

## CURRICULUM VITAE

### Daniel B. Ferguson

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### Chronology of Education:

- 2015 PhD, School of Geography and Development, University of Arizona  
Dissertation title: "Transdisciplinary Climate Research to Support Decision Making"  
Co-chairs: Connie Woodhouse and Diana Liverman
- 1997 MA, American Indian Studies  
University of Arizona  
Thesis title: "The Escuela Experience: The Tucson Indian School in Perspective"  
Advisor: Tsianina Lomawaima
- 1992 BA, Liberal Studies (minors in Psychology, Communications, English)  
Salisbury State University

### Chronology of Employment:

March 2017-present	Associate Research Scientist (Continuing status eligible)	University of Arizona, Institute of the Environment
Feb 2016-present	Associate Research Professor (Non-Tenure Eligible)	University of Arizona, School of Natural Resources and the Environment
Dec 2016-present	Affiliated Faculty	University of Arizona American Indian Studies Graduate Interdisciplinary Degree Program
Mar 2016-present	Affiliated Faculty	University of Arizona Arid Lands Resource Sciences Graduate Interdisciplinary Degree Program
July 2010-present	Program Director	University of Arizona, Institute of the Environment, Climate Assessment for the Southwest
Oct 2007-July 2010	Program Manager	University of Arizona, Institute of the Environment, Climate Assessment for the Southwest
Jan 2005-Oct 2007	Assistant Staff Scientist	University of Arizona, Institute for the Study of Planet Earth
Nov 2001-Jan 2005	Project Manager	Arctic Research Consortium of the US, Fairbanks, AK

## Publications/Creative Activity

### Chapters in scholarly books

1. \***Ferguson, D.B.**, M.L. Finucane, V.W. Keener, and G. Owen. 2016. Evaluation to Advance Science Policy: Lessons from Pacific RISA and CLIMAS. In *Climate in Context*, eds. A. Parris and G. Garfin, 215-234. New York: Wiley-Blackwell.

### Refereed Journal Articles (\*denotes dissertation work)

1. Morehouse, B. J., **D.B. Ferguson**, G. Owen, A. Browning-Aiken, P. Wong-Gonzalez, N. Pineda, and R. Varady. 2008. Science and socio-ecological resilience: examples from the Arizona-Sonora Border. *Environmental Science & Policy*. 11: 272-284.
2. Guido, Z., D. Hill, M. Crimmins, and **D.B. Ferguson**. 2012. Informing Decisions with a Climate Synthesis Product: Implications for Regional Climate Services. *Weather, Climate, and Society* 5 (1):83-92.
3. Owen, G., J.D. McLeod, C.A. Kolden, **D.B. Ferguson**, and T. J. Brown. 2012. Wildfire Management and Forecasting Fire Potential: The Roles of Climate Information and Social Networks in the Southwest United States. *Weather, Climate, and Society* 4 (2):90-102.
4. Meadow, A.M., M. Crimmins, and **D.B. Ferguson**. 2013. Field of Dreams or Dream Team: Assessing Two Models of Drought Impact Reporting in the Semi-Arid Southwest. *Bulletin of the American Meteorological Society*. no. 94 (10):1507-1517. doi: 10.1175/BAMS-D-11-00168.1.
5. Meadow, A.M., **D.B. Ferguson**, Z. Guido, A. Horangic, G. Owen, and T. Wall. 2015. Moving Toward the Deliberate Co-Production of Climate Science Knowledge. *Weather Climate and Society*. 10.1175/WCAS-D-14-00050.1
6. \***Ferguson, D.B.**, A. Masayeva, A. M. Meadow, and M. A. Crimmins. 2016. Rain Gauges to Range Conditions: Collaborative Development of a Drought Information System to Support Local Decision-Making. *Weather, Climate, and Society* 8 (4):345-359. doi:10.1175/WCAS-D-15-0060.1
7. Crimmins, M. A., **D.B. Ferguson**, A. M. Meadow, and J. L. Weiss. 2017. Discerning “flavors” of drought using climate extremes indices. *Journal of Applied Meteorology and Climatology*. 10.1175/JAMC-D-16-0270.1
8. Owen, G., **D.B. Ferguson**, and B. McMahan. 2019. Contextualizing climate science: applying social learning systems theory to knowledge production, climate services, and use-inspired research. *Climatic Change*. 10.1007/s10584-019-02466-x
9. Jäger, M.B., C. Behe, **D.B. Ferguson**, et al. 2019. Building an Indigenous Foods Knowledges Network Through Relational Accountability. *Journal of Agriculture, Food Systems and Community Development*. 10.5304/jafscd.2019.09B.005

