

Zhiwei Liu

Curriculum Vitae

Contact Information

Residence

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Eastern Illinois University,
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Education

1995.1-1998.6 **Ph.D. in Entomology.** Department of Entomology, Swedish University of Agricultural Sciences, Uppsala, SWEDEN.

Dissertation: *Phylogenetic Systematics and Historical Biogeography of Macrocynipoids Parasitizing Woodboring Insect*

1982.9-1985.5 **M.Sc. in Systematic Zoology.** Northwest Institute of Plateau Biology Chinese Academy of Sciences, Xining, CHINA

Thesis: *A Study of Two New Genera and Four New Species of Catantopidae from China, with Application of Karyotype Analysis.*

1978.9-1981.7 **College Diploma.** Hunan Forestry College, Changsha, China

Professional Positions

1. Professional Employments

2015 - present **Professor.** Department of Biological Sciences, Eastern Illinois University, Charleston, IL

2010 - 2015 **Associate Professor.** Department of Biological Sciences, Eastern Illinois University, Charleston, IL

2004 - 2010 **Assistant Professor.** Same as above

2002 - 2004 **Research Associate (NIH sponsored fellowship).** Center of Insect Science, University of Arizona, Tucson, AZ

2000 - 2002 **Boyd postdoctoral research scientist.** Field Museum of Natural History, Department of Zoology, Chicago, IL

1999 - 2000 **Kalbfleisch postdoctoral fellow.** American Museum of Natural History, Division of Invertebrate Zoology, New York

1998 - 1998 **Visiting Scientist.** Department of Zoology, Uppsala University, Uppsala

1993 - 1994 **Associate Professor & Insect Collection Curator.** Department of Forest Protection, Central South Forestry University, Zhuzhou

2. Other Professional Appointments

- 2016 - present Subject Editor for Cynipoidea for the international zoological systematics journal *Zootaxa*.
- 2016 - present **Guest Professor**, College of Life Sciences, Central South University of Forestry and Technology, Changsha, Hunan Province, China.
- 2015 - present **Member of Editorial Board**. *Journal of Zoological Systematics* (A national professional journal in China, with articles published in English)
- 2007 - present **Member of Editorial Board**. *Acta Entomologica Sinica* (A national professional journal in China, with articles published in both Chinese and English)
- 2012 - present **Research Associate**. Department of Zoology, Field Museum of Natural History (FMNH), Chicago, IL, USA
- 2002 - present **Research Associate**. Division of Invertebrate Zoology, American Museum of Natural History (AMNH), New York City, NY, USA
- 2007 - present **Adjunct Professor**. Asian Studies Minor Program, Eastern Illinois University
- 2009 - present **Guest Professor**, Jishou University, Jishou, Hunan Province, China
- 2009 - 2012 **Guest Professor**, National Keynote Laboratory of Evolutionary Biology, Institute of Zoology, Chinese Academy of Sciences, Beijing, China.

Publications

Original Research Articles

1. Dong, Y-Y, **Liu, Z.** Wang, Y-P, and Chen, X-X. 2018. A taxonomic review of *Paramblynotus* Cameron, 1908 in China, with descriptions of five new species (Hymenoptera: Liopteridae). *Zootaxa* (co 1st author, *accepted*).
2. Chai, M., **Liu, Z.** Niu, Y., Y. Dong Y-Y, Wang, 2018. Discovery of two new species of the genus *Heteribalia* Sakagami (Hymenoptera, Ibaliidae) from China. *Entomotaxonomia Sinica* (in press)
3. Pujade-Villar, J., Wang, Y.P., **Liu, Z.**, Shen, J., He, J.H. & Ferrer-Suay, M., 2018. Discovery of *Xestophanopsis*, new genus from China and taxonomic revision of two species misplaced in Ceroptres Hartig, 1840 (Hymenoptera: Cynipidae: Diastrophini). *Entomologica Fennica*. (in press)
4. Shi JP, **Liu Z**, Li BP 2016 Two new species and a key to nine species of the genus *Mongolotettix* Rehn, 1928 from China (Acrididae, Acridoidea, Orthoptera). *Zootaxa* 4117 (3): 421–428. DOI: <http://doi.org/10.11646/zootaxa.4117.3.9>.
5. Pujade-Villar, J., Y. Wang, **Z. Liu**, R. Guo. 2016. Descriptions of two new species of *Neuroterus* Hartig from China (Hymenoptera: Cynipidae). *Entomologica Fennica* 27: 23-32.
6. Tan, K. Y. Qu, Zh. Wang, **Z. Liu**, and MS Engel. (2016) Haplotype diversity and genetic similarity among populations of the Eastern Honey Bee from Himalaya-Southwest China and Nepal (Hymenoptera: Apidae). *Apidologie* 47(2): 197–205. doi:10.1007/s13592-015-0390-x.
7. Cao, Ch-Q., C. Tong, Sh-Zh Chen, **Z. Liu**, F-Q. Xu, Q. Liu, & X-Y. Liu. 2016. First description and bionomic notes for the final-instar larva and pupa of an Oriental dobsonfly species, *Neoneuromus sikkimensis* (van der Weele, 1907) (Megaloptera: Corydalidae). *Zootaxa* 4179 (2): 288–294. <http://doi.org/10.11646/zootaxa.4179.2.9>
8. Zhu, D-H., **Z. Liu**, P-F. Lu. X. Yang, X-H Yang, C-Y Su, P. Liu. (2015) New Gall Wasp Species Attacking Chestnut Trees: *Dryocosmus zhuili* n. sp. (Hymenoptera: Cynipidae) on

