

REED CLARK BENKENDORF

Botanist & Plant Ecologist with 12 years' experience documenting natural areas across Western North America. My interests combine field surveys, remote sensing, & genetics, synthesized through data science, to shape land management decisions through the lens of landscape ecology

PROFESSIONAL EXPERIENCE

- now
|
April
2023
- Senior Botanist**
Chicago Botanic Garden 📍 Reno, Nevada
Coordinated four two-person crews making operational Native Seeds collections for production across the Great Basin. Assisted in hiring and on-boarding crews, and making crews visits to assist with fieldwork. Generated fine resolution species distribution models of all target taxa using machine learning to assist crews in scouting.
- March
2023
|
April
2022
- Crew Lead & Plant Ecologist**
Southwest Conservation Corp & Bureau of Land Management (BLM) 📍 Montrose, Colorado
Sampled 60+ plots across the Colorado Plateau of Western Colorado. Wrote a reproducible AIM report for the first sample frame, using the R statistical programming language. Sections of the [report](#) utilized reference benchmarks for ecological sites, and included: bare soil, soil stability, plant functional types, floristic quality indices, rare plant species, and multiple other analyses.
- Oct
|
May
2021
- Lead Field Botanist**
University of Montana – O'Connor Center for the Rocky Mountain West; Ecological Mapping, Monitoring and Analysis (EMMA) Group 📍 Missoula, Montana
Implemented the EPA's National Wetland Condition Assessment (NWCA) at 30 wetlands across Montana. Delineated wetlands and Hydrogeomorphic Classes, estimated aerial cover of all vascular plants in 5 x 10m² plots, and censused all trees.
- April
|
Sept
2018
- AIM Lotic Crew Lead & Botanist**
Montana Natural Heritage Program 📍 Helena & Missoula, Montana
Wrote over 325 monographs on the rare plants of Montana utilizing review of thousands of specimens & hundreds of publications. Managed two techs on 8-day hitches across six BLM Idaho field offices to sample over 30 reaches collecting Lotic AIM & Multiple Indicator Monitoring (MIM) vegetation data.
- Feb
|
Oct
2018
- Roving Ecological Monitoring Crew Lead**
Great Basin Institute 📍 Reno, Nevada
Worked as a roving support/management personal across the Great Basin. Sampled 115+ AIM plots with short staffed crews as a technician or lead as needed. Identified over 575 unknown specimens from crews across the Great Basin and Mojave Floristic Provinces, and taught intro to botany at seasons start; beginning the ['Western Plants Project'](#).
- March
2017
|
Feb
2018
- Botanist**
Chicago Botanic Garden & BLM 📍 Santa Cruz & Marina, California
Collected and cleaned, to >95% purity, over 75 seed lots for Seeds of Success program and restoration. Carried out a preliminary floristic inventory, & fine resolution mapping, of our field office in a variety of habitats from Hot Desert through Coastal Prairie and Redwood Forest. Monitored three plants listed under ESA, surveyed for and found new populations of over 35 rare plant species.

CONTACT

✉ reedbenkendorf27@gmail

🌐 github.com/sagesteppe

🏠 447 N° 3rd St. Montrose, CO

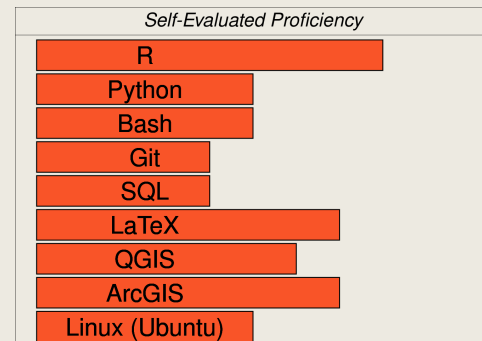
📞 +1-815-355-0631

EDUCATION

M.S. **Northwestern University** Plant Biology & Conservation 2023

B.S. **The Evergreen State College** double major – Plant Biology, Biochemistry 2014