### Refereed Work in Progress

#### Submitted

10. **Ferguson, D.B.**, H. Huntington, and A.M. Meadow. [In revision]. Achieving Incremental Benefits from the Start of Stakeholder Engagement. *Sustainability Science*.

#### In Preparation (\*\*denotes student mentored)

11. **Ferguson, D.B.**, S.C. Rainie, A. Martinez, M.B. Jäger, and D.M. David-Chavez. Resilience, Sustainability, and Indigenous Knowledges. In editorial review as a Perspectives article for *Nature*.

12. \*\*Geil, K.L., **D.B. Ferguson**, X. Zeng. [In Prep]. Climate Science in Service to Society: Using Climate Models to Inform Decision Making. In prep for *Climate Services*.
13. Gerlak, A.K., Karambelkar, S.R., **D.B. Ferguson**, [In Prep]. Knowledge and Collaboration in the Colorado River Basin: A Call for Action. In prep for *Environmental Science & Policy*.

#### *Other Publications*

1. **Ferguson, D.B.**, B.J. Morehouse, and R. Steinberger. 2006. *Proceedings from Sustainability Under Uncertainty in Arid and Semiarid Ecosystems Workshops* held in Tucson, AZ, Jan. 19-21, 2005 & May 5-6, 2005. Institute for the Study of Planet Earth, University of Arizona, 44 p.
2. Guido, Z., **D.B. Ferguson**, and G. Garfin. 2008. *Putting Knowledge into Action: Tapping the Institutional Knowledge of U.S. Fish and Wildlife Service Regions 2 and 8 to Address Climate Change*. A report from the workshop entitled "Effects of Climate Change on Fish, Wildlife and Habitats in the Arid and Semiarid Southwestern United States: Putting Knowledge and Science into Action" held in Tucson, AZ, August 19-20, 2008. Climate Assessment for the Southwest, University of Arizona. [www.climas.arizona.edu/publications/942](http://www.climas.arizona.edu/publications/942)
3. **Ferguson, D.B.**, M. Crimmins. 2009. Who's paying attention to the drought on the Colorado Plateau. *Southwest Climate Outlook* 8, 3-5.
4. Collins, G, M. Redsteer, M. Hayes, M. Svoboda, **D.B. Ferguson**, R. Pulwarty, D. Kluck, C. Alvord. 2010. *Climate change, drought and early warning on Western Native Lands Workshop Report*. National Integrated Drought Information System.
5. **Ferguson, D.B.**, C. Alvord, M. Crimmins, M. H. Redsteer, C. McNutt, M. Hayes, M. Svoboda and R. Pulwarty. 2011. *Drought Preparedness for Tribes in the Four Corners Region*. A report from NIDIS Four Corners Drought workshop held in Flagstaff, AZ, April 8-9, 2010. Climate Assessment for the Southwest, University of Arizona. [www.climas.arizona.edu/publications/2085](http://www.climas.arizona.edu/publications/2085)
6. Meadow, A.M., **Ferguson, D.B.**, and Crimmins, M. 2013. Helping a Community Develop a Drought Impacts Reporting System. *Rural Connections*. 7 (1): 15-18.
7. Lackstrom, K., A. Brennan, **D.B. Ferguson**, M. Crimmins, L. Darby, K. Dow, K. Ingram, A. Meadow, H. Reges, M. Shafer, and K. Smith. 2013. *The Missing Piece: Drought Impact Monitoring*. Carolinas Integrated Sciences & Assessments and Climate Assessment for the Southwest. [www.climas.arizona.edu/publications/2852](http://www.climas.arizona.edu/publications/2852)
8. **Ferguson, D.B.**, J. Rice, and C. Woodhouse. 2014. Linking Environmental Research and Practice: Lessons from the Integration of Climate Science and Water Management in the Western United States. Tucson, AZ: Climate Assessment for the Southwest. <http://www.climas.arizona.edu/publication/report/linking-environmental-research-and-practice>
9. **Ferguson, D.B.**, R. Thomas, Z. Guido, L. Ethen, C. Zucker, G. Chorover, and R. Johnson. 2014. *Planning for Change in Southern Arizona: A report from the Southern Arizona Regional Climate Summit for Municipal Leaders*. Tucson: Climate Assessment for the Southwest.
10. Crimmins, M.A., **D.B. Ferguson**, J.L. Weiss, and H. Faulstich. 2015. *Hopi Climate: An Overview to Support Drought Monitoring and Management*. Tucson, AZ: Climate Assessment for the Southwest.
11. Meadow, A., M. Black, M. Crimmins, **D.B. Ferguson**, and J. Weiss. 2016. *Climate Profile of Gila River Indian Community*. Tucson, AZ: Native Nations Climate Adaptation Program, University of Arizona.