- Castanea henryi* from Southeastern China. *J. Insect Sci.* 15(1): 156; DOI: 10.1093/jisesa/iev118
9. Ronquist F, Nieves-Aldrey J-L, Buffington ML, **Liu Z**, Liljeblad J, Nylander JAA (2015) Phylogeny, Evolution and Classification of Gall Wasps: The Plot Thickens. *PLoS ONE* 10(5): e0123301. doi:10.1371/journal.pone.0123301
 10. Vilhelmsen L., S. M. Blank, **Z. Liu**, and D. R. Smith. (2014). Discovery of new species confirms Oriental origin of *Orussus* Latreille (Hymenoptera: Orussidae). *Insect Systematics & Evolution*, 45: 51–91.
 11. Wang, Y., R. Guo, **Z. Liu**, and X. Chen 2013. Taxonomic study of the genus *Diplolepis* Geoffrey (Hymenoptera, Cynipidae, Diplolepidini) in China, with description of three new species. *Acta Zootaxonomica Sinica*, 38 (2): 317 – 327.
 12. Yang XH, Zhu DH, Liu Z, Zhao L, Su CY. 2013. High levels of multiple infections, recombination and horizontal transmission of *Wolbachia* in the *Andricus mukaigawae* (Hymenoptera; Cynipidae) communities, *PLoS ONE*, 8 (11):| e78970
 13. Zhao, L., D-H Zhu, **Z. Liu**, and X-H Yang (2013) PCR detection and sequence analysis of the *wsp* gene of *Wolbachia* in four North American gall wasps. *Journal of Applied Entomology*, 50: 998-1005.
 14. Zhu DH, Cui SS, Fan YS, **Liu Z** (2013) Adaptive strategies of overwintering adults: Reproductive diapause and mating behavior in a grasshopper, *Stenocatantops splendens* (Orthoptera: Catantopidae). *Insect Science* 20, 235–244 (*Insect Science*, 20, DOI 10.1111/j.1744-7917.2011.01493.x, (On line, SCI)
 15. Deng, T., D.-G. Zhang, **Z. Liu**, G. C. Tucker, H. Sun, J. Wen, and Z-L. Nie. 2013. *Oxalis wulingensis* (Oxalidaceae), an unusual new species from central China. *Systematic Botany*, 38(1): 1–8.
 16. Engel, M. and **Z. Liu**. 2012. A new species of ibaliid wasp in Baltic amber (Hymenoptera, Ibaliidae). *Journal of Entomological Society of Kansas*, 85(2), 2012, pp. 164–168.
 17. **Liu. Z.**, X-H. Yang, and D-H Zhu. 2012 A New Species of *Saphonecrus* Dalla Torre et Kieffer, 1910 (Cynipidae, Hymenoptera) from Hunan, China. *Annals of the Entomological Society of America* 105(4): 555-561.
 18. Yang, X-H, D-H Zhu, **Z. Liu**, and L. Zhao. 2012 Sequencing and phylogenetic analysis of the *wsp* gene of *Wolbachia* in three geographic populations of an oak gall wasps, *Andricus mairei* (Hymenoptera: Cynipidae), from Hunan in south China. *Acta Entomologica Sinica*, 55: 247-254.
 19. Wang, Y-P, **Z. Liu**, X-X Chen. 2012. Study on eastern Palaearctic cynipid inquilines I – the genus *Ceroptres* Hartig, 1840 with descriptions of two new species (Hymenoptera: Cynipidae: Cynipinae). *Annals of the Entomological Society of America*. 105(3): 377-385.
 20. Wang, Y., **Z. Liu**, and X. Chen 2012 Taxonomic study of Cynipidae (Hymenoptera) from China with description of one new species. *Acta Zootaxonomica Sinica* , 37 (4) : 785 - 794.
 21. Cao, Ch-Q, **Z. Liu**, S-Z Chen, & Ch. Tong. 2012. The swimming behavior of the aquatic larva of *Neoneuromus ignobilis* (Megaloptera: Corydalidae: Corydalinae). *Acta Entomologica Sinica*, 55(1): 133-138.
 22. Lu, P., D. Zhu, X. Yang, **Z. Liu** 2012. Phylogenetic analysis of mtDNA COI gene suggests cryptic species in *Dryocosmus kuriphilus* associated with certain populations of Chinese chestnuts (*Castanea* spp.). *Chinese Journal of Applied Entomology*, 49(1): 161-167.

