

Acadia National Park Research Permits, as of December 9, 2019

\*continuing from 2018

**Wildlife & Biodiversity**

Christina Davy	Trent University	Using immunogenetic tools to assess the impact of bat white-nose syndrome on the eastern small-footed bat ( <i>Myotis leibii</i> )
*Alexa Pezzano	National Park Service	Schoodic Education Adventure soil exploration
*Seth Benz	Schoodic Institute at Acadia National Park	SeaWatch: A citizen science monitoring project of fall seabird migrations off Schoodic Point and Otter Cliff in Acadia National Park
*Seth Benz	Schoodic Institute at Acadia National Park	Long-term monitoring of fall raptor migrations in Acadia National Park using standard data collection protocol as defined by the Hawk Migration Association of North America
*Seth Benz	Schoodic Institute at Acadia National Park	Schoodic's Motus Wildlife Tower Tracking System
*Seth Benz	Schoodic Institute at Acadia National Park	Schoodic Institute biodiversity and phenology citizen science observations
*Stephen Ressel	College of the Atlantic	Coastal vernal pools in Acadia National Park as breeding habitat for spotted salamanders ( <i>Ambystoma maculatum</i> )
Bik Wheeler	National Park Service	Intensified monitoring to inform conservation of peregrine falcons in Maine
Danielle Herrig	University of Kentucky	Host-shift induced species formation in herbivorous insects
*David Evers	Biodiversity Research Institute	Identifying activities and habitat preferences of remnant populations of <i>Myotis</i> bats
*Aaron Weed	National Park Service	Northeast Temperate Inventory & Monitoring Network forest bird monitoring
Mark Whiting	Hancock County Soil and Water Conservation District	Maine brook trout and water quality: A volunteer-based water quality survey of Mount Desert Island streams

*Richard Feldman	Yucatan Center for Scientific Research	Phenology of bird-fruit interactions on the Schoodic Peninsula
*Ring Carde	University of California - Riverside	Pheromone biology of the moth <i>Virbia (Holomelina) lamae</i>
Michael Marion	National Park Service	Acadia Education Program: Biodiversity discovery activities
*Lara Wilbur	National Park Service	Maine Bumble Bee Atlas Project at Acadia National Park
*Frank Distefano	DiscoverLife Project at the University of Georgia	Photography of Acadia National Park moths in support of Discover Life's Mothing Project
Andrew Zachman	Schoodic Institute at Acadia National Park	Caterpillar phenology research through the use of beat sheets, frass traps, and the citizen science app Caterpillars Count!
Christopher Heilakka	University of Maine	Do <i>Myotis</i> bats use talus slopes in Maine for winter hibernation?

#### Freshwater & Air

*Sarah Nelson	University of Maine	The Dragonfly Mercury Project: Engaging citizen scientists in monitoring mercury contamination in national parks
Vivien Taylor	Dartmouth College	Tracing the sources and depositional history of mercury to national parks
*James Pagano	State University of New York at Oswego	Ambient levels of persistent and emerging air toxics at Acadia National Park
Sarah Nelson	University of Maine	Zooplankton phenology in Maine lakes
*Christopher Nadeau	University of Connecticut	Biodiversity and climate change in Acadia's freshwater rock pools
*Glen Mittelhauser	Maine Natural History Observatory	Assessment of water levels in Great Meadow
*Sarah Hall	College of the Atlantic	Stream monitoring at seven sites within Acadia National Park

*Kathryn Miller	National Park Service	Northeast Temperate Inventory & Monitoring Network freshwater wetland monitoring
*Laura Katz	Smith College	Biodiversity of microbial eukaryotes in Acadia National Park: Testate (shelled) amoebae at Big Heath and ciliates in tide pools
Justin Schlawin	Maine Natural Areas Program	Innovative methods to assess Maine's unique and resilient wetlands
Camille Parrish	Bates College	Water samples from Acadia National Park lakes
Matthew Farragher	University of Maine	Bathymetric mapping of ecologically important lakes in Acadia National Park

#### Intertidal & Marine

*Susan Brawley	University of Maine	Effects of climate change on reproductive phenology and the macroalgal microbiome
*Alexa Pezzano	National Park Service	Schoodic Education Adventure intertidal exploration
*John Cigliano	Cedar Crest College	The effects of ocean acidification and climate change on temperate marine rocky intertidal communities
*James Lynch	National Park Service	Elevation monitoring of salt marsh habitats of Acadia National Park
*Catherine Matassa	University of Connecticut	Intertidal community assembly and dynamics: Integrating broad-scale regional variation in environmental forcing and benthic-pelagic coupling
*Chris Petersen	College of the Atlantic	Historical ecology of tide pool flora and fauna at Acadia National Park
Hannah Webber	Schoodic Institute at Acadia National Park	Conserving rockweed animal systems for a sustainable harvest
David DeLaMater	Duke University	Biogeographic patterns of plant-herbivore interactions in a salt marsh foundation species
Chris Petersen	College of the Atlantic	Clam recruitment, predation, and acidity in intertidal mudflats

*Adam Kozlowski	National Park Service	Northeast Temperate Inventory and Monitoring Network Rocky Intertidal Monitoring Program
Michele LaVigne	Bowdoin College	Reconstructing the history of ocean acidification in the Gulf of Maine using crustose coralline algae
*Anna Farrell	MDI Biological Laboratory	Comparison of eelgrass ( <i>Zostera marina</i> ) sites in upper Frenchman Bay and outer Frenchman Bay
John Cigliano	Cedar Crest College	Marine microplastics in Acadia National Park
Hannah Webber	Schoodic Institute at Acadia National Park	How does rockweed architecture affect the associated invertebrate community?

