

# Alison Kathryn Post

## Curriculum vitae

Northern Arizona University  
Ecosystem Science and Society  
Flagstaff, AZ

### EDUCATION

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<b>PhD</b>	<b>Ecology, Colorado State University</b> Advisor: Dr. Alan Knapp	2021
<b>BS</b>	<b>Biology, University of Maryland, College Park</b> Minor: Surficial Geology GPA: 4.0, summa cum laude	2014

### HONORS AND AWARDS

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<i>Award</i>	<i>Value</i>	<i>Date</i>
NAU Departmental Travel Awards	\$2,000	2022
ESA Early Career Ecologist Travel Award	\$297.50	2022
NSF Graduate Research Fellowship (GRFP)	\$138,000	2016 - 2021
CSU Vice President for Research Graduate Fellow		2020 - 2021
CSU 3-Minute Thesis Challenge Winner	\$4,000	2020
CSU Graduate Showcase Finalist		2019
CSU Biology Department Travel Award	\$2,750	2018 & 2019
NSF Graduate Research Opportunities Worldwide (GROW)	\$5,000	2018
Stavros Family Fund Scholarship	\$2,500	2017
CSU Programs for Research and Scholarly Excellence	\$4,000	2015
NSF Biological Sciences Travel Scholarship	\$1,000	2014

### RESEARCH POSITIONS

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<b>Northern Arizona University</b> Flagstaff, AZ <i>Postdoctoral Scholar</i> with Dr. Andrew Richardson	Jun 2021 – present
<b>Hawkesbury Institute for the Environment</b> Richmond, NSW, Australia <i>Visiting Researcher</i> with Dr. Sally Power	Sept 2018 – Jan 2019
<b>Department of Entomology, University of Maryland</b> College Park, MD <i>Laboratory Manager</i> for Dr. William Lamp	Jun 2014 – Jul 2015
<b>Plant Sciences Department, University of Maryland</b>	Jan 2013 – May 2014

College Park, MD  
**Research Assistant** with Dr. Joseph Sullivan

**Mountain Lake Biological Station, University of Virginia** May 2013 – Aug 2013  
Pembroke, VA  
**REU Intern** with Dr. Laura Galloway

**Department of Mineral Sciences, National Museum of Natural History** May 2012 – Aug 2012  
Smithsonian Institution, Washington, DC  
**REU Intern (2011), Intern (2012)** with Dr. Cara Santelli

## TEACHING & MENTORING

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### Workshops:

**Using Phenocam to Monitor Dryland Ecosystems** – *organizer and lead presenter* Sept 2022  
(presented at the 16th Biennial Conference of Science & Management on the Colorado Plateau and Southwest Region)

**Using PhenoCam in the Classroom** – *presenter* Sept 2021 & May 2022

**PhenoCam: A Continental-Scale Phenological Observatory** – *lead presenter* Mar 2022  
(presented at the USGS Camera-Based Monitoring Workshop)

### Teaching:

**Graduate Teaching Certificate** Jun 2021  
Through CSU's The Institute for Learning and Teaching (TILT)

**Colorado State University, Fort Collins, CO**

**Teaching Assistant:** Introductory Biology Laboratory Fall 2015, Spring 2021  
**Teaching Assistant:** Plant Biology Laboratory Fall 2019, Spring 2020  
**Teaching Assistant:** Ecosystem Ecology (graduate-level) Fall 2020

### Mentoring:

**Graduate Student Mentor:** 4 students 2021 - present  
**New TA Mentor** Spring 2021  
**Science Tutor:** 1-4 undergraduates per semester 2017 - 2019  
**Undergraduate Research Mentor:** 4 total 2016 – 2019

## PROFESSIONAL TRAINING

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Scientific Community Engagement Fundamentals – *8-week class* Sept – Nov 2022  
Climate Data in Python - *workshop* Nov 2021  
Intersection of meteorology and ecology (NCAR/NEON) - *workshop* Sept & Nov 2021  
Intro to Python – *1-week workshop* Sept 2021  
High Performance Computing (HPC) - *training* Jul 2021  
Justice, Equity, Diversity, and Inclusivity in Ecology- *weekly seminar* Aug – Nov 2020  
Spatial Analyses in R- *1-week workshop* Sept 2020  
Grassland Plant Identification - *workshop* May 2017