23. Li B, **Liu Z**, Zheng ZM (2011) Phylogeny and classification of the Catantopidae at the tribal level (Orthoptera, Acridoidea). *ZooKeys* 148: 209-255. doi: 10.3897/zookeys.148.2081.
24. W. Beatty, **Z. Liu**, E. Latch, and T. Nelson. 2011. Genetic Assessment of the Red Squirrel in Illinois: Immigrants or Exotics? *Journal of Wildlife Management*, 75(5):1236–1242.
25. Jutras, B. L., **Z. Liu**, C. A. Brissette. 2010. Simultaneous Isolation of Ixodidae and Bacterial (*Borrelia* spp.) Genomic DNA. *Current Protocols in Microbiology*, 19:1E.2.1-1E.2.11., John Wiley & Sons, Inc.
26. **Liu, Z.** and M. Engel. 2010. Baltic amber Ibaliiidae (Hymenoptera: Cynipoidea): A new genus with implications for the phylogeny and historical biogeography of the family. *Systematic Entomology*, 35 (1): 164-171.
27. Zhao, L-Q, D-H Zhu, and Z. Liu. 2010. Geographical Variation in Diapause Intensity and Threshold Temperature in the Eggs of a Cricket, *Teleogryllus emma* (Orthoptera: Gryllidae). *Entomological News* 121(3):236-242.
28. Zhu, D., Y. Yang, and **Z. Liu**. 2009. Reversible change in embryonic diapause intensity by mild temperature in the Chinese rice grasshopper, *Oxya chinensis*. *Entomologia Experimentalis et Applicata* 133:1-8.
29. Crawford, J. C., **Z. Liu**, T. A. Nelson, C. K. Nielsen, and C. K. Bloomquist. (2009). Genetic population structure within and between beaver (*Castor canadensis*) populations in Illinois. *Journal of Mammalogy*, 90(2):373-379.
30. Crawford, J. C., **Z. Liu**, T. A. Nelson, C. K. Nielsen, and C. K. Bloomquist. 2008. A Comparison of Field and Molecular Techniques for Sexing Beavers. *Journal of Wildlife Management* 72(8):1805–1807.
31. Crawford, J.C., **Z. Liu**, T. A. Nelson, C. K. Nielsen, and C. K. Bloomquist. (2008) Characterization of Microsatellite Loci in the Beaver (*Castor canadensis*). *Molecular Ecology Resources* 3: 616 - 618.
32. Crawford, J.C., **Z. Liu**, T. A. Nelson, C. K. Nielsen, and C. K. Bloomquist. (2008) Microsatellite analysis of mating and kinship in beavers (*Castor canadensis*). *Journal of Mammalogy* 89(3): 575–581.
33. **Z. Liu**, M. Engel, and D. Grimaldi (2007) Phylogeny and Geological History of the Cynipoid Wasps (Hymenoptera: Cynipoidea). *Natural History Novitates*, 3583: 1-48.
34. **Liu, Z.**, Nordlander, G., and Ronquist, F. (2007) Systematics, Phylogeny, and Historical biogeography of *Paramblynotus* Cameron, 1908 (Hymenoptera: Cynipoidea: Liopteridae). *Bulletins of the American Museum of Natural History*, 466, 1-150.
35. Nylander, J. A. A., M. L. Buffington, **Z. Liu**, J. L. Nieves-Aldrey, J. Liljeblad, and F. Ronquist. 2004. Molecular phylogeny and evolution of gallwasps. Pp. 1-40 in J. A. Nylander, ed. *Bayesian Phylogenetics and the Evolution of Gallwasps*, Uppsala, Sweden.
36. **Liu, Z.** (2004) A new species of *Xestophanes* Förster from Azerbaijan (Hymenoptera: Cynipidae). *Proceedings of the Entomological Society of Washington* 106: 779-783.
37. Schick, K., **Z. Liu**, and P. Z. Goldstein (2003) Phylogeny and evolution of host plant association of *Diastrophus* gall wasps (Hymenoptera, Cynipidae). *Proceedings of the Entomological Society of Washington*, 105: 715-732.
38. **Liu, Z.** (2001) Phylogeny, biogeography, and revision of the subfamily Dallatorrellinae (Hymenoptera: Liopteridae). *Natural History Novitates*, No. 3353., p.23., 44 figures.

