

# Shu-Ping (Sue) Tseng

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<https://www.researchgate.net/profile/>

## CURRENT POSITION

**University of California, Riverside**  
Postdoctoral researcher

Riverside, CA  
Aug. 2020-present

## EUDUCTION

### **Kyoto University**

Ph.D., Evolution & Invasion Biology

Dissertation: “Evolutionary history of a global invasive ant, *Paratrechina longicornis*”

Kyoto, Japan

March 2020

### **National Taiwan Normal University**

M.S., Molecular Evolution

Thesis: “Inferring the speciation model with coalescent-based multi-locus approach: A case of *Takydromus* spp.”

Taipei, Taiwan

Jan 2012

### **Tzu Chi University**

B.S., Microbial Ecology

Thesis: “Impact of cellulose supplementation on the composition of wild rodents gut microbiota”

Hualien, Taiwan

June 2009

## RESEARH EXPERIENCE

**Postdoctoral researcher** — University of California, Riverside

Department of Entomology, Riverside, CA

Supervisor: Dr. Chow-Yang Lee

- Examined population dynamics and dispersal patterns of Formosan subterranean termite, yellowjackets, Turkestan cockroach and the common bed bug

Aug. 2020-Present

**Graduate Researcher** — Kyoto University

Research Institute for Sustainable Humanosphere, Kyoto, Japan

Advisors: Dr. Tsuyoshi Yoshimura and Dr. Chin-Cheng Scotty Yang

- Developed a novel set of microsatellite marker for a globally distributed invasive ant
- Examined worldwide genetic variation in an invasive ant
- Detected and characterized *Wolbachia* infection in invasive ants and myrmecophiles
- Demonstrated the global expansion of a clonal maternal lineage of *Paratrechina longicornis*

Oct. 2016-Mar. 2020

**Research Assistant** — National Taiwan University

Research Center for Plant Medicine, Taipei, Taiwan

Supervisor: Dr. Chin-Cheng Scotty Yang

- Assisted in invasive ant risk assessment
- Performed genetic analyses
- Collected ant samples and performed on-site testing in the field
- Managed laboratory functions including organization, ordering and maintenance of laboratory equipment and supplies

Aug. 2012-Jul. 2014

**Research Assistant** — National Taiwan Normal University

Department of Life Science, Taipei, Taiwan

Supervisor: Dr. Si-Min Lin

- Performed genetic analyses on populations of two *Takydromus* sister species in the contact zone
- Managed laboratory functions including organization, ordering and maintenance of laboratory equipment and supplies

Feb. 2012-Jul. 2012

- Graduate Researcher** — National Taiwan Normal University Sep. 2009-Jan. 2012  
 Department of Life Science, Taipei, Taiwan  
 Advisor: Dr. Si-Min Lin
- Developed a novel set of exon-primed intron-crossing markers for endemic grass lizards in Taiwan
  - Reconstructed the speciation mode of three species of grass lizards
  - Demonstrated the impact of gene flow on divergence dating
- Undergraduate Researcher** — Tzu Chi University Jan. 2008-Jun. 2009  
 Department of Life Sciences, Hualien, Taiwan  
 Advisor: Dr. Chun-Yao Chen
- Demonstrated the impact of diet on the composition of wild rodents gut microbiota
- Summer Intern** — National Taiwan Normal University Jul. 2008-Aug. 2008  
 Department of Life Science, Taipei, Taiwan  
 Supervisor: Dr. Yu-Ying Hsu
- Assisted in recording the contest behavior in the mangrove killifish
- Summer Intern** — Tzu Chi University Jul. 2007-Aug. 2007  
 Department of Life Sciences, Hualien, Taiwan  
 Supervisor: Dr. Kun-Ruey Shieh
- Assisted in monitoring the effects of stress on rat learning behavior
  - Assisted in dissection of rats

