

Grants in Aid of Research Awards - March 15, 2022 Grant Cycle

Anthropology			
Name	Education Status	Institution	Study Title
Julia Bingham	Doctoral Student	Duke University	Knowledge and Power in West Coast Vancouver Island Salmon Fisheries
Madison Hillegas	Masters Student	George Washington University	Dental evidence of stress events in wild mountain gorillas and chimpanzees
Laura Perez	Doctoral Student	Pennsylvania State University-Main Campus	Determinants of Diabetes in the Ecological Context of Rural Bangladesh
Kathryn Sokolowski	Masters Student	University of Utah	Resolving Pleistocene herbivore dietary ecology in the fynbos biome (Western Cape Province, South Africa)

Behavioral Ecology			
Name	Education Status	Institution	Study Title
Timothy Cronin	Doctoral Student	Clemson University	A formal test of sexual conflict in protandric simultaneous hermaphrodites and the effect of sociobiology.
Jordan Lam	Undergraduate Student	Lafayette College	Dominant and Subordinate Foraging Behaviors of House Sparrows as Revealed Through an Automatic Behavior Data Collection System
Alayna Mackiewicz	Doctoral Student	University of North Carolina at Chapel Hill	Magnetoreception in Fishes: An Unsolved Mystery
Bianca Marcellino	Masters Student	University of Toronto at Mississauga	Effects of climate change-induced reductions of male dragonfly melanin ornamentation on mating success
Renee Nowicki	Masters Student	Georgia Southern University	Cuticular hydrocarbon analysis of social parasitism in Southeastern cone ants.
Mackenzie Scurka	Masters Student	University of California-Los Angeles	The Heritability of Fear: Decomposing Sources of Variation in Marmot Flight Initiation Distance
Kirsten Sheehy	Doctoral Student	University of California-Davis	Why are individuals so different? An empirical study of evolutionary bet hedging using a naturally clonal vertebrate.

Cell Biology/Biochemistry			
Name	Education Status	Institution	Study Title
Fares Alrefai	Doctoral Student	University of Oklahoma-Health Sciences Center	Unraveling the Mechanism of Polarized Apolipoprotein E Secretion in Retinal Pigment Epithelium
Kavitha Anbarasu	Doctoral Student	Indiana University-Purdue University-Indianapolis	TBK1 as a therapeutic target for Retinal Ganglion Cell neuroprotection in optic neuropathies.
Regina Bedgood	Masters Student	University of Alabama at Birmingham	Identifying the Role of JAGN1 in Plants
Casey Cruse	Masters Student	Pennsylvania State University-Main Campus	The power of smell: olfactory mechanisms underlying resource location in insects
Gracious Donkor	Masters Student	Illinois State University	Investigating the synergistic effect of a novel antimicrobial in aminoglycoside-mediated killing of Pseudomonas aeruginosa.
Tori Huey	Masters Student	Clemson University	Effect of Immunosuppression in the Remodeling Intervertebral Disc
Omar Johnson	Doctoral Student	The University of Texas Medical Branch	Uncovering the effects of genetic variation on gene expression during hyperglycemic stress in induced pluripotent stem cell derived cardiomyocytes
Lauren Jonas	Doctoral Student	University of Maryland-College Park	Biological scrubbing and sequestration of CO2 from powerplant smokestack emissions
Elena Kozlova	Doctoral Student	University of California-Riverside	Effects of Maternal Thyroid Supplementation on Cortical Neurodevelopment in C57Bl/6J Mice Offspring after Maternal Transfer of Indoor Flame Retardant Toxicants
Jennifer Anne Patron	Undergraduate Student	Villanova University	Defining T cell inhibitory role of BTN2A2 protein expressed by Lipid Droplets

Cell Biology/Biochemistry (cont.)			
Anthony Restaino	Doctoral Student	University of South Dakota	Over-expression of miR-15b-5p in HNSCC tumors promotes tumor innervation by the stabilization of neuronal growth cone
Anne Elizabeth Thaxton	Undergraduate Student	University of South Alabama	Testing the Timing of Gene Expression during Venom Replenishment for Three Scorpion Genera
Yanqi Zhang	Doctoral Student	The University of Alabama	Using Advanced Lutein Delivery Method for Inhibiting Retinopathy of Prematurity – A Preclinical Study in Sprague-Dawley Rats