- 14) **Post, A.K.**, Hufkens, K., Richardson, A.D. (Accepted). Predicting spring green-up across diverse North American grasslands. *Agricultural and Forest Meteorology*.
- 13) Jacob, V., Choat, B., Medlyn, B., Power, S., Churchill, A., Zhang, H., Barton, C., Krishnananthaselvan, A., **Post, A.K.**, Tissue, D. (2022) Pasture grasses exhibit high safety margins to drought-induced hydraulic failure. *Plant, Cell & Environment* 45:1631–1646.
- 12) Churchill, A.C., Zhang, H., Fuller, K.J., Amiji, B., Anderson, I.C., Barton, C.V.M., Carillo, Y., Catunda, K., Chandregowda, M., Igwenagu, C., Jacob, V., Kim, G.W., Macdonald, C.A., Medlyn, B.E., Moore, B.D., Pendall, E., Plett, J.M., **Post, A.K.**, Powell, J.R., Tissue, D.T., Tjoelker, M.G., Power, S.A. (2022) Pastures and Climate Extremes: Impacts of cool season warming and drought on the productivity of key pasture species in a field experiment. *Frontiers in Plant Science* 13: 836968.
- 11) **Post, A.K.**, Davis, K.P., LaRoe, J., Knapp, A.K. & Hoover, D.L. (2021) Semiarid grasslands and extreme precipitation events: Do experimental results scale to the landscape? *Ecology* 102(9): e03437.
- 10) **Post, A.K.** & Knapp, A.K. (2021) How big is big enough? Surprising responses of a semi-arid grassland to increasing deluge size. *Global Change Biology* 27: 1157-1169.
- 9) Carroll, C.J.W., Slette, I.J., Griffin-Nolan, R.J., Baur, L.E., Hoffman, A.M., Denton, E.M., Gray, J.E., **Post, A.K.**, Johnston, M.K., Yu, Q., Collins, S.L., Luo, Y., Smith, M.D., Knapp, A.K. (2021) Is a drought a drought in grasslands? Productivity responses to different types of drought. *Oecologia* 197: 1017-1026.
- 8) Garbowski, M., Avera, B., Bertram, J., Courkamp, J., Gray, J., Hein, K., Lawrence, R., McClelland, S., McIntosh, M., **Post, A.K.**, Slette, I.J., Winkler, D., Brown, C.S. (2020) Getting to the root of restoration: Considering root traits for improved restoration outcomes under drought and competition. *Restoration Ecology* 28(6): 1384-1395.
- 7) **Post, A.K.** & Knapp, A.K. (2020) The importance of extreme rainfall events and their timing in a semi-arid grassland. *Journal of Ecology* 108(6): 2431-2443.
- 6) Knapp, A.K., Chen, A., Griffin-Nolan, R.J., Bauer, L.E., Carroll, C.J., Gray, J., Hoffman, A.M., Li, X., **Post, A.K.**, Slette, I.J., Collins, S.L., Luo, Y., Smith, M.D. (2020) Resolving the Dust Bowl paradox of grassland responses to extreme drought. *PNAS*. 117(36): 22249-22255
- 5) **Post, A.K.** & Knapp, A.K. (2019). Plant growth and aboveground production respond differently to late-season deluges in a semi-arid grassland. *Oecologia* 191(3): 673-683.
- 4) Slette, I.J., **Post, A.K.**, Awad, M.; Even, T., Punzalan, A., Williams, S., Smith, M.D., Knapp, A.K. (2019). How ecologists define drought, and why we should do better. *Global Change Biology* 25: 3193-3200.
- 3) Knapp, A.K., Carroll, C.J., Griffin-Nolan, R.J., Slette, I.J., Chavez, F.A, Baur, L., Felton, A.J. Gray, J., Hoffman, A.M., Lemoine, N.P., Mao, W., **Post, A.K.**, & Smith, M.D. (2018). A reality check for climate change experiments: Do they reflect the real world? *Ecology* 99(10): 2145-2151.
- 2) Griffin-Nolan, R.J., Bushey, J.A., Carroll, C.J., Challis, A., Chieppa, J., Garbowski, M., Hoffman, A.M., **Post, A.K.**, Slette, I.J., Spitzer, D., Zambonini, D., Ocheltree, T.W., Tissue, D.T., & Knapp, A.K. (2018). Trait selection and community weighting are key to understanding ecosystem responses to changing precipitation regimes. *Functional Ecology* 32(7): 1746-1756.

