Pascal Aigbedion-Atalor
College of Tropical Agriculture and Human Resilience
Department of Plant and Environmental Protection Sciences
FTE Distribution: 15%I; 45%R; 40%E

Education

Degree	University	Major
PhD	Rhodes University	Entomology
MS	University of Ghana	Entomology
BS	Ambrose Alli University	Zoology

Professional Appointments

Title	Employer	Dates Employed
Assistant Professor	University of Hawaii	2024 to Present
Postdoctoral Researcher	ORAU/USDA-ARS	2023 to 2024
Researcher	BTU, Cottbus	2023 to 2024
Senior Scientist	NIHORT, Ibadan	2022 to 2023
Postdoctoral Researcher	Rhodes University	2021 to 2023

Courses Taught

Course ID and name (credits)

PEPS 641	Insect Physiology (4)
PEPS 690	Graduate Seminar in Entomology (1)

Publications (reverse chronological order)

Conference Proceedings

1. **Pascal Osa Aigbedion-Atalor*** Oke AO, Oladigbolu AA, Layade AA, Igbinosa I B & Mohamed S A (2019). The spread of *Tuta absoluta* (lepidoptera: Gelechiidae) in Nigeria: threat to food security and livelihoods In: 23rd meeting and conference of the African association of insect scientists. National Institute of Public Health, Abidjan, Côte d'Ivoire 19th – 23rd November 2019. Page 44. https://drive.google.com/file/d/1kuIyJBK1A436c3by7AMXXXdciIMF0aSL/view
2. **Pascal Aigbedion-Atalor***, David Wilson, Vincent Eziah, Iain Paterson, Michael Day (2017) The distribution and abundance of the chromolaena stem-galling fly, *Cecidochares connexa* (Diptera: Tephritidae) in Ghana In: Combined Congress of the Entomological and Zoological Societies of Southern Africa CSIR International Convention Centre, Pretoria, South Africa. 3-7 July 2017, CSIR, Pretoria pp. 307. http://www.savetcon.co.za/01_ESSA_ZSSA2017/abstracts.php

Refereed Journal Publications

1. Angelita Acebes-Doria and **Pascal Osa Aigbedion-Atalor**. 2025. Exploiting Trap Type and Color for Monitoring Macadamia Felted Coccid *Acanthococcus ironsidei* (Williams) and Associated Parasitic Wasps in Macadamia Orchards in Hawai'i. ***Insects***, 16(2), p.149. https://doi.org/10.3390/insects16020149
2. Adom, M., Fening, K.O., Billah, M.K., **Pascal Osa Aigbedion-Atalor,** Acheampong, M.A. and Wilson, D.D., 2024. Susceptibility of Capsicum varieties to *Thaumatotibia leucotreta* (Lepidoptera: Tortricidae) infestation for production optimization. *Journal of Economic Entomology*, p.toae213. https://doi.org/10.1093/jee/toae213
3. **Pascal Osa Aigbedion**-Atalor, Heiduk, A., Upfold, J., Shuttleworth, A., Moore, S., Hill, M. and Coombes, C., 2024. Geographic variation in genetic composition, sexual communication and mating compatibility of the False Codling Moth, *Thaumatotibia leucotreta* for optimisation of area-wide control. *Frontiers in Ecology and Evolution*, *12*, p.1360395. https://doi.org/10.3389/fevo.2024.1360395

