

# Morgan Christman

Utah State University | Department of Biology  
[morgan.christman@aggiemail.usu.edu](mailto:morgan.christman@aggiemail.usu.edu) | (610) 316-2710

## EDUCATION

---

2017-Anticipated Graduation Spring 2022

Utah State University, Department of Biology, Logan, Utah  
PhD Candidate in Ecology  
Climate Adaptation Science, National Science Foundation Traineeship program  
Geographic Information Systems Certificate  
Dissertation: *Landscape ecology of Bombus in agroecosystems*.  
Advisors: Drs. Ricardo Ramirez and Lori Spears

2013-2017

Denison University, Granville, Ohio  
Bachelor of Science in Biology  
Bachelor of Arts in Environmental Studies  
Senior Thesis: *Comparative study of insect diversity at three successional landscapes*.  
Advisor: Dr. Thomas Schultz

## PROFESSIONAL EXPERIENCE

---

2017-2021 PhD Dissertation: Landscape ecology of *Bombus* in agroecosystems. Advisors: Drs. Ricardo Ramirez and Lori Spears. Utah State University, Logan, UT.

2019-2021 Climate risk assessment of Utah National Forests: A case study of northern goshawks. Advisor: Dr. Nancy Huntly. Utah State University, Logan, UT.

2021 Wilderness First Aid. Desert Mountain Medicine. Logan, UT

2021 Wilderness Anaphylaxis Training. Desert Mountain Medicine. Logan, UT

2021 CPR. Desert Mountain Medicine. Logan, UT

2020 Utah statewide wellbeing survey. Advisor: Dr. Courtney Flint. Utah State University, Logan, UT.

2019 Utah wildlife migration initiative. Advisor: Dr. Daniel Olson. Department of Natural Resources: Division of Wildlife Resources, Salt Lake City, UT.

2016-2017 Comparative study of insect diversity at three successional landscapes. Advisor: Dr. Thomas Schultz. Denison University, Granville, OH.

2015 Influence of ecotourism on Allen's Cay rock iguanas. Advisor: Drs. Geoff Smith and John Iverson. Denison University, Granville, OH.

2014-2016 Animal caretaker, Biology Department, Denison University, OH

2015-2016 Greenhouse Assistant, Biology Department, Denison University, OH

2015 Biological Reserve Assistant, Denison University, OH

## TECHICAL AND ANALYTICAL SKILLS

---

Programming in R/RMarkdown (expert), Forest Vegetation Simulator (proficient), Python (familiar), and Javascript (familiar)  
Experience applying industry standard GIS tools to natural resource issues using R and ArcGIS  
Dashboard development in RShiny  
Maintaining repositories for code and open-source projects in Github  
Geospatial analysis, machine learning, statistical modeling, species distribution and habitat modeling, and space use ecology modeling  
Data acquisition, management, and manipulation  
*Bombus* collecting, rearing, and identification  
Thermal tolerance trials  
Lipid extractions

## PUBLICATIONS

---

**Christman ME**, Spears LR, Strange JP, Pearse WD, Burchfield EK, Ramirez RA (2021) Land-use and climate drive shifts in *Bombus* assemblage composition. *Landscape Ecology*. (*Under review*).

**Christman ME**, Barnes CL, Koch JB, Spears LR, Ramirez RA (2021) Variation in upper thermal tolerance of *Bombus griseocollis* and *B. impatiens* (Hymenoptera: Apidae). *Journal of Insect Physiology*. (*Under review*).

