

Jia-Wei Tay

College of Tropical Agriculture and Human Resources
 Department of Plant and Environmental Protection Sciences
 FTE Distribution: 25% I; 40% R; 35% E

Education

<u>Degree</u>	<u>University</u>	<u>Major</u>
PhD	University Science Malaysia	Urban and Industrial Entomology
Bachelors	University Science Malaysia	Applied Science (in Biology and Management of Vector and Parasites)

Professional Appointments

<u>Title</u>	<u>Employer</u>	<u>Dates Employed</u>
Assistant Researcher/Assistant Professor	University of Hawai'i at Mānoa	2019 to Present
Postdoctoral Scholar	University of California, Riverside	2015 to 2018

Courses Taught**Course Number and Title (credits)**

- PEPS 690 Graduate Seminar in Entomology (1)
- PEPS 421 Foundations of Pest Management (1)
- PEPS 463 Medical and Urban Entomology (3)
- PEPS 491 Special Topics: Discussions in urban pest management (3)

Publications**Refereed Journal Publications**

- Ming-Hsiao Peng, Kuan-Ling Liu, Chieh-Yen Tsai, Satomi Shiodera, Takashi F. Haraguchi, Masayuki Itoh, Shu-Ping Tseng, Chin-Cheng Scotty Yang, G. Veera Singham, Jia-Wei Tay, Kok-Boon Neoh. 2023. Urbanization influences the trophic position, morphology, and colony structure of invasive African big-headed ants (Hymenoptera: Formicidae) in Taiwan. *Myrmecological News* 33: 197-209. [doi: 10.25849/myrmecol.news_033:197](https://doi.org/10.25849/myrmecol.news_033:197).
- Tay, Jia-Wei. 2023. Highlights in Urban Entomology: Chemical, Nonchemical, and Alternative Approaches to Urban Pest Management as We *Adapt, Advance, Transform*. *Journal of Medical Entomology* 60: 1-6. <https://doi.org/10.1093/jme/tjac176> (Refereed, Invited)
- Roh, Gwang Hyun, Linnea Meier, Binita Shrestha, Stephen P Hesler, Junwei J Zhu, Paul E Kendra, Gregory M Loeb, Jia-Wei Tay, Dong H Cha. 2023. A 2-component blend of coconut oil-derived fatty acids as an oviposition deterrent against *Drosophila sukuzii* (Drosophilidae: Diptera). *Journal of Economic Entomology* 116: 1671-1678. <https://doi.org/10.1093/jee/toad092>
- Roh, Gwang Hyun, Kendra, Paul E., Zhu, Junwei J., Roda, Amy, Loeb, Gregory M., Tay, Jia-Wei and Cha, Dong H. 2023. Coconut oil derived five-component synthetic oviposition deterrent for