39. **Liu, Z.** and H. Bonfil (2001) Differential performance of a *Contarinia* gall midge (Cecidomyiidae, Diptera) on ant-defended *Acacia cornigera*. *Proceedings of the Entomological Society of Washington*, 103 (2), pp.376-385.
40. **Liu, Z.** (1999) A new species of *Ibaliia* from Borneo, with a revised phylogeny and historical biogeography of Ibaliidae (Hymenoptera: Cynipoidea). *Journal of Hymenoptera Research* 7(2), pp.149-156.
41. **Liu, Z.** (1998) Phylogenetic systematics and historical biogeography of macrocynipoids parasitizing wood-boring insects. *Acta Universitatis Agriculturae Sueciae, Silvestria* No.62, pp. 1-26. (Ph. D. thesis)
42. Eubanks, M., Nesci, K., Petersen, M., **Liu, Z.**, and H. Bonfil (1997) The exploitation of an ant-defended host plant by a shelter-building herbivore. *Oecologia* 109, pp.454-460.
43. Nordlander, G., **Liu, Z.**, and Ronquist, F. (1996) Phylogeny and Biogeography of the family Ibaliidae (Hymenoptera: Cynipoidea). *Systematic Entomology*. 21, pp.151-166.
44. **Liu, Z.**, & Larsson, S. (1996) The relationship between a flower gall midge *Pseudasphondylia* sp. (Diptera: Cecidomyiidae) and host plant *Actinidia valvata*. *Entomologia Sinica*, 3(3), pp271-282.
45. **Liu, Z.** and Li, B. (1995) A new genus and two new species of Catantopidae from Hunan Province, China (Orthoptera: Acridoidea), *Entomologia Sinica* 2(2), pp.104-109.
46. **Liu, Z.** and Nordlander, G. (1994) Review of the family Ibaliidae (Hymenoptera: Cynipoidea) with keys to genera and species of the world. *Entomologica Scandinavica* 25, pp.377-392.
47. **Liu, Z.** and Nordlander, G. (1992) Ibaliidae parasitoids of Siricidae in North America: two new species from SW United States and a key to species (Hymenoptera: Cynipoidea). *Proceedings of the Entomological Society of Washington*. 94(4), pp500-507.
48. Yin, X. and **Liu, Z.** (1987) A new subfamily of Catantopidae with a new genus and new species from China (Orthoptera: Acridoidea). *Acta Zootaxonomia Sinica* 12(1), pp.66-72
49. **Liu, Z.** and Ying, X., (1988) A new species of Catantopidae from China (Orthoptera: Acridoidea). *Entomotaxonomia* 10(3-4), pp.299-300.
50. **Liu, Z.** and Ying, X. (1987) A study of the genus *Caryanda* Staal (Orthoptera: Acrididae) from China. *Entomotaxonomia* 9(1), pp.53-60.

Book Chapters

51. **Z. Liu**, and Ronquist, F. (2006) Ch.98 Cynipidae, (In) Fernández F. & M.J. Sharkey (eds) Introducción a los Hymenoptera de la Región Neotropical, *Serie Entomología Colombiana, Sociedad Colombiana de Entomología, Bogotá D.C., Colombia*, p839-849. (In Spanish)
52. Buffington, M., **Z. Liu**, and Ronquist, F. (2006) Ch.94 Cynipoidea, (In) Fernández F. & M.J. Sharkey (eds) Introducción a los Hymenoptera de la Región Neotropical, *Serie Entomología Colombiana, Sociedad Colombiana de Entomología, Bogotá D.C., Colombia*, p811-823. (In Spanish)
53. Ronquist, F. and **Z. Liu** (2006) Ch.95 Ibaliidae, (In) Fernández F. & M.J. Sharkey (eds) Introducción a los Hymenoptera de la Región Neotropical, *Serie Entomología Colombiana, Sociedad Colombiana de Entomología, Bogotá D.C., Colombia*, p825-826. (In Spanish)
54. Ronquist, F. and **Z. Liu** (2006) Ch.96 Liopteridae, (In) Fernández F. & M.J. Sharkey (eds) Introducción a los Hymenoptera de la Región Neotropical, *Serie Entomología*

Colombiana, Sociedad Colombiana de Entomología, Bogotá D.C., Colombia, p827-828.
(In Spanish)

Manuscripts

1. Yang, X-H., **Liu, Z.**, Pang, Y. Su, C-Y., Zhu, D. Three New Species of Synergine Wasps from Same Galls on from *Lithocarpus glaber* (Thunb.) in Hunan, China (Hymenoptera, Cynipidae). (co 1st author, submitted to *Insect Systematics and Evolution*)
2. Huang, T-F, **Liu, Z.**, Gong, X-Y, Wu, T., Liu, H., Deng, J-X., Zhang, Y-X, Peng, Q-Z., Zhang, L-B., & Liu, Z-X. Vampire in the darkness: a new genus & species of land leech exclusively attacking cave-dwelling bats from China (Hirudinia: Arhyinchobdellida: Haemadipsidae). (co 1st author, manuscript completed)
3. Qi, T., **Liu, Z.**, Li, Y-Q, Wang, Y-P., Description of two new species of the genus *Linoeucoila* Lin (Hymenoptera: Figitidae: Eucoilinae) with descriptions from of two new species in China (in preparation)
4. **Liu, Z.** M. Engel, D. Grimaldi. Baltic Amber Fossils Date Oak Gall Wasps to 50 million years ago (in preparation)
5. Li, JN, **Z. Liu, et al.**, Influence of dietary quebracho tannin on reproduction of root vole *Microtus oeconomus* (Cricetidae, Rodentia) (submitted to *Integrative Biology*).

