ELISE BOOS

Durham, NC | (440)-840-8605 | elise.boos@duke.edu | LinkedIn | Professional Website

SKILLS: GIS, R, Python, Drone Mapping, Conservation Art

Relevant Coursework: Environmental and Geospatial Data Analytics, Rainforest Engineering, Time Series Analysis

PROFESSIONAL & ACADEMIC EXPERIENCE

Biocultural Sustainability in Madagascar, *GIS and Data Specialist* March 2022 – Present

Lemur Occupancy and Density

- Collecting covariate data using python and ArcGIS Pro for occupancy models of lemur species to determine how deforestation in Madagascar is influencing lemur distributions.
- Learning introductory Malagasy to facilitate communications with colleagues at Centre Universitaire Régional de la SAVA.

Tourism and Deforestation

- Assisting teammates with additional impact analysis of tourism on deforestation within National Parks in Madagascar.

The Nature Conservancy, *Student Consultant* January 2022 – Present

Species Occupancy in Belizean Timber Forests

- Analyzing 8 years of camera trap data using R to produce occupancy predictions for over 30 species in presence of reduced impact logging.

Transboundary Management of Marine Species at Risk Workshop, *Repertoire* Fall 2022

- Created interactive dashboard to visualize the overlap between species ranges and threats such as the North Atlantic Right Whale's intersection with offshore wind projects and lobster fishing.

Nicholas Institute for Energy, Environment, and Sustainability, *Ecosystem Services Geospatial Intern.* May 2022 – July 2022

Southeast US Ecosystem Accounts

- Conducted spatial and statistical analyses on ecosystem service accounts for the entire Southeast US using R, Python and ArcGIS Pro.
- Created dashboard of ecosystem account trends over time with ability to filter by state and ecosystem services of interest.

NC Wildlife Refuges Ecosystem Accounts Case Study

- Performed case study on ecosystem service accounts in North Carolina National Wildlife Refuges and explored how natural capital accounts can be of value to the US Fish and Wildlife Service.

Inland Flood Risk and Attenuation Analysis

- Wrote R script that pulls NHDPlus and NLCD data to determine the amount of flood risk area 4 km downstream from a focal location and the percentage of wetlands within as a proxy for wetland attenuation.

Duke XPRIZE Rainforest Team, *Drone Data and Command Center.* January 2022 – May 2022

Drone Mapping of Tropical Forests

- Tested drone mapping software to determine which produced the best and most efficient 2D and 3D maps of canopies.
- Conducted autonomous flights to evaluate drone battery life and optimal photo angle, overlap, and amount.

Duke Lemur Center, *Animal Behavior Assistant* September 2021 – May 2022

Tracking Enrichment Use in Lemurs

- Created ethograms and R code to analyze behavior data in which activity budgets and visualizations are produced.

PUBLICATIONS

- Warnell, K., Boos, E., and Olander, L.P., 2020, Testing ecosystem accounting in the United States: A case study for the Southeast - 2022 Updates (ver. 2.0, February 2023): U.S. Geological Survey data release

EDUCATION

Duke University, Nicholas School of Environment, Durham, NC

Master of Environmental Management, Ecosystem Science and Conservation (anticipated) May 2023

Certificate in Geospatial Analysis

The Ohio State University, School of Environment and Natural Resources, Columbus, OH

Bachelor of Science in Forestry, Fisheries, and Wildlife; *Summa Cum Laude* December 2020