

# CURRICULUM VITAE

**Maia Holmes (she/her/hers)**

## ADDRESS

E007 Plant Sciences Building

Agricultural Biology, Colorado State University

1177 Campus Delivery, CSU

Fort Collins, CO 80523-1177

## PHONE

(303)-726-1405

## EDUCATION

2020 M.S., Entomology, Colorado State University

2017 B.S., Fish, Wildlife, and Conservation Biology, Colorado State University  
Associated minor in Conservation Biology

## APPOINTMENT

30% outreach with the CSU Bug Zoo, 70% teaching within the Department of Agricultural Biology

## EMPLOYMENT

2020-present Instructor for BSPM 102 Insects, Science, and Society

2017-present Director of the CSU Bug Zoo

2017-2020 Graduate Student Researcher and Teaching Assistant

2015-2017 Husbandry Specialist of the CSU Bug Zoo

2013-2016 Outreach Coordinator for the CSU Chemistry Club

## **TEACHING AND OUTREACH EXPERIENCE**

2010-2013

### **Outreach Presenter with the Center for Snake Conservation**

*Responsibilities* – assisted in and led presentations to the public on the ecological role of snakes, using live snakes from both Colorado and around the world.

### **Zoological Discovery Center Presentation Leader**

*Responsibilities* – assisted in and led presentations to the public on the evolutionary biology of reptiles, amphibians, and arthropods from Colorado and around the world.

2012-2016

### **Outreach Coordinator for the Chemistry Club, a position funded through the CSU Chemistry Department**

*Responsibilities:* the focus of this position is to develop, schedule, and lead lessons, presentations and demonstrations of chemistry to a K-13<sup>th</sup> grade audience. This included developing and co-leading an afterschool STEM class for 1<sup>st</sup>-3<sup>rd</sup> graders, creating a hands-on lesson accessible for 1,000 participants for the City of Fort Collins Hogwarts Halloween event, and organizing the Chemistry Department's Halloween Spooktacular. Led approximately 200 outreaches during this time.

### **Outreach Assistant for Dr. Bob Reed, a position funded through the USGS**

*Responsibilities:* the goal of this position was to teach 3<sup>rd</sup> grade students math concepts and data collection methods using living snakes in classrooms across Ft. Collins. The position required caring for and maintaining a collection of milk and corn snakes and assisting in the development and presentation of lesson materials.

### **Husbandry Specialist for the CSU Bug Zoo, a position funded through the CSU Department of Agricultural Biology**

*Responsibilities:* this position required creating, scheduling, and leading educational outreach events for all age groups, with a particular focus on agricultural literacy and food systems. This encompassed recruiting, training, and managing a team of undergraduate volunteers while ensuring proper and appropriate care of animals, including proper documentation of care and feeding. Additionally, this position required creating and managing annual budgets, as well as documenting and publishing annual summary reports of Zoo progress.

### **Director for the CSU Bug Zoo, a position funded through the CSU Department of Agricultural Biology**

*Responsibilities:* Creating, scheduling, and leading educational outreach events for all age groups, with a particular focus on agricultural literacy and food systems.

Additionally, this position is responsible for managing the Husbandry Specialist, obtaining funding, and creating and managing annual budgets. This position also encompassed recruiting, training, and managing a team of undergraduate volunteers with the Husbandry Specialist, with the main focus being on outreach content development and delivery.

2017

**Graduate Teaching Assistant** for two lab sections of LIFE 102 Attributes of Living Systems

*Responsibilities:* The focus of this position is to lead twelve laboratory experiments relating to the LIFE102 Attributes of Living Systems class. This involves attending weekly meetings over the week's material, creating content such as instructional material and quizzes, navigating students through scientific experiments, grading student presentations and reports, and managing communication with students.

**Director for the CSU Bug Zoo, a position funded through the CSU Department of Agricultural Biology**

*Responsibilities:* Creating, scheduling, and leading educational outreach events for all age groups, with a particular focus on agricultural literacy and food systems. Additionally, this position is responsible for managing the Husbandry Specialist, obtaining funding, and creating and managing annual budgets. This position also encompassed recruiting, training, and managing a team of undergraduate volunteers with the Husbandry Specialist, with the main focus being on outreach content development and delivery.