- oriental fruit fly, *Bactrocera dorsalis*. *Pest Management Science* 79: 3852-3859.
<https://doi.org/10.1002/ps.7584>
5. Kirsch, John Mitchell and Jia-Wei Tay. 2022. Larval mortality and ovipositional preference in *Aedes albopictus* (Diptera: Culicidae) induced by the entomopathogenic fungus *Beauveria bassiana* (Hypocreales: Cordycipitaceae). *Journal of Medical Entomology* 59: 1687-1693. <https://doi.org/10.1093/jme/tjac084>
 6. Gharbi, Karim and Jia-Wei Tay. 2022. Fumigant toxicity of essential oils against *Frankliniella occidentalis* and *F. insularis* (Thysanoptera: Thripidae) as affected by polymer release and adjuvants. *Insects* 13(6): 493. <https://doi.org/10.3390/insects13060493>
 7. Hsu, Po-Wei, Ching-Chen Lee, Feng-Chuan Hsu, Shu-Ping Tseng, Chun-Han Shih, Jia-Wei Tay, Yu-Chun Hsiao, Chin-Cheng Scotty Yang, and Chung-Chi Lin. 2022. Invasion of the little fire ant *Wasmannia auropunctata* (Roger, 1863) (Hymenoptera: Formicidae) in Taiwan. *Bioinvasions Records* 11: 864-875. https://www.reabic.net/journals/bir/2022/4/BIR_2022_Hsu_etal.pdf
 8. Liu, Kuan-Ling, Shu-Ping Tseng, Haruki Tatsuta, Kazuki Tsuji, Jia-Wei Tay, Veera Singham, Chin-Cheng Scotty Yang, Kok-Boon Neoh. 2022. Population genetic structure of the globally introduced big-headed ant in Taiwan. *Ecology and Evolution* 12: e9660.
<https://onlinelibrary.wiley.com/doi/pdf/10.1002/ece3.9660>
 9. Tay, Jia-Wei and Devon James. 2021. Field demonstration of heat technology to mitigate heat sinks for drywood termite (Blattodea: Kalotermitidae) management. *Insects* 12 (12): 1090.
<https://doi.org/10.3390/insects12121090> as corresponding author
 10. Choe, Dong-Hwan*, Jia-Wei Tay*, Kathleen Campbell, Houen Park, Les Greenberg and Michael K. Rust. 2021. Development and demonstration of low-impact IPM strategy to control Argentine ants in urban residential settings. *Journal of Economic Entomology* 114: 1752-1757. *Equal contribution.
<https://doi.org/10.1093/jee/toab079>
 11. Tay, Jia-Wei, Dong-Hwan Choe, Ashok Mulchandani and Michael K. Rust. 2020. Hydrogels: From controlled release to a new bait delivery for insect pest management. *Journal of Economic Entomology* 113: 2061-2068. <https://doi.org/10.1093/jee/toaa183>
 12. McCalla, Kelsey, Jia-Wei Tay, Ashok Mulchandani, Dong-Hwan Choe and Mark Hoddle. 2020. Biodegradable alginate hydrogel bait delivery system effectively controls high-density populations of Argentine ant in commercial citrus. *Journal of Pest Science* 93: 1031-1042.
<https://link.springer.com/article/10.1007/s10340-019-01175-9>
 13. Tay, Jia-Wei, Mark Hoddle, Ashok Mulchandani and Dong-Hwan Choe. 2017. Development of an alginate hydrogel to deliver aqueous bait for pest ant management. *Pest Management Science* 73: 2028-2038. <https://doi.org/10.1002/ps.4616>
 14. Lee, Ching-Chen, Hirotaka Nakao, Shu-Ping Tseng, Hung-Wei Hsu, Gwo-Li Lin, Jia-Wei Tay, Johan Billen, Fuminori Ito, Chow-Yang Lee, Chung-Chi Lin and Chin-Cheng Yang. 2017. Worker reproduction of the invasive yellow crazy ant *Anoplolepis gracilipes*. *Frontiers in Zoology* 14: 24.
 15. Tay, Jia-Wei and Chow-Yang Lee. 2015. Induced disturbances cause *Monomorium pharaonis* (Hymenoptera: Formicidae) nest relocation. *Journal of Economic Entomology* 108: 1237-1242.

16. Tay, Jia-Wei and Chow-Yang Lee. 2015. Effects of a juvenile hormone analogue pyriproxyfen on monogynous and polygynous colonies of the Pharaoh ant *Monomorium pharaonis* (Hymenoptera: Formicidae). *Tropical Biomedicine* 32: 453-462.
17. Tay, Jia-Wei, Kok-Boon Neoh and Chow-Yang Lee. 2014. The roles of the queen, brood and worker castes in the colony growth dynamics of the Pharaoh ant, *Monomorium pharaonis* (Hymenoptera: Formicidae). *Myrmecological News* 20: 87-94.
18. Tay, Jia-Wei and Chow-Yang Lee. 2014. Influences of pyriproxyfen on fecundity and reproduction of the Pharaoh ant (Hymenoptera: Formicidae). *Journal of Economic Entomology* 107: 1216-1223.
19. Cheah, Shao-Xiong, Jia-Wei Tay, Lai-Kheng Chan and Zairi Jaal. 2013. Larvicidal, oviposition, and ovicidal effects of *Artemisia annua* (Asterales: Asteraceae) against *Aedes aegypti*, *Anopheles sinensis*, and *Culex quinquefasciatus* (Diptera: Culicidae). *Parasitology Research* 112: 3275-3282.

