Evolution, University of Chicago.
- Mitochondrial genome evolution and land plant phylogeny. **Invited talk** given at Department of Biology, New York University.
- Land plant phylogeny: insights from genes and genomes. **Invited talk** given at Harvard University Herbaria.
- Land plant phylogeny: insights from genes and genomes. **Invited talk** given at Geneva Botanical Garden, Switzerland.
- Invited** to participate the GPPRCG (Green Plant Phylogeny Research Coordination Group) workshop in College Park, Maryland.
- 1999 Phylogeny of basal angiosperms: evidence from the mitochondrial, chloroplast, and nuclear genomes, phytochemistry, and morphology. **Invited talk** given at the symposium "Current Perspective on Basal Angiosperms: Molecular and Developmental Aspects" at XVI International Botanical Congress in St. Louis, Missouri, USA.
- Invited** to participate the GPPRCG (Green Plant Phylogeny Research Coordination Group) workshop in St. Louis, Missouri.
- 1998 Phylogenetic relationships of basal monocots: genomic structural evidence from the mitochondrial DNA. **Invited talk** given at the Monocots II Symposium, Sydney, Australia.
- Phylogeny of basal angiosperms: a multi-disciplinary approach. **Invited talk** given at Botaniker Tagung, Bremen, Germany.
- 1997 Mitochondrial genome evolution and land plant phylogeny. **Invited talk** given to the Genetics Section of Botanical Society of America, 48th AIBS Annual Meeting, Montreal, Canada.
- Mitochondrial genome evolution and land plant phylogeny. **Invited talk** given to the Department of EPO Biology, University of Colorado, Boulder, USA.
- Invited** to participate the GPPRCG (Green Plant Phylogeny Research Coordination Group) workshop in Montreal, Canada.
- 1996 Intron evolution and land plant phylogeny. **Invited talk** given to the Department of Botany, Miami University, Ohio, USA.
- 1993 Molecular divergence in the eastern Asia-eastern North America disjunct section

Rytidospermum of Magnolia (Magnoliaceae). **Invited talk** given to the Department of Botany, Duke University, Durham, North Carolina, USA.

- 1992 Molecular divergence between the Asian-American Vicariads in Magnolia section Rytidospermum (Magnoliaceae). 1992. **Invited talk** given at the symposium "Genetic Divergence between Related Species in the American and Asian Vegetations", 43rd AIBS Annual Meeting, Honolulu, Hawaii, USA.
- 1991 A phylogenetic study of the Magnoliidae: rbcl. 1991. **Invited talk** given to the Department of Botany, Duke University, Durham, North Carolina, USA.

**Field Expeditions (most being specimen-collecting trips):**

- 2011 Tibet Autonomous Region, China  
 2009 Yunnan Province, China; Missouri, U.S.  
 2003-present Michigan, U.S.  
 2006 Tennessee, U.S.  
 2003 New Zealand  
 2000-2002 Massachusetts, North Carolina, U.S.  
 1998-1999 Switzerland  
 1998 New South Wales, Australia  
 1996 Washington State, U.S.  
 1994-1997 Indiana, Wisconsin, New York State, U.S.  
 1988 Hunan and Guizhou Provinces, China  
 1986-1993 Southeastern U.S.  
 1985 Huang Shan Mountains, Anhui Province, China

**MENTORING**

Graduate Students:

- Alexander B. Taylor (2011 – present)  
 Bin Wang (graduated in 2008, Associate Professor, Nanjing University, China)

Postdoctoral Fellows:

- Dr. Yang Liu (3, 2008 – 8, 2009; Postdoctoral Fellow, Department of Biology, University of Connecticut)  
 Dr. Hilary A. McManus (2, 2007 – 2, 2008, Assistant Professor, Department of Biological Sciences, Le Moyne College, Syracuse, NY 13214-1301)  
 Dr. Richard W. Jobson (3, 2005 – 9, 2007, Plant Systematist, National Herbarium of New South Wales, Royal Botanic Gardens, Domain Trust Mrs Macquaries Road, Sydney, New South Wales 2000, Australia)  
 Dr. Ruiqi Li (6, 2005 – 5, 2006, Assistant Professor, Institute of Botany, Chinese Academy of Sciences)  
 Dr. Olena Dombrovska (11, 1999 – 10, 2004)  
 Dr. David W. Taylor (9, 2003 – 7, 2004, Assistant Professor, University of Portland, OR)  
 Dr. Barbara Whitlock (9, 2000 – 12, 2002, Associate Professor, University of Miami, FL)  
 Dr. Jungho Lee (6, 1998 – 11, 2001; Research Assistant Professor, Seoul National University,