#### Plants

*Susan Letcher	College of the Atlantic	Study of striped maple ( <i>Acer pensylvanicum</i> ) sex expression
*Jeff Licht	University of Massachusetts, Boston	Continuing biogeochemical assessment of pitch pine refugia on Mount Desert Island
*William Brumback	New England Wild Flower Society/Native Plant Trust	Developing climate change-resilient restoration techniques on Cadillac Mountain
*William Brumback	New England Wild Flower Society/Native Plant Trust	The New England Plant Conservation Program
Maik Werning	University of Goettingen (Germany)	Comparing the structural complexity of coniferous, deciduous, and mixed forest stands based on terrestrial three-dimensional laser scanning
Stephanie Spera	University of Richmond	Climate change, fall foliage, and leaf-peepers: Effects of precipitation and temperature on fall foliage and visitation in Acadia National Park
Jeanette Allogio	University of Maine	Requirements for successful regeneration of Northern white cedar in lowland swamps in Maine

*Nicholas Fisichelli	Schoodic Institute at Acadia National Park	Examining the future forest through a common garden experiment on education campuses across Maine
*Nicholas Fisichelli	Schoodic Institute at Acadia National Park	Tree migrants and refugium potential of Acadia National Park
Nicholas Fisichelli	Schoodic Institute at Acadia National Park	From seed predation to seed germination: Examining the establishment phase for woody plants in Acadia
*Nicholas Fisichelli	Schoodic Institute at Acadia National Park	Schoodic forest regeneration assessment
*Nicholas Fisichelli	Schoodic Institute at Acadia National Park	How Acadia's different ecological communities respond to a warming climate
*Nicholas Fisichelli	Schoodic Institute at Acadia National Park	Maine Forest Observation Network
*Nicholas Fisichelli	Schoodic Institute at Acadia National Park	Acadia islands forest and flora
*Elizabeth Orcutt	Schoodic Institute at Acadia National Park	Tracking seasonal changes in eight plant species by creating a phenology walk at the Schoodic Education and Research Center
*Michelle Baumflek	USDA Forest Service	Protect natural resources by developing plant gathering protocols with Indian Tribal gatherers
*Aaron Weed	National Park Service	Northeast Temperate Inventory & Monitoring Network forest health monitoring
Peter Nelson	University of Maine at Fort Kent	Enhanced observational network for assessing Maine forest health through VNIR imaging spectroscopy

**Pests, diseases, & invasive species**

*Sara McBride	University of Maine	Habitat associations of ticks and tick-borne disease in Acadia National Park
*Rachel Nyce	USDA Animal and Plant Health Inspection Service	Exotic wood boring and bark beetle survey
Jesse Wheeler	National Park Service	Emerald ash borer surveys using trap trees in Acadia National Park
Brooke Hafford MacDonald	University of Maine	Determinants of tick-borne disease risk in Acadia National Park
*Charles Lubelczyk	Maine Medical Center	Arbovirus surveillance in Hancock County, Maine
Thomas Schmeelk	Maine Forest Service	Southern pine beetle trapping
Nate Hofford	Ohio State University	Communicating the impact of non-native species on Acadia National Park

**Geology**

Mark Swanson	University of Southern Maine	Drone photography to study geologic structures around the Schoodic Peninsula
Sarah Hall	College of the Atlantic	Paleo-landslides of Mount Desert Island
Kenneth Christle	ETH Zürich	Impacts of compaction, recharge, and tectonic forces on melt segregation in high silica granite plutons
*Duane Braun	Maine Geological Survey	Revision of the surficial and bedrock geology maps the Schoodic Peninsula using Lidar imagery and field work
Guilherme Gualda	Vanderbilt University	Do granites and rhyolites share a common origin?

**Visitor Studies**

*Rebecca Flesh	Friends of Acadia	Acadia National Park winter 2019 visitor use study
*Frederick Bianchi	Worcester Polytechnic Institute	Webcam monitoring of traffic and parking conditions
*Frederick Bianchi	Worcester Polytechnic Institute	Visitor tracking mobile application
Frederick Bianchi	Worcester Polytechnic Institute	*Carbon footprint calculation
Katharine Ruskin	University of Maine	Quantifying the social values of Acadia National Park's water resources