







USGS 2024 Cooperative Summer Fellowship Program



The U.S. Geological Survey (USGS) Cooperative Summer Fellowship Program is the longest continuously running internship program in the Earth sciences. Over the past 59 years, over 2,600 students have participated in this program, with many participants continuing on to distinguished careers with USGS, academia, and industry.

The cooperative program was launched at the Geological Society of America meeting in Kansas City, MO in early fall of 1965 when William "Bill" Pecora, then the newly appointed Director of the USGS, held a meeting with a small group of distinguished professors and officers of the National Association of Geoscience Teachers (NAGT). Pecora suggested that the USGS would provide support through internships for outstanding newly graduated geoscience majors, while NAGT would solicit outstanding student nominations from the directors of the nation's geoscience field camps. In this way, students with excellent training in skills needed at USGS could take their next professional step with an internship putting those skills into practice.

In recent years the USGS has expanded our partnerships in this program to include the Ecological Society of America (ESA) and the GIS Certification Institute (GISCI) to support our scientists in geography and biological sciences.

Although some modifications have been made over time, the USGS Cooperative Summer Fellowship Program operates today much as it did in the beginning. With active participation and support from the highest levels of all organizations (including the Director of the USGS), a joint committee oversees the program. The program year begins in September when NAGT, ESA, and GISCI are provided nomination information. NAGT and ESA solicit nominations of exceptionally qualified students for their affiliated training programs. GISCI submits a list of students with appropriate GIS certifications for consideration. Nominated students apply by sending a resume, letter of interest, and transcripts to the USGS. At the same time, USGS scientists interested in working with an intern submit a proposal about their research projects. A science panel then reviews and matches candidates by their course work, skills, and interests with up to five projects. Interviews and selections proceed from there. The program endeavors to place as many of the nominated students as possible. In the last several years, between 68 and 95 percent of the nominated students who applied and stayed connected through the interviews have been placed in internships.

Interdisciplinary science training is a cornerstone of the USGS mission, and as such, all science disciplines are encouraged to take advantage of the intern program. Former student interns continually receive outstanding reviews from both scientists and supervisors.

The Program continues Pecora's vision of greater educational involvement, providing a first-rate professional experience to students early in their careers. The program today is a multidisciplinary collaboration that influences the career paths of future scientists in positive and exciting ways.

Geology and ecology field course directors can participate through our partnerships with the <u>NAGT</u> or <u>ESA</u>. Please visit the appropriate websites for additional information on how to nominate students. Nominations are due in early fall.

NAGT/USGS 2024 Cooperative Summer Fellowship Program Placements

Intern: **Emily Griner** Intern: Alex Acree

Field Camp: Colorado School of Mines East Tennessee State University Field Camp:

Mentor: Melissa Lombard Mentor: Rich Briggs **Location:** Location: Northborough, Massachusetts Golden, Colorado

Project: Earthquake geology studies in the western United States Hydrology and water quality of Cape Cod's Project: Groundwater/Surface-Water system

Intern: Josephine Barnett

Whitman College Field Camp: Intern: April Harrison Kendra Lvnn Field Camp: University of Michigan Mentor: Location: Hilo, Hawaii Mentor: Jessie Vermeer **Project:** Using petrology and geochemistry to understand recent Location: Moffett Field, California

eruptions of Kīlauea Volcano, Hawai'i **Project:** Northern California earthquake geology

Jillian Bludworth Intern:

Basin structure

Ryan Helgerson Field Camp: Field Camp: Central Washington University Illinois State University Mentor: Walter Mooney Dana Peterson Mentor:

Location: Denver, Colorado Location: Moffett Field, California

Project: Geophysical modeling of the Duluth Complex and Animikie **Project:** Natural hazards mitigation for vulnerable communities:

Intern:

earthquakes, tsunamis, volcanoes, and landslides

Intern: Rebecca Braun Intern: Ethan Hogg

Field Camp: South Dakota School of Mines Field Camp: Georgia State University

Mentor: Justin Brandt Mentor: Laura Clor

Location: Sacramento, California Location: Vancouver, Washington

Analysis and visualization of novel hydrogeologic data from **Project: Project:**

Preserving legacy geochemical data for volcano hazard monitoring in the Cascades

borehole extensometers, San Joaquin Valley, California

Hunter Broeder Intern: Intern: Kajsa Holland-Goon Field Camp: Colorado State University Field Camp: Colorado State University Karen Lund and Carma San Juan William Stephenson Mentor: Mentor:

Location: Lakewood, Colorado **Location:** Golden, Colorado

Northern Rocky Mountains transect High-resolution geophysical investigations of hazardous faults **Project: Project:**

and seismic ground motions—data for earthquake hazard

Eduardo Cruz Vega Intern: assessments Field Camp: University of Puerto Rico, Mayaguez

Mentor: Marci Robinson Intern: Parker LeClair

Location: Reston, Virginia Field Camp: SUNY Plattsburgh Marine microfossil indicators of past warm periods **Project:** Mentor: Gary Fuis and Cal Ruleman

Location: Ennis, Montana

Intern: Jesse DeMark **Project:** The North Meadow Creek fault, Tobacco Root Mountains,

Field Camp: California State Polytechnic University, Humboldt southwest Montana

Douglas Shinneman Mentor:

William McCraine Location: Boise, Idaho Intern:

Project: Next steps in delivering applied fuel break science in Great College: University of Oklahoma Mentor: Brandon Lutz

Basin sagebrush ecosystems **Location:** Denver, Colorado

Intern: Sadie Durning **Project:** Ozark Dome-Arkoma Basin-Ouachita belt transect

> California State University, Fullerton (odabout) Jackson Mitchell

Location: Tacoma, Washington Intern: Mary Ann Moody

Hydrogeologic framework for the Duwamish River Valley, Field Camp: University of Texas, Arlington **Project:**

> Washington Mentor: Walter Mooney

Moffett Field, California Location:

Intern: Max Eshbaugh Natural hazards mitigation for vulnerable communities: Project: Field Camp: Georgia Southern University earthquakes, tsunamis, volcanoes, and landslides

Lindsay Powers Mentor:

Denver, Colorado Location: Intern: Tina Neufeld

National Science Foundation Ice Core Facility: hands on Field Camp: Sul Ross State University **Project:**

climate science support Mentor: Carole Johnson **Location:** Storrs, Connecticut Project: Hydrogeophysics

Field Camp:

Mentor:

Valerie Trinidad Intern: Hannah Neuman Intern:

Field Camp: University of Oregon Field Camp: University of Puerto Rico at Mayaguez

Emily Montgomery-Brown Mentor: Mentor: Justin Brandt

Sacramento, California **Location:** Vancouver, Washington **Location:**

Geodetic monitoring of volcanoes in the western united states Analysis and visualization of novel hydrogeologic data from **Project: Project:** borehole extensometers, San Joaquin Valley, California

Cameron Olsen Intern:

Jackson Swartz

Auburn University

Intern:

Field Camp:

Field Camp: University of Utah Intern: Calleigh Warren

Karen Lund and Carma San Juan Field Camp: Middle Tennessee State University Mentor:

Lakewood, Colorado Mentor: Erin Marsh **Location: Project:** Northern rocky mountains transect **Location:** Denver, Colorado

Project: Advanced mineral separation methods for microanalytical

analysis (stable and radiogenic isotope analysis; trace

element geochemistry).