- 1) Knapp, A. K., Avolio, M. L., Beier, C., Carroll, C. J., Collins, S. L., Dukes, J. S., Fraser, L.H., Griffin-Nolan, R.J., Hoover, D.L., Jentsch, A., Loik, M. E., Phillips, R.P., **Post, A.K.**, Sala, O.E., Slette, I.J., Yahdjian, L., & Smith, M.D. (2017). Pushing precipitation to the extremes in distributed experiments: recommendations for simulating wet and dry years. *Global Change Biology* 23(5): 1774-1782.

## PRESENTATIONS

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### *Oral Presentations:*

- Post, A.K.** & Richardson, A.D. (2022) *Using PhenoCam data to model spring green-up across diverse North American grassland*. To be presented at the 16<sup>th</sup> Biennial Conference of Science & Management on the Colorado Plateau and Southwest Region, Flagstaff, AZ, 12-15 Sept.
- Post, A.K.** & Richardson, A.D. (2022) *Using PhenoCam data to model drivers of spring green-up in North American grasslands*. Invited speaker, 2022 Ecological Society of America Meeting, Montreal, Québec, Canada, 14-19 Aug.
- Post, A.K.** & Richardson, A.D. (2022) *Use of PhenoCam data in evaluating and improving the Community Land Model*. CESM Land Model and Biogeochemistry Working Group Meeting, virtual, 31 Jan - 3 Feb.
- Post, A.K.** (2021) *Using digital imagery to track ecosystem health*. NAU Research Flash Talk, Flagstaff, AZ, 15 Oct.
- Post, A.K.** (2020) *When it rains it pours*. Invited participant, CSU 3-Minute Thesis Challenge, Fort Collins, CO, 10 Feb.
- Post, A.K.** & Knapp, A.K. (2019) *Sensitivity of the shortgrass steppe to deluge size*. 2019 American Geophysical Union Meeting, San Francisco, CA, 9-13 Dec.
- Post, A.K.** & Knapp, A.K. (2019) *The importance of extreme rainfall events and their timing in a semi-arid ecosystem*. 2019 Ecological Society of America Meeting, Louisville, KY, 11-16 Aug.
- Post, A.K.** & Knapp, A.K. (2019) *Sensitivity of the shortgrass steppe to deluge size*. 2019 Front Range Student Ecology Symposium (FRSES), Fort Collins, CO, 27-28 Feb.
- Post, A.K.** & Knapp, A.K. (2018) *When should rain fall? How the timing of large storms impacts arid grasslands*. 2018 Front Range Student Ecology Symposium (FRSES), Fort Collins, CO, 13-15 Feb. `

### *Poster Presentations:*

- Post, A.K.**, Davis, K.P., LaRoe, J., Hoover, D.L., Knapp, A.K. (2020). *Rainstorm spatial variability influences patterns of vegetation green-up in a semi-arid grassland*. 2020 Ecological Society of America Meeting, virtual, 3-6 Aug.
- Post, A.K.** & Knapp, A.K. (2019) *Sensitivity of the shortgrass steppe to deluge size*. 2019 Graduate Student Showcase, Colorado State University, Fort Collins, CO, 12 Nov.
- Post, A.K.** & Knapp, A.K. (2019) *Sensitivity of the shortgrass steppe to deluge size*. 2019 Graduate Climate Conference, Woods Hole, MA, 7-10 Nov.

- Knapp, A.K., Post, A.K., Griffin-Nolan, R.J., Slette, I.J., & Smith, M.D. (2018) *Rainfall manipulation experiments in semi-arid grasslands: What have we learned?* 2018 American Geophysical Union Meeting, Washington, DC, 10-14 Dec.
- Post, A.K. & Knapp, A. (2017) *When should rain fall? How the timing of large storms impacts arid grasslands.* 2017 Graduate Student Showcase, Colorado State University, Fort Collins, CO, 9 Nov.
- Lamp, W., Kaji, R., Hirt, C., Post, A.K., & Dively, G. (2016) *Degradation of CRY proteins and ecological processing of post-harvest Bt and non-Bt corn debris in an agricultural stream.* 2016 Northeastern Branch, Entomological Society of America Meeting, Philadelphia, PA, 3-7 Jan.
- Post, A.K., Templeton-Brandt, L., Coleman, G. & Sullivan, J. (2014), *Photomorphogenic responses of two populus clones to supplemental UV-B radiation.* 2014 Ecological Society of America Meeting, Sacramento, CA, 10-15 Aug.
- Post, A.K. & Galloway, L., (2014) *Factors influencing rates of autogamy among populations.* 2014 Evolution Meeting, Raleigh, NC, 20-24 Jun.
- Post, A.K., Mateu, M., Glickstein, A., Warpeha, K., & Sullivan, J. (2014) *Can supplemental phenylalanine increase the level of protection from UV-B radiation in soybean?* 2014 Ecological Society of America Mid-Atlantic Regional Meeting, College Park, MD, 28-30 Mar.
- Post, A.K., Mateu, M., Glickstein, A., Warpeha, K., & Sullivan, J. (2013) *Responses of soybean seedlings to supplemental phenylalanine and its implications for tolerance to UV-B radiation.* 2013 Ecological Society of America Meeting, Minneapolis, MN, 4-9 Aug.

## PROFESSIONAL AND COMMUNITY SERVICE

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Reviewer for multiple journals: <i>New Phytologist, Oecologia, Plant Ecology, Plant Biology, Journal of Ecology, Journal of Biogeography, PLOS ONE, Agricultural and Forest Meteorology, Plant and Soil, Ecosystems, Frontiers in Environmental Science</i>	2018 - present
American Statistical Association DataFest - <i>Mentor</i>	Mar 2022
NAU Ecoinformatics Graduate Recruitment Event - <i>Speaker</i>	Feb 2022
Women in STEM: ENVISION proposal-writing competition - <i>Volunteer judge</i>	2020 & 2022
English language editor for scientific manuscripts (7 total)	2020
Front Range Student Ecology Symposium - <i>Volunteer Vice President of Executive Committee 2016-2017</i>	2015 - 2020
CSU Graduate Student Showcase - <i>Volunteer judge</i>	Nov 2020
Colorado Regional Middle School Science Bowl - <i>Volunteer</i>	Feb 2016 - 2020
CSU Undergraduate Research and Creativity Showcase - <i>Volunteer judge</i>	Apr 2018 & 2020
NSF GRFP proposal-writing workshop - <i>Presenter and editor</i>	Sept 2019
St. Joseph Middle School Science Fair - <i>Volunteer judge</i>	Jan 2019
Pasture and Climate Extremes "Field Day"- <i>Presenter and volunteer</i>	Oct 2018
Shepardson Elementary School Family STEM Night - <i>Presenter</i>	Nov 2017
University of Maryland Open House - <i>Presenter</i>	Apr 2015

## COMPUTER SKILLS

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Microsoft Office Suite: Word, Excel, PowerPoint  
R programming language  
ArcGIS  
Database management & QA/QC  
Slack & Teams collaborative software

Google Suite: Docs, Sheets, Slides  
SigmaPlot  
High performance computing (HPC)  
Trello project management tool  
Website management

## PROFESSIONAL ORGANIZATIONS

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<b>Ecological Society of America</b> , member	2019 - present
<b>American Geophysical Union</b> , member	2019 - present

## LANGUAGES

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**Spanish:** Proficient at speaking, reading, and writing

## PROFESSIONAL REFERENCES

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**Dr. Andrew Richardson** (*Postdoc Advisor*)

Regents' Professor  
School of Informatics, Computing, and Cyber Systems &  
Center for Ecosystem Science and Society  
Northern Arizona University  
928-523-3049  
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**Dr. Alan Knapp** (*PhD Advisor*)

Professor/Senior Ecologist  
Graduate Degree Program in Ecology &  
Department of Biology  
Colorado State University  
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**Dr. William Lamp** (*Supervisor- worked as his lab manager*)

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