Presentations

1. Liu, Z. 2016. New Gall Wasp Species Attacking Chestnut Trees: *Dryocosmus zhuili* n. sp. (Hymenoptera: Cynipidae) on *Castanea henryi* from Southeastern China, and its implication for global chestnut industry. Field Museum of Natural History, Chicago.
2. Liu, Z. 2016. Decoding the Sexual Behavior of the American Beaver using microsatellite markers. Tongren University, Tongren, Guizhou, China.
3. Liu, Z. 2016. Total Evidence Approach in Studies of Macroevolution of Cynipoidea. College of Life Sciences, Central South University of Forestry and Technology, Changsha.
4. Liu, Z. 2016. Comparative Biology, Tree Thinking, and Evolution of Cynipoidea. College of Forestry, Central South University of Forestry and Technology, Changsha.
5. Liu, Z. 2015. Tree thinking in modern systematics – a case study of cynipoid wasp evolution. Hunan Normal University, Changsha, Hunan, China.
6. Liu, Z. 2015. Insect Galls on *Actinidia valvata* - results from a preliminary survey, and potential for further investigations. College of Life Sciences, Central South University of Forestry and Technology, Changsha.
7. Liu, Z. 2014. Insect Galls on *Actinidia valvata* - results from a preliminary survey, and potential for further investigations. Jishou University, Jishou, China.
8. Liu, Z. 2014. Gall wasps and their associates: Patterns and Processes of evolution. Leshan Normal University, Leshan, China.
9. Liu, Z. 2013. Patterns and Processes in the evolution of gall wasps (Cynipoidea, Hymenoptera) and their associates. Jishou University, Jishou, China.
10. Liu, Z. 2012. Early evolution and host use in the Superfamily of Cynipoidea (Hymenoptera). The Field Museum of Natural History, Chicago.
11. **Liu, Z.** 2011. Early evolution and host use in the gallwasp family (Cynipidae, Hymenoptera). Institute of Zoology, Chinese Academy of Sciences, Beijing.

12. **Liu, Z.** 2011. Early evolution and host use in the Superfamily of Cynipoidea (Hymenoptera). Department of Entomology, University of Illinois, Champaign-Urbana.
13. **Liu, Z.** and J. Crawford. 2011. Family structure and population genetics of the American Beaver, decoding an ancient myth using microsatellite markers. College of Conservation Biology, Beijing Forestry University, Beijing.
14. **Liu, Z.** 2011. Early evolution of and ongoing host-mediated sympatric speciation of gallwasps (Cynipoidea: Hymenoptera). Central South University of Forestry and Technology, Changsha.
15. Ginder, D. and **Liu Z.** 2010. Gall making insects as plant taxonomists. EIU Botany Club.
16. **Liu, Z.** and J. Crawford. 2010. Who is the dad? – Decoding family structure and population genetics of the American Beaver using microsatellite markers. College of Life Sciences, Central South University of Forestry and Technology, Changsha.
17. **Liu, Z.** 2010. Early evolution and diversification of host use of Cynipoidea (Hymenoptera). College of Life Sciences, Hebei University, Baoding.
18. **Liu, Z.** 2009. Phylogenetics and Testable Hypotheses: a case study of Ibalid Wasps. Institute of Zoology, Chinese Academy of Sciences, Beijing.
19. **Liu, Z.** 2009. Plant galls and gall makers. College of Life Sciences, Central South University of Forestry and Technology, Changsha.
20. **Liu, Z.** 2009. Host plant specificity and speciation in gall making species. Huaihua College, Huaihua, China.
21. **Liu, Z.**, 2008. Host plant preference and Sympatric speciation in gall making species. Jishou University, Jishou, Hunan, China.
22. **Liu, Z.** 2008. Diversity of gall making insects and their interaction with host plants, with special emphasis on Cynipidae wasps. Cincinnati Museum Center Advanced Naturalist Workshops series 4, Richard and Lucile Durrell Edge of Appalachia Preserve, Ohio.
23. **Liu, Z.** 2008. Collecting and identifying galls and their makers. Cincinnati Museum Center Advanced Naturalist Workshops series 4, Richard and Lucile Durrell Edge of Appalachia Preserve, Ohio.
24. **Liu, Z.** & G. Tucker. 2008. Culture & science behind plant use in China – an introduction to the Ethnobotany in China Program. Eastern Illinois University Botany Club.
25. Beatty, W. S., **Z. Liu**, and T. A. Nelson. 2008. A genetic assessment of the red squirrel in Illinois: natives, immigrants, or exotics? Illinois State Chapter of the Wildlife Society Annual Meeting, Peoria, Illinois, Oral Presentation.
26. Beatty, W.S., **Z. Liu**, and T.A. Nelson, 2007, A Genetic Assessment of the Red Squirrel in Illinois: Natives, Immigrants or Exotics? The 68th Midwest Fish and Wildlife Conference in Madison, Wisconsin.
27. Beatty, W. S., **Z. Liu**, T. A. Nelsen. 2007. Poster. Intraspecific phylogeography and population genetics of the red squirrel in Illinois. 99th Annual Meeting of the Illinois State Academy of Science, Springfield, Illinois.
28. Crawford, J.C., **Z. Liu**, T. A. Nelson, C. K. Nielsen, and C. K. Bloomquist. 2007. Genetic Analysis of Mating and Kinship in Beavers. International Beaver Ecology and Management Conference, Phoenix, AZ.
29. Crawford, J.C., **Z. Liu**, T. A. Nelson, C. K. Nielsen, and C. K. Bloomquist. 2007. Genetic Variation in Beavers (*Castor canadensis*). Illinois Chapter of The Wildlife Society, Moline, IL.

