

## **Rebecca T. Barnes, PhD**

becca.barnes@gmail.com | rebeccatbarnes.org

### **SUMMARY**

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Environmental scientist with 20+ years of experience in project management, leading, and working in collaborative, interdisciplinary teams to advance knowledge and make the scientific enterprise more inclusive, welcoming, and just.

Citizenship: USA, Clearance: Public Trust

### **EXPERIENCE**

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#### **AAAS Science Technology Policy Fellow**

National Science Foundation, Geoscience Division & The Belmont Forum  
September 2022 – present

Directs and advances global environmental change activities through international science leadership, development of strategic partnerships, and multilateral funding initiatives as a member of the Belmont Forum Secretariat.

- Works extensively with over 31 funding agencies representing 55 countries to develop and implement an international, multilateral, interdisciplinary research funding mechanism.
- Develops and implements operational policies and strategic plans in response to external evaluators' feedback as well as current operational capacity. Facilitates discussions to set organizational priorities amongst the Steering Committee and larger Belmont Forum community.
- Creates and facilitates activities to support the Belmont Forum's values, missions, and goals including workshops and panels at international science and policy venues (e.g., scientific conferences, United Nations General Assembly, Sustainability Research Innovation Congress)
- Serves as steward of the organization and spokesperson to a variety of stakeholders from international research organizations, funding agencies, philanthropic, and resource organizations. Routinely provides overview of grant-making mechanisms, peer review processes, collaborative research programs, partnership models and advice on forming strategic networks.
- Ensures that funding calls are as accessible as possible, creating equitable research partnership and proposal crafting workshops for prospective PIs, and working to update the proposal and reporting documentation to make them more inclusive.
- Nominated Chair of an ad-hoc ethic committee formed to address a concern within a funded project. Coordinated the gathering and review of information with an international committee of five researchers, wrote the findings report, presented the committee's findings and recommendations to the Steering Committee.
- Consults and facilitates workshops on mentoring for several international organizations, including IAI (InterAmerican Institute for Global Change Research) and IIASA (International Institute for Applied Systems Analysis)

Leads and consults with Belmont Forum members and partners to develop and facilitate programming around equity, diversity, and inclusion.

- Wrote draft Diversity, Equity, Inclusion, and Accessibility statement for the Belmont Forum community, currently under review by membership (Nov 2023).
- Led the consultation process with 30 members of the IAI to create an implementation plan for the IAI Equity Diversity Inclusion program. Drafted text approved through an

intergovernmental process by representatives of 19 countries in the Americas at the IAI Conference of Parties (June 2023).

- Co-Coordinator of the GEO BeAJEDI group at NSF. Work with two others to facilitate weekly office hours and periodic conversations around equity, diversity, inclusion and justice for all members of the GEO directorate by bringing in experts to present multiple perspectives. Provides feedback on internal working documents and policies regarding EDI concerns for the Division Director.
- Member of NSF-wide working group to provide feedback to the National Academy of Sciences on the revision of their “Responsible Conduct in Research” guide. Provided specific guidance on research integrity and ethics to include the treatment of scientists and strategies to improve workplace climate.
- Member of the Global Research Council’s working group on Research Integrity and Research Security, providing feedback and support to working group initiatives including the organization of a side-event on research security at the 2023 GRC meeting in Hague, Netherlands and the coproduction of draft statements on research integrity and security for the larger GRC to consider in 2024.

### **Associate Professor**

Colorado College, Environmental Studies Program

July 2020 – August 2022

(Assistant Professor, August 2014 – June 2020)

Led a research team of undergraduate students. Taught and managed students in the field and laboratory to sample and process water, soil, plant, microbe samples; including field and lab scale experiments.

