

Kathryn Uckele

She/her/ella

Department of Biology

Program in Ecology, Evolution, and Conservation Biology

University of Nevada, Reno

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EDUCATION

University of Nevada, Reno

Doctorate in Ecology, Evolution, and Conservation Biology

Advisor: Thomas Parchman

Reno, NV

Aug. 2016 – Present

University of Michigan

Bachelor of Science in Ecology and Evolutionary Biology

Ann Arbor, MI

Aug. 2009 – May 2013

PUBLICATIONS

Uckele, K.A., Jahner, J.P., Tepe, E.J., Richards, L.A., Dyer, L.A., Ochsenrider, K.M., Philbin, C.S., et al., 2021. Phytochemistry reflects different evolutionary history in traditional classes versus specialized structural motifs. *Scientific Reports*, 11, 17247.

Uckele, K.A., Adams, R.P, Schwarzbach, A.E. and Parchman, T.L., 2021. Genome-wide RAD sequencing resolves the evolutionary history of serrate leaf *Juniperus* and reveals discordance with chloroplast phylogeny. *Molecular Phylogenetics and Evolution*, 156, 107022.

Parchman, T.L., Edelaar, P., **Uckele, K.A.**, Mezquida, E.T., Alonso, D., Jahner, J.P., Summers, R.W. and Benkman, C.W., 2018. Resource stability and geographic isolation are associated with genome divergence in western Palearctic crossbills. *Journal of Evolutionary Biology*, 31, 1715-1731.

Parchman, T.L., Jahner, J.P., **Uckele, K.A.**, Galland, L.M. and Eckert, A.J., 2018. RADseq approaches and applications for forest tree genetics. *Tree Genetics & Genomes*, 14, 39.

PUBLICATIONS IN PREPARATION

Uckele, K.A., Richards, L.A., Dyer, L.A., Philbin, C.S., and Parchman, T.L., 2022. History and environment shape population genetic and phytochemical variation across three western *Juniperus* and their hybrids. Invited to submit to *Journal of Heredity*.

Uckele, K.A., Doan, L., Dyer, L.A., Forister, M.L., and Parchman, T.L., 2022. Genome-wide data reveals cryptic diversity in tropical moth, *Eois olivacea* (Geometridae). Target journal: *Molecular Ecology*.

Uckele, K.A., Dyer, L.A., Forister, M.L., and Parchman, T.L., 2022. Chromosome-level genome assembly of *Eois olivacea* (Geometridae). Target journal: *Molecular Ecology Resources*

GRANTS, AWARDS, AND FELLOWSHIPS

National Science Foundation

Graduate Research Fellowship

\$102,000

March 2016

Western Forest Genetics Association

Best Student Oral Presentation

\$600

June 2019

American Genetic Association

Evolutionary, Ecological, or Conservation Genomics Research Grant

\$6,205

April 2018

American Society of Plant Taxonomists

Graduate Student Award

\$800

May 2017

Hitchcock Center for Chemical Ecology (UNR)*Hitchcock Chemical Ecology Fellowship*

\$20,400 + tuition waver

*August 2016***PRESENTATIONS**

Forest Genetics Symposium, Virtual (Talk)	2021
Botany Conference, Virtual (Talk)	2021
Western Forest Genetics Association Meeting, Placerville, CA (Talk)*	2019
Hitchcock Fellows in Chemical-Ecology Symposium, Reno, NV (Talk)	2019
Research and Innovation Grantee Showcase, Reno, NV (Poster)	2019
Botany Conference, Rochester, MN (Talk)	2018

Best student oral presentation*TEACHING EXPERIENCE**

Teaching assistant - University of Nevada, Reno <i>Evolution (1 semester)</i>	2021
Teaching assistant - University of Nevada, Reno <i>Principles of Genetics (1 semester)</i>	2018
Teaching assistant - University of Nevada, Reno <i>Research Design (1 semester)</i>	2017

MENTORING EXPERIENCE

Farida Abd el hak - independent research project (invasive plants in the Bay Area, CA)	2021
Annette Lu - independent research project (global latitudinal patterns in lichen)	2021
Genalynn Joy Lapira* - chemical extraction (juniper hybrid zone in western NV)	2019
Regina Gojar - chemical extraction (juniper hybrid zone in western NV)	2019
Brianna Jones - chemical extraction (juniper hybrid zone in western NV)	2019
Keely Rodriguez - image analysis (dimensions of <i>Piper</i> diversity)	2018
Ashley Lynn - image analysis (dimensions of <i>Piper</i> diversity)	2018

2019 Nevada Undergraduate Research Award recipient*PROFESSIONAL DEVELOPMENT**

Workshop in Applied Phylogenetics, Bodega Bay, CA	2019
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TECHNICAL SKILLS

Programming languages: R, Python, Perl, Unix
 High performance cluster computing proficiency
 Molecular genetics laboratory workflows
 Metabolomic laboratory workflows (NMR, GCMS, LCMS)
 Bioinformatic workflows for population genetics (bwa, samtools, vcftools)
 Bioinformatic workflows for phylogenetics (ipyrad, raxml, RevBayes, SVDquartets, RASP)
 Spanish language proficiency

SERVICE

Eastern Plumas Health Care <i>Volunteer</i>	Portola, CA <i>2020-2021</i>
Reno Burrito Project <i>Accountant and volunteer</i>	Reno, NV <i>2020</i>
University of Nevada Natural History Museum <i>Outreach volunteer</i>	Reno, NV <i>2017 - 2019</i>

REFERENCES

Thomas Parchman

Associate Professor (PhD advisor)

University of Nevada, Reno

Email: tparchman@unr.edu

Matthew Forister

Professor (Collaborator)

University of Nevada, Reno

Email: forister@gmail.com

Lee Dyer

Professor (Collaborator)

University of Nevada, Reno

Email: nolaclimber@gmail.com