Book Chapter and Conference Proceedings

1. Johnson, J. and Tay, J.W. 2024. From Past to Progress: The overview of structure-infesting termites and their management in Hawaii *in* *Urban Entomology across Varied Environments*.
2. Tay, J.W., Hoddle, M., Mulchandani, A. and Choe, D. H. 2018. Use of a biodegradable hydrogel to deliver aqueous bait to control Argentine ants in residential settings. National Conference on Urban Entomology and Invasive Pest Ant Conference, Cary, NC.
3. Tay, J.W., Hoddle, M., Mulchandani, A. and Choe, D. H. 2017. The use of an alginate hydrogel to deliver aqueous bait to manage an invasive ant pest in residential settings. In: *Proceedings of the 9th International Conference on Urban Pests*. Birmingham, UK. M.P. Davies, C. Pfeiffer and W.H. Robinson (eds). Pureprint Group, UK, pp. 265-269.

Extension Publications

1. Jia-Wei Tay and Sang-Bin Lee. 2024. Sharing the most updated knowledge on subterranean termites in Hawaii: what the Late Professor Minoru Tamashiro taught. *American Entomologist*.
2. Jia-Wei Tay, Manandhar, R. and Wang, K. H. 2023. Hydrogel baits for ant control and the combined use of hydrogel baits and Tanglefoot for citrus sooty mold control. CTAHR Extension Publication, University of Hawaii. IP-55. <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-55.pdf>
3. Roshan Manandhar and Jia-Wei Tay. 2023. Enhancing Ant-Termite interactions to protect citrus trees from Forest tree termite damage. CTAHR Extension Publication, University of Hawaii. IP-58. <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-58.pdf>
4. Tay, J. W. 2023. Hydrogel technology for pest ant management. Poster and Extension bulletin. Thrive HI technology showcase event. University of Hawaii Office of Technology Transfer. June 17, 2023.
5. Tay, J. W. 2022. Know Your Pest – a UH entomologist’s primer on Hawaii bugs. Building Management Hawaii, June 2022: 22-23. <https://online.flippingbook.com/view/70003220/23/>
6. Tay, J. W. 2022. Termites in Hawaii. National Pest Management Association (NPMA) - Professional Women in Pest Management (Hawaii Chapter) bulletin. April 2022.
7. Tong, R. and Tay, J. W. 2022. Termite IPM section’s development and updates. MyIPM online App

Hawaii.

https://play.google.com/store/apps/details?id=com.bugwood.myipmhawaii&pcampaignid=web_share

8. Choe, Dong-Hwan and Jia-Wei Tay. 2021. Low-impact ant IPM. *Pest Control Technology*. GIE Media, Inc. p. 38-42, Vol. 49, No. 11. Available online at <https://www.pctonline.com/article/low-impact-ant-ipm/>
9. Tay, J. W. 2021. Introduction and identification: ants, termites, cockroaches, and mosquitoes in Hawaii. Available online at <https://cms.ctahr.hawaii.edu/jwtay/Pest-info>
10. Tay, J. W and D. H. Choe. 2018. Using seaweed to deliver liquid ant baits. *Green Bulletin* 8: 1-2. (invited) Available online at <http://ipm.ucanr.edu/PDF/PUBS/greenbulletin.2018.spring.pdf>
11. Schall K., Tay, J. W., Mulchandani, A., Choe, D. H. and Hoddle, M. 2018. Harnessing hydrogels in the battle against invasive ants: Could a hydrogel baiting system solve Argentine ant problems in southern California citrus? *Citrograph* 9: 30-35. (invited) Available online at <https://ucanr.edu/sites/ucurbanpest/files/285788.pdf>

Patent/Provisional Patent

Jia-Wei Tay. 2022. A high-moisture biodegradable hydrogel bait delivery system with a low toxic insecticide for ant control. Patent application no. 63/307,288

Jia-Wei Tay. 2022. Fumigant toxicity and efficacy of essential oils against thrips improved by adjuvants and hydrogel delivery. Provisional patent.

Choe, Dong-Hwan, Jia-Wei Tay, Mark Hoddle, Ashok Mulchandani and Michael Rust. 2020. Biodegradable hydrogel to deliver aqueous bait to control pest ants. Patent application no. 62/400,161; Publication no. US20200029555; international publications BR112019005990, CN110114092, EP3518980, WO/2018/064186.

Workshops and Field days Organized or Co-organized:

Organizer. Urban Entomology Symposium at Pacific Branch Entomological Society of America Annual Meeting. April 2024.

Organizer. 3rd International Subterranean Termite Conference. University of Hawaii. Sept 18-19, 2023.