South Korea)

Research Associates and Technicians:

Libo Li (8, 2001 – 9, 2007)  
 Tory A. Hendry (9, 2004 – 6, 2006)  
 Fabiana Bernasconi-Quadroni (9, 1998 - 1, 2000)

Visiting scientists:

Prof. Margaret Hoey – Fitchburg State College, Fitchburg, MA (2000)  
 Prof. Zhiduan Chen – Institute of Botany, Chinese Academy of Sciences, Beijing, China (1999)  
 Prof. Weibang Sun – Kunming Institute of Botany, Chinese Academy of Sciences, China (1999)

Visiting graduate students:

Jia-Yu Xue – Nanjing University, Nanjing, China (2007 – 2009)  
 Yang Liu – Institute of Botany, Chinese Academy of Sciences, Beijing, China (2006)

Undergraduate Honor's Thesis

Alex Smith (9, 2006 – 4, 2007)

Undergraduate Students:

More than 20 at University of Massachusetts and University of Michigan

**MEMBERSHIP**

1987-present Botanical Society of America  
 1990-present American Society of Plant Taxonomists  
 1992-present American Association for the Advancement of Science

**GRANTS and AWARDS**

2013, September – 2015, August, Associate Professor Support Fund, College of Literature, Science, and the Arts, University of Michigan (Land Plant Diversity through Time: a Multigenome Analysis, \$100,000)

2005, September – 2010, August, **NSF Research Grant**, National Science Foundation, USA (DEB 0531689. Project: ATOL: Assembling the Liverwort Tree of Life: a Window into the Evolution and Diversification of Early Land Plants. \$2,839,578, PI, Jon Shaw; \$446,583 to co-PI, Y.-L. Qiu)

2004, September – 2009, August, **NSF Research Grant**, National Science Foundation, USA (DEB 0431239. Project: ATOL: The Angiosperm Tree of Life: Resolving the Trunk of the Tree and 12 of its Thorniest Nodes. \$3,000,000, PI, Doug Soltis; \$244,948 to co-PI, Y.-L. Qiu)

2003, Rackham Faculty Research Grant, University of Michigan (Project: A Molecular Phylogenetic Study of Land Plants with Emphasis on New Zealand Endemics. \$15,000).

2003 – 2005, Oversea Outstanding Young Scholar Award, National Natural Science Foundation, China (30228004. Project: A Molecular Phylogenetic Study of Endemic and Important Genera of Cryptogames in China and Eastern Asia. 400,000 Yuan (~\$50,000), co-PI, Zhiduan Chen, Institute of Botany, Chinese Academy of Sciences, Beijing)

2001, April – 2007, March, **NSF Early Career Award**, National Science Foundation, USA (DEB 0093012 in UMass and DEB 0332298 in UMich. Project: Mitochondrial Genome Evolution and Land Plant Phylogeny. \$600,000, direct cost only).

2000, December – 2001, November, Faculty Research Grant, University of Massachusetts, Amherst, Faculty Research Council (Project: Intron Distribution in the Charophyte Mitochondrial Genome. \$15,000).

1999, Hermann-Klaus-Stiftung, Union Bank of Switzerland, Bahnhofstr. 45, 8001 Zurich, Switzerland (Project: Molecular Phylogeny of and Distribution of Bioactive Compounds in Magnoliaceae. SFr.10,000)

1998, October -2001, September, **Swiss National Science Foundation Research Grant**, Bern, Switzerland (3100-053602. Project: Mitochondrial Genome Evolution and Land Plant Phylogeny. SFr.364,500 (~\$280,000), direct cost only. Terminated at the end of May, 2001 due to my departure from University of Zurich)

1996-1997, **NIH Postdoctoral Fellowship**, National Institutes of Health, Bethesda, Maryland, USA (GM17923-01. Project: Intron Evolution in Land Plant Organellar Genomes. \$58,000)

1992, University Dissertation Fellowship, The Graduate School, University of North Carolina, Chapel Hill, North Carolina, USA

1992, W. C. Coker Fellowship, Department of Biology, University of North Carolina, Chapel Hill, North Carolina, USA

1991, American Society of Plant Taxonomists Research Grant, American Society of Plant Taxonomists

1990, Alma Holland Beers Scholarship, Department of Biology, University of North Carolina, Chapel Hill, North Carolina, USA

## **PUBLICATIONS**

### **I. Peer-reviewed Journal Articles (\* indicates representative publication)**

\***65.** Liu, Y., B. Wang, P. Cui, L. Li, J.-Y. Xue, J. Yu, & **Y.-L. Qiu**. 2012. The mitochondrial genome of the lycophyte *Huperzia squarrosa*: the most archaic form in vascular plants. PLoS One 7(4): e35168.