30. Crawford, J. C., **Z. Liu**, and T. A. Nelson. 2006. A Comparison of Two Molecular Methods for Sex Determination in Beaver (*Castor canadensis*). Midwest Fish and Wildlife Conference, Omaha, NE.
31. Crawford, J. C., **Z. Liu**, and T. A. Nelson. 2006. A Comparison of Two Molecular Methods for Sex Determination in Beaver (*Castor canadensis*). Illinois Chapter of The Wildlife Society, Rend Lake, IL.
32. Crawford, J. C., **Z. Liu**, and T. A. Nelson. 2006. Poster. A Comparison of Two Molecular Methods for Sex Determination in Beaver (*Castor canadensis*). Midwest Ecology and Evolution Conference, St. Louis, MO.
33. **Z. Liu**. 2007 Deep history of Cynipoidea and evolution of cynipid gall wasp host associations (Cynipoidea, Hymenoptera). Institute of Zoology, Academy of Sciences of China, Beijing (The same contents were also presented in Shandong Agricultural University, Nanjing Agricultural University, and Central South University of Forestry and Technology).
34. **Z. Liu**. 2006 Phylogeny and Geological History of the Cynipoid Wasps (Hymenoptera: Cynipoidea). Annual Meeting of the Entomological Society of America, Indianapolis, IN (*poster*).
35. **Z. Liu**. 2006 The cynipoid genus Paramblynotus: Revision, Phylogeny, and Historical biogeography (Hymenoptera: Cynipoidea: Liopteridae). Annual Meeting of the North Central Branch of the Entomological Society of America, Bloomington, IL (*poster*)
36. **Z. Liu**. 2006 The origins and evolution of Herbivory within the parasitic cynipoid wasps. *Invited keynote speech*, The 3rd Annual Department of Biological Sciences Student Research Symposium, Western Illinois University, Macomb, IL.
37. **Z. Liu**. 2004, Gall wasps: diversity, phylogeny, macroevolution, and tritrophic interactions. Guaymas, Mexico (Invited presentation for undergraduates, graduate students, and faculty members of regional colleges). 2004, Phylogeny, systematics and evolution of Cynipoidea (Hymenoptera), Eastern Illinois Univ, invited speaker
39. **Z. Liu**. 2003, Molecular Phylogeny of Inquilinous Gall Wasps and Evolution of Inquilinism in Cynipidae (Hymenoptera: Cynipoidea), Spring Hexapodium, University of Arizona (*poster*)
40. **Z. Liu**. 2003, Gall wasps: diversity and their central roles in tritrophic interactions of gall communities, Guaymas, Mexico (Invited presentation for undergraduates, graduate students, and faculty members of regional colleges)
41. 2002, Gall wasps and their host plants -- partners of a unilateral intimacy. Research report at the Boyd Foundation and Field Museum Trustee's Meeting, Field Museum of Natural History, Chicago, IL.
42. 2001, Higher-level phylogeny and evolution of host use in Cynipidae (Insecta, Hymenoptera). California Academy of Science, San Francisco, CA.
43. **Z. Liu**. 2001, Biological diversity and macroevolution of cynipoid wasps. Kunming, Institute of Zoology, Chinese Academy of Sciences, Kunming, China.
44. **Z. Liu**. 2001, Oak Gall wasps: higher-level phylogeny and macroevolution of host use. Quarterly Docket Forum of the Field Museum, Argonne National Laboratory, Argonne, IL.
45. **Z. Liu**. 2001, Phylogeny and evolution of host specificities in Cynipidae gall wasps (Hymenoptera). Department of Ecology and Evolution, University of Chicago, Chicago, IL.

46. **Z. Liu.** 2000, Higher-level phylogeny of Synergini and evolution of inquilinism in Cynipidae based on molecular data. (Annual Meeting of the Entomological Society of America, Montreal, Canada).
47. **Z. Liu.** 2000, Phylogeny, systematics, biogeography, and macroevolution of host use in Cynipoidea (Hymenoptera). Carnegie Museum of Natural History, Pittsburg, PA.
48. **Z. Liu.** 1999, Gall wasps that make galls and those that do not. New York Entomological Society.
49. **Z. Liu.** 1998, Phylogeny and Historical Biogeography of the genus *Paramblynotus* Cameron (Hymenoptera, Cynipoidea). International Workshop on Hymenoptera Phylogeny, Uppsala, Sweden.
50. **Z. Liu,** G. Nordlander, and F. Ronquist. 1995, Historical biogeography of wood-wasp parasitoids (Ibaliidae, Hymenoptera). XVIII Symposium of the Royal Entomological Society, London 1995. (poster)

