

Brian S. Maitner

POSTDOCTORAL RESEARCHER

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Research Interests

Biodiversity; global change; community assembly; coexistence; community phylogenetics; behavioral ecology; community ecology; tropical ecology; invasion biology; biogeography; niche conservatism; trait-based ecology; data science; geospatial analyses; ecoinformatics; R

Professional Experience

Postdoctoral Scholar

Buffalo, NY, USA

UNIVERSITY OF BUFFALO

2021-present

- Research focused on developing workflows to inform land managers in the Cape Floristic Region of South Africa of potential changes in vegetation (e.g. fires, droughts, invasive species, illegal land clearing).
- The workflow utilized remote sensing data, hierarchical Bayesian modeling to predict NDVI over time and detect deviations, and machine learning for classifying deviation from expectations into land change categories.

Terrestrial sampling stratification designer

BIOSCAPE

2022-present

- As part of NASA's first biodiversity-focused program, BIOSCAPE (<https://www.bioscape.io/>), I led the selection of the terrestrial sites that would be used by BIOSCAPE.
- Sites were selected by analyzing and synthesizing multiple environmental variables to ensure sites were representative while also being compatible with project logistics and goals (e.g., near roads, publicly accessible, small slope, etc.)

Postdoctoral Scholar

Storrs, CT, USA

UNIVERSITY OF CONNECTICUT

2020-2021

- Research focused on using unsupervised clustering algorithms to conduct novel delineations of global ecoregions on the basis of global plant distribution models, assessing their conservation status, and projecting future changes.

Education

Doctor of Philosophy: Ecology and Evolutionary Biology

Tucson, AZ, USA

UNIVERSITY OF ARIZONA

2014-2020

- Advisor: B.J. Enquist, PhD
- Thesis: Challenging current paradigms in community phylogenetics: Including source range phylogenetic structure and transforming phylogenetic branches to reflect trait evolution.

Master of Science: Ecology and Evolutionary Biology

Houston, TX, USA

RICE UNIVERSITY

2009-2013

- Advisor: K. Hylander, PhD
- Thesis: Declines and increases in northern and southern plant populations after changes in the microclimate

Bachelor of Science: Zoology

East Lansing, MI, USA

MICHIGAN STATE UNIVERSITY

2004-2006

- High Honors
- Concentrations in General Zoology and Ecology, Evolution, and Organismal Biology

Bachelor of Science: Ecology

Grand Rapids, MI, USA

GRAND RAPIDS COMMUNITY COLLEGE

2001-2004

Additional Education and Relevant Travel

iDiv Summer School

GERMAN CENTRE FOR INTEGRATIVE BIODIVERSITY RESEARCH

2017

Computation Ecology Summer School

UNIVERSITY OF MONTREAL

2016