- \*64. Qiu, Y.-L.,** A. B. Taylor, H. A. McManus. 2012. Evolution of the life cycle in land plants. Journal of Systematics and Evolution 50: 171-194.
- \*63.** Liu, Y., J.-Y. Xue, B. Wang, L. Li, & **Y.-L. Qiu**. 2011. The mitochondrial genomes of the early land plants *Treubia lacunosa* and *Anomodon rugelii*: dynamic and conservative evolution. PLoS One 6(10): e25836.
- 62.** Soltis, D. E., S. A. Smith, N. Cellinese, K. J. Wurdack, D. C. Tank, S. F. Brockington, N. F. Refulio-Rodriguez, J. B. Walker, M. J. Moore, B. S. Carlswald, C. D. Bell, M. Latvis, S. Crawley, C. Black, D. Diouf, Z. Xi, M. A. Gitzendanner, K. J. Sytsma, **Y.-L. Qiu**, K. W. Hilu, C. C. Davis, M. J. Sanderson, R. G. Olmstead, W. S. Judd, M. J. Donoghue, & P. S. Soltis. 2011. Angiosperm phylogeny: 17 genes, 640 taxa. American Journal of Botany 98: 704-730.
- 61.** Jobson, R. W. & **Y.-L. Qiu**. 2011. Amino acid compositional shifts during streptophyte transitions to terrestrial habitats. Journal of Molecular Evolution 72: 204-214.
- \*60. Qiu, Y.-L.,** L. Li, B. Wang, J.-Y. Xue, T. A. Hendry, R.-Q. Li, J. W. Brown, Y. Liu, G. T. Hudson, & Z. Chen. 2010. Angiosperm phylogeny inferred from sequences of four mitochondrial genes. Journal of Systematics and Evolution 48: 391-425.
- \*59.** Wang, B., L. H. Yeun, J.-Y. Xue, Y. Liu, J. M. Ané, & **Y.-L. Qiu**. 2010. Presence of three mycorrhizal genes in the common ancestor of land plants suggests a key role of mycorrhizas in the colonization of land by plants. New Phytologist 186: 514-525.
- 58.** Xue, J.-Y.<sup>1</sup>, Y. Liu<sup>1</sup>, L. Li, B. Wang, & **Y.-L. Qiu**. 2010. The complete mitochondrial genome sequence of the hornwort *Phaeoceros laevis*: retention of many ancient pseudogenes and conservative evolution of mitochondrial genomes in hornworts. Current Genetics 56: 53-61 (<sup>1</sup> co-first authors).
- 57.** Wang, B.<sup>1</sup>, J.-Y. Xue<sup>1</sup>, L. Li, Y. Liu, & **Y.-L. Qiu**. 2009. The complete mitochondrial genome sequence of the liverwort *Pleurozia purpurea* reveals extremely conservative mitochondrial genome evolution in liverworts. Current Genetics 55: 601-609 (<sup>1</sup> co-first authors).
- \*56.** Li, L.<sup>1</sup>, B. Wang<sup>1</sup>, Y. Liu, & **Y.-L. Qiu**. 2009. The complete mitochondrial genome sequence of the hornwort *Megaceros aenigmaticus* shows a mixed mode of conservative yet dynamic evolution in early land plant mitochondrial genomes. Journal of Molecular Evolution 68: 665-678 (<sup>1</sup> co-first authors).
- 55.** Guo, S.-X., J.-G. Sha, L.-Z. Bian, & **Y.-L. Qiu**. 2009. Male spike strobiles of *Gnetum* affinity from early Cretaceous in western Liaoning, Northeast China. Journal of Systematics and Evolution 47: 93-102.
- 54.** McManus, H. A. & **Y.-L. Qiu**. 2008. Life cycles in major lineages of photosynthetic eukaryotes, with a special reference to the origin of land plants. Fieldiana 47: 17-33.