4. **Pascal Osa Aigbedion-Atalor**, Jennifer Upfold, Candice Coombes, Sean Moore, Martin Hill (2024). Sexual selection in *Thaumatotibia leucotreta* (Meyrick) is shaped by contrasting geographic adaptations, but does it matter for are- wide semiochemical tools? Annals of Applied Biology, https://doi.org/10.1111/aab.12898
5. **Pascal Osa Aigbedion-Atalor**, Nathalie R. de Rocquiny, Angelita L. Acebes-Doria (2024). Efficacy of Long-Lasting Insecticide-Incorporated Nets on Two Scolytinae Pests, the Coffee Berry Borer, *Hypothenemus hampei* and Tropical Nut Borer *Hypothenemus obscurus* under Laboratory Conditions. **Journal of Economic Entomology**, 117 (2), 545–554. https://doi.org/10.1093/jee/toae020
6. Idemudia, I., Fening, K. O., Agboyi, L. K., Wilson, D., Clottey, V. A., Beseh, P., & **Pascal Osa Aigbedion-Atalor** (2024). First report of the predatory potential and functional response of the red flower assassin bug *Rhynocoris segmentarius* (Germar), a natural enemy of *Spodoptera frugiperda* (JE Smith). **Biological Control**, 105465. https://doi.org/10.1016/j.biocontrol.2024.105465
7. **Pascal Osa Aigbedion-Atalor,** Annemarie Heiduk, Jennifer Upfold, Adam Shuttleworth, Sean Moore, Martin Hill, Candice Coombes (2024). Geographic variation in sexual communication and mating compatibility of the False Codling Moth, *Thaumatotibia leucotreta* for optimization of area-wide control ***Frontiers in Ecology and Evolution*** 12, 1360395
8. **Pascal Osa Aigbedion-Atalor**, Ken Okwae Fening, Akinyemi O. Adeyemi Itohan Idemudia, Kenechukwu Chukwuemeka Ojukwu, Maureen Amuche Nwobodo, Oghenetega Sunday, Nnenna Chinyelu Isiogu, Abiola O. Oke (2024). Regenerative edible insects for food, feed, and sustainable livelihoods in Nigeria: Consumption, potential and prospects. **Future Foods**. p.100309 https://doi.org/10.1016/j.fufo.2024.100309
9. **Pascal Osa Aigbedion-Atalor,** Jennifer Upfold, Candice Coombes, Sean Moore, Martin Hill (2024). Sexual selection in *Thaumatotibia leucotreta* (Meyrick) is shaped by contrasting geographic adaptations, but does it matter? **Annals of Applied Biology**, https://doi.org/10.1111/aab.12898
10. Adom, M., Fening, K.O., Billah, M.K., **Pascal Osa Aigbedion-Atalor,** and Wilson, D.D. (2024). Efficacy of selected biopesticides on key pests of chilli pepper for increased productivity in Ghana. ***Crop Protection***, p.106497. https://www.sciencedirect.com/science/article/pii/S0261219423003204
11. Samira Mohamed…(et al.) **Pascal Osa Aigbedion-Atalor** (2023). Recent advances in classical biological control of key horticulture pests: African perspective. biological pest control: managing multitrophic interactions for sustainable agriculture. **Atti Accademia Nazionale Italiana di Entomologia** Anno LXX, 2022: 65-70 https://www.accademiaentomologia.it/wp-content/uploads/2023/04/Monografia-42-T_R_giugno-2022_compressed.pdf#page=10
12. Mama Sambo, S., Akutse, K.S., du Plessis, H., **Pascal Osa Aigbedion-Atalor**, Mohamed, S.A. and Ndlela, S. (2022). Interactions between the Entomopathogenic Fungus *Metarhizium anisopliae* ICIPE 20 and the Endoparasitoid *Dolichogenidea gelechiidivoris*, and Implications for Combined Biocontrol of *Tuta absoluta*. ***Biology***, *11*(9), p.1323. https://www.mdpi.com/2079-7737/11/9/1323
13. **Pascal Osa Aigbedion-Atalor**, Hill, M.P., Azrag, A.G., Zalucki, M.P. and Mohamed, S.A. (2022). Disentangling thermal effects using life cycle simulation modelling on the biology and demographic parameters of *Dolichogenidea gelechiidivoris*, a parasitoid of *Tuta absoluta*. **Journal of Thermal Biology**, p.103260. https://www.sciencedirect.com/science/article/pii/S0306456522000754
14. Idemudia, I., Wilson, D.D. and **Pascal Osa Aigbedion-Atalor** (2022). Spread and establishment of *Cecidochares connexa* (Macquart) (Diptera: Tephritiidae) in Nigeria, a biological control agent of *Chromolaena odorata* (L.) RM King and H. Robinson. **Biocontrol Science and Technology**, 32(3), pp.391-396. https://www.tandfonline.com/doi/full/10.1080/09583157.2021.1977242
15. **Pascal Osa Aigbedion-Atalor** Hill, M. P., Ayelo, P. M., Ndlela, S., Zalucki, M. P., & Mohamed, S. A. (2021). Can the Combined Use of the Mirid Predator *Nesidiocoris tenuis* and a Braconid Larval Endoparasitoid *Dolichogenidea gelechiidivoris* Improve the Biological Control of *Tuta absoluta*?.**Insects**, 12(11), 1004. https://www.mdpi.com/2075-4450/12/11/1004
16. **Pascal Osa Aigbedion-Atalor**, Idemudia, I., Adom, M., Forchibe, E.E., Tossou, H., Wilson, D.D. and Day, M.D., (2021). Marching across and beyond West Africa: First record of the stem-galling fly *Cecidochares connexa* (Diptera: Tephritidae) in Central Africa and the implications for biological control of *Chromolaena odorata*(Asteraceae).**PLosOne**,6(6),p.e0252770. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0252770