Mentor: Alexander Lusk Location: Denver, Colorado Intern. Laura Warrington **Project:** Structural and microstructural analysis of proterozoic shear Field Camp: James Madison University

> zones in the southern Rocky Mountains Mentor: Michael Toomey Location: Reston, Virginia

> > Northeastern Storm Hazards: Past and Present **Project:**

ESA/USGS 2024 Cooperative Summer Fellowship Program Placements

Intern: Anna Bartholet Maeve Finley Intern:

Northeastern University College: College: University of Michigan Mentor: Mentor: Michael McHale Kyle McLean

Location: Jamestown, North Dakota **Location:** Troy, New York

Quantifying climate change effects on trends in **Project:** Climate and land use effects on prairie-pothole wetland **Project:**

ecosystem functioning watershed biogeochemistry

Intern: Elizabeth Bruch Intern: Madeleine Gagliano

College: University of Alaska Southeast College: George Mason University Mentor: James Shanley Mentor: Kurt Kowalski

Location: Montpelier, Vermont Location: Ann Arbor, Michigan Research support on climate change and the global **Project: Project:**

Developing new, sustainable control strategies for an carbon cycle in the context of a long-term research

invasive wetland grass (Phragmites australis)

watershed

Intern: Erica Ham Intern: Grace Bucci College: Duke University College: Connecticut College Mentor: Gregory Noe Mentor: Nicholas Sutfin Location: Reston, Virginia

Location: Tacoma, Washington **Project:** Wetland influences on stream and watershed

GIS and field mapping of geomorphology and ecosystem health

hydrology of headwater streams in the Pacific Northwest to inform flow permanence and stream Intern: Olivia Hinds habitat models College: Gonzaga University

Mentor: Susan Kemp

Catherine Chavez Intern: Location: Boise, Idaho

College: University of California, Davis Science and Data Delivery – Web tool development, **Project:** Mentor: Douglas Shinneman data management, and science communications

Boise, Idaho **Location:**

Next steps in delivering applied fuel break science in Intern: Hayden Holcomb Tulane University Great Basin sagebrush ecosystems College:

Mentor: Kurtis Nelson Ava Crowe Location: Sioux Falls, South Dakota

Intern: College: University of North Texas **Project:** Monitoring post-fire burn severity and vegetation

Mentor: Sheel Bansal recovery

Boise, Idaho

Project: Next steps in delivering applied fuel break science in

Great Basin sagebrush ecosystems

Project:

Project:

Location:

Intern:Kylie HollisCollege:University of FloridaMentor:Stephen FormelLocation:Gainesville, Florida

Project: Data Archaeology: Mobilizing a Treasure Trove of

Deep-Sea Biodiversity data for Global Access and

Use

Intern: Kayla Kleinbauer

College: University of Rhode Island

Mentor: Kristen Hart **Location**: Davie, Florida

Project: Sea turtle and Diamondback terrapin nesting,

movements and habitat-use

Intern: Matthew Korade
College: West Virginia University
Mentor: Michael Duniway
Location: Moab, Utah

Project: Assessing impacts of climate change and land-use on

drylands of the Colorado Plateau

Intern: Avery Leigh
College: Knox College
Mentor: Michael McHale
Location: Troy, New York

Project: Quantifying climate change effects on trends in

watershed biogeochemistry

Intern: Rachel Lester

College: Gustavus Adolphus College

Mentor: Wesley Bickford Location: Ann Arbor, Michigan

Project: Assessing plant and microbial responses to common

invasive species management strategies

Intern: Jessica Lipschultz
College: Duke University
Mentor: Becky Kreiling
Location: La Crosse, Wisconsin

Project: Nearshore sediment legacy P and cyanobacteria in

Great Lakes nearshore zones

Intern: Nicholas Medina
College: University of North Texas

Mentor: Clint Otto

Location: Jamestown, North Dakota

Project: Improving pollinator habitat on working lands in the

Great Plains

Intern: Chloe Pak

College: University of California, Irvine

Mentor: David Paez

Location: Nordland, Washington

Project: Evaluation of rearing methods to increase the quality

of infection data in herring

Intern: Grace Parrott
College: Luther College
Mentor: Kurtis Nelson

Location: Sioux Falls, South Dakota

Project: Monitoring post-fire burn severity and vegetation

recovery

Intern: Isabella Peterson
College: Brown University
Mentor: Alena Giesche
Location: Anchorage, Alaska