- \*53. Jobson, R. W. & **Y.-L. Qiu**. 2008. Did RNA editing in plant organellar genomes originate under natural selection or through genetic drift? Biology Direct 3: 43.
52. Liu, Y., Y. Jia, W. Wang, Z.-D. Chen, E. C. Davis, & **Y.-L. Qiu**. 2008. Phylogenetic relationships of two endemic genera from eastern Asia: *Trichocoleopsis* and *Neotrichocolea* (Hepaticae). Annals of the Missouri Botanical Garden 95: 459-470.
51. Nie, Z.-L., J. Wen, H. Sun, **Y.-L. Qiu**, H. Azuma, W.-B. Sun, & E. A. Zimmer. 2008. Phylogenetic and biogeographic complexity of Magnoliaceae in the Northern Hemisphere inferred from three nuclear data sets. Molecular Phylogenetics and Evolution 48: 1027-1040.
- \*50. **Qiu, Y.-L.** 2008. Phylogeny and evolution of charophytic algae and land plants. Journal of Systematics and Evolution 46: 287-306.
49. Jian, S., P. S. Soltis, M. A. Gitzendanner, M. J. Moore, R. Li, T. A. Hendry, **Y.-L. Qiu**, A. Dhingra, C. D. Bell, & D. E. Soltis. 2008. Resolving an ancient, rapid radiation in Saxifragales. Systematic Biology 57: 38-57.
48. **Qiu, Y.-L.** & G. F. Estabrook. 2008. Inference of phylogenetic relationships among key angiosperm lineages using a compatibility method on a molecular data set. Journal of Systematics and Evolution 46: 130-141.
47. Liu, H. M., X. C. Zhang, Z. D. Chen, S. Y. Dong, & **Y.-L. Qiu**. 2007. Polyphyly of the fern family Tectariaceae sensu Ching: Insights from cpDNA sequence data. Science in China, Series C: Life Sciences 50: 789-798.
46. Zhu, X.-Y., M. W. Chase, **Y.-L. Qiu**, H.-Z. Kong, J.-H. Li, D. L. Dilcher, & Z.-D. Chen. 2007. Mitochondrial *matR* sequences help to resolve deep phylogenetic relationships in rosids. BMC Evolutionary Biology 7: 217.
46. Liu, H.-M., X.-C. Zhang, W. Wang, **Y.-L. Qiu**, & Z.-D. Chen. 2007. Molecular phylogeny of the fern family Dryopteridaceae inferred from chloroplast *rbcL* and *atpB* genes. International Journal of Plant Sciences 168: 1311-1323.
44. Hendry, T. A., B. Wang, Y. Yang, E. C. Davis, J. E. Braggins, R. M. Schuster, & **Y.-L. Qiu**. 2007. Evaluating phylogenetic positions of four liverworts from New Zealand, *Neogrollea notabilis*, *Jackiella curvata*, *Goebelobryum unguiculatum* and *Herzogianthus vaginatus*, using three chloroplast genes. The Bryologist 110: 738-751.
- \*43. **Qiu, Y.-L.**, L. Li, B. Wang, Z. Chen, O. Dombrovska, J. Lee, L. Kent, R. Li, R. W. Jobson, T. A. Hendry, D. W. Taylor, C. M. Testa, & M. Ambros. 2007. A non-flowering land plant phylogeny inferred from nucleotide sequences of seven chloroplast, mitochondrial and nuclear genes. International Journal of Plant Sciences 168: 691-708.