Co-organizer. Fumigation field day; Hawaii Plantation Village, April 4, 2022 & 2023.

Co-organizer. Orchard Crop field day; Poamoho Research Station, April 30, 2022.

Co-organizer. IPM workshop for “Termites & IPM”; Natsunoya Tea House; November 4, 2022 & 2023.

Exhibitor and presenter. Extension in the Garden Series: Garden Pest Management; Urban Garden Center, Dec 8, 2022.

Co-organizer with BASF and Vesperis. Termite field day. Hawaiian Plantation Village. July 8, 2021.

Co-organizer with Polyguard Inc. on termite session. Construction Specification Institute webinar. June 30, 2021.

Exhibitor and Educator. Mass Timber Conference. March 30-April 1, 2021.

Presenter. Mamalu Poepoe, Department of Land and Natural Resources meeting. Presented research to the “Strategic Biosecurity for Airports” working group and the stakeholders. August 3, 2021.

Presenter for Educational outreach. Termite educational project. Kaiser High School, Hawaii, and Hawaii Pacific University. 2019, 2021, 2022.

Exhibitor. CTAHR Exhibition. Society of Advancement of Chicanos/Hispanics and Native Americans (SACNAS) National Diversity in STEM Conference. Hawaii Convention Center. November 1, 2019.

Exhibitor. Plant and Environmental Protection Sciences Exhibition. Welina Mānoa, Campus Center, University of Hawaii at Mānoa. August 26, 2019.

Extension Activities and Other Creative Works (i.e., Extension Videos, Websites, etc.)

University of Hawaii Urban Pest Management program website:

<https://manoa.hawaii.edu/ctahr/urbanlab>

Jia-Wei Tay. 2021. Medical & Urban Entomology PEPS 463 Course announcement YouTube video. July 25, 2021. <https://youtu.be/XuzrRo1eaCo>

Jia-Wei Tay. November 4, 2019. Get to Know video interview. CTAHR YouTube channel, through the Office of Communication Services, University of Hawaii at Mānoa:

<https://youtu.be/wJKvdXZrTTA>

Jia-Wei Tay. 2017. Using seaweed to kill invasive ants. Through University of California, Riverside official YouTube channel:

<https://youtu.be/CwDB8uyCCmg>

Jia-Wei Tay. 2017. Novel methods for Argentine ant IPM. Available online at

<https://ucanr.edu/sites/ucurbanpest/Research/Ant/>

Leadership Roles (Committees, Boards, Advisory, etc.)

2024	CTAHR Award evaluation committee, Ka Pouhana Faculty Mentor Award
2023-2024	Search committee member for tenure-track Assistant Specialist in Arthropod Identification and Monitoring
2023-2024	Search committee member for tenure-track Assistant Specialist in Resilient Plant Pathologist
2023-2025	CTAHR Faculty Senate - Research
2021-2023	Curriculum committee, Tropical Agriculture and the Environment
2022	Editorial Board's Review Editor for Invasive Insect Species section in <i>Frontiers in Insect Science</i>
2019-	Ex-officio committee, State of Hawaii Pest Control Board, Dept. of Commerce and Consumer Affairs
2018-	Reviewer, <i>Journal of Economic Entomology</i> , <i>Insects</i> (Reviewer Board), <i>Entomologia Experimentalis et Applicata</i> , <i>Journal of Asia-Pacific Entomology</i> , <i>Tropical Life Sciences Research</i> , <i>Journal of Agricultural and Food Chemistry</i> , <i>Proceedings of the Hawaiian Entomological Society</i> , <i>Forests</i> , <i>Journal of Medical Entomology</i> , <i>Agronomy</i> , <i>Journal of Fish and Wildlife Management</i> , <i>Sociobiology</i> , <i>Bulletin of Entomological Research</i> , etc.

- 2019- Member, UHM Graduate Faculty
- 2019- Member, Termite Inspection Training, Hawaii Pest Control Association
- 2019- Member, Hawaii Pest Control Association
- 2019- Student Competition Judge, Entomological Society of America Annual Meeting
- 2019- Proctor, Board-Certified Entomologist (BCE) Certification Examination
- 2019- Member of Hawaiian Entomological Society
- 2020- Manage Nan-Yao and Jill Su Entomology Scholarship
- 2021- Reviewer; book proposal of Nan-Yao Su and Chow-Yang Lee. CABI International Publisher.
- 2021- Judge. ESA's new Alate Award (for Historically Black Colleges and Universities and other Minority-Serving Institutions' candidates)
- 2021- Judge. Waipahu High School's STEM (Science, Technology, Engineering, and Math) Honors projects.
- 2021- Advisory. Office of Communication Services, CTAHR.

