**Rayna Benzeev**

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GitHub Repository: <https://github.com/rbenzeev>

**EDUCATION**

University of Colorado Boulder, Boulder, CO **(expected) May 2022**

**PhD.**, **Environmental Studies Program**

Colorado College, Colorado Springs, CO **May 2015**

**BA Environmental Science, Minor: Mathematical Modeling**

Grade Point Average 3.64/4.0

**RESEARCH INTERESTS**

Tropical forests, socio-environmental systems, forest landscape restoration, deforestation, spatial conservation prioritization, geospatial modeling, land use change, data analytics, interdisciplinary science.

**RESEARCH EXPERIENCE**

**Atlantic Forest Spatial Restoration Case Study**, Bahia, Brazil **June 2019-Aug. 2019**

Conducted key informant interviews to inform a spatial conservation prioritization model for thesis research

Data will be used to improve decision-making for forest restoration based on socio-environmental attributes

**National Socio-Environmental Synthesis Center (SESYNC) Graduate Pursuit**  **Sept. 2018-Present**

Strengthening leadership skills as a co-leader of an interdisciplinary team of seven graduate students for 18 months

Collaborating to model the predictive capacity of municipal-level governance indicators in the Brazilian Amazon

**Exploratory Data Analysis Research Assistant**, Telecommute **October 2018**

Conducted summary statistics as one of ten scientists writing a letter to California Governor Brown

Contributed to providing recommendations for the California Tropical Forest Standard REDD+ program

**Statistical Modeling Research Assistant**, Telecommute **May-Aug. 2018**

Independently conducted regression modeling in R on a robust dataset of experimental REDD+ policy interventions

Assessed policy implications of as part of a collaborative project on deforestation and livelihoods in Acre, Brazil

**Semi-structured Descriptive Case Study**, Acre, Brazil **May 2018**

Designed and conducted a set of semi-structured interviews with 14 stakeholders

Assessed the viability of aquaculture as a low emissions development alternative for reducing Amazon deforestation

**Graduate Field Course Planning Assistant**, Acre, Brazil **May 2018**

Assisted in planning an interdisciplinary graduate field course for Masters’ students

Visited rural communities with a team of researchers and educators to identify problem-solving opportunities

**Zero-Deforestation Commitment Data Analyst and Co-author**, Boulder, CO **Nov. 2017-March 2018**

Reviewed the peer-reviewed and gray literature to evaluate social criteria of zero-deforestation commitments

Assessed company compliance with these criteria to better understand the social dimensions of these commitments

Resulted in one paper and one conference poster presentation

**Reforestation Volunteer**, Madagascar Biodiversity Partnership (MBP), Madagascar **March-June 2017**

Supervised Malagasy workers and laborers in planting 120,000 trees in three months

Worked with a team of three to pay laborers, supervise tree planting, manage program funds and budget, transport seedlings between nurseries and sites, and communicate with local people

**Fulbright US Student Research Program**, Singapore **Oct. 2015-July 2016**

Hosted by Prof. Dan Friess, the Mangrove Lab, Geography Dept., National University of Singapore (NUS)

Studied the geographical context of mangrove deforestation, restoration, and land use change in Southeast Asia

Conducted independent research collaborating with local fish farmers to survey mangrove fish populations

Resulted in one paper and one conference poster

**Restore Ubin Mangroves Initiative** **(RUM)**, Singapore **Sept. 2015-July 2016**

Collaborated in conducting community-based mangrove restoration in abandoned aquaculture ponds

Worked with stakeholders (5 groups) to plan Ecological Mangrove Rehabilitation (EMR)

Attended monthly meetings and outreach events to organize communications between stakeholders

**Mapping Ocean Wealth**, The Nature Conservancy, Telecommute **June-Aug. 2016**

Consulted as one of 15 experts to complete Delphi questionnaires on global mangrove fish densities

**The Mangrove Lab**, Fieldwork in Ban Yong Star, Thailand **Feb. 2016**

Conducted elevation surveys using rod surface elevation tables to measure mangrove sea level rise

**Undergraduate Climate Change Research Fellowship** **June-Aug. 2014**

Hosted by Prof. Barry Sinervo, Sinervo Lab, University of California Santa Cruz

Developed a model predicting future extinctions of California amphibian species using R and spatial modeling techniques.

Designated as a leader and mentor for Research Experience for Undergraduates (REU) students

**Research Experience for Undergraduates (REU)**  **June-Aug. 2013**

Hosted by Dr. Marm Kilpatrick, Kilpatrick Lab, University of California Santa Cruz

Modeled mosquito abundances and disease prevalence; developed model using R

**PUBLICATIONS**

Newton, P., **Benzeev, R.**, Duchelle, A., Medeiros, M., Scanlan Lyons, C. In prep. Livelihood and land use impacts of a jurisdictional forest governance program: evidence from Acre, Brazil.To be submitted to:Frontiers in Forests and Global Change.

Newton, P., & **Benzeev, R**. (2018). *The role of zero-deforestation commitments in protecting and enhancing rural livelihoods*. Current Opinion in Environmental Sustainability, 32, 126-133.