- 42.** Liu, H. M., X. C. Zhang, Z. D. Chen, & **Y.-L. Qiu**. 2007. Inclusion of the eastern Asia endemic genus *Sorolepidium* in *Polystichum* (Dryopteridaceae): evidence from the chloroplast *rbcL* gene and morphological characteristics. Chinese Science Bulletin 52: 631-638.
- \*41. Qiu, Y.-L.**, L. Li, T. A. Hendry, R. Li, D. W. Taylor, M. J. Issa, A. J. Ronen, M. L. Vekaria, & A. M. White. 2006. Reconstructing the basal angiosperm phylogeny: evaluating information content of the mitochondrial genes. Taxon 55: 837-856.
- \*40. Qiu, Y.-L.**, L. Li, B. Wang, Z. Chen, V. Knoop, M. Groth-Malonek, O. Dombrowska, J. Lee, L. Kent, J. Rest, G. F. Estabrook, T. A. Hendry, D. W. Taylor, C. M. Testa, M. Ambros, B. Crandall-Stotler, R. J. Duff, M. Stech, W. Frey, D. Quandt, & C. C. Davis. 2006. The deepest divergences in land plants inferred from phylogenomic evidence. Proceedings of the National Academy of Sciences, USA 103: 15511-15516.
- 39.** Leebens-Mack, J., T. Vision, E. Brenner, J. E. Bower, S. Cannon, M. J. Clement, C. W. Cunningham, C. W. dePamphilis, R. deSalle, J. J. Doyle, J. A. Eisen, X. Gu, J. Harshman, R. K. Jansen, E. A. Kellogg, E. V. Koonin, B. D. Mishler, H. Philippe, J. C. Pires, **Y.-L. Qiu**, S. Y. Rhee, K. Sjolander, D. E. Soltis, P. S. Soltis, D. W. Stevenson, K. Wall, T. Warnow, & C. Zmasek. 2006. Taking the first steps towards a standard for reporting on phylogenies: minimal information about a phylogenetic analysis (MIAPA). OMICS, A Journal of Integrative Biology 10: 231-237.
- \*38.** Wang, B. & **Y.-L. Qiu**. 2006. Phylogenetic distribution and evolution of mycorrhizas in land plants. Mycorrhiza 16: 299-363.
- 37.** Parkinson, C. L., J. P. Mower, **Y.-L. Qiu**, A. J. Shirk, K. Song, N. D. Young, C. W. dePamphilis, & J. D. Palmer. 2005. Multiple major increases and decreases in mitochondrial substitution rates in the plant family Geraniaceae. BMC Evolutionary Biology 5: 73.
- 36.** Liu, Y., Y. Jia, W. Wang, Z.-D. Chen, & **Y.-L. Qiu**. 2005. A taxonomic reassessment of *Microdendron* inferred from molecular and morphological evidence. The Bryologist 108: 591-599.
- \*35. Qiu, Y.-L.**, O. Dombrowska, J. Lee, L. Li, B. A. Whitlock, F. Bernasconi-Quadroni, J. S. Rest, C. C. Davis, T. Borsch, K. W. Hilu, S. S. Renner, D. E. Soltis, P. S. Soltis, M. J. Zanis, J. J. Cannone, R. R. Gutell, M. Powell, V. Savolainen, L. W. Chatrou, & M. W. Chase. 2005. Phylogenetic analysis of basal angiosperms based on nine plastid, mitochondrial, and nuclear genes. International Journal of Plant Sciences 166: 815-842.
- 34.** Cho, Y., J. P. Mower, **Y.-L. Qiu**, & J. D. Palmer. 2004. Mitochondrial substitution rates are extraordinarily elevated and variable in a genus of flowering plants. Proceedings of the National Academy of Sciences, USA 101: 17741-17746.
- 33.** Nickrent, D. L., A. Blarer, **Y.-L. Qiu**, R. Vidal-Russell, & F. E. Anderson. 2004. Phylogenetic inference in Rafflesiales: the influence of rate heterogeneity and horizontal gene transfer. BMC Evolutionary Biology 4: 40.

