

Name: LIU, Yin-Quan

Title: Associate Professor

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Current position and employment history

2005-present: Associate professor, Institute of Insect Sciences, Zhejiang University, China.

1999-2004: Lecturer, Department of Plant Protection, Zhejiang University, China.

1998-1999: Assistant lecturer, Department of Plant Protection, Zhejiang University, China.

1997-1998: Assistant lecturer, Department of Plant Protection, Zhejiang Agricultural University, China.

Education

- ◆ Doctor of Agriculture – Agricultural Entomology and Pest Control, Zhejiang University, China, 2009
- ◆ Master of Science - Entomology, Zhejiang Agricultural University, China, 1997
- ◆ Bachelor of Science in Agriculture - Pomology, Laiyang Agricultural College, China, 1994

Major Research Interests

- ◆ Behavioural ecology of insect parasitoids
- ◆ Biological control and integrated pest management in vegetable crops
- ◆ Tritrophic relationships between plants, insect pests and natural enemies
- ◆ Invasive ecology of the whitefly *Bemisia tabaci*

Teaching Activity

- ◆ Instructor for the following yearly courses:
 - a) Applied Entomology (1999-2002, 2008-2016, Undergraduate students)
 - b) Plant Protection (2011-2014, Undergraduate students)
 - c) Pest Ecology (2008-2015, Undergraduate students)
 - d) Eco-safety (2010-2016, Undergraduate students)
 - e) General Entomology (2000-2002, Undergraduate students)
- ◆ Supervision of Postgraduate Students:
 - a) Major supervisor for 9 Master Students from 2010 to 2016

Societies and Professional Activities

- ◆ Invited Reviewer for *Annals of Applied Biology*, *Entomologia Experimentalis et Applicata*, *PLoS ONE*, *Insect Science*, *Journal of Integrative Agriculture*, and several journals published in Chinese.
- ◆ Invited Reviewer for Chinese Natural Science Foundation and several provincial Natural Science Foundation
- ◆ Member of Entomological Society of China
- ◆ Member of Plant Protection Society of China

Selected Publications

1. Hong-Wei Shan, Chang-Rong Zhang, Ting-Ting Yan, Hai-Qin Tang, Xiao-Wei Wang, Shu-Sheng Liu, **Yin-Quan Liu**. Temporal changes of symbiont density and host fitness after rifampicin treatment in a whitefly of the *Bemisia tabaci* species complex. *Insect Science*, 2016, 23(2): 200-214
2. Chang-Rong Zhang, Hong-Wei Shan, Na Xiao, Fan-Di Zhang, Xiao-Wei Wang, **Yin-Quan Liu**, Shu-Sheng Liu. Differential temporal changes of primary and secondary symbionts and whitefly host fitness following an antibiotic treatment. *Scientific Reports*, 2015, 5:15898
3. Tao Guo, Qi Guo, Xi-Yun Cui, **Yin-Quan Liu**, Jian Hu and Shu-Sheng Liu. Comparison of transmission of *Papaya leaf curl China virus* among four cryptic species of the *Bemisia tabaci* species complex. *Scientific Reports*, 2015, 5:15432
4. Hua-Ling Wang, Zhen Zhang, Xiao-Li Bing, **Yin-Quan Liu**, Shu-Sheng Liu, Xiao-Wei Wang. A complete mitochondrial DNA genome derived from a Chinese population of the *Bemisia afer* species complex (Hemiptera: Aleyrodidae), *Mitochondrial DNA*, 2015, doi 10.3109/19401736.2015.1066367
5. Hong-Wei Shan, Yu-Heng Lu, Xiao-Li Bing, Shu-Sheng Liu, **Yin-Quan Liu**. Differential responses of the whitefly *Bemisia tabaci* symbionts to unfavorable low and high temperatures. *Microbial Ecology*, 2014, 68(3): 472-482
6. Di-Bing Sun, Jie Li, **Yin-Quan Liu**, David W. Crowder, Shu-Sheng Liu. Effects of reproductive interference on the competitive displacement between two invasive whiteflies. *Bulletin of Entomological Research*, 2014, 104: 334-346
7. **Yin-Quan Liu**, Zu-Hua Shi, Myron P. Zalucki, Shu-Sheng Liu. Conservation biological control and IPM practices in *Brassica* vegetable crops in Chin. *Biological Control*, 2014, 68: 37-46
8. Peng-Jun Zhang, Cai-Xia Xu, Jin-Ming Zhang, Yao-Bin Lu, Jia-Ning Wei, **Yin-Quan Liu**, Anja David, Wilhelm Boland, Ted C.J. Turlings. Phloem-feeding whiteflies can fool their host plants but not their parasitoids. *Functional Ecology*, 2013, 27: 1304-1312
9. Di-Bing Sun, **Yin-Quan Liu**, Li Qin, Jing Xu, Fang-Fang Li, Shu-Sheng Liu. Competitive displacement between two invasive whiteflies: insecticide application and host plant effects. *Bulletin of Entomological Research*, 2013, 103: 344-353
10. **Yin-Quan Liu**, Carlos Bernstein, Andra Thiel. Travel duration, energetic expenditure, and patch exploitation in the parasitic wasp *Venturia canescens*. *Behavioral Ecology and Sociobiology*, 2009, 63: 1459-1469
11. **Yin-Quan Liu**, Andra Thiel, Thomas Hoffmeister. Odour-mediated patch choice in the parasitoid *Venturia canescens*: temporal decision dynamics. *Entomologia Experimentalis et Applicata*, 2009, 132: 110-117