<u>Category</u>	<u>Current Number of Students</u>	<u>Number Graduated (Career)</u>
Chair of Master's Committees	1	3
Chair of PhD Committees	1	0
Member of Master's Committees	2	1
Member of PhD Committees	1	0

Grant Support

Grants received from July 2019-October 2023 at UHM:

Extramural Grants and Contracts

Title of Grant: Integrating insecticidal baits-biocontrol agents as a novel and sustainable invasive ant management tool

Source of Grant: USDA's Natural Resources Conservation Service - Conservation Innovation Grants

Total Dollar Value: \$ 453,640 (\$ 453,640)

Dates of Grant: 10/1/2023-9/30/2025

Role: PI: Jia-Wei Tay

Title of Grant: Field evaluations of baits in eliminating Formosan subterranean termites *Coptotermes formosanus* in Hawaii

Source of Grant: Corteva Agriscience

Total Dollar Value: \$ 15,000 (\$ 15,000)

Dates of Grant: 3/1/2022-12/31/2023

Role: PI: Jia-Wei Tay

Title of Grant: Application of novel and effective oviposition deterrents for *Bactrocera dorsalis* and other invasive fruit flies

Source of Grant: APHIS

Total Dollar Value: \$ 152,262 (\$ 152,262)

Dates of Grant: 9/1/2023-8/31/2024

Role: PI: Jia-Wei Tay

Title of Grant: Enhancing biological control of citrus sooty mold complex with novel ant control technology using entomopathogenic nematode water-storing hydrogels in an IPM approach

Source of Grant: Western IPM Center

Total Dollar Value: \$ 29,999

Dates of Grant: 3/1/2021-2/28/2022

Role: PI: Jia-Wei Tay; Co-PI: Koon-Hui Wang, Jensen Uyeda, Roshan Manandhar

Title of Grant: A Pilot Study: Entomopathogenic fungi on ovitraps' egg-laying substrate for mosquito control

Source of Grant: Hawaii Invasive Species Council (HISC), Hawaii Department of Land and Natural Resources (DLNR)

Total Dollar Value: \$ 24,000 (\$ 24,000)

Dates of Grant: 4/1/2021-1/31/2022

Role: PI: Jia-Wei Tay

Title of Grant: Biopesticides delivered with water-storing hydrogels for control of invasive yellow crazy ants

Source of Grant: Hawaii Invasive Species Council (HISC), DLNR

Total Dollar Value: \$ 31,548 (\$ 31,548)

Dates of Grant: 1/1/2021-4/1/2022

Role: PI: Jia-Wei Tay

Title of Grant: Application of novel and effective oviposition deterrents for *Bactrocera dorsalis* and other fruit flies

Source of Grant: USDA-ARS

Total Dollar Value: \$ 145,972 (\$ 145,972)

Dates of Grant: 9/1/2022-8/31/2023

Role: PI: Jia-Wei Tay

Title of Grant: Identification of a fruit fly surrogate and development of postharvest treatments for the quarantine pest *Bactrocera dorsalis*

Source of Grant: USDA-ARS

Total Dollar Value: \$ 119,703 (\$ 119,703)

Dates of Grant: 9/1/2022-8/31/2023

Role: PI: Jia-Wei Tay

Title of Grant: Field evaluations of baits in eliminating Formosan subterranean termites *Coptotermes formosanus* in Hawaii

Source of Grant: Corteva Agriscience

Total Dollar Value: \$ 20,000 (\$ 20,000)

Dates of Grant: 6/1/2021-5/31/2022

Role: PI: Jia-Wei Tay

Title of Grant: Evaluation of cross laminated timber resistance to *Coptotermes formosanus* attack

Source of Grant: Kai Hawaii, Inc.

Total Dollar Value: \$ 5,000 (\$ 5,000)

Dates of Grant: 1/1/2021-12/31/2021

Role: PI: Jia-Wei Tay

Title of Grant: Evaluation of a termite barrier as a defense system against Formosan subterranean termite in Hawaii

Source of Grant: Polyguard, Inc.

