

Active Research Projects at Sedgwick Reserve December 2023

"Acoustic Monitoring with AudioMoths in the SHIFT SBG Campaign Footprint to Monitor Riparian Birds"

Conor McMahon

University of CA, Santa Barbara

"Air Samples During TRES Prescribed Burn"

Michael Morrison

Lawrence Livermore National Laboratory

"Assessing the Determinants of Collective Behavior of Veromessor Harvester Ants at the UCSB Sedgwick Reserve"

Sean O'Fallon

University of CA, Los Angeles

"Assessing the Effects of Climate on Tick Community Composition, Infection Prevalence, and Human Risk of Tick-Borne Disease in California"

Andrew MacDonald

University of CA, Santa Barbara

"AVRIS-NG Plant Disease Validation"

Kaitlin Gold

Cornell University/Jet Propulsion Lab (California Institute of Technology)

"Bioacoustic Monitoring of Tricolored Blackbird Colonies"

Wendy Shackowitz

Point Blue Conservation Science

"CALeDNA Wildfire Risk: Pre-Fire Season Soil Sampling"

Rachel Meyer

University of CA, Santa Cruz

"California Ecosystem Resilience With Climate Change"

Anna Trugman

University of CA, Santa Barbara

"California Insect Barcode Initiative: Snapshot Collecting"

Austin Baker

Natural History Museum of Los Angeles County

"California Insect Barcoding Project"

Christopher Grinter

California Academy of Sciences, University of CA, Berkeley

"California Lepidoptera Survey"

Christopher Grinter

California Academy of Sciences, University of CA, Berkeley

"CDFW Snake Fungal Disease and Ophidiomyces Ophiodiicola Surveillance in California"

Raquel Elander

CA Department of Fish and Wildlife

"Climate Sensitivity and Source Water Use by Riparian Groundwater Dependent Ecosystems in Coastal California"

John Stella

SUNY - Environmental Science and Forestry/University of CA, Santa Barbara

"Coastal California Sonic Ecology"

Lucian Parisi

University of CA, Santa Barbara

"Comparative phylogeography of lace lichen (*Ramalina menziesii*)"

Jacqueline Holmes

University of CA, Los Angeles

"Conservation Genomic Studies of CA populations of Blue Oak and Coast Live Oak"

Ryan Buck

University of CA, Los Angeles

"Conservation Management of Monarch Butterfly and Pollinator Communities on Department of Defense Lands"

Samantha Bussan/Elizabeth Crone

Washington State University

"Courtship Evolution of the *Habronattus Tarsalis* Species Group"

Sean Kelly

University of CA, Riverside

"Demography of California Poppy"

Joseph Kesler/Elsa Cleland

University of CA, San Diego

"Developing Agent Based Models of Two Beetle Species for Habitat Management"

Rennie McIntosh

Purdue University

"Drivers of Ticks and Tick-Borne Pathogens in CA"

Kacie Ring

University of CA, Santa Barbara

"Effects of Environmental Variation on Evolution of Wing Polymorphic Crickets"

Caroline Williams

University of CA, Berkeley

"Evolutionary Ecology of Reptiles"

Amanda Sparkman

Westmont College/Auburn University

"Fire Severity and Soil Seed Banks"

Robert Fitch

University of CA, Santa Barbara

"Flower Color Variation in *Leptosiphon Parviflorus*"

Dana Grossenbacher

California Polytechnic State University, San Luis Obispo

"Grassland Drought Strategies"

Jennifer Funk

University of CA, Davis

"Heat plume induced embolism in *Quercus agrifolia* from prescribed burning"

Shane Dewees/Leander Love-Anderegg/Max Moritz

University of CA, Santa Barbara/University of California Berkeley

"Herp Responses to a Prescribed Burn"

Hillary Young

University of CA, Santa Barbara/University Club of Santa Barbara/UCSB Marine Science Institute/UCSB College of Letters & Science Information Technology

"Higher Order Interactions"

Nathan Kraft/Jonathan Levine

University of CA, Los Angeles/Princeton University/University of CA, Davis

"Hyperspectral image collection"

Kuncho Xu

University of CA, Irvine

"INaturalist bioblitz"

Ivan Parr

Western Section of the Wildlife Society/University of California Berkeley

"Independent Project - California Native Bee Survey"

Alicia Fox

Allan Hancock College

"Independent Project - Pitfall Traps"

Alicia Fox

Allan Hancock College

"Installation Art About Serpentine and Serpentine Barren"

Ayla Gizlice

University of CA, Los Angeles

"Long term monitoring of water stress of oaks"

Anna Jiselle Ongjoco

University of CA, Los Angeles/California State University, Los Angeles

"Mapping genetic diversity and responses to selection across California in three butterfly species"

Jayne Lewthaite/Melissa Guzman

University of Southern California/Columbia University

"Mapping Plant Functional Diversity Using Remote Sensing"

