R. Kyle Bocinsky, PhD
Director of Climate Extension, Montana Climate Office

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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)

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