



Healthy Communities



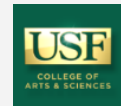
Healthy People



Healthy Environment

# College of Arts & Sciences

Research & Scholarship Highlights



# HEALTHY ENVIRONMENT

Just as healthy people depend upon their communities to support their values and choices, so too do communities rely on natural ecosystems for their sustainable success. A healthy and sustainable environment is a necessity for improving the human condition. CAS researchers conduct innovative research that explores trends in the natural world and seek to prevent environmental degradation and avert environmental catastrophe.



# Research and Scholarship Highlights

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[Eric C. Wells](#), Professor and Director of USF Center for Brownsfields Research, Department of Anthropology. Award Period: 2017-2019. “[Brownfields Area-Wide Planning Project for the University Area Community, Hillsborough County, Florida.](#)” Brownfields Area-Wide Planning Grant Program (BAWPG), U.S. Environmental Protection Agency; \$200,000.

[Cecilia Nunes](#), Associate Professor, Department of CMMB. Award Period: 2018-2018. “Quality and Shelf Life of Standard Strawberry Cultivars and New Breeding Selections: Season 2017-2018.” Florida Strawberry Research and Education Foundation; \$49,814.

[Cecilia Nunes](#), Associate Professor, Department of CMMB. Award Period: 2017-2018. “A real-time forecast decision support system for the food supply chain.” University College Dublin; \$30,798.

[Alan R Franck](#), Adjunct, Department of CMMB. Award Period: 2017-2020. “[Digitizing PEN: Integrating the Herbaria of Peninsular Florida, A Biodiversity Hotspot of Endemism, Rarity, and Richness.](#)” NSF; \$72,292.

[James R. Garey](#), Professor, Department of Cell Biology, Microbiology, and Molecular Biology (CMMB). Award Period: 2017-2019. “[Impacts of Groundwater Extraction on a Karst Ecosystem and the Use of Ecological Surrogacy for the Management of Underwater Caves.](#)” Cave Research Foundation; \$3,000.

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Jochen Braunmiller, Research Assistant Professor, School of Geosciences. Award Period: 2017-2019. "Along Strike Variation of Seismic Moment Release and Coupling Along Oceanic Transform Faults," NSF; \$92,129.

Sylvain Charbonnier, Assistant Professor, School of Geosciences. Award Period: 2017-2018. "Enhancing Digital Elevation Models and Mitigation of Mass Flow Hazards at Active Volcanoes," National Aeronautics & Space Administration; \$45,000.

Sylvain Charbonnier, Assistant Professor, School of Geosciences. Award Period: 2018-2023. "CAREER: Developing a Consensual Validation and Benchmarking Procedure for Pyroclastic Density Current (PDC) Hazard Models," NSF; \$138,190.

Jennifer Collins, Associate Professor, School of Geosciences. Award Period: 2017-2020. "REU Site Proposal: Weather, Climate and Society: An Interdisciplinary Approach Integrating Physical and Social Sciences," NSF; \$432,123.

Jennifer Collins, Associate Professor, School of Geosciences. Award Period: 2017-2018. "RAPID: Social and Geophysical Influences on Hurricane Evacuation Decision Making," University of Alabama, Tuscaloosa; \$16,826.23.

Tim Dixon, Professor, School of Geosciences. Award Period: 2017-2018. "Links Between Induced Earthquakes and Fluid Infection: Quantifying Volumetric Strain and Pore Pressure Due to Fluid Infection With Time Series InSAR Observations," National Aeronautics & Space Admin; \$4,500.

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[Jason Gulley](#), Assistant Professor, School of Geosciences. Award Period: 2017-2019. “[Collaborative Research: Understanding GrIS Moulin Hydrology and Links to Ice Motion](#),” NSF; \$346,289; “Everest Glacier Caves,” National Geographic Society; \$41,460.

[Jason Gulley](#), Assistant Professor, School of Geosciences. Award Period: 2018-2020. “[Collaborative Research: How Does Groundwater Inundation of Carbonate Island Interiors From Sea Level Rise Impact Surface Water-Aquifer Interactions and Evaporative Losses?](#),” NSF; \$131,574.

[Gregory Herbert](#), Associate Professor, School of Geosciences. Award Period: 2017-2018. “GSA Graduate Student Research Grant,” The Geological Society of America; \$1,559.

[Sarah Kruse](#), Professor, School of Geosciences. Award Period: 2017-2020. “TubeX: Using GPR, LiDAR, and hXRF to Investigate Strategies for Lava Tube Exploration,” University of Maryland; \$128,752.

[Shawn Landry](#), Associate Professor and Director of USF Water Institute, School of Geosciences. Award Period: 2017-2020. “FWC Species and Habitat Monitoring Programs Catalog (Terra-CAT),” Florida Fish and Wildlife Conservation; \$24,958.