**53 CSU Bug Zoo Presentations** including:

*Superworms as Super Models*, a workshop created by the CSU Bug Zoo designed to use beetle larvae as models for data collection and analysis with middle school girls at Expand Your Horizons

*Bugs Badge*, a workshop created by the CSU Bug Zoo that provides Girl Scout troops with all the requirements to receive the Entomology badge for young girls. The presentation meets the requirements of discussing insect habitats and diets, interacting with live insects, and meeting someone who works professionally with insects.

*West Greeley Conservation District Annual Barbeque*, an event discussing local habitat conservation with 500 participants

*Ram Welcome*, encouraging first year students to become involved in the College of Agricultural Sciences

*Enchanted Gardens* with the Gardens at Spring Creek, using insects to inspire elementary aged children to explore their environment with 2,000 participants.

*Hogwarts Halloween* with the City of Fort Collins, using the “fantastic beasts” from the CSU Bug Zoo to spark a curiosity in children for arthropods from around the world.

*CSU Spooktacular* with the Chemistry Department, using insects to inspire elementary aged children to explore science with 800 participants.

2018

**Graduate Teaching Assistant** for the lecture section of LIFE 102 Attributes of Living Systems

*Responsibilities:* The focus of this position is to aid the course instructor by leading students during office hours three times a week, managing all aspects of the course through Canvas including grading and entering exam results, and responding to emails and concerns about the course from students and other instructors. This course has an average of 200 students.

**Graduate Teaching Assistant** for the lecture section of BSPM 102 Insects Science and Society

*Responsibilities:* This position involves supporting the course instructor through grading weekly assignments, grading a large final project, and office hours three times a week. This course has an average of 250 students.

**BSPM 102 Guest Lecture** on identification and features of common wasps found in Colorado

**Graduate Teaching Assistant** for the lecture section of BSPM 102 (Summer)

*Responsibilities:* This position involves supporting the course instructor through creating and grading weekly assignments and grading a large final project. This course has an average of 50 students.

**Gillette Entomology Club**, presentation on the safe handling and keeping of tarantula spiders (30+ participants)

**2018 Invertebrates in Education and Conservation Conference**, poster presentation on the influence prey has on assassin bug fitness

**Director for the CSU Bug Zoo, a position funded through the CSU Department of Agricultural Biology**

*Responsibilities:* Creating, scheduling, and leading educational outreach events for all age groups, with a particular focus on agricultural literacy and food systems. Additionally, this position is responsible for managing the Husbandry Specialist, obtaining funding, and creating and managing annual budgets. This position also

encompassed recruiting, training, and managing a team of undergraduate volunteers with the Husbandry Specialist, with the main focus being on outreach content development and delivery.

**84 CSU Bug Zoo Presentations (reaching approximately 43,000 participants)**

including:

*Ag on the Plaza*, a day on the LSC plaza promoting entomology through both the College of Agricultural Sciences and the Bioagricultural Sciences and Pest Management Department

*Environment Learning Center Girls in STEM Camp*, an activity focused on field collection and identification techniques of arthropods, and a presentation on how young women can find careers in Science, Technology, Engineering, and Math (STEM).

*Denver County Fair*, representing Colorado State University and sharing live arthropods with participants from around Colorado.

*Expand Your Horizons*

*Ram Welcome*

*Enchanted Gardens*

*Hogwarts Halloween*

*CSU Spooktacular*

2019

**Graduate Teaching Assistant** for the lecture section of LIFE 102 Attributes of Living Systems

**Graduate Teaching Assistant** for the lecture section of BSPM 102 Insects Science and Society

**CSU Bug Zoo Outreach Presentation** with the Little Shop of Physics Open House (8,000 participants) sharing the physics behind arthropod movement.

**Gillette Entomology Club** Presentation with the Housing and Dining Services on environmental advantages of entomophagy (200 estimated participants)

**CSU Bug Zoo Outreach Presentation** with the Polaris Public Achievement Class, a youth led civic engagement that promotes student voice and transformative change for individuals, schools and communities. The presentation involved meeting with students to create a community service project focused on conservation of invertebrates in local habitats.