Grants

1. 2014. Visiting Scholar Grant from EIU Graduate School to pay housing for visiting professor Dr. Chengquan Cao from Leshan Normal University, China.
2. 2014, Redden Fund award toward the purchase of Nocturnal Insect Collection Equipment
3. 2012. Discovery of New Gall Wasp Species from China based on SEM Microscopy and DNA Sequences. (EIU CFC Summer Research Award)
4. 2009-2011. PCR Identification of Wolbachia symbionts in gall making Cynipidae wasps and the effects of such symbionts on wasp reproduction. Chinese National Science Foundation. (PI: Dr Daohong Zhu of Central South University of Forestry and Technology)
5. 2010. Visiting Scholar Grant from EIU Graduate School to pay housing for visiting professor Dr. Yiping Wang from Zhejiang Forestry University, China.
6. 2010. Tens of Millions of Intimacy - Gall makers, Inquilines, and Oaks in Baltic Amber Fossils. EIU CFR Summer Research Award
7. 2010. Gall wasps associated with two silphium plant species: distinct species or host races? Council on Faculty Research Award
8. 2008. A study of the early evolution of cynipoid wasps and origin of gall formation based on new fossil discoveries. EIU CFR Summer Research Award
9. 2007, Study Abroad Initiative Grant from College of Science, EIU (Co-PI Dr G. Tucker).
10. 2007, Redden Fund toward the purchase of biosystematics softwares
11. 2007, Monogamy in North American Beaver: Using DNA Fingerprinting to solve an old mystery. EIU Council of Faculty Research Award.
12. 2007, Phylogeny and diversity inventory of Cynipini wasps. College of Science Seed Grant, Eastern Illinois University
13. 2006, Is *Antistrophus silphii* endangered? – Preliminary field survey of a rare gall wasp in Illinois, Illinois Department of Natural Resources (Co-PI Dr G. Tucker)
14. 2006 Study on mechanism of gall formation using cDNA microarray. EIU Council on Faculty Research Award
15. 2005. How safe is home? - Test the hypothesis about galls as protection against natural enemies using data from cynipid wasps. EIU CFR Summer Research Award
16. 2005, Redden Fund toward the purchase of Sequencher

17. 2005, Ecology and Genetics of red squirrels in Illinois, Illinois Department of Natural Resources (Co-PI with Dr. T. Nelson)
18. 2005, Gall wasp species diversity in the prairies of central and southern Illinois, Illinois Department of Natural Resources
19. 2005, FY2005 Research Seed Grant, College of Science, Eastern Illinois University
20. 2004, FY2005 Molecular phylogeny and evolution of host association of oak gall wasps. EIU Council on Faculty Research Award
21. 2003, Research Grant, PERT Program funded by NIH, Center of Insect Science, University of Arizona (3 years).
22. 2002, Kunming Institute of Zoology (Chinese Academy of Sciences) Director's Special Research Grant (not accepted due to conflicts with PERT fellowship already accepted).
23. 2001, Field Museum of Natural History Collection Grant
24. 2000, Boyd research grant for studies on the higher-level phylogeny and the macroevolution of host use and specificity of Cynipini
25. 2000, American Museum of Natural History Collection Study Grants for studies on the oak gall wasp collections at the AMNH
26. 1999, Kalbfleisch research grant for studies on the phylogeny of inquiline Cynipidae and the evolution of their host associations
27. 1994, Research grant from the Chinese National Natural Science Foundation (Chinese equivalent of the NSF grants) for studies on Cynipoid Parasitoids of wood-boring insects in China

Awards

- 2013 Achievement and Contribution Award for Research / Creative Activities for the 2010-2011, Eastern Illinois University
- 2011 Achievement and Contribution Award for Research / Creative Activities for the 2010-2011, Eastern Illinois University
- 2009 Achievement and Contribution Award for Research / Creative Activities for the 2008-2009, Eastern Illinois University
- 2007 Achievement and Contribution Award for Research / Creative Activities for the 2006-2007, Eastern Illinois University
- 2005 Achievement and Contribution Award for Research / Creative Activities for the 2004-2005, Eastern Illinois University.

Teaching:

Courses (for Graduate (G) and Undergraduate (U))

- 1) BIO4984 Organic evolution (U & G)
- 2) BIO5225 Systematics (G & U)
- 3) BIO5366 Biogeography (G & U)
- 4) BIO3170 Animal-plant interactions (U & G)
- 5) BIO5039 Genetics and Evolution (G)
- 6) BIO 3200 Genetics (U)
- 7) BIO1100 General Biology (U)
- 8) BIO2003 Heredity and Society (U)
- 9) STA3970 Ethnobotany in China (U & G)
- 10) BIO3450 Independent Study (U)

- 11) BIO3451 Undergraduate Research (U)
- 12) Teaching in the Lab - BIO 4400 131 (U)
- 13) BIO4443 Honors Independent Study (U)
- 14) BIO5900 Research in Biological Sciences (G)

Sponsoring/Mentoring Graduate (G), Post-doctoral (PD), Undergraduate (U) students, and Others

