KYLIE GREEN

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# Education

**BS** Pennsylvania State University, Veterinary and Biomedical Sciences August 2020

Relevant Coursework: Epidemiology of Infectious Diseases, Principles of Immunology, Biochemistry, Microbiology, Comparative Anatomy of Vertebrates, Principles of Animal Disease and Nutrition, Wildlife Disease

**Study Abroad** Tropical Field Ecology Program Winter 2018-2019

Upper-level field intensive ecology course in conjunction with academia in Costa Rica

Independent Research Topic: Introduction and co-parasitism of ectoparasites in neotropical roost populations through pregnant females

# Professional Publications and Presentations

***Peer-Reviewed Publications***

**Green, K. D.**, Tiffin, H. S., Burgess, E. R., Machtinger, E. T. 2022*.* Evaluation of tick control tube month of placement and modifications to increase visitation by small mammals. *Ecosphere,* 13(7):e4155. doi:10.1002/ecs2.4155

Poche, D., Wagner, D., **Green, K.,** Smith, Z., Hawthorne, N., Tseveenjav, B., Poche, R. 2023. Development of a low dose fipronil deer feed: Evaluation of efficacy against two medically important tick species parasitizing white-tailed deer (*Odocoileus virginianus*) under pen conditions. *Parasites and Vectors*. (Accepted)

***In preparation, peer-reviewed publications***

Roberts, C., Brown, J., Esoldo, M., Schuler, E.J, Chambers, G.Z., Marconi, R.T., Andrews, B., Thangamani, S., Durden, L., **Green, K.D**., Machtinger, E.T. Squirreling away the ticks: An Evaluation of ectoparasites and tick-Borne pathogen infection and antibodies in eastern gray squirrels (Sciurus carolinensis) (Rodentia: Sciuridae).

**Green, K. D.**, Tiffin, H. S., Burgess, E. R., Machtinger, E. T. Tick tube efficacy against *Ixodes scapularis* varies by season and duration of exposure.

***Presentations***

**Green, K. D.** “Introduction and Co-parasitism of ectoparasites in neotropical roost populations through pregnant females”. Undergraduate Research Fair. April 2019.

# Research Experience

**Research Technician,** The Pennsylvania State University, State College, PA 2020 - present

**Veterinary Entomology Laboratory**

Dr. Erika Machtinger

Department of Entomology, College of Agricultural Sciences

<https://www.machtingerlab.com>

* **Tick control method evaluation and surveillance,** via ectoparasite counts on small mammals, camera trap evaluation of small mammal use of tick control tubes, deer use of treated feed stations, and tick dragging along brush-lined trails
* **Evaluation of Acquired Tick Resistance** in white-tailed deer, via fieldwork including anesthesia and infestation of captive deer, and collection of ectoparasites, blood and tissue samples; via lab work including recording subsequent infestation effects on tick feeding success and fecundity
* **Disease manifestation comparison** of sarcoptic mange in bears and canids, via histological analysis of skin biopsies, quantified mite burden using tissue digestion protocol
* **Assessment of tick species** **and abundance** on live and hunter-harvested bears
* **Pathogen status and ectoparasite abundance on small mammals,** via small mammals live-trapped using Sherman traps and collection of ectoparasites, rodent blood and tissue samples
* **Ectoparasite surveys** of keds and ticks on hunter-harvested elk and white-tailed deer
* **Disease surveillance of Eastern Grey Squirrels,** via field work including live-trapping using Sherman traps, collection of ectoparasites, and blood and tissue samples; via lab work including disease screening for Borrelia spp. and Leptospira using molecular techniques on blood and tissue samples
* **Assessment of landscape change and stress on tick feeding success,** via field work including collection of hair and tissue samples from hair tubes and live small mammals; via lab work including validation and use of cortisol assay using DNA extraction and qPCR
* **Evaluation of treatment protocols** determining dose efficacy in GCP study for northern fowl mites in layer chickens by quantifying mite burdens
* **Small Mammal Colony Maintenance** including weaning, health assessments, breeding protocols, and euthanasia

**Research Support,** Pennsylvania Game Commission Fall 2022

* **Monitoring of federally protected bat roosts** in North Central Pennsylvania, via harp-trapping live bats, taking morphometrics, banding and radio-tagging to monitor movement, population trends, and reproductive status of native species

**Entomological Technician**, Genesis Laboratories Inc., Wellington, CO 2021-2022

David Poche

Vice President, Genesis Laboratories Inc.