**Benzeev, R.**, Hutchinson, N., & Friess, D. A. (2017). *Quantifying fisheries ecosystem services of mangroves and tropical artificial urban shorelines*. Hydrobiologia, 803(1), 225-237.

**GRANTS and FELLOWSHIPS**

**National Socio-Environmental Synthesis Center (SESYNC) Graduate Pursuit** ($2,000) **Sept. 2018-Present**

**Sustainable Socio-Environmental Systems Graduate Fellowship** ($30,000)  **March 2017**

Supported by the Dr. Scholl Foundation

**Fulbright US Student Research Grant** ($27,000) **Oct. 2015-July 2016**

**Colorado College Leadership Scholarship** ($40,000) **Aug. 2011-May 2015**

This competitive scholarship was awarded based on outstanding academic, leadership, and extracurricular achievement.

**Undergraduate Climate Change Research Fellowship** ($5,000) **June-Aug. 2014**

**Research Experience for Undergraduates (REU)** ($4,000) **June-Aug. 2013**

**AWARDS and HONORS**

**Latin America Study Center Tinker Travel Grant** ($500), University of Colorado Boulder **Nov. 2018**

**Cynthia H. Schultz Graduate Student Grant** ($2,000), University of Colorado Boulder **March 2018**

[**NSF Graduate Research Fellowship**](http://www.nsfgradfellows.org/)**Honorable Mention March 2017**

**Colorado College Mary Stearns Barkalow Award** ($1,089), Colorado College **May 2015**

Awarded to a senior undergraduate woman making significant contributions to campus life through leadership

**CONFERENCE ACTIVITY**

**Benzeev, R.,** Wilson, B., Redmore, L., Butler, M., Paudel, K., Zarba, L., Massoca, P. *What’s governance got to do with it? Examining the role of institutional quality in forest conservation*. Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) fifth annual meeting. Ann Arbor, MI, USA. August 23-25 2019.

**Benzeev, R.,** & Newton, P. Poster presentation (sole presenter). *The role of zero-deforestation commitments in protecting and enhancing rural livelihoods.* Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) fourth annual meeting.Copenhagen, Denmark. October 17-20, 2018.

**Benzeev, R.**, Hutchinson, N., & Friess, D. A. Poster presentation (sole presenter). *Quantifying fisheries ecosystem services of mangroves and tropical artificial urban shorelines*. Mangrove and Macrobenthos meeting (MMM4). St. Augustine, FL, USA. July 18-22, 2016.

**Benzeev, R.** *Quantifying fisheries ecosystem services of mangroves and tropical artificial urban shorelines*. Fulbright US Student Research Conference. Jakarta, Indonesia. March 2016.

**WORKSHOPS**

**Leadership Meeting in Socio-Environmental Synthesis,** SESYNC, Annapolis, MD **Oct. 2018**

Spent four days receiving intense leadership training in statistical collaboration and managing diverse teams

Gained professional proficiency in leadership strategies and problem-solving in collaborative research processes

**Graduate Workshop on Socio-Environmental Synthesis,** SESYNC, Annapolis, MD **Jan. 2018**

Deliberated on interdisciplinary skill building, proposal writing, and collaboration

Gained experience in innovative, team-based socio-environmental synthesis research

**RELATED PROFESSIONAL SKILLS**

***Software proficiencies:*** RStudio, GitHub, ArcGIS, Microsoft Office Suite

***Quantitative skills:*** Bayesian multilevel modeling, RShiny applications, multivariate regression, spatial analysis

***Relevant Graduate Coursework*:** Earth Analytics, Earth Analytics Applications, Data Science in Biology, Intro to Quantitative Ecology & Evolution, Intro to Geographic Information Systems (GIS), Quantitative Survey Methodology, Quantitative Methods in Geography, Portuguese 1.1, Portuguese 1.2

**TEACHING EXPERIENCE**

Teaching Assistant, **Sustainable Food Systems**, CU Boulder (enrollment: 65) **Aug.-Dec. 2019**

Lectured four class sessions; graded essays, assignments, and reading reflections with feedback; facilitated class discussions; held meetings with students; managed online platform; attended class; communicated with students

Teaching Assistant, **Colorado Natural Resources**, CU Boulder (enrollment: 56) **Jan-May 2019**

Graded essays, tests, quizzes, and reading reflections with feedback; held meetings with students; managed online platform; attended class; communicated with students

Teaching Assistant, **Sustainable Food Systems**, CU Boulder (enrollment: 61) **Aug.-Dec. 2018**

Lectured four class sessions; graded essays, assignments, and reading reflections with feedback; facilitated class discussions; held meetings with students; managed online platform; attended class; communicated with students

Teaching Assistant, **Intro to Applied Ecology**, CU Boulder (enrollment: 60-65) **Jan-May 2018**

Taught three recitations per week; graded essays, tests, and quizzes with feedback; attended class; held meetings with students

Teaching Assistant, **Sustainable Food Systems**, CU Boulder (enrollment: 60-65) **Aug.-Dec. 2017**

Lectured two class sessions; graded essays, assignments, and reading reflections with feedback; facilitated class discussions; held meetings with students; managed online platform; attended class; communicated with students

**LANGUAGES**

English (fluent)

Portuguese (conversational)

Thai (conversational)

Hebrew (conversational)