- Raised over \$8.2 million as PI or co-PI. Funded research ranged from fundamental biogeochemistry to interdisciplinary approaches to broadening participation.
- Developed and led an innovative, undergraduate-led, research program examining how disturbance alters biogeochemistry (nitrogen, carbon) and hydrology of ecosystems resulting in over 20 articles in peer-reviewed publications.
- Mentored 20+ undergraduate students and 5 graduate students through degree completion (including thesis), with 8 undergraduates going on to present their work at international scientific conferences and 12 going on to graduate school in STEM.
- Developed an award winning, evidence based mentoring program for undergraduate students (PROGRESS) in collaboration with an interdisciplinary team of researchers. The program has worked with well over 500 students at more than 20 institutions of higher education across the U.S., resulting in 7 peer reviewed journal articles to date.
- Developed bystander intervention and bias training in collaboration with an interdisciplinary team of geoscientists, educational specialists, and psychologists, delivered over 60 trainings to academic departments or at conferences. As part of the ADVANCEGeo Partnership, we conducted the largest workplace climate survey of earth and space scientists. This work has resulted in 8 peer reviewed publications to date.

Taught intensive (3.5 week, meet 5 days per week), active learning environmental science courses to undergraduates.

- Taught 6 courses, to approximately 100 – 130 students, per year. Redesigned and/or developed courses to include active learning, research, communication skills, and when possible place-based learning. Courses include: Introduction to Global Climate Change, Hydrology, Human Impacts on Global Biogeochemical Cycles, Stream Ecology

Served on several college-wide committees, including: Title IX (3 years), Assessment (2 years), Goldwater Scholarship (4 years), Science Building (2 years), Campus Sustainability (3 years), in addition to departmental service (including redesign of the major and three faculty searches).

## **EDUCATION**

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- 2008 Ph.D., Forestry & Environmental Studies, Yale University, New Haven, CT.  
*Dissertation: Determining the Relative Importance of Fluxes and Processes to Nitrogen and Carbon Export from Temperate Watersheds*
- 2005 M.Phil., Forestry & Environmental Studies, Yale University, New Haven, CT
- 2003 M.S.E.S., Water Resources, School of Public & Environmental Affairs, Indiana University, Bloomington, IN
- 2003 M.P.A., Environmental Policy & Natural Resource Management, School of Public & Environmental Affairs, Indiana University, Bloomington, IN
- 1998 B.A., Geology & Environmental Studies, Oberlin College, Oberlin, OH

## **AWARDS & HONORS**

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- 2020 CAREER Award, National Science Foundation
- 2020 Nature Inspiring & Innovating Science Award in Outreach short-list, for PROGRESS (PROmoting, Geoscience, Research, Education, and SuccesS) mentoring program
- 2019 Sulzman Award for Excellence in Education and Mentoring, American Geophysical Union
- 2018 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM) for Earth Science Women's Network Leadership Board activities
- 2016 Editors' Citation for Excellence in Reviewing for Soil Biology & Biochemistry
- 2015 Editors' Citation for Excellence in Refereeing for JGR-Biogeosciences
- 2013 Excellence in Reviewing Award, Biogeochemistry
- 2010 The Dissertation Initiative for the Advancement of Climate Change Research (DISCCRS)
- 2003 Academic Excellence Award, SPEA, Indiana University, Bloomington, IN
- 2002 Pi Alpha Alpha Honor Society (Public Affairs) Inductee
- 1998 Wharton Prize in Geology, Oberlin College, Oberlin, OH
- 1998 President's Leadership Award, Oberlin College, Oberlin, OH
- 1997 President's Leadership Award, Oberlin College, Oberlin, OH
- 1997 Howard Hughes Teaching Fellowship, Oberlin College, Oberlin, OH

## **REFERENCES**

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Nicole Arbour  
Executive Director  
Belmont Forum  
nicole.arbour@belmontforum.org

Alan Townsend  
Dean & Franke Professor  
University of Montana  
alan.townsend@mso.umt.edu

Peter Raymond  
Professor of Ecosystem Ecology  
Yale University  
peter.raymond@yale.edu

Maria Uhle  
Program Director, National Science  
Foundation  
muhle@nsf.gov

Erika Marín-Spiotta  
Professor of Geography  
Univ of Wisconsin  
marinspiotta@wisc.edu

Manya Whitaker  
Executive Vice President, Chief of Staff  
Colorado College  
mwhitaker@coloradocollege.edu