<https://www.genesislabs.com>

* **Evaluation of treatment protocols** determining dose efficacy in GCP study for tick control in white-tailed deer by anesthetizing and infesting captive deer, monitor infestation site for tick detachment and ovipositing.

**Research Support**,The Pennsylvania State University 2022

**The Miller Lab**

Dr. David Miller

Department of Ecology, College of Agricultural Sciences

* **Population movement survey** of red-backed salamanders across their geographic range using radio telemetry with capture-mark-recapture of individuals marked with PIT tags, in combinations with coverboard and visual surveys.

**Independent Undergraduate Research**, The Pennsylvania State University 2019

**Project Lead,** “Introduction and Co-parasitism of ectoparasites in neotropical roost populations through pregnant females”

* Fecal, tissue, and ectoparasite samples taken from live-captured neotropical bats in mist nets to determine immune function and parasite burden of pregnant females. Roost surveys conducted to determine cohabitation of species and population count.

**Undergraduate Research Assistant**, University of Maryland 2015-2016

**Project Lead,** “Efficacy of Riparian buffers in filtering agricultural contamination from water run-off”

* **Microbial Source Tracking** to profile local water systems via processing contaminated water samples using Antibiotic Resistances Assays, PCR, gene sequencing, and direct pathogen culture and identification to determine if current regulations are sufficient to control potentially pathogenic organisms from contaminating the water supply.

# Relevant Work Experience

**Lab Manager,** The Pennsylvania State University 2022-Present

Veterinary Entomology Lab

* Supervising, training, and managing undergraduate field technicians
* Coordination of undergraduate and graduate students for independent and group research tasks, field work, and small mammal colony maintenance.
* Maintain monthly staff trainings, vehicle logs, and chemical inventory
* Maintain IACUC records and amendments for all current and past projects

**Assistant,** Hollin Hall Animal Hospital 2017 – 2019

Alexandria, VA

* Assist veterinarians and technicians with appointments, surgery, dentistry, and euthanasia and treatment of patients including
* Intake and outtake procedures for patients
* Maintaining medical records and dispensing medications
* Prepping surgical suite and surgical patients
* Processing laboratory samples, including CBCs and ear swab stains
* Prepared and autoclaved surgical tool kits

# Extension Service

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| **2019** | **Great Insect Fair** Department of Entomology, The Pennsylvania State University |
| **2019** | **Deer Ked Science 2 Practice Initiative**   |
| **2022 – Present**  | **Learn Now Video Development** Penn State Extension, The Pennsylvania State University. Development of Learn Now Videos on Hunters, Tick-Borne Disease Prevention, and Tick Protection around the Home.  |
| **2023** | **Ag Progress Days** The Pennsylvania State UniversityFacilitator for public information regarding vector-borne diseases, risk in Pennsylvania, and prevention and control methods available. |
| **2023** | **Vector Borne Disease Bootcamp** The Pennsylvania State University Facilitator for small-group instruction on tick surveillance for public health and vector control professionals. In collaboration with Northeast Regional Center for Excellence in Vector Borne Diseases.  |
| **2023** | **Equine Science 2 Practice Initiative** The Pennsylvania State UniversityAssessment of permethrin-treated fly masks and boots for vector control on domestic horses. Development of accompanying Learn Now videos and extension articles on filth fly and tick control prevention and management in equine facilities.  |
| 2023  | **Deer Ked and Hunter Safety Science 2 Practice Initiative** The Pennsylvania State UniversityAssessment deer ked and white-tailed deer behavioral response to commonly used repellents. Development of accompanying Learn Now videos and extension articles to emphasize use of repellents in hunter safety. |
| 2023 | **Great Insect Fair** Department of Entomology, The Pennsylvania State University |

# Professional Affiliations

Entomological Society of America, 2022

# References

Erika Machtinger, PhD, CWB®

Assistant Professor of Veterinary Entomology

Pennsylvania State University, Department of Entomology

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Karen Poh, PhD, MPH

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