- 32.** Soltis, D. E., V. A. Albert, V. Savolainen, K. Hilu, **Y.-L. Qiu**, M. W. Chase, J. S. Farris, J. D. Palmer, & P. S. Soltis. 2004. Angiosperm relationships, genome-scale data, and “ending incongruence”: a cautionary tale in phylogenetics. Trends in Plant Science 9: 477-483.
- 31.** Kocyan, A., **Y.-L. Qiu**, P. K. Endress, & E. Conti. 2004. A phylogenetic analysis of Apostasioideae (Orchidaceae) based on ITS, *trnL-F* and *matK* sequences. Plant Systematics and Evolution 247: 203-213.
- \*30.** **Qiu, Y.-L.** & J. D. Palmer. 2004. Many independent origins of *trans*-splicing of a plant mitochondrial group II intron. Journal of Molecular Evolution 59: 80-89.
- \*29.** Dombrowska O. & **Y.-L. Qiu**. 2004. Distribution of introns in the mitochondrial gene *nad1* in land plants: phylogenetic and molecular evolutionary implications. Molecular Phylogenetics and Evolution 32: 246-263.
- 28.** Zanis, M. J., P. S. Soltis, **Y.-L. Qiu**, E. A. Zimmer, & D. E. Soltis. 2003. Phylogenetic analyses and perianth evolution in basal angiosperms. Annals of the Missouri Botanical Garden 90: 129-150.
- 27.** **Qiu, Y.-L.** & J. Yu. 2003. *Azolla*: a model organism for plant genomic studies. Genomics, Proteomics, and Bioinformatics 1: 15-25.
- 26.** Nickrent, D. L., A. Blarer, **Y.-L. Qiu**, D. E. Soltis, P. S. Soltis, & M. Zanis. 2002. Molecular data place Hydnoraceae with Aristolochiaceae. American Journal of Botany 89: 1809-1817.
- 25.** Adams, K. L., **Y.-L. Qiu**, M. Stoutemyer, & J. D. Palmer. 2002. Punctuated evolution of mitochondrial gene content: High and variable rates of mitochondrial gene loss and transfer during angiosperm evolution. Proceedings of the National Academy of Sciences, USA 99: 9905-9912.
- 24.** Gugerli, F., C. Sperisen, U. Büchler, I. Brunner, S. Brodbeck, J. D. Palmer, & **Y.-L. Qiu**. 2001. The evolutionary split of Pinaceae from other conifers: evidence from an intron loss and a multigene phylogeny. Molecular Phylogenetics and Evolution 21: 167-175.
- \*23.** **Qiu, Y.-L.**, J. Lee, B. A. Whitlock, F. Bernasconi-Quadroni, & O. Dombrowska. 2001. Was the ANITA rooting of the angiosperm phylogeny affected by long branch attraction? Molecular Biology and Evolution 18: 1745-1753.
- 22.** Adams, K. L., M. Rosenblueth, **Y.-L. Qiu**, & J. D. Palmer. 2001. Multiple losses and transfers to the nucleus of two mitochondrial respiratory genes during angiosperm evolution. Genetics 158: 1289-1300.
- \*21.** **Qiu, Y.-L.**, J. Lee, F. Bernasconi-Quadroni, D. E. Soltis, P. S. Soltis, M. Zanis, E. A. Zimmer, Z. Chen, V. Savolainen, & M. W. Chase. 2000. Phylogeny of basal angiosperms: analyses of five genes from three genomes. International Journal of Plant Sciences 161: S3-S27.

- 20. Qiu, Y.-L.** & J. Lee. 2000. Transition to a land flora: a molecular phylogenetic perspective. Journal of Phycology 36: 799-802.
- 19.** Adams, K. L., D. O. Daley, **Y.-L. Qiu**, J. Whelan, & J. D. Palmer. 2000. Repeated, recent and diverse transfers of a mitochondrial gene to the nucleus in flowering plants. Nature 408: 354-357.
- 18.** von Balthazar, M., P. K. Endress, & **Y.-L. Qiu**. 2000. Molecular phylogenetics of Buxaceae based on nuclear ITS and plastid *ndhF* sequences. International Journal of Plant Sciences 161: 785-792.
- 17.** Palmer, J. D., K. L. Adams, Y. Cho, C. L. Parkinson, **Y.-L. Qiu**, & K. Song. 2000. Dynamic evolution of plant mitochondrial genomes: mobile genes and introns, and highly variable mutation rates. Proceedings of the National Academy of Sciences, USA 97: 6960-6966.
- 16.** Savolainen, V., M. W. Chase, S. B. Hoot, C. M. Morton, D. E. Soltis, C. Bayer, M. F. Fay, A. Y. de Bruijn, S. Sullivan, & **Y.-L. Qiu**. 2000. Phylogenetics of flowering plants based on combined analysis of plastid *atpB* and *rbcL* gene sequences. Systematic Biology 49: 306-362.
- 15.** Hoertensteiner, S., S. Rodoni, M. Schellenberg, F. Vicentini, O. I. Nandi, **Y.-L. Qiu**, & P. Matile. 2000. Evolution of chlorophyll degradation: the significance of RCC reductase. Plant Biology 2: 63-67.
- 14.** Besendahl, A., **Y.-L. Qiu**, J. Lee, J. D. Palmer, & D. Bhattacharya. 2000. The cyanobacterial origin and vertical evolution of the plastid tRNA<sup>Leu</sup> group I intron. Current Genetics 37: 12-23.
- \*13. Qiu, Y.-L.**, J. Lee, F. Bernasconi-Quadroni, D. E. Soltis, P. S. Soltis, M. Zanis, E. A. Zimmer, Z. Chen, V. Savolainen, & M. W. Chase. 1999. The earliest angiosperms: evidence from mitochondrial, plastid and nuclear genomes. Nature 402: 404-407.
- 12. Qiu, Y.-L.** & J. D. Palmer. 1999. Phylogeny of basal land plants: insights from genes and genomes. Trends in Plant Science 4: 26-30.
- 11.** Cho, Y., **Y.-L. Qiu**, P. Kuhlman, & J. D. Palmer. 1998. Explosive invasion of plant mitochondria by a group I intron. Proceedings of the National Academy of Sciences, USA 95: 14244-14249.
- \*10. Qiu, Y.-L.**, Y. Cho, J. C. Cox, & J. D. Palmer. 1998. The gain of three mitochondrial introns identifies liverworts as the earliest land plants. Nature 394: 671-674.  
(This paper received world-wide news coverage in ABC, BBC, die Zeit, London Times, The Daily Telegraph, and an Associated Press report that appeared in Washington Post, CNN, Fox News, Boston Globe, and Seattle Times, as well as several other newspapers.)