17. van Lenteren, J.C., Lanzoni, A., Hemerik, L., Bueno, V.H., Cuervo, J.G.B., Biondi, A., Burgio, G., Calvo, F.J., de Jong, P.W., López, S.N., **Aigbedion-Atalor Pascal**, and Luna, M.G., (2021). The pest kill rate of thirteen natural enemies as aggregate evaluation criterion of their biological control potential of *Tuta absoluta*. **Scientific Reports**, 11(1), pp.1-13. https://www.nature.com/articles/s41598-021-90034-8
18. **Pascal Osa Aigbedion-Atalor** (2020). Weed or not a weed? Density, perceptions, and management of *Chromolaena odorata* (Asteraceae) in West Africa: voices from Ghana. **Weed Research** 60(6) 406 – 414. https://onlinelibrary.wiley.com/doi/full/10.1111/wre.12439
19. **Pascal Osa Aigbedion-Atalor**, Samira Abuelgasim Mohamed, Martin P. Hill, Myron P. Zalucki, Abdelmutalab G. A. Azrag, Ramasamy Srinivasan, Sunday Ekesi (2020) Host stage preference and performance of *Dolichogenidea gelechiidivoris* (Hymenoptera: Braconidae), a candidate for classical biological control of *Tuta absoluta* in Africa **Biological control** 144 (2020): 104215. https://doi.org/10.1016/j.biocontrol.2020.104215
20. **Pascal Osa Aigbedion-Atalor**, Martin P. Hill, Myron P. Zalucki, Francis Obala, Gamal E. Idriss, Soul-Kifouly Midingoyi, Maneno Chidege, Sunday Ekesi, and Samira Abuelgasim Mohamed (2019). The South America Tomato Leafminer, *Tuta absoluta* (Lepidoptera: Gelechiidae), Spreads Its Wings in Eastern Africa: Distribution and Socioeconomic Impacts. **Journal of Economic Entomology**. toz220, https://doi.org/10.1093/jee/toz220
21. **Pascal Osa Aigbedion-Atalor**, Itohan Idemudia Arne B. R. Witt & Michael D. Day (2019). First record of the impact of the parasitism of *Cecidochares connexa* (Diptera: Tephritidae) by a solitary larval ectoparasitoid in West Africa: Cause for concern? Journal of Plant Diseases and Protection 126(1): 93–95. https://doi.org/10.1007/s41348-018-0189-x
22. **Pascal Osa Aigbedion-Atalor,** Michael D. Day, Itohan Idemudia, David D. Wilson, & Iain D. Paterson (2019). With or without you: stem-galling of a tephritid fly reduces the vegetative and reproductive performance of the invasive plant *Chromolaena odorata* (Asteraceae) both alone and in combination with another agent. **BioControl** 64(1): 103–114. https://doi.org/10.1007/s10526-018-09917-x
23. **Pascal Osa Aigbedion-Atalor**, Abiola O. Oke, Abiola A. Oladigbolu, Adejumo A. Layade, Igho B. Igbinosa, and Samira A. Mohamed (2019). *Tuta absoluta* (Lepidoptera: Gelechiidae) invasion in Nigeria: first report of its distribution. **Journal of Plant Diseases and Protection**. https://doi.org/10.1007/s41348-019-00255-3
24. **Pascal Osa Aigbedion-Atalor**, Medetissi Adom, Michael D. Day, Osariyekemwen Uyi, Ikponmwosa N. Egbon, Itohan Idemudia, Igho B. Igbinosa et al (2019). Eight decades of invasion by *Chromolaena odorata* (Asteraceae) and its biological control in West Africa: the story so far. **Biocontrol Science and Technology**. https://doi.org/10.1080/09583157.2019.1670782
25. **Pascal Osa Aigbedion-Atalor**, I. Idemudia, M. Adom & M. Day (2018). First record of a specialist folivore of *Chromolaena odorata* (Asteraceae) in Togo, and indices of its range expansion in Nigeria: implications for biological control. **Biocontrol Science and Technology** 28(8): 805–810. https://doi.org/10.1080/09583157.2018.1493722
26. **Pascal Osa Aigbedion-Atalor**, D.D. Wilson , V.Y. Eziah , M.D. Day & I.D. Paterson (2018). The distribution and abundance of the stem-galling fly, *Cecidochares connexa* (Macquart) (Diptera: Tephritidae), a biological control agent of *Chromolaena odorata* (L.) (Asteraceae), in Ghana. **African Entomology** 26(2): 471 – 480. https://doi.org/10.4001/003.026.0471

Graduate Students

Category	Current Number of Students	Number Graduated (Career)
Chair of Master Committees	1	3
Member of PhD Committees	2	1