Chemistry			
Name	Education Status	Institution	Study Title
Catherine Hagearty-Mattern	Undergraduate Student	SUNY Polytechnic Institute	Ultrasound-assisted disulfide bond formation: a powerful tool for cyclization of fluorogenic peptide
Wei Zhang	Doctoral Student	University of Miami	Influence of Chiral Essential Amino Acids Mediated Carbon Dots on Immune Response

Climate Science			
Name	Education Status	Institution	Study Title
Brittany Multer	Masters Student	Ohio State University-Main Campus	Carbon Sequestration via Concrete Weathering
Wyatt Reis	Masters Student	Colorado State University-Fort Collins	Integrating in situ, and model observations to evaluate wildfire impacts on snowpack processes

Computer Science/Mathematics			
Name	Education Status	Institution	Study Title
Mohammad Aminul Hoque	Doctoral Candidate	University of Alabama at Birmingham	A Framework for Detecting LiDAR Spoofing Attacks on Autonomous Vehicles Using Cooperative Perception

Conservation Biology			
Name	Education Status	Institution	Study Title
Joshua Benjamin	Doctoral Student	University of Florida	The influence of land use and land cover changes on aquatic biodiversity and trace element distribution in the Mara River Basin.
Gabriel Benson	Masters Student	University of Central Florida	Refining the Restoration Protocol for a Foundation Species of Seagrass
Ashley Dickinson	Masters Student	Humboldt State University	Assessment of the genetic population structure and rate of clonality in a rare serpentine endemic, <i>Lathyrus biflorus</i> , using ddRADseq
Stephen Gergeni	Masters Student	California State University-Sacramento	Identifying Critical Habitat and Potential Pathogens within a California Wetland to Improve Conservation Management for the Threatened Giant Gartersnake (<i>Thamnophis gi</i>)
Mary Gibson	Masters Student	Central Michigan University	MGibson + Grant Proposal
Elyce Gosselin	Doctoral Student	University of Idaho	Ecology and Genetics of the Galapagos Bats
Amanda Johnston	Doctoral Student	Columbia University in the City of New York	Assessing the impact of habitat loss on genetic diversity of endangered golden monkeys (<i>Cercopithecus mitis kandti</i>) in Rwanda
Emma Reasoner	Masters Student	Namibia University of Science and Technology	Predator occupancy and human-wildlife conflict on communal farmland of the Greater Waterberg Landscape, Namibia.
Delfina Sotorres	Doctoral Student	Universidad de Buenos Aires	Generating baseline data and building conservation strategies for threatened prey species in the fragmented Atlantic Forest of central-southern Misiones, Argentina