Burrows S, Ritner C, **Christman M**, Spears LR, Smith-Pardo A, Price S, Ramirez RA, Griswold T, Redford AJ (2020) *Exotic Bee ID – Edition 2*. USDA APHIS Identification Technology Program (ITP), Fort Collins, CO. <http://idtools.org/id/bees/exotic>

Burrows S, **Christman M**, Spears LR, Smith-Pardo A, Price S, Ramirez RA, Griswold T, Redford AJ (2018) *Exotic Bee ID – Edition 1*. USDA APHIS Identification Technology Program (ITP), Fort Collins, CO. <http://idtools.org/id/bees/exotic>

## EXTENSION ARTICLES

---

Flint C, Trout C, **Christman M**, Sagers R (2020) Utah Statewide Wellbeing Survey Report. Utah State University Extension. <https://extension.usu.edu/business-and-community/utah-wellbeing-project/files/Statewide-Wellbeing-Survey-Report-2020.pdf>

Flint C, Trout C, **Christman M**, Sagers R (2020) Utah Wellbeing Survey- Executive Summary. Utah State University Extension. <https://extension.usu.edu/business-and-community/utah-wellbeing-project/reports/statewide-wellbeing-survey-report-sept-2020>

**Christman ME**, Spears LR, Ramirez RA (2018) A new tool for identifying exotic bees. Utah Pest News, Utah Plant Pest Diagnostic Laboratory and USU Extension. Vol. 12: Fall edition. <https://extension.usu.edu/pests/files/up-newsletter/2018/UtahPests-Newsletter-fall18.pdf>

## RESEARCH PRESENTATIONS

---

**Christman M**, Spears L, Ramirez R (2020) Assessing the impact of bycatch on *Bombus griseocollis* colony growth and development. Entomological Society of America. Virtual Meeting. 11-30 November. *Oral presentation*.

**Christman M**, Spears L, Ramirez R (2020) Incidental capture of *Bombus* species in traps: a national survey. Entomological Society of America. Virtual Meeting. 11-30 November. *Poster presentation*.

**Christman M**, Spears L, Ramirez R (2020) Interactive effects of landscape composition and abiotic factors on bumble bees in agroecosystems. Ecological Society of America. Virtual Meeting. 3-6 August. *Poster presentation*.

Brunson MW, Huntly NJ, Bogen S, Capito L, **Christman M**, Koutzoukis S, Morgan B, Morrisett C, Munger W, Spangler KA (2020) Integrating ecological and social system models and data: An application of the 4DEE approach for graduate education. Ecological Society of America. Virtual Meeting. 3-6 August. *Oral presentation*.

Pinto D, Morrisett C, Koutzoukis S, **Christman M** (2020) Graduate researchers collaborating on interdisciplinary climate adaptation science. Ecological Society of America. Virtual Meeting. 3-6 August. *Poster presentation*.

Bogen S, **Christman M**, Panosyan H, Shield B, Wright M (2020) Oral Presentation: Climate risk assessment of Utah National Forests: A case study of northern goshawks. All Hands Meeting. Logan, UT. 24 April. *Oral presentation*.

Bogen S, **Christman M**, Panosyan H, Shield B, Wright M (2020) Climate risk assessment of Utah National Forests: A case study of northern goshawks. Science, Management, and Policy Exchange. Moab, UT. 28 February. *Oral presentation*.

**Christman ME**, Spears L, Ramirez R (2019) Exploring the landscape ecology of bumble bees in agroecosystems using bycatch. Entomological Society of America. St. Louis, MO. 19 November. *Invited oral presentation*.

Bogen S, **Christman M**, Panosyan H, Shield B, Wright M (2019) Climate risk assessment of Utah National Forests: A case study of northern goshawks. Science, Management, and Policy Exchange. Logan, UT. 4 October. *Oral presentation*.

**Christman ME**, Spears L, Burchfield E, Ramirez R (2018) Effects of land use and climate variability on beneficial insects in agronomic crops of Utah. Entomological Society of America, Entomological Society of Canada, and Entomological Society of British Columbia Joint Annual Meeting. Vancouver, British Columbia, Canada. 11 November. *Oral presentation*.

**Christman ME**, Spears L, Burchfield E, Ramirez R (2018) Landscape ecology of beneficial insects in agronomic crops of Utah. Pacific Branch Entomological Society of America. Reno, NV. 11 June. *Poster presentation*.

**Christman ME**, Spears L, Griswold T, Ramirez R (2017) Landscape and seasonal effects on beneficial insects in agricultural crops of Utah. Entomological Society of America. Denver, CO. 6 November. *Poster presentation*.