Total Dollar Value: \$ 13,500 (\$ 13,500)

Dates of Grant: 1/1/2021-12/31/2021

Role: PI: Jia-Wei Tay

Intramural Grants

Title of Grant: Improved detection and control of tropical invasive insect pests

Source of Grant: USDA-ARS

Total Dollar Value: \$ 140,000 (\$ 140,000)

Dates of Grant: 9/1/2020-9/30/2023

Role: PI: Jia-Wei Tay

Title of Grant: Linalool: biosynthesis in sweet basil and application in human health and pest control

Source of Grant: USDA NIFA Research Capacity Funds

Total Dollar Value (Your share of the grant value): \$ 8,970 (\$ 3,370)

Dates of Grant: 2020

Role: Co-PI

Title of Grant: Ecology and management of invasive urban pests in Hawaii

Source of Grant: USDA NIFA Hatch

Total Dollar Value (Your share of the grant value): n/a

Dates of Grant: 2020-2024

Role: PI

Title of Grant: Managing insects of urban and medical importance in Hawaii using integrated pest management

Source of Grant: Extension Plan of Work, Smith-Lever Fund

Total Dollar Value (Your share of the grant value): \$ 4,000

Dates of Grant: 2020-2024

Role: PI

Grants not awarded

Department of Defense (DoD) SERDP program. 2022. Title: A novel invasive ant management tool: integration of virus liquid bait in a hydrogel delivery system for sustainable long-term suppression of field ant populations.

Centers for Disease Prevention and Control (CDC). 2022. Title: Proposing Pacific Islands Center of Excellence in Vector-borne Diseases. (as co-PI)

NIFA Crop Protection and Pest Management. 2020, 2021, 2022. Title: Essential oils as effective organic alternatives to conventional insecticides for economically-damaging invasive pest species (as co-PI)

Western IPM Center Grant. 2020. Title: Development and evaluations of a controlled release system for mosquito management.

Pacific Southwest Center of Excellence in Vector-borne Diseases (PACVEC). 2020, 2021. Title: Development of a *Beauveria bassiana*-infused ovitraps network for biological control of *Aedes albopictus* and detection of future invasive mosquitoes on Oahu, Hawaii.

Presentations at Conferences

Title: Integration of biocontrol in biodegradable alginate hydrogels for the management of pest ants

Authors: Lawrence*, J.A., Tay, J.W.

Name of Conference: Entomological Society of America

Location: National Harbor, Maryland

Date of Presentation: November 5-8, 2023

Title: Efficacy of Natural Products as Oviposition Deterrents for Invasive Fruit Flies

Authors: Movva, V., Roh, G.H., Tay, J.W., Zhu, J., Cha, D.

Name of Conference: Entomological Society of America

Location: National Harbor, Maryland

Date of Presentation: November 5-8, 2023

Title: Ant ecology and behaviors

Authors: Lawrence, J.A. *, Tay, J.W.

Name of Conference: Hawaii Pest Control Association Annual Learning Conference

Location: The KROC Centre, Hawaii

Date of Presentation: October 6, 2023

Title: Necrophobic behavior in *Coptotermes gestroi* and the chemical profiles of subterranean termite soldiers in Hawaii

Authors: Tay, J.W.*, Tong, R., Yew, J., Melia, J.

Name of Conference: 3rd International Conference of the Subterranean Termite

Location: Honolulu, Hawaii

Date of Presentation: September 18-19, 2023

Title: A comparison of morphology among *Coptotermes formosanus* on O'ahu

Authors: Melia, J.*, Tong, R., Tay, J.W.

Name of Conference: 3rd International Conference of the Subterranean Termite

Location: Honolulu, Hawaii

Date of Presentation: September 18-19, 2023

Title: Distribution of termites on Oahu

Authors: Tong, R.*, Tay, J.W.

Name of Conference: 3rd International Conference of the Subterranean Termite

Location: Honolulu, Hawaii

Date of Presentation: September 18-19, 2023

Title: Efficacy of Natural Products as Oviposition Deterrents for Invasive Fruit Flies

Authors: Movva, V., Roh, G.H., Tay, J.W., Zhu, J., Cha, D.