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[Shawn Landry](#), Associate Professor and Director of USF Water Institute, School of Geosciences. Award Period: 2017-2018. “Tampa Bay Regional Water Atlas 2017-2018),” Tampa Bay Estuary Program; \$50,000; “Lake County Water Atlas 2017-2018,” Lake County Water Authority; \$2,500; “Polk County Water Atlas 2017-2018,” Polk County Florida; \$2,800; “Altamonte springs WN Processing,” City of Almonte Springs; \$2,575; “Tampa Tree Map Website 2017-18,” City of Tampa; \$5,400; “Kentucky Plant Atlas Implementation,” Eastern Kentucky University; \$2,475; “Tennessee Plant Atlas Implementation,” University of Tennessee at Chattanooga; \$8,000.

[Shawn Landry](#), Associate Professor and Director of USF Water Institute, School of Geosciences. Award Period: 2018-2018. “Venice Gardens Lake Bathymetry and SAV Survey,” Sarasota County Government; \$4,500; “City of Kissimmee WIN Data Management 2017-18,” City of Kissimmee; \$2,950; “SEACAR Database Creation,” Florida Department Environmental Protection; \$119,606.

[Shawn Landry](#), Associate Professor and Director of USF Water Institute, School of Geosciences. Award Period: 2018-2019. “Gulf of Mexico Alliance Monitoring Metadata Catalog,” Gulf of Mexico Alliance; \$53,288.

[Rocco Malservisi](#), Associate Professor, School of Geosciences. Award Period: 2017-2020. “Building Integrated seismic and volcanic hazard models in active arcs: An example from the Managua Graben, Nicaragua,” Pennsylvania State University; \$87,238.

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[Bogdan Onac](#), Professor, School of Geosciences. Award Period: 2017-2018. “Climate and Vegetation Reconstructions Using Ice Cores in Lava Tubes at EL Malpais National Monument,” Western National Parks Association; \$7,500.

[Matthew Pasek](#), Associate Professor, School of Geosciences. Award Period: 2018-2021. “Phosphorus Mineral Cosmochemistry in the Emerging Solar System,” NASA; \$70,000.

[Mark Rains](#), Professor and Chair, School of Geosciences. Award Period: 2017-2018. “Academic Affiliation Agreement with USF and FGCU (Lauren Griffiths),” Florida Gulf Coast University; \$17,500.

[Mark Rains](#), Professor and Chair, School of Geosciences. Award Period: 2017-2019. “Collaborative Tool Development for Promoting Resilient Ground Water Resources and Holistic Watershed management at the KBNERR,” University of Alaska Anchorage; \$72,605; “CDFW Section 6 Merced Natural Reserve vernal Pool Restoration Project,” University of California; \$12,500.

[Jeffrey Ryan](#), Professor, School of Geosciences. Award Period: 2017-2020. “[Collaborative Research: Universal Skills For Geoscience Graduate Student Success in the Workforce](#),” NSF; \$9,712.

[Jeffrey Ryan](#), Professor, School of Geosciences. Award Period: 2017-2019. “[Collaborative Research: Geoscience Animations: Construction, Evaluation and Modification of Plate Tectonic Concepts for Geoscience Education](#),” NSF; \$31,822.

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[Ping Wang](#), Professor, School of Geosciences. Award Period: 2017-2018. “Investigating Beach Changes Associated with Post-Nourishment Profile Equilibration on Turtle Nesting,” US Fish & Wildlife Service; \$12,792.

[Ping Wang](#), Professor, School of Geosciences. Award Period: 2018-2022. “Physical monitoring of the Sand key, Treasure Island, and Long key Beach Nourishment Projects,” Pinellas County Florida; \$71,525.

[Susan Bell](#), Professor, Department of Integrative Biology. Award Period: 2017-2020. “[Using Past Seagrass Restoration Projects to Inform Research and Improve Monitoring and Evaluation of Future Restoration Efforts](#),” National Academy of Sciences; \$221,238.

[Brad Gemmell](#), Assistant Professor, Department of Integrative Biology. Award Period: 2018-2018. “DROPPS III (Dispersion Research on Oil: Physics and Plankton Studies),” University of Texas, Austin; \$94,940.

[Brad Gemmell](#), Assistant Professor, Department of Integrative Biology. Award Period: 2017-2018. “Sloan Foundation Early Career Fellowship,” Alfred P. Sloan Foundation; \$30,000.

[Valerie Harwood](#), Professor and Chair, Department of Integrative Biology. Award Period: 2017-2018. “Salt Creek Microbial Source Tracking,” City of St. Petersburg Florida; \$43,800.



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[Christina Richards](#), Associate, Department of Integrative Biology. Award Period: 2017-2018. “Population Dynamics of the Giant Caribbean Sea Anemone (*Condylactis Gigantea*) in Florida and Across the Caribbean,” Florida Fish and Wildlife Conservation; \$14,630.