**Gillette Entomology Club** Presentation on the anthropological history and sustainability of entomophagy (80 estimated participants)

**Co-Instructor for Summer 2019 BSPM 102** Presented six lectures on arthropods, as well as creating 24 essay questions, ten writing assignments, weekly meetings with the Student Athlete Success Team, and grading.

**Director for the CSU Bug Zoo, a position funded through the CSU Department of Agricultural Biology**

*Responsibilities:* Creating, scheduling, and leading educational outreach events for all age groups, with a particular focus on agricultural literacy and food systems. Additionally, this position is responsible for managing the Husbandry Specialist, obtaining funding, and creating and managing annual budgets. This position also encompassed recruiting, training, and managing a team of undergraduate volunteers with the Husbandry Specialist, with the main focus being on outreach content development and delivery.

2020

**Graduate Teaching Assistant** for the recitation portion of AGRI 116 Plants and Civilization

*Responsibilities:* This position involves teaching three recitation sections weekly. Recitation focuses on developing critical thinking and writing skills through classroom discussions, writing assignments, and a semester-long research paper.

**CSU Bug Zoo Outreach Presentation** with the CSU AgAdventures Cam's Classroom at the National Western Stock Show

**CSU Bug Zoo Outreach Presentation** with Bethke Elementary School kindergarten classes

**CSU Bug Zoo Outreach Presentation** with the recipients of the Boettcher Scholarship

**CSU Bug Zoo Outreach Presentation** with a Ft. Collins home school group

**CSU Bug Zoo Outreach Presentation** with Preston Middle School 6/7<sup>th</sup> grade Special Education reading class

**CSU Bug Zoo Outreach Presentation** with the Fort Collins Conservation District with all 4<sup>th</sup> grade students in the Poudre School District, a series of 20-minute flash presentations presented to each class on local spiders

**CSU Bug Zoo Outreach Presentation** with the Environmental Learning Center and Polaris Expeditionary Learning School 2<sup>nd</sup> grade after school program

**CSU Bug Zoo Outreach Presentation** at the Little Shop of Physics 29<sup>th</sup> annual Open House event, with 10,000 participants from across the state

**Co-Instructor for Summer 2020 BSPM 102** Presented lectures on arthropods, as well as designing the transition from traditional classroom to online class, creating 24 essay questions, ten writing assignments, weekly meetings with the Student Athlete Success Team, and grading

**Co-Instructor for Fall 2020 BSPM 102** Presented lectures on arthropods, as well as designing the transition from traditional classroom to digital class, creating 12 discussions and writing assignments using up-to-date pedagogy, weekly meetings with students, and grading

**Instructor for BSPM 102 Online** Created, recorded, and delivered course content for BSPM102 through CSU Online. This included creating course materials and assignments that aligned with course objectives, developing new exams using the Canvas Quizzes updates, and weekly meetings with an Instructional Designer.

## 2021

**Instructor for BSPM 102-801 (Online)** Created, recorded, and delivered course content for BSPM102 through CSU Online. Included creating and presenting course materials and assignments, delivering new exams using the Canvas Quizzes updates, and meeting with students.

**Co-Instructor for Spring 2021 BSPM 102** Presented lectures on arthropods, as well as maintaining the transition from traditional classroom to digital class, creating 12 discussions and writing assignments using up-to-date pedagogy, weekly meetings with students, and grading.

**CSU Bug Zoo Outreach Presentation** with the Poudre School District Online during the digital Winter Festival

**CSU Bug Zoo Outreach Presentation** at the 2021 Expedition CO experience, an educational experience for 4th graders in the Poudre School District to engage in a one-day, hands-on learning event focused on Colorado agriculture and how these concepts connect to Colorado History and Colorado geography.

**CSU Bug Zoo Outreach Presentation** at the Ft Collins School of Witchcraft and Wizardry, a digital reimaging of the annual Hogwarts Halloween event organized by the City of Fort Collins.