- \*9. **Qiu, Y.-L.**, M. W. Chase, S. Hoot, E. Conti, P. R. Crane, K. J. Sytsma, & C. R. Parks. 1998. Phylogenetics of the Hamamelidae and their allies: parsimony analyses of nucleotide sequences of the plastid gene *rbcL*. International Journal of Plant Sciences 159: 891-905.
8. **Qiu, Y.-L.**, M. W. Chase, & C. R. Parks. 1995. A chloroplast DNA phylogenetic study of the eastern Asia-eastern North America disjunct section *Rytidospermum* of *Magnolia* (Magnoliaceae). American Journal of Botany 82: 1582-1588.
- \*7. **Qiu, Y.-L.**, C. R. Parks, & M. W. Chase. 1995. Molecular divergence in the eastern Asia-eastern North America disjunct section *Rytidospermum* of *Magnolia* (Magnoliaceae). American Journal of Botany 82: 1589-1598.
6. **Qiu, Y.-L.** & C. R. Parks. 1994. Disparity of allozyme variation levels in three *Magnolia* species from the southeastern United States. American Journal of Botany 81: 1300-1308.
5. Parks, C. R., J. F. Wendel, M. M. Sewell, & **Y.-L. Qiu**. 1994. The significance of allozyme variation and introgression in *Liriodendron tulipifera* complex (Magnoliaceae). American Journal of Botany 81: 878-889.
4. Chase, M. W., D. E. Soltis, R. G. Olmstead, D. Morgan, D. H. Les, B. D. Mishler, M. R. Duvall, R. A. Price, H. G. Hills, **Y.-L. Qiu**, K. A. Kron, J. H. Rettig, E. Conti, J. D. Palmer, J. R. Manhart, K. J. Sytsma, H. J. Michaels, W. J. Kress, K. G. Karol, W. D. Clark, M. Hedren, B. S. Gaut, R. K. Jansen, K.-J. Kim, C. F. Wimpee, J. F. Smith, G. R. Furnier, S. H. Strauss, Q.-Y. Xiang, G. M. Plunkett, P. S. Soltis, S. Swensen, S. E. Williams, P. A. Gadek, C. J. Quinn, L. E. Eguiarte, E. Golenberg, G. H. Learn, Jr., S. W. Graham, S. C. H. Barrett, S. Dayanandan & V. A. Albert. 1993. Phylogenetics of seed plants: an analysis of nucleotide sequences from the plastid gene *rbcL*. Annals of the Missouri Botanical Garden 80: 528-580.
3. Sewell, M. M., **Y.-L. Qiu**, C. R. Parks, & M. W. Chase. 1993. Genetic evidence for trace paternal transmission of plastids in *Liriodendron* and *Magnolia* (Magnoliaceae). American Journal of Botany 80: 854-858.
- \*2. **Qiu, Y.-L.**, M. W. Chase, D. H. Les, & C. R. Parks. 1993. Molecular phylogenetics of the Magnoliidae: cladistic analyses of nucleotide sequences of the plastid gene *rbcL*. Annals of the Missouri Botanical Garden 80: 587-606.
1. Parks, C. R., J. F. Wendel, M. M. Sewell, & **Y.-L. Qiu**. 1990. Genetic control of isozyme variation in the genus *Liriodendron* L. (Magnoliaceae). Journal of Heredity 81: 317-323.

