

**Quin Baine** | 311 B Cornell Drive SE, Albuquerque NM 87106 | 831.706.0653 | quinbaine@gmail.com

## EDUCATION

### University of New Mexico

*Master of Science in Biology, expected 2023*

Albuquerque, NM | **2021-present**

### The Evergreen State College

*Bachelor of Science in Ecology, 2015*

Olympia, WA | **2014-2015**

### Wildlands Studies: Ecosystem Conservation and Culture

#### Cabrillo College

Madre de Dios, Peru | **2015**

Aptos, CA | **2011-2013**

## WORK EXPERIENCE

### Graduate Curatorial Assistant

*Museum of Southwestern Biology - Division of Fishes*

**August 2021 - Dec 2021**

Albuquerque, NM

- Prepared wet specimens for preservation using formalin fixation.
- Managed initiation of collection barcoding.
- Maintained and updated Arctos collection databases.

### Life Sciences Research Technician

*University of New Mexico Biology Department - Martinson Lab*

**Nov 2020 - August 2021**

Albuquerque, NM

- Maintained colonies of insect research subjects including Pteromalidae parasitoid wasps, Ptinidae beetles and Sarcophagidae flies.
- Managed undergraduate employee and intern scheduling and training.
- Was responsible for ordering, maintaining and repairing supplies and equipment.
- Co-designed and implemented parasitoid-host experiments to document feeding preference and phenology.
- Co-designed and implemented parasitoid community survey of New Mexico *Aciurina* galls and identified reared specimens to genus.
- Dissected parasitoid wasp genitalia and venom glands for analysis.
- Dissected beetle genitalia and digestive systems for analysis.
- Performed DNA and RNA extractions, and PCR for sequencing of insect and fungal tissues.
- Cultivated fungal colonies extracted from Ptinidae beetle digestive systems.

### Agricultural Research Technologist

**Dec 2019 - Nov 2020**

#### Agricultural Technologist

**Jan 2017-Feb 2018; Oct 2018-Dec 2019**

*Washington State Department of Agriculture Entomology Lab— Plant Protection*

Olympia, WA

- Wrote and designed content for a USDA-APHIS IDTool project for North American sawfly identification (*SawflyGenUS*) including 165 genus and species accounts, three multi-access Lucid identification keys and range maps compiling data from multiple collections and online repositories.
- Processed contents of ~4000 traps used for the detection of introduced pest *Vespa mandarinia* (Asian giant hornet) and identified all *Vespa* and bycatch Vespidae to species.
- Produced photographs of insects and microscopic anatomical structures using photomontage camera systems.
- Collaborated on a prairie pollinator survey by identifying Apoidea and Diptera insect specimens to species; mentored a collaborator on Apoidea identification.
- Reared and documented emergence of rose and *Hypochoeris* gall wasps and associated parasitoids, and leaf mining sawflies (Tenthredinidae: Heterarthrinae).
- Conducted analyses of data on wood-boring pest populations.
- Contributed to the digitization of the Oregon State Arthropod Collection (Corvallis, OR).
- Co-planned and implemented field surveys and experiments using multiple insect lures and traps.
- Dissected and provided species identifications for thousands of Lepidoptera specimens from multiple states.
- Mounted, labelled and curated insect specimens into the Washington State Department of Agriculture Collection.
- Supported lab operations using safety protocols for all equipment, instruments and chemical solutions.

## Lepidoptera Research Assistant

*Alliance for a Sustainable Amazon*

**Mar-Sept 2018**

Las Piedras, Perú

- Worked as part of a two-person team to contribute to an ongoing butterfly and moth project in the region: created a species inventory, designed a trap attractant trial, maintained a rearing study and collected new host plant data.
- Co-curated the first insect collection for the organization.
- Taught lessons on insect adaptation to youth.

## Marketing Assistant

**Interim Farm Manager**

**Assistant Farm Manager**

*Garden-Raised Bounty (GRuB)*

**Nov 2016-April 2017**

**March-Nov 2016**

**May 2014-Feb 2016**

Olympia, WA

- As manager, supervised all farm operations including propagation, crop planning, irrigation, integrated pest management, harvest, soil management, markets, CSA coordination, layer chicken care and intern program.
- As assistant manager, worked with the farm manager to supervise interns, volunteers and youth crew members in farm tasks while assisting with harvest planning, markets and CSA program.
- As marketing assistant, produced graphic publications for distribution to donors and the public.

## Instructor

*Brooklyn Botanic Gardens – Project Green Reach*

**June-Aug 2013**

Brooklyn, NY

- Taught 4<sup>th</sup>-7<sup>th</sup> grade participants in botany, gardening and nutrition as part of a summer program for disadvantaged New York City youth.

## Assistant Team Leader / AmeriCorps Member / Project Outreach Liaison

*AmeriCorps National Civilian Community Corps (NCCC)*

**Feb-Nov 2012**

Perry Point, MD

- Completed seven team projects with regional non-profit organizations involving landscaping, trail maintenance, infrastructure improvement, construction, childhood education, organic farming and environmental stewardship.
- Acted as supervisor during team leader's absence.
- Coordinated volunteer opportunities with local non-profit organizations for my team and others to earn hours towards the Presidential and Congressional service awards.