12. Shu-Sheng Liu, Zeng-Mei Li, **Yin-Quan Liu**, Ming-Guang Feng, Zhen-Hua Tang. Promoting selection of resistance to spinosad in the parasitoid *Cotesia plutellae* by integrating resistance of hosts to the insecticide into the selection process. *Biological Control*, 2007, 41: 246-255
13. Zeng-Mei Li, Shu-Sheng Liu, **Yin-Quan Liu**, Gong-Yin Ye. Temperature-related fitness costs of resistance to spinosad in the diamondback moth, *Plutella xylostella* (Lepidoptera: Plutellidae). *Bulletin of Entomological Research*, 2007, 97: 627–635
14. Shu-Sheng Liu, Yue-Hong Li, **Yin-Quan Liu**, Myron P. Zalucki. Experience-induced preference for oviposition repellents derived from a non-host plant by a specialist herbivore. *Ecology Letters*, 2005, 8: 722-729
15. Yao-Bin Lu, Shu-Sheng Liu, **Yin-Quan Liu**, Michael J. Furlong, Myron P. Zalucki. Contrary effects of jasmonate treatment of two closely related host plant species on attraction of and oviposition by a specialist herbivore. *Ecology Letters*, 2004, 7:337-345
16. Michael J. Furlong, Zu-hua Shi, **Yin-Quan Liu**, Shi-Jian Guo, Yao-Bin Lu, Shu-Sheng Liu, Myron P. Zalucki. Experimental analysis of the influence of pest management practice on the efficacy of an endemic arthropod natural enemy complex of the diamondback moth. *Journal of Economic Entomology*, 2004, 97(6): 1814-1827
17. Hong-Wei Shan, Shu-Sheng Liu, **Yin-Quan Liu**. Responses of insect holobionts to unfavorable temperatures. *Journal of Plant Protection*, 2016, 43(1): 24-31(in Chinese with English abstract)
18. Xue-Xin Chen, **Yin-Quan Liu**, Shun-Xiang Ren, Fan Zhang, Wen-Qing Zhang, Feng Ge. Plant-mediated support system for natural enemies of insect pests. *Chinese Journal of Applied Entomology*, 2014, 51(1): 1-12 (in Chinese with English abstract)
19. Deng Pan, Yuan-Xi Li, Jun-Bo Luan, Shu-Sheng Liu, Yin-Quan Liu. Olfactory responses of the whitefly *Bemisia tabaci* and its parasitoid *Eretmocerus hayati* to tobacco infected by the Tomato yellow leaf curl China virus. *Chinese Journal of Applied Entomology*, 2014, 51(1): 60-66 (in Chinese with English abstract)
20. Deng Pan, Lan-Lan Wang, Shu-Sheng Liu, Yuan-Xi Li, **Yin-Quan Liu**. Effects of begomovirus infection of tomato plants on leaf trichome density and foraging performance and fitness of *Eretmocerus hayati* (Hymenoptera: Aphelinidae), a parasitoid of the whitefly, *Bemisia tabaci* (Hemiptera: Aleyrodidae). *Acta Entomologica Sinica*, 2013, 56(6): 644-651(in Chinese with English abstract)
21. **Yin-Quan Liu**, Shu-Sheng Liu. Species status of *Bemisia tabaci* complex and their distributions in China. *Journal of Biosafety*, 2012, 21 (4): 247-255 (in Chinese with English abstract)
22. Jia-Bin Shao, Shu-Sheng Liu, Yuan-Zhao Yu, **Yin-Quan Liu**. Functional response of *Eretmocerus hayati* to two biotypes of the whitefly *Bemisia tabaci*. *Journal of Environmental Entomology*, 2010, 32(1): 73-77 (in Chinese with English abstract)

