# Mia Esoldo Research Assistant

State College, PA

#### Education

### **Pennsylvania State University**

BS in Wildlife and Fisheries Science (Wildlife Option)

GPA: 3.56

- Relevant Coursework:
  - Wildlife and Fisheries Measurements; Wildlife and Fisheries Conservation; Wildlife and Fisheries Management; Wildlife and Fisheries Population Dynamics; Wildlife Data Analysis; Wildlife Behavior; Mammalogy; Ornithology; Herpetology; Ichthyology; Field Dendrology; Vertebrate Dissections; Biostatistics; Mechanisms and Disease; International Agriculture; Soil Science; Global Natural Resource Management & Conservation; Scientific Writing
- Affiliations:
  - The Wildlife Society Student Chapter; Sigma Alpha Agricultural Sorority

# Work Experience

#### Pennsylvania State University - Veterinary Entomology Lab

Research Assistant/Associate

University Park, Pennsylvania • Full-Time: 40 hours per week

Supports and facilitates research on ectoparasites, vectors, and vector-borne diseases. Responsibilities include trapping, anesthetizing, tagging, and acquiring tissue/blood samples from wild rodents, field tick surveillance, handling wild, domestic, and lab animals such as mice, voles, chickens, and horses, maintaining fly colonies, and data management.

# **Humane Animal Rescue Wildlife Rehabilitation Center**

May 2020 – August 2020 Verona, Pennsylvania

September 2021 – Present

August 2018 - May 2021

University Park, Pennsylvania

• Part-Time: 24-32 hours per week

• Part-Time: 4-10 hours per week

Educated the public about wildlife rehabilitation and cared for native wildlife in need of rehabilitation by handling wild animals, preparing diets, administering medicine, cleaning enclosures, and providing enrichment activities.

# **EcoReps**

August 2019 – May 2020

Student Leader for Sustainability

University Park, Pennsylvania

Held a leadership role where I worked diligently with a team of peers, educated other students about environmental sustainability, created educational extension material, and developed communication skills with the public.

#### Shaver's Creek Environmental Center - Outdoor School

Camp Counselor

September 2019 – October 2019 University Park, Pennsylvania

• Week long program with training; 126 hours total

Trusted with the care of middle school children for a week, effectively taught educational material about the environment, and created an engaging setting for learning.

#### Pittsburgh Zoo and PPG Aquarium

Zoo Teen

May 2018 – August 2018 Pittsburgh, Pennsylvania

• Part-Time: 8-16 hours per week

Educated the public about wildlife conservation and practiced animal husbandry, enrichment, and restraint in an AZA accredited zoo by handling wild animals, preparing diets, cleaning enclosures, and providing enrichment activities.

1/3Mia Esoldo

# **Research Experience**

#### Research Assistant/Associate

Pennsylvania State University - Veterinary Entomology Lab

September 2021 – present University Park, Pennsylvania

# Projects include:

# • Thermacell Tick Tubes: Reducing Ticks on Mice

- Assisted with tube checks by weighing and recording permethrin-treated cotton inside of cardboard tubes at four study sites.
- Baited and positioned Sherman traps along transects to trap white-footed mice. Trained in handling and anesthetizing wild rodents, acquiring tissue and blood samples, and counting ticks.
- Entered and analyzed data on Microsoft Excel.

#### • Constituents of Garlic on Reducing Tick Feeding Success (White-Footed Mouse)

- Handled white-footed mice in a laboratory setting, infested mice with ticks, and conducted tick checks.
- Calculated garlic dosages, weighed and distributed control and treatment water to mice, recorded water consumption, and documented data.

# • Poultry Bed Bug Surveillance and Trap Evaluation

- Visited poultry farms and deployed multiple bed bug trap types, refreshed trap lures, collected live bed bugs from traps, and recorded trap catch.
- Assisted in bed bug identification, counting the number of bed bugs via microscope, separating bed bugs by life stage, and recording data.
- Completed preliminary data analysis and will write sections of a future paper.

### • Drug Administration on Poultry for Northern Fowler Mites

- Handled chickens in a breeder barn, placed leg-bands, and infested poultry with mites.
- Measured and administered a drug and control solution into water, monitored water consumption of chickens, and performed general health exams.

#### • Deer Detection of Insecticides/Repellents

- Set up and maintained camera traps and analyzed pictures/videos for white-tailed deer at different study sites.
- Baited and applied repellents to study sites during replication events to attract white-tailed deer.

# • Tick Safe Camera Trap Data

- Set up and maintained camera traps and analyzed pictures for wildlife species and human presence at different study sites.
- Entered data on Microsoft Excel.

#### • Parasite Evaluation in Squirrels

- Baited and positioned squirrel traps along transects to trap Pennsylvania squirrel species. Trained in handling and anesthetizing wild squirrels, acquiring tissue and blood samples, and counting ticks.
- Assisted in tick identification, counting the number of ticks via microscope, separating ticks by life stage, and recording data.

#### • Tick Bioassays on Horses

- Assisted in anesthetizing horses, recording vitals, applying different concentrations of permethrin and control solutions onto hooves, and positioning ticks onto hooves.
- Recorded timed trial data onto document sheets.

#### Mange in Black Bear and Canid Study

- Assisted in data entry for tick tissue digestion on Microsoft Excel.

# **Undergraduate Research**

Pennsylvania State University - Dr. David A.W. Miller

February 2021 – May 2021 University Park, Pennsylvania

#### Climate Effects on Population and Range Dynamics of Red-Backed Salamanders

- Collaborated with Dr. Miller and the Salamander Population & Adaptation Research Collaboration Network's (SPARCnet) red-backed salamander data from capture-mark-recapture surveys.
- Constructed population dynamics models in RStudio on the range and density of red-backed salamanders.
- Developed educational outreach material utilizing SPARCnet research on how climate change and other environmental variables affect salamanders.

Mia Esoldo 2 / 3

# **Skills**

# Field Skills

Camera trapping, live-trapping mammals, capture-mark-recapture methods, electrofishing, cover board trapping amphibians, mist netting birds, bird banding, wildlife handling and restraint, and wildlife anesthesia and euthanasia

# **Education**

Outreach, ecosystems, wildlife conservation, and wildlife rehabilitation

#### Communication

Scientific writing and public speaking

# Wildlife Techniques

Behavior, measurements, data analysis, population dynamics, conservation, and management

#### Identification

Tree, bird, mammal, reptile, and amphibian identification

# **Computer Skills**

RStudio, Microsoft Office applications, Google applications, and social media

Mia Esoldo 3/3