12. Meadow, A., J. Weiss, S. Leroy, M. Black, **D.B. Ferguson**, and M. Crimmins. 2016. *Climate Profile for the Truckee River Basin and Pyramid Lake Indian Reservation*. Tucson, AZ: Native Nations Climate Adaptation Program, University of Arizona.
13. **Ferguson, D.B.**, M.A. Crimmins, A. Masayesva, A.M. Meadow, J.L. Weiss, H. Faulstich. 2017. *Drought Monitoring to Support Planning for the Hopi Tribe: Final Report from 2010-2016 Collaboration between the Hopi Department of Natural Resources and the Climate Assessment for the Southwest*. Tucson, AZ: Climate Assessment for the Southwest.
14. Meadow, A.M., **D.B. Ferguson**. 2017. Our Climate is Doing What? Tailoring Information about Regional Climate to Support Local Adaptation Decision Making. *Rural Connections* 11(1): 41-44.
15. Vano, J.A., D. Behar, P. Mote, **D.B. Ferguson**, and R. Pandya. 2017. Partnerships Drive Science to Action Across the AGU Community. *Eos* 98 <https://doi.org/10.1029/2017EO088041>.
16. IFKN. 2018. Indigenous Foods Knowledges Network Charter. <http://ifkn.org/charter>
17. David-Chavez, D.M., **D.B. Ferguson**, A. Curley, T. Lane, S. Yazzie, S. LeRoy, and S.R. Carroll. 2019. *Supporting Tribal Data Governance for Indigenous Community Climate Resilience*. Native Nations Institute and the Climate Assessment for the Southwest: Tucson, AZ.

#### *Other Scholarly Output*

- In collaboration with UA colleagues Connie Woodhouse (School of Geography and Development), Mónica Ramírez-Andreotta (Dept of Environmental Science), and Gregg Garfin (School of Natural Resources and the Environment), developed Transdisciplinary Science for Society (TESS) UA online professional development courses launched September 2019.

#### **Presentations**

##### *Scholarly Presentations (limited to last 5 years)*

1. **Ferguson, D.B.** 2014. Linking Environmental Research and Practice. NOAA Sectoral Applications Research Program Webinar Series on Stakeholder Communication.
2. **Ferguson, D.B.** 2014. Shrinking the Gap Between Environmental Science and Decision Making. 5th Joint Fire Science Program Knowledge Exchange Consortia Meeting. Tucson, AZ.
3. **Ferguson, D.B.** 2015. Supporting graduate students to pursue use-inspired research. NOAA Regional Integrated Sciences and Assessments Annual Meeting. Charleston, SC.
4. **Ferguson, D.B.** 2015. Reducing the Gaps Between Climate Research and Decision Making by Recognizing Epistemic Diversity. NOAA Regional Integrated Sciences and Assessments Annual Meeting. Charleston, SC.
5. **Ferguson, D.B.** and A.M. Meadow. 2015. Moving Toward the Deliberate Coproduction of Climate Science Knowledge. USGS Climate Science Center webinar series.
6. **Ferguson, D.B.** 2015. Transdisciplinary climate research to support tribal sovereignty. Association of American Geographers Annual Conference. Chicago, IL.