## PUBLICATIONS

1. Lee, C. C., Lin, C. Y., Tseng, S. P., Matsuura, K., and Yang, C. C. S. (2020). Ongoing coevolution of *Wolbachia* and a widespread invasive ant, *Anoplolepis gracilipes*. *Microorganisms*, vol. 8, 1569.
2. Tseng, S. P., Hsu, P. W., Lee, C. C., Wetterer, J. K., Sylvain, H., Wu, L. H., Lee, C. Y., Yoshimura, T., and Yang, C. C. S. (2020). Evidence for common horizontal transmission of *Wolbachia* among ants and ant crickets: kleptoparasitism added to the list. *Microorganisms*, vol. 8, 1–11.
3. Hsu, P. W., Hugel, S., Wetterer, J. K., Tseng, S. P., Ooi, C. S. M., Lee, C. Y., and Yang, C. C. S. (2020). Ant crickets (Orthoptera: Myrmecophilidae) associated with the invasive yellow crazy ant *Anoplolepis gracilipes* (Hymenoptera: Formicidae): evidence for cryptic species and potential co-introduction with hosts. *Myrmecological News*, vol. 30, 103–129.
4. Lee, Y., Lin, J. -W., Tseng, S. P., Chen, T. S. and Lin, S. M. (2019). Human disturbance as a possible cause of genetic introgression from exotic into native *Mauremys* turtles. *Animal Conservation*, vol. 22, 556–567.
5. Tseng, S. P., Wetterer, J. K., Suarez, A.V., Lee, C. Y., Yoshimura, T., Shoemaker, D. and Yang, C. C. S. (2019). Genetic diversity and *Wolbachia* infection patterns in a globally distributed invasive ant. *Frontiers in Genetics*, vol. 10, 838.
6. Tseng, S. P., Darras, H., Lee, C. Y., Yoshimura, T., Keller, L. and Yang, C. C. S. (2019). Isolation and characterization of novel microsatellite markers for a globally distributed invasive ant *Paratrechina longicornis* (Hymenoptera: Formicidae). *European Journal of Entomology*, vol. 116, 253–257.
7. Guswenrivo, I., Tseng, S. P., Yang, C. C. S. and Yoshimura, T. (2018). Development of multiplex nested PCR for simultaneous detection of ectoparasitic fungi *Laboulbeniopsis termitarius* and *Antennopsis gallica* on *Reticulitermes speratus* (Blattodea: Rhinotermitidae). *Journal of Economic Entomology*, vol. 111, 1330–1336.
8. Tseng, S. P. and Yang, C. C. S. (2017). Comment on Seri Masran and Ab Majid 2017. *Journal of Medical Entomology*, vol. 54, 1107–1108.
9. Tseng, S. P., Lin, Y. Y., Yang, Y. C., Wang, Y. and Lin, W. L. (2017). Injury feigning in the Savanna Nightjar: a test of the vulnerability and brood value hypotheses. *Journal of Ornithology*, vol. 158, 507–516.
10. Lee, C. C., Nakao, H., Tseng, S. P., Hsu, H. W., Lin, G. L., Tay, J. W., Billen, J., Ito, F., Lee, C.Y., Lin, C. C. and Yang, C. C. S. (2017). Worker reproduction of the invasive yellow crazy ant *Anoplolepis gracilipes*. *Frontiers in Zoology*, vol. 14, 24.
11. Tseng, S. P., Wang, C. J., Li, S. H., Lue, K. Y. and Lin, S. M. (2015). Within island speciation with an exceptional case of distinct separation between two sibling lizard species divided by a narrow stream. *Molecular Phylogenetics and Evolution*, vol. 90, 64–175.

12. Tseng, S. P., Li, S. H., Hsieh, C. H., Wang, H. Y. and Lin, S. M. (2014). Influence of gene flow on divergence dating implications for the speciation history of *Takydromus* grass lizards. *Molecular Ecology*, vol. 23, 4770–4784.
13. Tseng, S. P., Wang, H. Y. and Lin, S. M. (2012). Isolation and characterization of sixteen nuclear intron markers for a larcertid genus *Takydromus*. (on Permanent genetic resources added to molecular ecology resources database 1 April 2012 – 31 May 2012. *Molecular Ecology Resources*, vol. 12, 972-974.)