Ecology			
Name	Education Status	Institution	Study Title
Aavika Dhanda	Doctoral Student	Oxford University	Evaluating the impacts of land-use land-cover changes on birds of eastern Indian Himalaya, a global biodiversity hotspot
Luisa Genes	Doctoral Student	Stanford University	Regeneration of tropical secondary forests: why is species composition recovery so slow?
Anecia Gentles	Doctoral Student	University of Georgia	Determining the role of cross-species overlap as a driver of henipavirus persistence in bats
Elsa Godtfredsen	Doctoral Student	Northwestern University	Earlier Snowmelt, Earlier Flowering, and Increased Drought: New Realities of Subalpine Plant Reproduction under Climate Change
Matthew Johnson	Masters Student	Appalachian State University	Viral Spillover from Honeybee Apiaries in Native Solitary Bee Populations
Raymond Kidder	Masters Student	Georgia Southern University	ASSESSMENT OF AT-RISK BARRIER ISLAND FRESHWATER HABITATS USING AQUATIC MACROINVERTEBRATE BIOINDICATORS
Kimberly Lato	Doctoral Student	Stony Brook University	Effects of urban habitat use on the trophic ecology of gulls
Vanessa Lau	Masters Student	Columbia University in the City of New York	Biological Nitrogen Fixation Across a Nutrient Gradient in the Arctic Tundra
Patrick Lewis	Masters Student	Georgia Southern University	Investigating Fish Community Diversity Longitudinally Across Georgia Southeastern Plain Streams
Michelle Lowery	Masters Student	Georgia Southern University	Algae Turf Scrubber Efficiency in Controlling Nutrient Concentrations and Algae Dynamics of an Aquaponic System
Parker Lund	Masters Student	Humboldt State University	Invasive Anemones Buffer Host-Associated Microbiota Against Thermal Stress
Bailey McNichol	Doctoral Student	University of Nebraska-Lincoln	Importance of ecophysiological plasticity in the responses of forests to climate change
Matthew Moelling	Masters Student	University of Arizona	Adapting to an increasingly variable climate: Selection dynamics on breeding date in a passerine bird
Andrew Mularo	Doctoral Student	Purdue University-Main Campus	Population genomics and dispersal abilities of micropredators: Implications for disease transmission in vertebrates
Tricia Nguyen	Masters Student		Coyote and non-target wildlife responses to livestock guarding dogs at sheep grazing sites
Serey Nouth	Undergraduate Student	University of California-Berkeley	Are there sex differences in the core cloacal microbiome composition of Aegean wall lizards, Podarcis erhardii?
Sarah Pangburn	Doctoral Student	CUNY Graduate School and University Center	Evolution of Hemoglobin Digestion Genes Prompted by Parasite Niche Expansion
Sahil Pawar	Doctoral Student	Pennsylvania State University-Main Campus	Do insects silence plant cries for help?
Hannah Rempel	Doctoral Student	The University of Texas at Austin	Quantifying the critical role of herbivorous coral reef fishes across an environmental gradient
Sydney Rodman	Undergraduate Student	Rice University	Microbiome Comparison Between Endemic Anchialine Shrimp Found Across Cenotes in the Yucatan Peninsula
Rosemary Ronca	Masters Student	Appalachian State University	Comparison of Dietary Niches between two High Elevation Specialist Species, Plethodon welleri and Desmognathus organi
Emily Selland	Doctoral Student	University of Notre Dame	Agricultural nutrient inputs influence biodiversity-disease relationship of Schistosoma parasites
Jake Vargas	Masters Student	Humboldt State University	Species Identification of Magallana gigas, and Magallana sikamea as it relates to Aquaculture Methods in Humboldt Bay

Engineering			
Name	Education Status	Institution	Study Title
Paul Adefiranye	Undergraduate Student	Texas A & M University-College Station	Development of a Thermal Runaway Initiation System for Lithium-Ion Battery Failure Experiments

Engineering (cont.)			
David Miller	Undergraduate Student	Texas A & M University-College Station	Analysis of Vent Gasses Produced during Thermal Runaway of Lithium-Ion Batteries
Nicolas Andres Molina Vergara	Doctoral Student	The University of Texas at Austin	Tribological properties of self-lubricating coatings for machining tools
German Rodriguez Ortiz	Doctoral Student	The University of Texas at El Paso	Experimental investigation of photovoltaic soiling losses inside the laboratory

Geo-Sciences			
Name	Education Status	Institution	Study Title
Victoria Cassady	Doctoral Student	University of Southern California	An Investigation into the Effect of Microbial Metabolism on Calcium Carbonate Precipitation in Incipient Shrub Microbialites
Helbert Garcia-Delgado	Doctoral Student	Syracuse University	Impact of climate and tectonics on sediment flux in low-latitude active orogens: a case study in the Colombian Andes
Benjamin Geyman	Doctoral Student	Harvard University	Biogeochemical controls on sedimentary mercury fluxes in the tropical Atlantic Ocean and changes during early diagenesis
Benjamin Guerrero-Lewin	Doctoral Student	Syracuse University	Resolving the timing and style of mountain growth in the south-Central Andes (32°–35°S) using low-temperature thermochronology
Hunter Hughes	Doctoral Student	University of North Carolina at Chapel Hill	SMITE: A Novel Method for Estimating Sea Surface Temperatures Using Scleractinian Corals
Morgan Mellum	Undergraduate Student	Gustavus Adolphus College	Impacts of carbon cycling on paleoecosystems prior to the K-Pg mass extinction
Maya Samuels-Fair	Doctoral Student	University of California-Berkeley	Cretaceous to Neogene life history trends in Cheilostome Bryozoa
Ami Ward	Doctoral Student		Granite as a metamorphic rock: Investigating autometamorphism within plutons

