Entomological and Agroecological Researcher with extensive experience in integrated pest management research projects focusing on insect vectors, trophic interactions, and invasive species. Highly developed skills in experimental design, literature review, statistical analyses and data visualization, training and managing technicians, and public speaking.

**KEY EXPERIENCE:**

* Extensive experience designing, executing, analyzing, and presenting greenhouse and field research projects
* Led data generation, statistical analyses, and visualization for collaborative research projects ranging from genetic and molecular data to landscape-level insect population data to global agricultural production statistics
* 10 years of experience establishing and maintaining insect colonies for agricultural and ecological research
* Produced 10 peer-reviewed publications in agriculture and entomology journals and presented research at professional conferences and extension events

**RESEARCH ASSISTANTSHIPS:**

**Postdoctoral Research Scholar,** University of California – Davis (Adv: Ian Grettenberger) 2021- Present

* Designed and executed field surveys of natural enemies for the invasive pest *Tuta absoluta* on processing tomato farms throughout California’s Central Valley leading to identification of two target species for future biological control
* Developed protocols and conducted experiments evaluating insecticide efficacy, host resistance, and natural enemy performance within Bio-Security Level 3 laboratories and greenhouses
* Created an R-based web applications for viewing up-to-date and historical population data and environmental conditions for lettuce pests in the Salinas valley (<https://salinaspestmap.shinyapps.io/salinas-pestmap/>)
* Established and maintained communication with a network of growers, PCAs, and extension specialists

**Graduate Research Assistant, USDA AFRI Predoctoral Fellow,** Washington State University (Adv: David Crowder) 2016-2021

* Developed and implemented a research program investigating impacts of biological control agents on insect vectors and plant pathogen transmission in dry pea production in Washington State, generating several peer-reviewed publications
* Hired, trained, and organized multiple teams of undergraduate technicians to assist with field, greenhouse, and laboratory research projects, including mentorship to develop research skills and future career opportunities
* Served as data manager and statistical lead on collaborative agriculture and ecology research projects investigating drought’s impacts on insect pest performance, pharmaceutical contaminants in pollinators, organic farming practices contributions to human socioeconomic responses, among others

**EDUCATION:**

**Washington State University, College of Agricultural, Human, and Natural Resource Sciences (CAHNRS)** Pullman, WA

Doctor of Philosophy in Entomology June 2016- May 2021

**Cornell University, College of Agriculture and Life Science**  Ithaca, NY

Bachelor of Science in Entomology, Cum Laude with Honors in Research May 2016

**SELECTED PEER-REVIEWED PUBLICATIONS:**

**B.W. Lee**, R.E. Clark, S. Basu, & D.W. Crowder, 2022, Predators affect a plant virus through density and trait-mediated indirect effects on vectors. *Food Webs*, 33, e00251.

**B.W. Lee,** S. Basu, S. Bera, C.L. Casteel, & D.W. Crowder, 2021, Responses to predation risk cues and alarm pheromones affect

plant virus transmission, *Oecologia,* 196(4), 1005-1015.

O.M. Smith, D.M. Jocson, **B.W.** Lee, R.J. Orpet, ... & Northfield, T. D. 2022. Identifying Farming Strategies Associated With Achieving Global Agricultural Sustainability. *Frontiers in Sustainable Food Systems*, 259.

**GRANT SUPPORT AND AWARDS:**

USDA Agriculture and Food Research Initiative Predoctoral Fellowship 2019-2021

WSU CSANR Lawrence Hickman Endowed Graduate Fellowship in Sustainable Agriculture 2021

Outstanding PhD Student of the Year, WSU Department of Entomology 2019

Achievement Rewards for College Scientists Fellowship 2016-2019

**ACTIVITIES AND SKILLS:**

**Skills:** Proficient in R Programming and Microsoft Office, Experienced Public Speaker, Experienced Teaching Assistant and Tutor

**Recreational:** New Harmony Jazz Band (saxophone), Cooking, Fermentation Science, Science Advocacy and Activism