Name of Conference: Annual meeting of the International Society of Chemical Ecology

Location: Bangalore, India

Date of Presentation: July 23-27, 2023

Title: Laboratory evidence for behavioral dominance of *Wasmannia auropunctata* over *Pheidole megacephala*

Authors: Lawrence*, J.A., Tay, J.W.

Name of Conference: CTAHR Student Research Symposium

Location: Manoa, Hawaii

Date of Presentation: March 27, 2023

Title: Necrophobic behavior in *Coptotermes gestroi* (Wasmann) (Blattodea: Rhinotermitidae) and analysis of their soldier compounds

Authors: Tay, J.W.*, Tong, R.

Name of Conference: Entomological Society of America Joint Annual Meeting

Location: Vancouver, Canada

Date of Presentation: November 13-16, 2022

Title: Behavioral Evidence for a *Pheidole megacephala* (Hymenoptera: Formicidae) supercolony on O'ahu

Authors: Lawrence, J.A.*, Tay, J.W.

Name of Conference: Entomological Society of America Joint Annual Meeting

Location: Vancouver, Canada

Date of Presentation: November 13-16, 2022

Title: Ant Ecology, Identification, and Research Updates from UH

Authors: Lawrence, J.A.*, Tay, J.W.

Name of Conference: Department of Defense's Pest Management Recertification Course

Location: Pearl Harbor, Hawaii

Date of Presentation: October 19, 2022

Title: Challenges of urban termite management

Authors: Tay, J.W.*

Name of Conference: Hawaii Pest Control Association Annual Learning Conference

Location: The KROC Centre, Hawaii

Date of Presentation: September 16, 2022

Title: Development of an improved biodegradable hydrogel bait delivery system to attract and manage high numbers of invasive yellow crazy ants

Authors: Tay, J.W.* (invited talk)

Name of Conference: National Conference on Urban Entomology

Location: Salt Lake City, Utah

Date of Presentation: May 15-18, 2022

Title: Influence of larval habitat on mosquito wing length

Authors: Salehi, J.*, Kirsch, J., Tay, J.W.

Name of Conference: 46th Annual Albert L. Tester Memorial Symposium

Location: UHM

Date of Presentation: April 21, 2022

Title: Influence of urbanization on the abundance of *Aedes albopictus* (Diptera: Culicidae) in the Nuaanu Valley on Oahu, Hawaii

Authors: Kirsch, J.*, Tay, J.W.

Name of Conference: 46th Annual Albert L. Tester Memorial Symposium

Location: UHM

Date of Presentation: April 20, 2022

Title: Field demonstration of improved heat technology for drywood termite management in condominium units

Authors: Gharbi, K. and Tay, J.W.

Name of Conference: Pacific Branch Entomology Society of America

Location: Santa Rosa, CA

Date of Presentation: April 11, 2022

Title: Surveillance method to determine efficacy of attractants for improved mosquito control

Authors: Kim, S. *, Kirsch, J, Tay, J.W.

Name of Conference: JABSOM Biomedical Symposium

Location: JABSOM, UHM

Date of Presentation: April 7, 2022

Title: Development of improved pest management solutions against invasive ants and drywood termites

Authors: Tay, J.W. *

Name of Conference: PBARC Seminar

Location: Online

Date of Presentation: April 7, 2022

Title: Influence of urbanization on the abundance of *Aedes albopictus* (Diptera: Culicidae) in the Nu'uauu Valley on Oahu, Hawaii

Authors: Kirsch, J.M.* (2nd place in Masters student category), Tay, J.W.

Name of Conference: Hawaiian Entomological Society, Student and Early Career Researcher Symposium

Location: Online

Date of Presentation: March 11, 2022

Title: Larvicidal effect of low concentrations of *Beauveria bassiana* against *Aedes albopictus* (Diptera: Culicidae)

Authors: Kirsch, J.M. *, Tay, J.W.

Name of Conference: Entomological Society of America Annual Meeting

Location: Denver, Colorado

Date of Presentation: October 31 - November 3, 2021

Title: Fumigant toxicity of essential oils against thrips as affected by polymer release and adjuvants

Authors: Gharbi, K. *, Tay, J.W.

