R. Kyle Bocinsky, PhD

Director of Climate Extension, Montana Climate Office

Contact Information Montana Climate Office University of Montana Missoula, MT 59812

phone (770) 362-6659

email 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 re-

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

lationships in the past, present, and future.

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)

Computer Expertise

Statistical Packages: R, SAS, Stata

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

Applications: ArcGIS, GRASS GIS, QGIS, LoggerNet, MS Office, LATEX Web Frameworks: FastAPI, Flask, Bootstrap, Jekyll, Liquid, Shiny Agent Based Modeling Frameworks: RePAST (J, S), Swarm

Version Control: Git, Subversion

Operating Systems: macOS, Windows, Linux