Physics/Astronomy			
Name	Education Status	Institution	Study Title
Paola Cunha	Undergraduate Student	Universidade Federal do Rio de Janeiro	Simulation of potentially habitable environments on the surface of exoplanets
James Dockery, Jr.	Undergraduate Student	College of Charleston	Investigating the Impact of Episodic Stellar Activity on Planet Evolution
Michael Rosenthal	Doctoral Student	University of Wisconsin-Madison	Spectroscopic Redshifts of Distant Dusty Star-forming Galaxies

Physiology/Functional Morphology			
Name	Education Status	Institution	Study Title
Holland Galante	Doctoral Student	North Dakota State University-Main Campus	Are melanistic plumage characteristics an honest signal of individual oxidative balance in the male house sparrow (<i>Passer domesticus</i>)?
Samantha Gartner	Doctoral Student	University of Chicago	Evolutionary Biomechanics and the Mechanical Properties of Cranial Ligaments in the Wrasses and Parrotfishes (Family Labridae)
Lily Hou		University of Waterloo	How post-hibernation energetic constraints exacerbated by white-nose syndrome impact gestation progress
Ritu Sampige	Undergraduate Student	University of Houston	The Role of Antibiotic-Induced Dysbiosis on Corneal Nerve Regeneration
Tiffany Shemwell	Doctoral Student	University of South Florida-Main Campus	Examining mechanistic reasoning and student understanding of the core concept structure and function in biology
Rysa Thomas	Masters Student	James Madison University	Characterization of glucocorticoid and mineralocorticoid receptor expression across a major seasonal life history transition in <i>Thamnophis sirtalis parietalis</i>

Physiology/Functional Morphology (cont.)			
Savannah Weaver	Masters Student	California Polytechnic State University-San Luis Obispo	Seeking the source of acclimatory changes in lizard osmoregulation
Carolyne Naana Yanney	Undergraduate Student	Kwame Nkrumah University of Science and Technology	CLINICAL AND MICROBIOLOGICAL PROFILE OF FUNGAL ISOLATES IN EXTERNAL OCULAR INFECTIONS AND ANTIFUNGAL SUSCEPTIBILITY

Psychology			
Name	Education Status	Institution	Study Title
Kira Ashton	Doctoral Student		The impact of early language exposure on visual object representation
Nina Ferreri	Doctoral Student	North Carolina State University	Age Cohort Differences in Technology Adoption and Responses to Technology Failures
Meghan Gonsalves	Doctoral Student	Brown University	Repetitive Transcranial Magnetic Stimulation for Major Depression: Effects on Neocortical Metabolites
Chani Kohtz	Undergraduate Student	University of Michigan-Ann Arbor	Sleeping in a social context: the effect of huddling and its neuronal mechanism in group-living mice
Samantha Scott	Doctoral Student	Arizona State University-Tempe	Serotonin 1B receptor mRNA expression in response to cocaine self-administration
Alissa Tressler	Undergraduate Student	East Stroudsburg University of Pennsylvania	Predicting Compassion Fatigue in Healthcare Professionals with the Compassion of Others' Lives Short Form

Systemics/Evolutionary Biology			
Name	Education Status	Institution	Study Title
Danial Asgari	Doctoral Student	University of Houston	Identification of transcription factors responsible for constitutive expression of lysozyme genes in <i>D. melanogaster</i> gut
Dave Colucci	Doctoral Student	Binghamton University	Does urbanization affect the population structure of American crows?
Margaret Mackinlay	Masters Student	California Polytechnic State University-San Luis Obispo	Eye catching light pollution: Anthropogenic light pollution and its evolutionary influence on the avian eye
Amanda Pastore	Masters Student	University of Connecticut	Connecting plasticity to gene expression and its associated fitness in <i>Daphnia magna</i>
Janelle Talavera	Doctoral Student	Binghamton University	Prezygotic isolation and speciation in a Neotropical lizard through a sensory drive lens
Alice Teele	Undergraduate Student	Westfield State University	Historic Evidence of Introgression in Two Ursid Species, the Polar Bear and Grizzly Bear
Tianzhu Xiong	Doctoral Student	Harvard University	The Genetic Basis of Haldane's Rule in Hybrid Butterflies