Project: Permafrost legacy

Intern: Janen Ritchea

College: West Virginia University

Mentor: Tabitha Graves
Location: West Glacier, Montana

Project: Surveying pollinators and flowering plants on

Montana rangelands

Intern: Jasmine Ryan

College: University of California, Los Angeles

Mentor: Michael Duniway Location: Moab, Utah

Project: Assessing impacts of climate change and land-use on

drylands of the Colorado Plateau

Intern:Morgan SharbaughCollege:University of AlabamaMentor:Beth MiddletonLocation:Lafayette, Louisiana

Project: Ecohydrology of baldcypress swamps in the

southeastern United States

Intern: Ari Siegel

College: University of Florida Mentor: Jess Rodysill Location: Reston, Virginia

Project: Natural flood and drought variability in lacustine

archives

Intern: Emma Squires
College: Macalaster College
Mentor: Sarah Elliott

Location: Mounds View, Minnesota

Project: Assessing removal of trace organic contaminants

from urban stormwater by filtration best

management practices

Intern: Heather Thomas
College: Oregon State University

Mentor: Sarah Elliott

Location: Mounds View, Minnesota

Project: Assessing removal of trace organic contaminants

from urban stormwater by filtration best

management practices

Intern: Hadley VandeVusse
College: University of Michigan
Mentor: Nicholas Johnson
Location: Millersburg, Michigan

Project: Sea Lamprey aquaculture and procurement initiative

Intern: Alejandro Vazquez

College: University of California, Irvine

Mentor: Clint Otto

Location: Jamestown, North Dakota

Project: Improving pollinator habitat on working lands in the

Great Plains

Intern: Hallie Wirth
College: University of Iowa
Mentor: Paul Bedrosian
Location: Lakewood, Colorado

Project: Geophysical mapping of the midcontinent rift system

Intern: Drew Workman
College: University of Akron
Mentor: David Pilliod
Location: Boise, Idaho

Project: Finding Franklins: Using gridded EDNA sampling

to detect a critically endangered bee (bombus

franklini) in the Pacific northwest

GISCI/USGS 2024 Cooperative Summer Fellowship Program Placements

Courtney Baker Intern: Jessica Middleton Intern: University of Maine College: College: University of Michigan Mentor: Krissy Hopkins Mentor: Noel Pavlovic **Location:** Raleigh, North Carolina **Location:** Chesterton, Indiana

Landscape dynamics of Pitcher's thistle and visitor Visualizing and mapping streambank stability in **Project: Project:**

Raleigh, NC impacts on vegetation of Great Lakes sand dunes

Intern: Rachel Condie Intern: Zoie Rhodes

College: Weber State University College: University of Michigan Mentor: Matthew Conlon Mentor: Walter Mooney **Location:** New Cumberland, Pennsylvania **Location:** Moffett Field, California

Project: Assessment of pesticides and characterization of **Project:**

Natural hazards mitigation for vulnerable communities: groundwaters in Pennsylvania's glaciated low plateau earthquakes, tsunamis, volcanoes, and landslides

siliciclastic and northwestern glaciated surficial

hydrogeologic settings Intern: Jennifer Sirirat

Concordia University, Irvine College: Intern: Jason Kawalec Mentor: Andrea Foster

Location: Menlo Park, California College: Rutgers University

Mentor: **Emily Woodward Project:** Determining a suitability index for mining of domestic **Location:** Remote ni-co laterites by traditional and innovative methods

Creating interactive web-based information products to

highlight 20+ years of USGS Pennsylvania Water Intern: Naurene Sultana Science Center water quality research. College: Hunter College Mentor: Ralph Grundel **Location:** Chesterton, Indiana

> **Project:** Creating an interactive interface explaining landscape

> > connectivity in the Great Lakes basin

Project: