

# R. Kyle Bocinsky, PhD

## Director of Climate Extension, Montana Climate Office

---

### Contact Information

32 Campus Drive  
Missoula, MT 59812

phone (770) 362-6659  
email [kyle.bocinsky@umontana.edu](mailto:kyle.bocinsky@umontana.edu)

### Research Interests

*human dimensions of climate change • computational social science • paleo-environments  
complex systems • plant and animal domestication • Indigenous ecologies • reproducibility*

### Education

**Washington State University**, Pullman, Washington

PhD, Anthropology, December 2014

Dissertation title: *Landscape-based Null Models for Archaeological Inference*

MA, Anthropology, May 2011

Thesis title: *Is a Bird in Hand Really Worth Two in the Bush? Models of Domestication on the Colorado Plateau*

**University of Notre Dame**, Notre Dame, Indiana

BA, Anthropology, May 2008

Thesis title: *Rodent Stable Carbon-isotope Ratios as a Measure of Maize Production*

### Employment

**University of Montana**, Missoula, Montana

January 2021—present Director of Climate Extension, Montana Climate Office

Currently manages a >\$2 million research and extension grant portfolio in collaboration with Tribal nations, researchers, and federal and state agencies; builds relationships with users of climate data and information in Montana, including outreach supporting agriculture, forestry, recreation, urban and rural climate resilience planning, and other climate-sensitive issues; develops partnerships with Native nations in Montana in support of their needs as related to climate and drought monitoring and education; conducts independent and collaborative research broadly surrounding topics relating to human-environment relationships in the past, present, and future.

January 2018—January 2021 Research Associate, Montana Climate Office

Co-project director and climate science lead for the *Montana Drought & Climate* project, funded by the USDA; developed web dashboards and print newsletters aimed at better communicating climate information to farmers and ranchers in Montana; improved the drought readiness and resilience of the Montana agricultural industry.

**Crow Canyon Archaeological Center**, Cortez, Colorado

August 2018—January 2021 Director, Research Institute

Managed a roughly >\$600,000 research portfolio funded through grants, endowments, and private donations; helped lead a financial turnaround of the Center and navigate the Covid-19 pandemic; and launched Crow Canyon's postdoctoral fellowship program; developed leadership in non-profit administration, project management, and institutional advancement.

January 2016—December 2016 Director of Sponsored Projects

Developed research collaborations between Crow Canyon archaeologists and external researchers; administered a >\$1 million portfolio of grant-funded research projects; conducted cutting-edge interdisciplinary research on ancient agricultural practices, climate change, and global sustainability.

## Washington State University, Pullman, Washington

2015 Post-doctoral Researcher, *Synthesized Knowledge of Past Environments*

Worked to bring paleoenvironmental data to scientists and the general public; collaborated on the development of web mapping services; integrated environmental data with cultural data to gauge impacts of climate change on humans. Directed by Timothy A Kohler.

Aug 2008–Dec 2014 Research Fellow, Department of Anthropology

Agent based modeling with the Village Ecodynamics Project; documented and debugged code and expanded study areas; coordinated data storage and delivery among 4 institutions and 16 researchers. Directed by Timothy A Kohler.

## Experience & Achievements

### Grant Achievements

- Project director or Co-PD for a portfolio of funded projects with budgets ranging from \$35,000 to \$1.5 million.
- Co-PI on *Developing and Deploying SKOPE—A resource for Synthesizing Knowledge of Past Environments*, funded through a National Science Foundation special competition, *Resource Implementations for Data Intensive Research in the Social Behavioral and Economic Sciences* (SMA-1347973). Part of a collaborative research grant between Washington State University, Arizona State University, and the University of Illinois at Urbana-Champaign. \$254,189 awarded to WSU/CCAC, \$1,339,658 total.
- Secured \$180,000 in competitive masters and doctoral funding from the National Science Foundation and Washington State University resources, plus full tuition waivers from WSU for the duration of graduate school.
- Secured \$16,800 in research funding from the National Science Foundation in support of travel and materials.

### Research Collaborations

- Extensive experience collaborating with large, interdisciplinary teams of researchers from academic, public, and private sectors
- Managed and coordinated data acquisition, storage, and delivery between team members using Subversion and Git repositories with local and cloud-based storage
- Authored 30 peer-reviewed research articles published in journals including *Science*, *Nature Communications*, *Science Advances*, and *American Antiquity*, ten book chapters, five technical reports, and four papers

### Software Development

- Developer of several packages in *R*, including *FedData* for downloading and processing geospatial and climate data from federated data sources
- Packages are being adopted by academic researchers (at Washington State University and Arizona State University) and in the public sector (Natural Resources Conservation Service); *FedData* downloaded over 79,000 times since release
- Lead developer in the *Village Ecodynamics Project*—built agent-based geospatial simulations of ancient Pueblo human-environment interaction using the *RePAST* simulation framework (in the Java computer language)

### Classroom Management

- Developed curricula and taught three courses at introductory and advanced levels, and managed class sizes ranging between 15 and 90 students
- Emphasized a science-based comparative approach to anthropological research
- Created collaborative assignments designed to enhance leadership, management, and presentation skills among students
- Challenged students to apply anthropological perspectives to real-world problems

## Computer Experience

*Statistical Packages:* R, SAS, Stata

*Languages:* R, Java, Javascript, Python, C++, Objective C

*Applications:* ArcGIS, GRASS GIS, QGIS, MS Office, Adobe Illustrator, Final Cut Pro,  $\text{\LaTeX}$

*Web Frameworks:* Flask, Bootstrap, Jekyll, Liquid, Shiny  
*Agent Based Modeling Frameworks:* RePAST (J, S), Swarm  
*Version Control:* Git, Subversion  
*Operating Systems:* macOS, Windows, Linux

## References

### Timothy A. Kohler

Department of Anthropology  
Washington State University  
Pullman, WA 99164-4910

**phone** 509.335.2698  
**email** tako@wsu.edu

### Maureen McCarthy

Tahoe and Great Basin Research Director  
University of Nevada, Reno  
1664 N. Virginia Street  
Reno, NV 89557

**phone** 775.784.8023  
**email** mimccarthy@unr.edu

### Elizabeth Perry

Crow Canyon Archaeological Center  
23390 County Road K  
Cortez, CO 81321

**phone** 970.564.4385  
**email** lperry@crowcanyon.org

### Keith W. Kintigh

School of Human Evolution and Social Change  
Arizona State University  
Tempe, AZ 85287-2402

**phone** 480.965.6909  
**email** kintigh@asu.edu

### Stefani A. Crabtree

Department of Environment and Society  
Utah State University  
Logan, UT 84322

**web** <https://stefanicrabtree.com/>  
**phone** 541.350.0994  
**email** stefanicrabtree@gmail.com