## PEER-REVIEWED PUBLICATIONS

Baine, Q., C. Looney, D.R. Smith, N.M. Schiff, H. Goulet, and A.J. Redford. **2021\***. Sawfly GenUS version 2. USDA APHIS Identification Technology Program (ITP). Fort Collins, CO. <<http://idtools.org/id/sawfly/>> (\*in review)

Olsson, R.L., M.R. Brousil, R.E. Clark, Q. Baine, and D.W. Crowder. **2021**. Interactions between plants, bees, and non-bee pollinators across an urbanization gradient. *Food Webs* 27. <<https://doi.org/10.1016/j.fooweb.2021.e00194>>

Baine, Q., C. Looney, D.R. Smith, N.M. Schiff, H. Goulet, and A.J. Redford. **2020**. Sawfly GenUS. USDA APHIS Identification Technology Program (ITP). Fort Collins, CO. <<http://idtools.org/id/sawfly/>>

Baine, Q. and C. Looney. **2019**. Plant associations for three sawfly species (Hymenoptera: Tenthredinidae) in the Pacific Northwest. *Journal of Hymenoptera Research* 74: 27-33. <<https://doi.org/10.3897/jhr.74.46795>>

Baine, Q., G.P. Espinoza, S. Nakahara and G. Gallice. **2019**. Immature stages and new host record of *Taygetis rufomarginata* Staudinger, 1888 (Lepidoptera: Nymphalidae: Satyrinae). *Tropical Lepidoptera Research* 29(2): 79-86. <<http://doi.org/10.5281/zenodo.3515367>>

## OTHER PUBLICATIONS

Baine, Q. and C. Looney. **2020**. Don't squish me! Local insects, Asian giant hornets, and the case of mistaken identities. Washington State Department of Agriculture Ag Briefs. Online. <<https://wastatedeptag.blogspot.com/2020/06/>>

Baine, Q. and H. Brailovsky. **2018**. Coreidae (Hemiptera) of Finca Las Piedras, Madre de Dios, Perú. Field Museum, Guide 1106. Online. <<https://fieldguides.fieldmuseum.org/guides/guide/1106>>

## PRESENTATIONS

Baine, Q. **2021**. "Two projects in plant-insect interactions: sawfly pests and gall fly communities." Biology Department Brown Bag Seminar. University of New Mexico, Albuquerque NM, 17 Nov.

Baine, Q., C. Looney, D.R. Smith, N.M. Schiff, H. Goulet, and A.J. Redford. **2021**. "Sawfly GenUS: a new resource for North American sawfly (Hymenoptera: Symphyta) identification." Submitted ten-minute talk. Entomological Society of America (ESA) Annual Meeting. Denver CO, 31 Oct.

Baine, Q., C. Looney, D.R. Smith, N.M. Schiff, H. Goulet, and A.J. Redford. **2021**. "Sawfly GenUS version 2: a new resource for North American sawfly (Hymenoptera: Symphyta) identification." Poster. Entomological Society of America (ESA) Southwestern Branch Virtual Symposium. Online, 28-29 June.

Baine, Q., C. Looney, D.R. Smith, N.M. Schiff, H. Goulet, and A.J. Redford. **2020**. "Sawfly GenUS: a new resource for North American sawfly (Hymenoptera: Symphyta) identification." Poster. Entomological Society of America (ESA) 3rd Annual International Branch Virtual Symposium. Online, 17-19 Apr.

Looney C. and Q. Baine. **2019**. "Moths and sawflies - overview of families, select genera, and identification techniques." Workshop. Anchorage AK, 1-4 Oct.

Baine, Q. **2018**. "Creando colecciones de insectos poco conocidos usando 'captura acompañante' de trampas en Finca Las Piedras, Perú (Creating collections of little known insects using trap bycatch in Las Piedras, Peru)." Poster. VII Simposio de Investigación y Monitoreo Biológico en Áreas Naturales Protegidas y Corredores de Conservación (Seventh Symposium of Research and Biological Monitoring in Natural Protected Areas and Conservation Corridors). Puerto Maldonado, Madre de Dios, Perú, 15 Sept. <<https://www.sustainableamazon.org/publications>>

## INTERNSHIP AND VOLUNTEER EXPERIENCE

<b>Entomology Lab Assistant Intern</b> <i>Washington State Department of Agriculture</i> Supported lab operations by documenting, photographing, mounting and identifying insect specimens, specializing in Hymenoptera.	<b>Jan-March 2016</b> Olympia, WA
<b>Student Researcher</b> <i>Evergreen Ecological Observation Network (EEON)</i> Supported lab operations by identifying aquatic invertebrates and organizing and cataloging long-term ecological and specimen data.	<b>March-June 2015</b> Olympia, WA
<b>Farm Volunteer</b> <i>Olympia Kiwanis Food Bank Farm</i> Assisted with the preparation of fields for planting, greenhouse seeding and leading volunteer groups	<b>Feb-April 2014</b> Olympia, WA
<b>Kitchen Garden Project Intern</b> <i>Garden-Raised Bounty (GruB)</i> Worked to organize and lead weekly home garden builds for low-income families. Organized annual Day of the Bed event.	<b>March-June 2014, March-May 2015</b> Olympia, WA
<b>Educator Intern</b> <i>Life Lab: Farm and Garden Education</i> Led elementary student groups in activities on botany, gardening and nutrition.	<b>Sept-Dec 2013</b> Santa Cruz, CA

## AWARDS

- University of New Mexico Graduate & Professional Student Association (UNM GPSA) Student Research Grant Fall 2021
- University of New Mexico Biology Graduate Student Association (UNM BGSA) Graduate Research Allocations Committee Travel Award Fall 2021
- Robert J. Meyer Organic Farming Scholarship 2014
- Congressional Award and Silver Medal 2012
- Presidential Volunteer Service Award and Bronze Medal 2012
- Segal AmeriCorps Education Award 2012
- California Scholarship Federation Recognition 2011

## **MEMBERSHIPS**

Entomological Society of America (ESA)

**2021 - present**