**Christman ME**, Schultz TD (2017) Comparative study of insect diversity at three successional landscapes. Environmental Studies Senior Research Symposium. Granville, OH. 2 May. *Poster presentation*.

**Christman ME**, Schultz TD (2017) Comparative study of insect diversity at three successional landscapes. Biology Senior Research Symposium. Granville, OH. 29 April. *Oral presentation*.

**Christman ME**, Schultz TD (2016) Comparative study of insect diversity at three successional landscapes. Summer Scholar Science Poster Presentation. Granville, OH. 8 September. *Poster presentation*.

**Christman ME**, Honroth S, Smith GR, Iverson JB (2015) Allen's Cay Rock Iguanas. Summer Scholar Science Poster Presentation. Granville, OH. 3 September. *Poster presentation*.

**Christman ME**, Higdon S, Honroth S, Postema E, Smith GR, Iverson JB (2015) Allen's Cay Rock Iguanas. Denison Scientific Association. Granville, OH. 28 October. *Oral presentation*.

## **SCHOLARSHIPS, ASSISTANTSHIPS, AND GRANTS**

---

2021-2022	USUSA Graduate Enhancement Award, Utah State University	\$2,000
2020-2021	USUSA Graduate Enhancement Award, Utah State University	\$4,000
2018-2019	Ecology Center Research Award, Utah State University	\$2,000
Nov. 2018	Ecology Center Travel Award, Utah State University	\$400
Nov. 2018	Graduate Student Travel Award, Utah State University	\$400
June 2018	Dr. Leslie Paxton Barker Travel Award, Utah State University	\$200
2013-2017	Founders Scholarship, Denison University	\$20,000/year
2016	McBride-Arend Fellow/Research Assistant, Denison University	\$3,700
May 2015	Horizon Fund-Group Project Grant, Denison University	\$1,500

## **EXTENSION-OUTREACH**

---

2018-2021	Entomology Club Insect Tours. Utah State University
2018-2021	Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP). Utah State University
2017-2021	Science Unwrapped: Biology Graduate Student Association and Entomology Club hands-on learning activities. Utah State University

2017	Granville Intermediate School Smart Period Insect Presentation. Denison University
2016	Denison Companions Educational Insect Presentation, Denison Companions: branch of Big Brother Big Sisters. Denison University
2014	Call to College. Promotion of higher education to elementary school students. Denison University

## **PROFESSIONAL DEVELOPMENT**

---

2021	Denison University Environmental Careers Seminar, Micromentor. Granville, OH
2017-2021	USDA-ARS Pollinating Insects Research Unit, Volunteer. Logan, UT
2019	Wildlife Migration Initiative Intern, Utah Division of Wildlife Resources, Utah Department of Natural Resources, Salt Lake City, UT
2017	Conservation Biological Control Short Course in Kaysville, UT. Xerces Society
2016	Methods in Insect Curation at Denison University. Granville, OH.

## **LEADERSHIP ROLES**

---

2019-2021	Secretary, Society for Advancement of Chicanos/Hispanics & Native Americans in Science, Utah State University
2019-2020	President, Entomology Club, Utah State University.
2018-2019	Outreach Coordinator, Entomology Club, Utah State University.
2018-2019	Vice President, SACNAS, Utah State University.
2018-2019	Ecology Center Seminar Selection Committee, Utah State University.
2017-2018	Social Chair, Biology Graduate Student Association, Utah State University.
2016-2017	Environmental Studies Student Representative, Environmental Studies Program Committee, Denison University.
2016-2017	Environmental Studies Search Committee, Department of Environmental Studies, Denison University.
2016-2017	First Year Peer Advisor, Department of Environmental Studies, Denison University.

## **PROFESSIONAL AFFILIATIONS AND STUDENT ORGANIZATIONS**

---

Ecological Society of America  
 Utah State University Ecology Center  
 Utah State University Entomology Club  
 Entomological Society of America  
 Society for Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS)  
 Utah State University Bio Nerd Herd (Programing Club)