Grant Support

Title of Grant:	Enhancing a newly developed push-pull technology for management of tropical nut borer
Source of Grant:	USDA APHIS PPA
Total Dollar Value:	$ 111,579.00
Dates of Grant:	2025-2026
Role:	Co-PI

Title of Grant:	Push-pull technology for management of tropical nut borer, a key pest of macadamia in Hawaii
Source of Grant:	USDA APHIS PPA
Total Dollar Value:	$114,147.00
Dates of Grant:	2024-2025
Role:	Co-PI

Title of Grant:	Classical biological control of *Spodoptera frugiperda* J.E Smith in Africa and Asia
Source of Grant:	DAAD
Total Dollar Value:	€ 129, 432.62
Dates of Grant:	2023-2024
Role:	PI

Title of Grant:	Regenerative edible insects for food, feed, and sustainable livelihoods: a framework for one health in rural Nigeria.
Source of Grant:	DAAD
Total Dollar Value:	€ 16, 980.00
Dates of Grant:	2023
Role:	PI

Title of Grant:	Training on regression and machine learning for biological control.
Source of Grant:	DAAD
Total Dollar Value:	€ 11, 980.00
Dates of Grant:	2021
Role:	PI

Title of Grant:	Optimizing sex pheromone tools of *Thaumatotibia leucotreta* (Meyrick) in South Africa
Source of Grant:	Rhodes University RC
Total Dollar Value:	ZAR 15,000.00
Dates of Grant:	2021
Role:	PI

Title of Grant:	*Tuta absoluta* (Meyrick) biocontrol in Ghana
Source of Grant:	BMBF and AvH
Total Dollar Value:	€ 2,755.00
Dates of Grant:	2021
Role:	PI

Presentations at Conferences

Title: Exploring stakeholder-and-community voices in developing IPM programs for ornamental pests in Hawai'i.
Authors: Pascal Aigbedion-Atalor*
Name of Conference: Pacific Branch Entomological Society of America Meeting 2025
Location: Utah, U.S.A.
Date of Presentation: April 01, 2025

Title: Phytotoxicity on ginger flowers and efficacy against citrus mealybug using combined fumigation of ethyl formate and phosphine.
Authors: TaeHyung Kwon and Pascal Aigbedion-Atalor*
Name of Conference: Pacific Branch Entomological Society of America Meeting 2025
Location: Utah, U.S.A.
Date of Presentation: April 01, 2025

Title: The role of conservation biocontrol in ornamental production systems in Hawaii.
Authors: Pascal Aigbedion-Atalor*
Name of Conference: 1st Global Agriculture Multidisciplinary International Conference
Location: Hawaii, U.S.A.
Date of Presentation: November 22, 2024

Title: Spatiotemporal Trends of Two Tortricid Pests of Macadamia in Hawaii Unravels the Threats of Invasive Species to Native Compositions.
Authors: Pascal Aigbedion-Atalor, Nathalie de Rocquigny, Itohan Idemudia*, and Angelita Acebes-Doria
Name of Conference: Entomological Society of America Meeting 2024
Location: Arizona, U.S.A.
Date of Presentation: November 12, 2024

Title: Methods in Insect Predator Augmentation.
Authors: Pascal Aigbedion-Atalor* and Peter Follet
Name of Conference: Pacific Entomological and Botanical Meeting, 2023
Location: Hawaii, U.S.A.
Date of Presentation: December 08, 2023

Title: *Beauveria bassiana* and Long-Lasting Insecticide-Incorporated Nets as Potential IPM Tools for the Tropical Nut Borer, *Hypothenemus obscurus*.
Authors: Pascal Aigbedion-Atalor*, Nathalie de Rocquigny and Angelita Acebes-Doria
Name of Conference: Pacific Entomological and Botanical Meeting, 2023
Location: Hawaii, U.S.A.
Date of Presentation: December 07, 2023

Title: Evaluating the potential of *Beauveria bassiana* and Long-Lasting Insecticide-Incorporated Nets for control of the tropical nut borer *Hypothenemus obscurus*
Authors: Pascal Aigbedion-Atalor* and Angelita Acebes-Doria
Name of Conference: Entomological Society of America Meeting 2023
Location: Maryland, U.S.A.
Date of Presentation: November 06, 2023

Title: The spread of *Tuta absoluta* (lepidoptera: Gelechiidae) in Nigeria: threat to food security and livelihoods

Authors: Pascal Osa Aigbedion-Atalor*, Oke Abiola, Oladigbolu Abiola, Layade Abiola, Igbinosa Benjamin and Mohamed Samira

Name of Conference: African association of insect scientists

Location: Abidjan, Ivory Coast.

Date of Presentation: November 20, 2019