## **MEDIA CONTACT**

Represented the CSU Bug Zoo in an interview with Krista Kafer for the Denver Museum of Nature and Science (<https://medium.com/@DMNS1908/move-over-megafauna-the-minifauna-zoo-is-worth-a-visit-3727ef6b9147>)

Represented the CSU Bug Zoo in an interview for the CSU TV Channel 11 show Humans of CSU (<https://www.youtube.com/watch?v=ZMauyhPmyTo&t=1s>)

Represented the CSU Bug Zoo in an interview for Yellowscene Magazine

Represented the CSU Bug Zoo in an interview for the Colorado Independent

Represented the CSU Bug Zoo in an interview for CBS Denver News (<https://www.youtube.com/watch?v=otH6E8B-tl0>)

Represented the CSU Bug Zoo in assisting the PBS Science channel Deep Look for filming of an episode on tarantula mating (<https://www.youtube.com/watch?v=5gOKd4cqFaY>)

Represented the CSU Bug Zoo in an interview for KOA Colorado Morning News (<https://koacolorado.iheart.com/content/2019-09-20-tarantula-migration-in-colorado/>)

Represented the CSU Bug Zoo in Halloween-themed interview on spiders for KRFC Critter Patter Radio Show (file available upon request)

Represented the CSU Bug Zoo in the Little Shop of Physics' 'Ask a Scientist' series on what insects students are finding while learning at home during the Covid19 Pandemic (4 part series, files available upon request)

Represented the CSU Bug Zoo in an interview with KRFC Critter Patter Radio Show on what insects people can look for in their backyards during the Covid19 Pandemic (file available upon request)

## **EXTENSION SUPPORT**

Secured annual funding (\$6,000) for the CSU Bug Zoo through the Department of Agricultural Biology

Received \$1,000 grant through the College of Agricultural Sciences STEM Education Program

Secured funding to hire a student hourly employee as the Husbandry Specialist at the CSU Bug Zoo



Received over \$2,000 in donations to the CSU Bug Zoo from members of the public and community organizations

Secured funding to attend and present at the Invertebrates in Education and Conservation Conference 2018 on the influence of diet on the growth and survival of captive *Platymeris biguttatus*

Received NSF funding with Dr. Seth Davis to fund a 30% salaried position for 2 years to create and present educational materials on the ecology of mountain pine beetle and climate change to K-5<sup>th</sup> grade students.

## **AWARDS AND RECOGNITION**

**Recipient of the 2015 CSU Chemistry Department Undergraduate Outreach Award.** This award is based on the chemistry faculty's recognition of outreach efforts to the community on behalf of the CSU Chemistry Department.

**Recipient of the 2016 CSU Chemistry Department Undergraduate Outreach Award.** This award is based on the chemistry faculty's recognition of outreach efforts to the community on behalf of the CSU Chemistry Department.

**Recipient of the 2018-2019 Charles N. Shepardson Graduate Teaching Award.** This award is given to one graduate student in the College of Agricultural Sciences who has demonstrated excellence in classroom teaching of agriculture- related courses at CSU.

**Recipient of the 2019 Bert Bohmont Graduate Student Award for Excellence in Extension Education.** This award is given to graduate students who have demonstrated high academic achievement and ability; dedication to entomology, plant pathology, weed science, or related field; demonstrated excellence in extension activities such as presentations at workshops or field days; participation in departmental and university activities; and proven ability to help and work cooperatively with others

## **SERVICE**

**Faculty/Staff Co-Advisor for the CSU Entomology Club from 2020 to present** – a position elected by the club officers, the Advisor provides assistance (informative, social, networking) at

the request of club officers on resources available to the Club, as well as assisting in coordinating efforts between the Department and Club.

**Officer of the CSU Entomology Club from 2015 to 2020 - Outreach Liaison**, coordinated outreaches between the Entomology Club and CSU Bug Zoo so that the club had access to live arthropods for their outreaches, as well as led club meetings and attended all officer and club meetings

**Member of the CSU Entomology Club from 2013 to 2020**

**Officer of the CSU Chemistry Club from 2013 to 2015– Outreach Coordinator**, created, scheduled and presented educational programs for a K-8<sup>th</sup> grade audience on chemistry and other general science concepts, led club meetings, attended all officer and club meetings, and organized the search for and eventual hiring of a replacement Outreach Coordinator

**Member of the CSU Chemistry Club from 2012 to 2015**

**Editor of the Miller Museum of Entomological Wonder from 2020-present**

### **OTHER ACCOMPLISHMENTS:**

Participated in TRN-TILT Intro to Online Course Design, a digital course offered through The Institute for Learning and Teaching on the mechanics and approaches needed to teach an online course through Canvas.

