

Curriculum Vitae

Erika J. Ibarra-GaribayAmes, IA 50014 • egaribay@iastate.edu • www.linkedin.com/in/erika-ibarra-garibay**EDUCATION**

Master of Science, Ecology and Evolutionary Biology Aug 2021 – Pres.
Iowa State University Ames, IA

Bachelor of Science, Wildlife Biology May 2018
Associates, Business Administration May 2018
Adams State University Alamosa, CO

Areas of interest

Physiological ecology, behavioral ecology, evolutionary biology, conservation ecology, ecosystem ecology, animal behavior, wildlife conservation

RESEARCH EXPERIENCE

Research Assistant to Dr. Amy L. Toth Jul 2020 – Pres.
Ecology, Evolution, and Organismal Biology Department(EEOB), Iowa State University Ames, IA

Patagonia bee project Jul 2020 – Pres.

- Utilized FLIROne thermal system to process thermal images of the endangered *Bombus dahlbomii* and the invasive species *Bombus terrestris*
- Utilized R programming language to import and conduct statistical analysis on data; interpreted data calculate by R

Iowa bee project Mar 2021 – Pres.

- Netted and identified bumble bee species in Iowa
 - Target species (*Bombus impatiens*, *Bombus auricomus*, and *Bombus pensylvanicus*) were placed in ice to induce chill coma and taken back to university rearing room
 - Non-target species were released
 - Informal training by wildlife biologist Stephanie Shepherd and researcher Amy Toth
- Identified Iowa plants to genus or species level when possible
 - Informal training by PhD student Kate Brochardt
- Took body measurements, photographs of wings, and placed under FLIROne infrared camera to capture thorax thermal readings every 30 seconds for a total of 20 minutes
- Utilized FLIROne Thermal Studio software to process captured infrared images
- Ran statistical analysis utilizing R
- Worked both individually and in a team setting to accomplish daily tasks

Biological Field Technician, Crew Leader May 2020 – Oct 2020
Western EcoSystems Technology, Inc. Iowa Falls, IA

- Conducted standardized mortality searches at multiple wind energy facilities
- Quality assurance and quality control of team data for monthly client summaries
- Scheduled/conducted bias trials on field staff during standardized mortality searches

- Followed U.S. Fish and Wildlife Services Special Purpose Utility Permit (SPUT) protocol for fatalities found at wind farms
- Assisted in confirming the identification of birds and bats found by technicians
- Responsible for maintaining inventory of field equipment and keeping team supplies stocked
- Effectively communicated work progress and project deadlines with managers on a weekly basis
- Communicated and coordinated daily with field crew, onsite/offsite work check ins, daily safety calls, and troubleshooting staff field issues

Wildlife Surveys Assistant

Jun 2019 – Oct 2019

Iowa Department of Natural Resources (DNR)

Boone, IA

- Scanned and entered all mail-in surveys of hunters, anglers, trappers, farmers, landowners, and other stakeholders that are included in the DNR's annual species population monitoring
- Corrected any scanning errors and manually entered data
- Assisted in data gathering and entry for deer trail camera project
 - Set up trail cameras
 - Analyzed image data
 - Quantified image data

Biological Science Technician

Aug 2018 – Oct 2018

Iowa State University

Ames, IA

- Conducted Multiple Species Inventory and Monitoring (MSIM) surveys to gather data on the diversity and abundance of mammals, amphibians, reptiles, fish, butterflies, odonates, and crayfish throughout Iowa
- Executed a variety of methods for MSIM surveys such as Sherman traps and electrofishing
- Entered survey data into the DNR's online database

TEACHING, MENTORSHIP AND EXTENSION EXPERIENCE

Research Mentor

2021 – Pres.

Iowa State University

Ames, IA

- Provide mentorship to undergraduate students on their academic journey
- Provide hands-on research experience in a field and laboratory setting
- Allow students to take their learned hands-on experience and apply them to their very own manageable research project while providing guidance throughout
- Help students with presenting their project findings at conferences and/or symposiums
- Assist with enhancing students' soft skills such as communication, time management, problem-solving, etc. teach

AmeriCorps 4-H Environmental Educator

Jan 2018 – Oct 2019

Iowa State University, Extension and Outreach

Ames, IA

- Supported a variety of grants focused on environmental education programming
- Facilitated native bee, honeybee, and monarch curriculums in both classroom settings and out-of-school events to help youth learn and understand the importance of pollinators
- Collaborated with stakeholders connected to monarch butterfly and native bee conservation
- Developed resources that supported underrepresented youth such as translating native bee curriculum to predominately Spanish speakers
- Presented current pollinator conservation efforts throughout Iowa to the public
- Utilized Geographic Information System (GIS) to develop both maps and story maps to document progress and impact of Monarchs Eggs Project throughout Iowa

