

Britta L. Schumacher

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EDUCATION

The Utah State University, Logan, UT

M.S. Ecology, GPA – 4.0/4.0

2018-present

Areas of Concentration: Statistics in R and SAS, Data Mining and Science, Agricultural and Landscape Change, Water Use and Irrigation Management

The University of California, Santa Barbara, CA

M.A. Geography, GPA – 4.0/4.0

2016-2018

Chancellor's Fellow

Areas of Concentration: Social-ecological Research Methods, Human Dimensions of Global Change

The Schreyer Honors College, The Pennsylvania State University, State College, PA

B.S. Physical and Environmental Geography, GPA – 3.97/4.0

2011-2015

Areas of Concentration: Global Change Ecology, Natural Resource Management, People and Protected Areas, Politics of Nature

Minors: Climatology, Environmental Inquiry, and Science, Society, and the Environment in Africa

PUBLICATIONS

Burchfield, E., **Schumacher, B.** (2020). Bright spots in U.S. corn production. Revised and resubmitted at *Environmental Research Letters*.

Spangler, K., Burchfield, E., **Schumacher, B.** (2020). Past and current dynamics of U.S. agricultural land use and policy. In press at *Frontiers in Sustainable Food Systems*.

RESEARCH AND WORK EXPERIENCE

Water Use: Trends, Resilience, and Efficiency in Production, Dept. of Environment and Society, USU

July 2019-present

20-30 h/week

Principal Investigator

- Utilized data mining techniques and USDA NASS FRIS and IWMS operator-level data to assess trends in irrigation water use across the 11-westernmost US states, informing a thesis and extension materials on water use behavior on irrigated operations.

<p>Climate, Migration and Food, Dept. of Geography, UCSB <i>Principal Investigator</i></p> <ul style="list-style-type: none"> Designed protocol and implemented questionnaire in Msosa, Mang'ula A, and Magombera, Tanzania, informing a thesis that elucidated characteristics of smallholders associated with climatic perceptions. 	<p>July 2017-December 2018 <i>20-30 h/week</i></p>
<p>The Rodale Institute Experimental Farm, Kutztown, Pennsylvania <i>Research Intern</i></p> <ul style="list-style-type: none"> Collected, measured, and processed vegetation and soil samples from organic and conventional fields in farm and vegetable systems trials. 	<p>June 2016-August 2016 <i>40 h/week</i></p>
<p>Luquillo Forest Dynamics Plot Tree Census, El Verde Field Station, Puerto Rico <i>Field Intern</i></p> <ul style="list-style-type: none"> Identified, measured, tagged, and mapped all previously recorded and new stems in the 16-hectare Luquillo Forest Dynamics Plot, contributing to a 20-year research project on species and community response to hurricane, human, and climatological disturbance. 	<p>January 2016-May 2016 <i>40 h/week</i></p>
<p>Vegetation Dynamics Lab, Dept. of Geography, Penn State <i>Undergraduate Research Assistant</i></p> <ul style="list-style-type: none"> Created and maintained data structure and analysis protocol for the processing and organization of an isotope analysis of <i>Cedrus atlantica</i> at five different forest sites in Algeria. 	<p>May 2014-August 2015 <i>15-35 h/week</i></p>
<p>Fire Works Lab, Dept. of Geography, Penn State <i>Undergraduate Research Assistant</i></p> <ul style="list-style-type: none"> Prepared a comprehensive synthesis of tropical forest degradation scenarios and carbon emissions trajectories for Amazonia; assessing the readiness of individual countries to adapt REDD+ programs. 	<p>January 2014-July 2014 <i>10-20 h/week</i></p>

FIELD EXPERIENCE

South Africa, Tanzania, Puerto Rico

TEACHING EXPERIENCE

<p>Behavioral Geography, Dept. of Geography, UCSB</p>	<p>March 2018-June 2018</p>
<p>Health Geography, Dept. of Geography, UCSB</p>	<p>January 2018-March 2018</p>
<p>Population Geography, Dept. of Geography, UCSB</p>	<p>September 2017-December 2018</p>
<p>Introduction to Cultural Geography, Dept. of Geography, Penn State</p>	<p>August 2013-May 2014</p>

PRESENTATIONS

- Schumacher, B.**, Cassels, S., Gorenflo, L., Sweeney, S., Cleveland, D., Kambi, M. "Farmer Perceptions of Environmental Change in the Villages Adjacent to the Udzungwa Mountains National Park, Tanzania", Paper at the American Association of Geographers' Annual Meeting, Washington, DC. **April 2019**
- Spangler, K., Burchfield, E., **Schumacher, B.** "Dynamics of agricultural land use in the U.S.: Toward sustainable transitions", Paper at the US International Association of Landscape Ecology Annual Meeting, Fort Collins, CO. **April 2019**
- Schumacher, B.**, Cassels, S., Gorenflo, L. Kambi, M. "Characterizing Migratory Behavior, Climate Perceptions, and Agricultural Practices in South Central Tanzania", Paper at the American Association of Geographers' Annual Meeting, New Orleans, LA, *session moderator*, *Rural Geography Specialty Group Student Paper Award recipient. **April 2018**
- Schumacher, B.** "The Re-Imagination of Food, Population, and Conservation", Guest lecture in Population Geography, UCSB. **November 2017**
- Schumacher, B.** "Resilience and Sustainable Livelihoods: Gender Dynamics in Agricultural Decision-Making," Poster at the Association of American Geographers' Annual Meeting, Boston, MA. **April 2017**
- Schumacher, B.**, Gorenflo, L. "Resilience and Sustainable Livelihoods: Climate Change at the Interface of Parks and People", Paper at the Association of American Geographers' Annual Meeting, Chicago, IL, *session moderator*. **April 2015**
- Schumacher, B.** "Gender, Power and Progress: An Examination of the *Bwadi Bwa Kifwebe* Society and the *Bifwebe* Masking Tradition," Poster at the Africana Research Center Undergraduate Research Exhibition, State College, PA. **October 2013**

LEADERSHIP & SERVICE

- Natural Resources Graduate Student Council**, student representative **2019**
- Journal of Environment and Development**, UCSB student editor **2016- 2018**
- Geographic Research in the Social Sciences**, UCSB co-founder **2017- 2018**

HONORS, AWARDS, & SCHOLARSHIPS

- Ecology Center Graduate Research Award (\$2,000) **2020**
- Chancellor's Fellowship (\$37,000) **2016-2018**
- Broom Graduate Student Research and Travel Grant (\$2,000) **2018**
- UCSB Geography Summer Research Support Grant (\$2,400) **2018**
- Emil Steck, Jr. Fellowship (\$2,500) **2017**
- Schreyer Honors College Academic Excellence Scholarship (\$12,000) **2011-2015**
- Earth and Mineral Sciences Academy for Global Experiences Laureate **2015**

Geography Alumni Scholars Undergraduate Student Award	2015
G.D. Richardson and Kathy LaSauce Undergraduate Geography Scholarship (\$2,000)	2014
Undergraduate Summer Discovery Grant (\$3,000)	2014
John and Elizabeth Holmes Teas Scholarship (\$1,500)	2013

TECHNICAL SKILLS

Microsoft Suite, Esri ArcGIS, Esri ArcPro, QGIS, R, SAS, statistics and spatial statistics, data synthesis and analysis, technical writing