Participated in the first CSU Mobile Summer Institute (MoSI), a week-long workshop on integrating evidence-based teaching strategies for faculty in Science, Technology, Engineering, and Mathematics (STEM) fields.

Participated in TRN-TILT Engaging Students in Your Online Course, a digital course offered through The Institute for Learning and Teaching on the best practices and approaches to increase student engagement in online courses through Canvas.

Participated in the 2019 TILT Fall Faculty Ramp Up:

- Teaching Effectiveness Framework Overview and Goal Setting, a workshop focused on improving teaching effectiveness through targeted goal setting and lesson frameworks.

- Access for All: Partnering with Student Disability Center to Support Disabled Students, a seminar on the resources available to instructors to facilitate the success of students with disabilities.
- iClickers: Engaging students for deeper learning, a workshop on best practices for creating iClicker questions that use active learning

Participated in the 2019 TILT Professional Development Institute Winter Conference:

- Feedback and Assessment: Integrating Formative Feedback into your Teaching, a workshop through the Professional Development Institute focused on developing best practices in formative assessments and effective feedback.
- Increasing Student Equity by Supporting CSU Students Who Are Undocumented - From Campus to Career, a workshop focused on the best approaches to supporting students who are undocumented at Colorado State University.
- The Future of Quizzes in Canvas, a workshop exploring the features available for quizzes that will be available through Canvas in the fall of 2020.
- "Thanks, Kiddo:" Navigating the Professional World as a Young Professional, a workshop focused on creating a network of young professionals in academia.
- Sustainability 101 at CSU - What we do and how you can help, a seminar on the steps CSU has taken to become the most sustainable campus in the US and what areas there are to improve in.

Participated in the Fall 2020 TILT pop-up workshop:

- Handling Hot Moments in Online Courses – a 90-minute workshop during which instructors will learn strategies for inclusive and rigorous synchronous and asynchronous learning environments that align with CSU's Principles of Community.

Participated in the 2020 pollinator webinar:

- Pursuing pollinator-friendly pathways during COVID-19: experiences from BES-Net's Regional Dialogues, a webinar that provided an opportunity to learn how the countries that have participated in the Regional Dialogues integrated the IPBES assessment findings and messages into policymaking processes, scientific research and on-the-ground programs and projects, and how these efforts are implemented in the face of the COVID-19 pandemic.

Participated in the 2021 CAS Inclusive Syllabus Workshop:

- an hour-long workshop focusing on creating a welcoming and inclusive academic environment for courses through the creation of inclusive syllabi.

Participated in the 2021 AAAS Annual Meeting – Understanding Dynamic Ecosystems:

Community Engagement in the Time of COVID: Solutions for Remote STEM Outreach, a 45-minute workshop focused on leveraging online platforms and remote education strategies in their outreach activities. Workshop participants developed our own action plans for remote engagement, which can also be applied to address participation disparities.

COVID-10 Academic System Stress Test: Winners and Losers When Science Moves Home, a scientific session that addresses the consequences of COVID-19 remote work for STEMM research, higher education and academic advancement. This session brings together panelists with experience in addressing diversity in STEMM and interdisciplinary higher education. Panelists will address the landscape of systemic marginalization in STEMM and explore how lessons from the COVID-19 experience can inform efforts to “build back better”.

Mitigating the impact of Global Tick-borne Diseases, a live panel session that focuses on disentangling the socio-environmental factors leading to urban tick-borne disease. This is essential to mitigate the risk of tick-borne diseases while enabling nature-enjoyment in the city.

Participated in the 2021 ESA Webinar:

Lessons Learned from Teaching Entomology Online, a webinar covering grading modifications, at-home microscopes, designing collecting kits for students, suggested practices for maximizing student success, as well as the challenges and potential solutions for teaching a collection-based entomology class mostly isolated from students