- Attended weekly Monarch Research Team meetings to learn and stay current on research and conservation efforts related to the monarch butterfly

Freshman Mentor

Aug 2016 – Dec 2016

Adams State University

Alamosa, CO

- Helped mentees in identifying educational, professional, and life goals
- Guided mentees with exploring different career paths and researching the needed educational coursework for those different career paths
- Educated mentees in the development of creating resumes by identifying their skills, ways to strengthen those skills, and ways to develop other necessary skills
- Facilitated mock interviews and provided constructive feedback

New Student Orientation Leader

Aug 2015, Jan 2016, Aug 2016

Adams State University

Alamosa, CO

- Conveyed information to freshmen, transfer students, and their families about the university's programs and services
- Assisted in the preparation of activities and materials
- Upheld and enforced all aspects of the university conduct code

ADDITIONAL PROFESSIONAL EXPERIENCE

Wildlife Biologist

Oct 2019 – May 2020

Bureau of Land Management

Ely, NV

- Conducted a variety of wildlife surveys such as winter raptor surveys and Greater Sage-Grouse lek counts
- Assisted natural resource specialists with habitat restoration projects
- Worked with other federal and state agencies, and non-governmental partners to execute projects as they applied to wildlife ecology
- Member of interdisciplinary team responsible for reviewing and writing NEPA documents for proposed projects on federal lands
- Utilized GIS software to generate/edit Greater-Sage Grouse seasonal habitat delineation maps

Physical Science Intern

May 2018 – Aug 2018

Bureau of Land Management

Gunnison, CO

- Inventoried and monitored abandoned mines
- Updated abandoned mine land inventory database using GIS Collector and Survey123 applications
- Identified plant species and determined their successful growth on reclaimed mine sites and, if needed, provided improvement recommendations
- Determined level of closure needed on mine sites regarding public safety and wildlife needs
- Exercised safety protocols when monitoring mines that were potentially dangerous by effectively communicating with supervisor on whereabouts, and reviewed risk management procedures before and after each day
- Kept records of week-by-week duties for internship final report that was presented to BLM personnel

Outdoor Recreation Intern

May 2017 – May 2018

Bureau of Land Management

Monte Vista, CO

- Part of team that maintained campgrounds, hiking and climbing trails, and primitive access roads

- Utilized GIS Survey123 and Collector applications to assign and monitor travel management projects
- Provided customer service to all constituents by maintaining positive relationships by listening to visitor concerns, solving issues when possible, and directing visitors to correct resources
- Handled confidential and sensitive material and documents
- Completed independent projects such as creating educational workshops and supply inventory system as well as researched various cost saving options
- Initiated contact with organizations to promote the BLM's mission by educating students and acting as a liaison at large-scale programs such as providing environmental outreach programs to K-12 and college fairs
- Identified and surveyed migratory birds at the Blanca Wetlands via stationary count method and/or bird calls
- Attained macroinvertebrate samples at Blanca Wetlands to ensure adequate food supply for birds
- Assisted in Bighorn Sheep count to track migration routes

PRESENTATIONS

Ibarra-Garibay, E.J., Toth, A.L., Zattara, E., Arbetman, M., Marcelo, A., Morales, C., 2022. *Comparison of health indicators between invasive and native Patagonian bumble bees.* Entomological Society of America North Central Branch Meeting, Minneapolis, MN. (Poster)

Ibarra-Garibay, E.J., Mix, J., Cerny, T., Armstrong, T. 2018. *Lions, Bats, and Bears – Oh Mine! Monitoring Mine Usage in the Sangre de Cristo Mountains.* Tri-Beta Western Division I Regional Meeting, Greeley, CO. (Poster)

Cerny, T., **Ibarra-Garibay, E.J.,** Mix, J., Armstrong, T. 2018. *Monitoring the use of abandoned mines by wildlife in the Sangre de Cristo mountain range.* Colorado Chapter of the Wildlife Society, Grand Junction, CO. (Poster)

Ibarra-Garibay, E.J. 2019. *Monarch Conservation Education.* 5th Annual Monarchs and Music Festival, Elkader, IA. (Oral)