- 2009-present Douglas Ginder (G): Gall wasp evolution and genetics (to be finalized)
- 2012-2013 Jennifer Kim (U): Detection of *Wolbachia* symbionts in American oak gall wasps (Undergraduate research & Honor thesis)
- 2011 Jeff Kurkewich. Impacts of *Wolbachia* infections on Reproduction of Two *Callirhytis* *Species* in Central Illinois (Honor College URSCA Award, Honors Thesis)
- 2010-2011 Yiping Wang (Visiting professor): Systematics of Chinese Cynipidae
- 2010-2010 Zhiguang Liu (Visiting scientist), Population genetics and biogeography of *Apis cerana*.
- 2010-2010 Kateri Tanyan (U): Do *Disholcaspis mamma* gallwasps create enemy-free space for themselves by attracting predators using gall secretion?
- 2009-2009. David Delaney (U): Host plant preference in *Antistrophus* spp. associated with cup plant and rosin weed.
- 2007-2008 Tyler Sapp: Undergraduate Research Internship, Host plant choice leading speciation in *Antistrophus* spp. associated with *Silphium* spp. in Midwest USA.
- 2006-2008 Brandon Jutras (G): Survey of *Borrelia burgdorferi* associated with ticks in Illinois using mitochondrial DNA markers.
- 2006-2008 Williams Beatty (G): Phylogeography and population genetics of Red squirrels in Illinois (Co-advising with Dr. T. Nelson)
- 2005-2007 Joanne Crawford (G): Testing monogamy in American beaver colonies using microsatellite method (Co-advising with Dr. T. Nelson)
- 2005-2006 Heather Stice (U, honor thesis project): Molecular phylogeny and evolution of host utilization in *Antistrophus* gall wasps (Hymenoptera, Cynipidae).
- 2005-2006 Brandon Justas (U): Efficiency of protocols for DNA extraction from museum gall wasp specimens.
- 2006-2006 Jin Ma (G) Study on mechanism of gall formation using cDNA microarray
- 2006-2006 Sharon Hickman (U) Study on mechanism of gall formation using cDNA microarray

Service

Professional Service

1. Refereed Professional Journals

- 1) *Acta Entomologia Sinica*
- 2) *Annals of the Entomological Society of America*
- 3) *Bulletin of the American Museum of Natural History*
- 4) *Canadian Entomologist*
- 5) *Conservation Genetics*
- 6) *Current Zoology*
- 7) *Cladistics*
- 8) *Entomological News (Entomological Society of America)*
- 9) *Insect Systematics and Evolution*

- 10) *Journal of Biogeography*
- 11) *BJournal of the Kansas Entomological Society*
- 12) *Journal of Molecular Phylogenetics and Evolution*
- 13) *Molecular Biology Reports*
- 14) *Proceedings of National Academy of Sciences*
- 15) *Systematic Entomology*
- 16) *Proceedings of the Entomological Society of Washington*
- 17) *Zootaxa*
- 18) *Zookeys*
- 19) *Zoosystema*

2. **Invited Editor** for *Northeastern Naturalist* (2004).
3. **External reviewer** for *Key-note grant proposals submitted to the Natural Science Foundation of China* (2006 – 2011). **I reviewed a total of 28 keynote project proposals.**
4. **Serve on Editorial Board for *Acta Entomologia Sinica*** (2007-present). **As a board member, I regularly do the final review of 2-3 manuscripts annually.**
5. **Serve on Editorial Board for *Zoological Systematics*** (2015-present).

Other Services

1. **Science consultant** for Clergy Letter Project.
2. **Science Advisor** for the movie *Alfred Kinsey* by Prok Pictures Co., NYC, New York (2003)
3. **Science Advisor** for PBS program *Alfred Kinsey* by Art Media Co., NYC, New York (2003)
4. **Teaching Workshop** for *Advanced Naturalist Workshops Series 4: Plant Galls and Their Makers*. This is part of the Cincinnati Museum Center's EDGEe (Evaluating Diversity Growing Earth educators) Project (2008)
5. **Gall wasp species identification**. As one of the leading specialists on Cynipoid wasps, I have provided professional service requested from all over the world.

Department, College, and University Committees

University Level Committees:

1. Darwin Day Program Committee (2006-present)
2. International Education Council (2014-present)
3. Library Advisory Board (2014 – present)
4. Ian Jay Gould Award Committee (2007-present)
5. Asian Studies Minor Colloquium Committee (2010-present)
6. University Academic Technology Advisory Committee (Subcommittee Academic Technology and Instruction Support) (2007-2009)

College of Science Committees:

1. Search Committee for Science Education Faculty & Coordinator (2008-2009)
2. College of Science Committee for Faculty Research CUs (2006-2008)

Departmental Committees:

1. Department Personnel Committee (2010-2014)

2. DAC Committee (2013-2014)
3. Curriculum Committee (served multiple times, and presently)
4. Equipment Committee (served multiple times)
5. Budget Committee (served multiple times)
6. Facilities Committee (served multiple times, presently as chair)
7. Planning Committee (2014-present)
8. Technology Committee (served multiple times)
9. Seminar Committee (served multiple times)
10. Safety Committee (served multiple times)
11. Technology Committee (served multiple times, and presently)
12. Student Advisement Committee (served multiple times)
13. Undergraduate Research Award Committee (served multiple times)
14. Graduate Advisory Committee for 17 additional graduate students (Jordan Angle, Linda Beans, Williams Beatty, Cindy Carter, Joann Crawford, Douglas Ginder, Michael Hughes, Brandon Jutras, Sharon Hickman, Taylor Iboden, Michael Hughes, John Joyce, Michael Kaylor, Stephanie Young, Minh Luong, Julian Moore, Melory Stenlik)

Membership of Professional Societies

- 1) Society for the Study of Evolution
- 2) *The Orthopterists' Society*
- 3) Entomological Society of North America

Honorary Professional memberships

- 1) *Sigma Xi*, The Scientific Research Society

References

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