SOFTWARE SKILLS



PACKAGES – NEAR RELEASE

BarnebyLives – polliPal – HybSequins
– UFOsWalk – UFOsAnalyze –
AugsurgerIndex – nothingButNet

COURSEWORK

Applied GIS I
Applied GIS II
Bioinformatics
R for Data Science
Landscape Genetics
Population Genetics Lab
Population Genetics Seminar
Quantitative Methods for Ecology & Conservation

COLLECTIONS

Personal # 2816, another 500+ with teams. **Focal Clades:** Apiaceae, Asteraceae, *Carex*, Ivesoid-*Potentilla*, *Pyrrocoma*, Poaceae

- Sept
|
May
2016
- Botanist**
Chicago Botanic Garden & BLM
Twin Falls, Idaho
Surveyed for the federally listed Slickspot *Lepidium* in the Owhyee Desert. Wrote dichotomous keys for over 150 taxa of plants in 12 diverse Intermountain clades.
- Sept
|
May
2015
- Botanist**
Chicago Botanic Garden & BLM
Wenatchee, Washington
Collected over 35 seed lots for the Seeds of Success program. Surveyed for, and collected demographics, on three federally listed species. Surveyed for [former] State Plant of Concern Gray *Cryptantha* (*Cryptantha leucophea*) on Department of Defense Lands.
- June
|
Sept
2014
- Plant Ecologist - Intern**
Washington State Dept. of Transportation
Olympia, Washington
Collected field data at enhanced wetlands using methods such as: Line intercept, Line Point Intercept, and Unequal Belt transects. Assisted in analyzing data to ensure plots met legally binding restoration requirements



TEACHING EXPERIENCE

- March
|
Jan
2022
- Teaching Assistant - R for Data Science**
Northwestern - Earth & Planetary Sciences
Evanston, Illinois
Assisted students during interactive lab activities, held office hours three times a week. Aided students with assignments and was responsible for grading.
- March
|
Jan
2021
- Teaching Assistant - R for Data Science**
Northwestern - Earth & Planetary Sciences
Evanston, Illinois
Stepped in part way through the quarter due to personal issues with former TA. Assisted students during interactive lab activities, held office hours four times a week.



RESEARCH EXPERIENCE

- Jan
|
March
2020
- Resource Research Assistant**
Chicago Botanic Garden
Glencoe, Illinois
(5 hours/week) Isolated DNA from American Elm for testing of microsatellites to infer paternity and maternity in progeny for Elm restoration projects in collaboration with the USFS Northern Research Station.



PRESENTATIONS

- Winter
2023
- Analytical Toolkit for Ecologists & Evolutionary Biologists (PBC 470)**
Plant Biology & Conservation
Northwestern University
Developed and delivered a 35 minute guest lecture on the theoretical background, applications, and a 'how-to' overview for creating [Species Distribution Models \(SDM's\)](#)
- Winter
2022
- R for Data Science (PBC 470)**
Plant Biology & Conservation
Northwestern University
Developed and delivered two 1.5 hour lectures and a 1.5 hour lab on the theory, basic applications, and operations involved in the emerging field of [Spatial Data Science](#)



TRAININGS

(SOS) Seeds of Success 2015, Glencoe, Illinois
(WFR) Wilderness First Responder 2022. Grand Junction, Colorado
Terrestrial (AIM) Assess, Inventory, Monitor. 2022 Grand Junction, Colorado
Geomorphology & Ecological Site Description (ESD). 2018 Reno, Nevada
Lotic (AIM) Assess, Inventory, Monitor. 2019, Logan, Utah
(MIM) Multiple Indicator Monitoring. 2019, Prineville, Oregon
(NWCA) National Wetland Condition Assessment Training 2021, Remote
(HAF) Habitat Assessment Framework. 2016, Twin Falls, Idaho
ROHVA Off Highway Vehicle Operations 2022. Montrose, Colorado
RMBL Spatial Data Science Webinar Series 2020-2021. 6 x 3-hr sessions