## II. Volumes Edited:

3. Hong, D.-Y., Z.-D. Chen, **Y.-L. Qiu**, and M. J. Donoghue. 2008. Patterns of Evolution and the Tree of Life (a symposium volume). Journal of Systematics and Evolution 46 (3).
2. **Qiu, Y.-L.** 2007. Origin and Early Evolution of Land Plants: Current Perspectives (a symposium section). International Journal of Plant Sciences 168: 679-761.

1. Endress, P. K., E. M. Friis, **Y.-L. Qiu**, and E. A. Zimmer. 2000. Current Perspectives on Basal Angiosperms (a symposium volume). International Journal of Plant Sciences 161 (6) Supplement.

### III. Book Chapters:

8. Mishler B. D. & **Y.-L. Qiu**. 2015. Embryophyta In PhyloCode, University of California Press, Berkeley (in press).

7. Liu, Y., J.-Y. Xue, B. Wang, L. Li, & **Y.-L. Qiu**. 2011. Conservative and dynamic evolution of mitochondrial genomes in early land plants. In Genomics of Chloroplasts and Mitochondria (ed. R. Bock & V. Knoop), Advances in Photosynthesis and Respiration (series eds. Govindjee & T. D. Sharkey), Springer, Dordrecht (in press).

6. McManus, H. A. & **Y.-L. Qiu**. 2010. On alternation of generations in embryophytic plants. Pp. 190-200, in Darwin's Heritage Today: Proceedings of the Darwin 200 Beijing International Conference (eds. M. Long, H. Gu, and Z. Zhou), Higher Education Press, Beijing.

5. Wang, B. & **Y.-L. Qiu**. 2007. Phylogeny of bryophytes. Pp. 178-180 in McGraw-Hill 2007 Yearbook of Science & Technology, McGraw-Hill, New York.

4. Knoop, V., **Y.-L. Qiu**, & K. Yoshinaga. 2004. Molecular phylogeny of bryophytes and peculiarities of chloroplast and mitochondrial DNAs. Pp. 1-16, in New Frontiers in Bryology: Physiology, Molecular Biology and Functional Genomics (eds. A. J. Wood, M. J. Oliver, and D. J. Cove), Kluwer, Dordrecht, The Netherlands.

3. **Qiu, Y.-L.** 2003. Phylogeny of early land plants. Pp. 339-341, in McGraw-Hill 2003 Yearbook of Science & Technology, McGraw-Hill, New York.

2. Adams, K. L., K. Song, **Y.-L. Qiu**, A. Shirk, Y. Cho, C. L. Parkinson, and J. D. Palmer. 1998. Evolution of flowering plant mitochondrial genomes: gene content, gene transfer to the nucleus, and highly accelerated mutation rates. Pp. 13-18, in Plant Mitochondria: From Gene to Function (eds. Ian M. Moller, P. Gardestrom, K. Glimelius, and E. Glaser), Backhuys Publishers, Leiden, The Netherlands.

1. Cho, Y., Adams, K. L., **Y.-L. Qiu**, P. Kuhlman, J. C. Vaughn, and J. D. Palmer. 1998. A highly invasive group I intron in the mitochondrial cox1 gene. Pp. 19-23, in Plant Mitochondria: From Gene to Function (eds. Ian M. Moller, P. Gardestrom, K. Glimelius, and E. Glaser), Backhuys Publishers, Leiden, The Netherlands.

### IV. Book Reviews & Others:

4. **Qiu, Y.-L.**, M. von Konrat, and J. J. Engel. 2013. Rudolf Mathias Schuster. 1921-2012. Plant Science Bulletin 54: 165-168.

**3. Qiu, Y.-L.** 2004.  $1 + 1 > 2$  in the biological system! - a book review of "Acquiring Genomes: A Theory of the Origin of Species", by Lynn Margulis and Dorion Sagan. Plant Systematics and Evolution 244: 260-263.

**2. Qiu, Y.-L.** 2003. Time to expand the evolutionary theory with newly discovered macroevolutionary processes? - a book review of "Genetics, Paleontology, and Macroevolution, 2<sup>nd</sup> ed.", by Jeffrey S. Levinton. Plant Systematics and Evolution 237: 110-114.

**1. Qiu, Y.-L.** 2000. a book review of "Molecular Evolution - a phylogenetic approach", by Roderic D. M. Page & Edward C Holmes. Plant Systematics and Evolution 221: 130-131.