Dar Roberts

University of CA, Santa Barbara

"Monitoring Rangelands for Multiple Ecosystem Benefits in an Era of Changing Climate"

Royce Larsen/Matthew Shapero/Frank Davis

University of CA, Santa Barbara/University of CA, Division of Agriculture and Natural Resources/UC ANR Santa Barbara County Cooperative Extension/UCSB Earth Research Institute/UC ANR/University of California, Davis

"Moore Grant - Meteorological Flux Tower "

Gert-Jan Duine/Leila Carvalho, Charles Jones

UCSB Earth Research Institute/University of CA, Santa Barbara/Scripps Institution of Oceanography

"NASA SBG Pathfinder"

Frank Davis

La Kretz Research Center

"Oak Bark Allometry"

Kaili Brande

University of CA, Santa Barbara

"Phenology of Flowering and Acorn Production in Quercus lobata on the Sedgwick Reserve in the Figueroa Watershed"

Andy Lentz/Victoria Sork/Frank Davis

University of CA, Los Angeles/University of CA, Santa Barbara, Dudek/California Polytechnic State University, Pomona/St. Mary's High School

"Pilot Measurements - Measuring Moisture Gradients Across Wood Vegetation in Semi-Arid Landscapes with Image Data"

Marc Mayes/Kelly Caylor/ /Farai Kaseke

University of CA, Santa Barbara/Santa Barbara County Land Trust/Santa Barbara City College/Brown University/Cate School/California Institute of Technology/University of Utah/Santa Barbara Focalplane

"Plant Flammability Testing"

Robert Fitch

University of CA, Santa Barbara

"Plant Life History Traits at Home and Abroad"

Alejandro Trillo

University of CA, Davis

"Polaris: Low Frequency Experiment to Measure Polarized Galactic Foreground Emission"

Air Kaplan

University of CA, Santa Barbara

"Post-Fire Time Lapse Photography"

Ethan Turpin

Bren School of Environmental Science

"Prescribed Burn Data Collection"

Kalli Brande/Frank Davis

University of CA, Santa Barbara

"Remote Sensing of Rangeland Forage Production and RDM Levels"

Matthew Shapiro

UC ANR Santa Barbara County Cooperative Extension/University of CA, Davis

"Reproductive Phenology of Valley Oaks (*Quercus lobata*)"

Walt Koenig

University of CA, Berkeley/University of Nebraska/Cornell University/University of Vienna/Smithsonian Institution

"Sampling to Create a Reference Genome for Valley Oak"

Victoria Sork

University of CA, Los Angeles

"Santa Barbara County Oak Project"

Claudia Tyler/Bruce Mahall/Frank Davis

University of CA, Santa Barbara

"SDSU - NASA FireSense"

Dan Sousa

San Diego State University/The Nature Conservancy

"Sedgwick Floral and AviFauna Phenology"

Andy Lentz/Jack Ehmer/Tom Scafide

University of CA, Santa Barbara

"Sedgwick Seismic Array"

Zachary Elion

University of CA, Santa Barbara

"SHIFT Campaign Research"

Elsa Ordway

University of CA, Los Angeles/John Hopkins University/CA State University, Los Angeles

"SHIFT Campaign Research"

Nidhi Vinod

University of CA, Los Angeles

"Spectral Surveying"

Francisco Ochoa/Gregory S. Okin

University of CA, Los Angeles/Jet Propulsion Lab (California Institute of Technology)

"Sundowner Winds Experiment (SWEX)"

Leila Carvalho/Loren White/Brown Brown and Alison Rockwell

University of CA, Santa Barbara/NCAR/Jackson State University/National Center for Atmospheric Research/University of Notre Dame/UCSB Earth Research Institute

"Testing a phylogenetic trait framework for soil microbiome"

Jennifer Martiny

University of CA, Irvine

"The Birch Effect in Different Soils and Under Different Soil Moisture Regimes"

Liviu Iancu

UCSB Bren School/University of CA, Santa Barbara

"The Effect of Competition on Plant Species' Distributions Across Spatial Scales"

Kenji Hayashi/Nathan Kraft

University of CA, Los Angeles

"The Mechanisms of Biodiversity Loss Due to Nitrification"

Johnathan Levine

Princeton University

"The Role of Water Stress (drought) in Oak Seedling and Sapling Survival and Performance at Sedgwick"

Claudia Tyler/Shelly Cole

University of CA, Santa Barbara

"Using Root Windows to Investigate Grazing Effects on Soil Organic Carbon"

Jacob Weverka

UCSB Earth Research Institute/University of CA, Santa Barbara

"Weekly Ornithology Survey"

Marge Erickson/Laura Baldwin/Brenda Juarez

University of CA, Santa Barbara

"Where's the Bear: Automating Wildlife Image Processing Using IoT and Edge Cloud Systems"

Chandra Krintz/Rich Wolski

University of CA, Santa Barbara