Bachelor's Thesis 2018 : *The Future of North American Bats: Efforts in Battling White-Nose Syndrome* (Oral)

Publications

Armstrong, T. A., Lahiri, C., Moran, W. K., Fuller, B. D., Mix, J. A., Cerny, T. M., & Ibarra-Garibay, E. J. (2022). Wildlife visitation at abandoned mines. *The Journal of Wildlife Management.*

AWARDS, GRANTS, AND SCHOLARSHIPS

Awards

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|---|----------|
| AmeriCorps Service Education Award, \$2,900 | Oct 2019 |
| 2nd Place in Organismal Biology Poster Presentation, Tri-Beta Regional Conference | Apr 2018 |
| AmeriCorps Service Education Award, \$1,500 | Aug 2016 |

Grants

Colorado Alliance for Minority Participation (CoAmp), travel grant, total \$1,553

Oct 2014, Apr 2015, Oct 2015, Apr 2016, Oct 2016
 Colorado Wyoming Alliance for Minority Participation (CoWyAmp), travel grant, total of \$1,547
 Apr 2017, Oct 2017, Feb 2018, Apr 2018
 CoWyAmp, research supplies & stipend, total of \$2,035 May 2017

Scholarships

Lorraine Young Memorial Scholarship, \$1,000 Aug 2017
 Milestone Scholarship, \$500 Aug 2016
 Athletic Scholarship, \$185 Aug 2012

LEADERSHIP SERVICE

EEOB – Graduate Student Organization Aug 2021 – Pres.
 (EEOB GSO)

Treasurer Aug 2021 – Pres.

- Maintain accurate record of organization transactions
- Collect dues if required
- Solicit additional funding if needed from the Student Government Association in conjunction with the President

Tri-Beta – Biological Honor Society

Aug 2013 – May 2018

Senate representative

Aug 2014 – May 2015

- Attended student government meetings
- voted on bills and funding requests
- relayed information back to club members

Society for the Advancement of Chicanos and Native Americans in Science
 (SACNAS)

Jan 2014 – May 2018

Secretary

Aug 2014 – May 2016

- Scheduled meetings
- Maintained accurate attendance
- Kept minutes and managed club's email account

Club Liaison

Jan 2017 – May 2017

- Functioned as primary contact with the chapter's national office
- Reported club's current events to the national office
- Submitted the chapter's annual report

Cultural Awareness and Student Achievement

Aug 2017 – May 2018

- Developed, organized, and executed independent projects such as hosting a car workshop for women
- In charge of showing documentary on the life of civil rights activist, Dolores Huerta

Earth Group

Jan 2018 – May 2018

- Attended monthly meetings
- Assisted in organizing and executing club events such as Earth Week

COMMUNITY SERVICE

Bird Breeding Survey Volunteer

Jun 2018

Rocky Mountain Biological Laboratory Crested Butte, CO

- Conducted bird counts for the annual survey of breeding birds in the area

Butterfly Survey Volunteer

Jun 2018

Rocky Mountain Biological Laboratory Crested Butte, CO

- Assisted PhD student in capturing, identifying, if possible, and photographing butterflies as well as uploading photographs onto iNaturalist

Duck Banding Volunteer

Mar 2018

U.S Fish and Wildlife Services Monte Vista, CO

- Helped capture and band migratory ducks in addition to identifying and sexing

Sandhill Cranes Festival Volunteer

Oct 2015, Mar 2016, Mar 2017

Bureau of Land Management Monte Vista, CO

- Helped the Bureau of Land Management (BLM) educate youth about sandhill crane migration patterns and issues they encounter
- Tended to the BLM booth and answered general questions regarding Sandhill Cranes

PROFESSIONAL MEMBERSHIPS

Entomological Society of America Mar 2022 – Pres.

- Society promoting opportunities for entomologists and enabling them to share their science globally

SACNAS Apr 2014 – Pres.

- Inclusive organization dedicated to fostering the success of Chicanos/Hispanics and Native Americans, from college students to professionals, in attaining advanced degrees, careers, and positions of leadership in STEM

Tri-Beta Apr 2014 – May 2018

- Honor society for students dedicated to improving the understanding and appreciation of biological study and extending boundaries of human knowledge through scientific research

LANGUAGE SKILLS

Spanish (native)

English (fluent)

TECHNOLOGY SKILLS

Microsoft Office Suite

GIS programing

- ArcMap
- Collector123
- Survey123

R Statistical Analysis Programming Language

- Tidyverse package