Name of Conference: Entomological Society of America Annual Meeting

Location: Denver, Colorado

Date of Presentation: October 31 - November 3, 2021

Title: Highlights in Urban Entomology for year 2021

Authors: Tay, J.W. *

Name of Conference: Entomological Society of America Annual Meeting

Location: Denver, Colorado

Date of Presentation: October 31 – November 3, 2021

Title: Hydrogel baits with improved water loss dynamics effectively attract and control higher numbers of pest ant populations

Authors: Tay, J.W.*

Name of Conference: Entomological Society of America Virtual Annual Meeting

Location: online

Date of Presentation: November 11-25, 2020

Title: Management of invasive sugar-feeding ant and subterranean termites in Hawaii

Authors: Tay, J.W.*

Name of Conference: CTAHR Virtual Invasive Pest Mini Conference

Location: online

Date of Presentation: October 15, 2020

Title: Field demonstration of heat technology to mitigate heat sinks for drywood termite management in Hawaii (paper accepted in 2020)

Authors: Tay, J.W.

Name of Conference: International Congress of Entomology (cancelled due to Covid-19)

Location: Helsinki, Finland

Title: Formosan and Asian subterranean termite tunneling behavior and their sustainable pest management using physical barrier

Authors: Tay, J.W.*

Name of Conference: Entomological Society of America Annual Meeting

Location: St. Louis, Missouri

Date of Presentation: November 17-20, 2019

Title: Biology and management of common pest ant species in Hawaii

Authors: Tay, J.W.*

Name of Conference: Hawaii Pest Control Association Annual Learning Conference

Location: The KROC Centre, Hawaii

Date of Presentation: September 20, 2019

Title: Ecology and management of invasive Argentine ant

Authors: Tay, J.W.*

Name of Conference: Invasive Ant Conference 2018

Location: Kyoto University, Japan

Date of Presentation: January 23, 2018

Title: Alginate hydrogel for pest ant management in urban and agricultural areas

Authors: Tay, J.W.*

Name of Conference: Entomological Association of Southern California, Fall Meeting

Location: Los Angeles County Arboretum, Arcadia, California

Date of Presentation: September 12, 2017

Title: Benefits of and developments in Argentine ant control for citrus

Authors: Schall, K.A.*, J.W. Tay, A. Mulchandani, D.H. Choe and M. Hoddle

Name of Conference: California Association of Pest Control Advisers

Location: Ontario, California

Date of Presentation: August 2, 2017

Title: The use of an alginate hydrogel to deliver aqueous bait to manage an invasive ant pest in residential settings

Authors: Tay, J.W.*

Name of Conference: 9th International Conference on Urban Pests

Location: Birmingham, England

Date of Presentation: July 12, 2017

Title: Development of a hydrogel bait to deliver liquid ant bait for pest ant management

Authors: Tay, J.W.*

Name of Conference: 26th annual UC Riverside Urban Pest Management Conference

Location: Riverside, California

Date of Presentation: March 29, 2017

Title: Enhancing biological control of citrus pests with hydrogel baits for sustainable Argentine ant, *Linepithema humile*, management

Authors: Tay, J.W.*

Name of Conference: XXV International Congress of Entomology

Location: Orlando, Florida

Date of Presentation: September 28, 2016

Title: Fire ant baiting technology in almonds: Today and beyond

Authors: Schall, K.A.*, J.W. Tay, L. Greenberg and M. Hoddle

Name of Conference: UC Cooperative University of California Almond Integrated Pest Management Meeting

Location: Kearney Agricultural Research and Extension Center, Parlier, California

Date of Presentation: January 7, 2016

Title: The effects of juvenile hormone analog pyriproxyfen on the ovary development of the Pharaoh ant

Authors: Tay, J.W.*

Name of Conference: 2nd Global Conference on Entomology

Location: Sarawak, Malaysia

Date of Presentation: November 8-12, 2013

Title: The effects of a juvenile hormone analog on the reproductive physiology of *Monomorium pharaonis*

Authors: Tay, J.W.*

Name of Conference: International Symposium on Insects

Location: Kuala Lumpur, Malaysia

Date of Presentation: December 3-5, 2012

Title: The effects of pyriproxyfen on the egg production and ovary development of *Monomorium pharaonis*

Authors: Tay, J.W.*

Name of Conference: 6th International Conference on Biopesticides

Location: Chiang Mai, Thailand

Date of Presentation: December 11-16, 2011