## COLLABORATIVE RESEARCHS

**Genetic introgression and hybridization in native *Mauremys* turtles** 2019

Collaborator: Dr. Si-Min Lin, National Taiwan Normal University, Taipei, Taiwan

- Assisted in genetic analyses

**Detection of ectoparasitic fungi *Laboulbeniopsis termitarius* and *Antennopsis gallica* on *Reticulitermes speratus*** 2018

Collaborator: Dr. Guswenrivo Ikhsan, Kyoto University, Kyoto, Japan

- Performed genetic analyses and participated in the manuscript writing

**Worker reproduction of the invasive yellow crazy ant** 2017

Collaborator: Dr. Ching-Chen Lee, Tunghai University, Taichung, Taiwan

- Performed genetic experiment and analysis

## VOLUNTEER WORK

**Taichung Wildlife Conservation Group** Oct. 2014-Oct. 2015

- Assisted in handling and feeding wildlife
- Performed statistical analyses of wildlife data

## SELECTED HONORS AND AWARDS

- Scholarship for Privately Financed Students, Japan-Taiwan Exchange Association, Japan 2017-2019
- Monbukagakusho Honors Scholarship for Privately-Financed International Students, Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan 2016
- Best Oral Award, the 35<sup>th</sup> Annual Meeting of Taiwan Entomological Society, Taiwan 2014
- Best Oral Award, Congress of Animal Behavior and Ecology, Taiwan 2012
- College Student Research Scholarship, National Science Council (NSC), Taiwan 2008

## SKILLS

- Molecular biology experiments (DNA/RNA extraction, PCR amplification, molecular cloning, and sequencing)
- Phylogenetic and phylogeographical analysis (PAUP, PhyML, MrBayes, BEAST, S-DIVA, STRUCTURE, etc.)
- Statistical analysis (R)
- Next-generation sequencing analysis (sequencing quality control and mapping)
- Microbial community characterization
- Aerobic and anaerobic bacteria culture

## CONFERENCE PRESENTATIONS

1. 2020 Tseng, S. P., Lee, C. Y., Yoshimura, T., and Yang, C. C. S. “Insight into the routes of *Wolbachia* transmission: Myrmecophily and horizontal transmission.” Ecological Society of America Annual Meeting, Orlando, Florida, USA.
2. 2018 Tseng, S. P., Yoshimura, T., and Yang, C. C. S. “Horizontal transfer of *Wolbachia* in longhorn crazy ant.” The 3rd Asia Research Node Symposium on Humansphere Science, Taichung, Taiwan.
3. 2018 Tseng, S. P., Yoshimura, T., and Yang, C. C. S. “Phylogeography of a worldwide distributed invasive ant, *Paratrechina longicornis*.” Invasive Ant Conference, Kyoto, Japan.

4. 2017 Tseng, S. P., Yoshimura, T., and Yang, C. C. S. “Global invasion of the longhorn crazy ant, *Paratrechina longicornis*.” The 7th International Symposium for Sustainable Humanosphere, Bogor, Indonesia.
5. 2017 Tseng, S. P., Shoemaker, D., Yoshimura, T., and Yang, C. C. S. “*Wolbachia* infection in the invasive longhorn crazy ant: worldwide spread, selective sweep and horizontal transfer.” The 2nd Asia Research Node Symposium on Humanosphere Science, Kyoto, Japan.
6. 2014 Tseng, S. P., Yang, E. C., and Yang, C. C. S. “*Wolbachia* infections in the highly invasive longhorn crazy ant (*Paratrechina longicornis*).” The 35th Annual Meeting of Taiwan Entomological Society, Taipei, Taiwan.
7. 2012 Tseng, S. P., Wang, H. Y., Lin, S. M. “Speciation models of *Takydromus* spp.: Assessing gene flow during speciation process.” Congress of Animal Behavior, Ecology and Environmental Education, Taipei, Taiwan.
8. 2011 Tseng, S. P., Lin, S. M. “Speciation models of *Takydromus* spp. : Assessing gene flow during speciation process.” The 2011 Society for Molecular Biology and Evolution Conference, Kyoto, Japan.
9. 2011 Tseng, S. P., Lin, S. M. “Multi-locus approach implies parapatric speciation model of *Takydromus formosanus* species complex within Taiwan island.” The 5 th Asian Herpetological Conference, Chengdu, China.
10. 2009 Tseng, S. P., Lai, C. Y., Chen, C. Y. “Impact of cellulose supplementation on the composition of wild rodents gut microbiota.” The 2009 Taiwanese Symposium on Bacteriology, Nantou, Taiwan.