23. Lian-Sheng Zang, **Yin-Quan Liu**, Shu-Sheng Liu. A new clip-cage for whitefly experimental studies. *Chinese Bulletin of Entomology*, 2005, 42(3):329-331 (in Chinese with English abstract)
24. **Yin-Quan Liu**, Fa-cheng Zhang, Shu-Sheng Liu. Effects of moulting in *Myzus persicae* on the virulence of the entomopathogenic fungus *Beauveria bassiana*. *Acta Entomologica Sinica*, 2003, 46 (4): 441-446 (in Chinese with English abstract)
25. **Yin-Quan Liu**, Ming-Guang Feng, Shu-Sheng Liu, Bao-xin Zhang. Effect of temperature on virulence of *Beauveria bassiana* against *Myzus persicae*. *Chinese Journal of Biological Control*, 2000, 16 (2): 56-60 (in Chinese with English abstract)
26. **Yin-Quan Liu**, Ming-Guang Feng, Shu-Sheng Liu. Virulence of *Beauveria bassiana* against the green peach aphid, *Myzus persicae*. *Acta Phytophylacica Sinica* 1999, 26 (4): 347-352 (in Chinese with English abstract)
27. **Yin-Quan Liu**, Shu-Sheng Liu, Ming-Guang Feng. Effect of *Beauveria bassiana* on the fecundity of the green peach aphid, *Myzus persicae*. *Acta Phytophylacica Sinica*, 1999, 26 (1): 30-34 (in Chinese with English abstract)

More publications and citations can be found from:

<http://scholar.google.com.cn/citations?hl=en&user=FdqYsH4AAAAJ>

International academic experience

- ◆ 25-30 Sep. 2016, XXV International Congress of Entomology. Orlando, USA, Oral report
- ◆ 14-19 Feb. 2016, 2nd International Whitefly Symposium. Arusha, Tanzania, Oral report
- ◆ 12-18 July 2015, 8th Congress of the International Symbiosis Society. Lisbon, Portugal, Oral report
- ◆ 17-22 Aug. 2014, 15th International Symposium on Insect-Plant Relationships. Neuchatel, Switzerland, Oral report
- ◆ Oct. 2013, 2nd International Congress on Biological Invasions. Qingdao, China, Oral report
- ◆ April 2013, Horizon scanning exercise meeting of International Network on Biological Invasions in Mega-diverse Regions. Bellagio, Italy
- ◆ Oct. 2011, International Symposium on Mass Production and Commercialization of Arthropod Biological Control Agents. Beijing, China, Oral report
- ◆ Sep. 2011, 4th European Whitefly Symposium. Rehovot, Israel, Oral report
- ◆ June –Sep. 2010, Visiting study at University of Lleida, Spain
- ◆ Nov. 2009, 5th International *Bemisia* Workshop. Guangzhou, China, Poster report
- ◆ Nov. 2009, 1st International Congress on Biological Invasions. Fuzhou, China, Oral report
- ◆ March 2009, Training course at University of Lleida, Spain: Invasive Alien Species: Insects and other noxious organisms for agriculture
- ◆ Sep. 2006, International conference on Behavioural Ecology of Insect Parasitoids, Antibes, France, Oral report

- ◆ Oct. 2005-Sep. 2007, Visiting Study at Institute of Ecology and Evolutionary Biology, University of Bremen, Germany
- ◆ May 2004, Proceedings of the 15th international plant protection congress, Beijing, China, Oral report
- ◆ Feb.-June, 1999; April –Sep., 2001; Jan.-March, 2003: Visiting study at Gatton Research Station, Queensland Department of Primary Industries and the University of Queensland, Brisbane, Australia

Honours and Awards

- ◆ Six awards for research achievements from the Zhejiang Province and Ministry of Education, China (1999, 2000, 2003, 2009, 2011, 2015).