7. **Ferguson, D.B.** 2015. Linking Environmental Research and Practice: Lessons from the Integration of Climate Science and Water Management in the Western United States. American Geophysical Union Annual Meeting. San Francisco, CA. (Invited)
8. Geil, K, X. Zeng, B. McMahan, **D.B. Ferguson**. 2015. Analysis of Extreme Heat in Historical and Projected Climate Simulations for Regional Climate Planning Purposes in the US. American Geophysical Union Annual Meeting. San Francisco, CA.
9. **Ferguson, D.B.** 2016. More than just consumers: Integrating local observations into environmental monitoring systems to better support decision making. American Geophysical Union Annual Meeting. San Francisco, CA.
10. Vano, J.A. D.H. Behar, P. Mote, **D.B. Ferguson**, R. Pandya. 2016. Charting a path forward: building AGU's capacity to help foster scientist-decision maker engagement. American Geophysical Union Annual Meeting. San Francisco, CA.
11. Parris, A.S., **D.B. Ferguson**. 2016. The neglected heart of science policy (revisited): Balancing knowledge and action in an age of science and technology. American Geophysical Union Annual Meeting. San Francisco, CA.
12. **Ferguson, D.B.** 2017 Community Climate Profiles: Supporting Resilience Planning with Tailored, Place-Based Climate Information. NOAA Regional Integrated Sciences and Assessments Annual Meeting. Arlington, VA.
13. Rainie, S.C., **D.B. Ferguson**, A. Martinez. 2017. The Role of Reconciling Values in Efforts to Build Community Resilience to Global Environmental Change. American Geophysical Union Annual Meeting. San Francisco, CA.
14. **Ferguson, D.B.** 2018. Science Policy & Roles of Science in Society. Southwest Climate Science Center Translational Ecology Workshop. Tucson, AZ.
15. **Ferguson, D.B.** 2018. Drought in the Southwest Past, Present (& Future?) Binational Water Relations at 75 Years Workshop. Tucson, AZ.
16. David-Chavez, DM, S.C. Rainie, **D.B. Ferguson**, S. LeRoy, A. Curley, T. Lane, S. Yazzie. 2018. Supporting Tribal Data Governance for Community Resilience: A Southwest Indigenous Climate Summit American Geophysical Union Annual Meeting. San Francisco, CA.
17. Martinez, A, S.C. Rainie, **D.B. Ferguson**. 2018. Resilience, Sustainability, and Indigenous Communities: Knowledges in Dialogue for Environmental Research, Assessment, and Planning. American Geophysical Union Annual Meeting. San Francisco, CA.
18. Jäger, MB, S.C. Rainie, C. Strawhacker, N. Johnson, P.L. Pulsifer, **D.B. Ferguson**, T. Reader, O. Huntington. 2018. The Indigenous Foods Knowledges Network: Supporting Indigenous Scholars through Research and Academic Innovations. American Geophysical Union Annual Meeting. San Francisco, CA.

*Community Presentations (limited to last 5 years)*

1. **Ferguson, D.B.** 2016. Making science useful for society: Conducting socially-relevant climate science at the University of Arizona. Southern Arizona Environmental Management Society. Tucson, AZ.
2. **Ferguson, D.B.** 2016. An Approach to Drought Monitoring in the Semi-Arid Four Corners. Intermountain West Drought Early Warning System Drought & Climate Outlook. Biosphere 2, Oracle, AZ.

3. **Ferguson, D.B.** 2017. Overview of Navajo Nation Climate: Historic conditions and projections of the future. Navajo Nation Department of Fish and Wildlife Climate Change Training. University of Arizona. Tucson, Arizona
4. **Ferguson, D.B.** 2017. Recent and projected climate change in Arizona and the broader Southwest. Central Arizona Project Climate Adaptation Workshop. Phoenix, AZ.
5. **Ferguson, D.B.** 2017. Drought Monitoring to Support Planning for the Hopi Tribe. Institute for Tribal Environmental Professionals Tribal Drought Workshop. Flagstaff, AZ (presented remotely)
6. **Ferguson, D.B.** 2018. The Evolving Climate of Arizona and the Southwest. Greater Tucson Leadership. Tucson, AZ.
7. **Ferguson, D.B.** 2018. Recent Drought and Long Terms Trends in the Four Corners. Hopi Tribe Drought and Ranching Workshop. Kykotsmovi, AZ.
8. **Ferguson, D.B.** 2018. The Evolving Climate of Arizona and the Southwest. Osher Lifelong Learning Institute. Tucson, AZ.
9. **Ferguson, D.B.** 2018. Recent Drought and Long Terms Trends in the Four Corners. Hopi Tribe Drought Task Team Meeting. Kykotsmovi, AZ.
10. **Ferguson, D.B.** 2019. Building Resilience by Building Collective Knowledge. Interfaith Festival of Creation. Tucson, AZ.

*UA Intramural Presentations (limited to last 5 years)*

1. **Ferguson, D.B.** 2014. How can a transdisciplinary approach to environmental monitoring support tribal sovereignty? 60 Minutes from Indian Country. University of Arizona James E. Rogers College of Law. Tucson, AZ.
2. **Ferguson, D.B.** 2016. Socially-engaged climate research to support decision making: Why it's important, how it can be done, and how we can teach it. University of Arizona Dept of Soil, Water, and Environmental Science Colloquium. Tucson, AZ.
3. **Ferguson, D.B.** 2018. Science to support Southwest climate resilience in a rapidly changing world. UA Environmental Breakfast Club. Tucson, AZ.

*University of Arizona Guest Lectures*

- Periodic guest lectures in undergraduate courses and graduate seminars, including: School of Geography and Development 530, The Climate System; School of Geography and Development 596m, Connecting Environmental Science and Decision Making; School of Natural Resources and the Environment 496b/696a, Adaptation to Climate Change; Soil, Water, and Environmental Sciences 596b, Arizona Water Policy; Global Change 695, Global Change Toolkit; American Indian Studies 541a, Natural Resource Management in Native Communities; American Indian Studies 200, Introduction to American Indian Studies.

**Awarded Grants and Contracts (limited to last 5 years)**

1. 2012-2017. NOAA Regional Integrated Sciences and Assessments Program. Adapting to Climate Variability, Thresholds, and Extremes in the Southwest: The Climate Assessment for the Southwest (CLIMAS). Jonathan Overpeck (Lead PI); Co-PIs: Bonnie Colby, Andrew Comrie, Michael Crimmins, David DuBois (New Mexico State University), **Daniel Ferguson**

(Program Director), George Frisvold, Gregg Garfin, Holly Hartmann, Margaret Wilder, and Connie Woodhouse. \$3,727,990 (Ferguson budget: \$1,785,904)

2. 2013-2016. NOAA Regional Integrated Sciences and Assessments Program. Planning for Drought in the Warming and Drying Southwest: Developing a Suite of Drought Indicators to Support Tribal Decision Making in the Four Corners. **Daniel Ferguson (Lead PI)**; Co-PI: Michael Crimmins. \$199,969
3. 2017-2022. NOAA Regional Integrated Sciences and Assessments Program. Collaboratively Assessing Critical Social-Ecological System Buffers to Help Build Regional Climate Resilience: The Climate Assessment for the Southwest. **Daniel Ferguson (Lead PI)**; Co-PIs: Heidi Brown, Michael Crimmins, George Frisvold, Connie Woodhouse & nine additional UA and New Mexico State University co-PIs. \$3,464,261 (Ferguson budget: \$1,522,174).
4. 2017-2021. NSF Office of Polar Programs. Networking Indigenous Arctic and U.S. Southwest Communities on Knowledge Co-Production in Data Sciences. Colleen Strawhacker (University of Colorado, Lead PI) Co-PIs: Peter Pulsifer (University of Colorado); University of Arizona team: Stephanie Rainie, **Daniel Ferguson**, Tristan Reader. \$499,006 (UA \$100,226)
5. 2018-2022. USDA Agriculture and Food Research Initiative. Ranching, Rangelands, and Resilience: Ensuring adaptive capacity in an increasingly variable climate. Katherine Suding (University of Colorado, Lead PI); Co-PIs: Brady Allred (University of Montana); Brandon Bestelmeyer and Justin Derner (USDA Agricultural Research Service); Jeremy James (University of California); Peter Alder and Eric Thacker (Utah State University); John Bradford (USGS, Southwest Biological Science Center); UA Team: Michael Crimmins, **Daniel Ferguson**, Mitch McClaran. \$1,194,000 (UA: \$227,896)