



### **Rising Voices: 2020 Seed Funding for Catalyzing Research and Action**

Congratulations to the following three teams which received seed funding to catalyze their projects and advance the ethos of the Rising Voices Center for Indigenous and Earth Sciences. All entries for this funding opportunity represented important and cutting edge work that advances Indigenous science and action in the Earth sciences.

#### **PROJECT: EXpanding adaPtive Capacity Towards (EXPECT) Climate Change in Las Cabachuelas, Project Borinquen**

Abstract: EXPECT project seeks to build community resilience and adaptive capacity in Las Cabachuelas Reserve and nearby areas and their residents in Borinquen (Puerto Rico). It aims to do so by focusing on climate change (e.g., flooding and landslide) and co-designing community-based hazards preparedness maps. Efforts will be in collaboration with Las Cabachuelas Project, a community-based cooperative, that promotes sustainable eco-tourism, research, and education about caves ecosystems. We seek to co-construct a map informed by traditional knowledge to strengthen place-attachment and develop place-feelings towards caves; this includes the implementation of virtual and field-based geospatial trainings and community

“walkabouts,” focusing in culturally and ecologically significant places imbued with storytelling.

Team: Ángel A. Garcia Jr., Ph.D. (PI; James Madison University), Aixa Alemán-Díaz, Ph.D. (Co-PI; Independent Scholar), José Santos-Valderrama, MTS (Las Cabachuelas Cooperative and Community Member), Myriam Rivera-Vázquez (Las Cabachuelas Cooperative), Joan M. Cruz-Santiago (Las Cabachuelas Cooperative and Community Member), Ángel A. Acosta-Colón (University of Puerto Rico at Arecibo)

#### **PROJECT: Enabling Tribal Data Sovereignty: Supporting Great Plains and Northern Rockies Tribes Data Needs**

Abstract: Tribal nations require sound information for governance, ensuring the health and welfare of their citizens, and planning. Tribes face particular challenges in accessing, interpreting, utilizing, managing, and protecting data. Limited resources, fragmented / stovepiped federal programs supporting narrowly defined activities, lack of data sovereignty policies, and similar obstacles frustrate action. Ensuring true tribal sovereignty requires access to and the resources needed to effectively use data and information. This project will further the establishment of a tribally-governed not-for-profit entity that offers human, technical, and financial resources to tribes and tribal programs for specific health, environmental, or socioeconomic data related problems in the Great Plains and Northern Rockies region. Our goal is to increase tribes’ ability to access, interpret and apply data for governance, planning, and for improving economic opportunity and tribal sustainability. Creation of a regional entity with technical skills, orientation to tribal needs / capacities, and adequate resources to support training and data sovereignty issues would enable regional tribal governments to serve their citizens more effectively, support planning, and improve daily life for thousands of Native Americans.

Team: James Rattling Leaf (PI, Rattling Leaf Consulting; USGS North Central Climate Adaptation Science Center), Robin O’Malley (formerly with USGS North Central Climate Adaptation Science Center; Robin O’Malley LLC), Chad McNutt (formerly with NOAA/National Integrated Drought Information System (NIDIS); co-founder Livestock Wx)



**PROJECT: Blues to Bitterroots Coalition - Camas to Condors Project: Seasonal Round Trail Project – a Multicultural Collaboration for Climate Resilience**

Abstract: The objective of this project is to develop a plan and vision for the Tribe and regional collaborators to work on landscape level planning efforts that focus on connectivity for wildlife, and on habitats that support traditionally harvested plant foods. This planning effort is a first step towards garnering support and obtaining adequate funding for meaningful restoration and mitigation efforts as part of the wildlife and gathering part of the adaptation plan.

To achieve this, we are working on building capacity to maintain a coalition of partners with the necessary skills, resources, and willingness to focus efforts on community resilience, along with culturally-centered and traditional knowledge informed restoration. The vision of the initial partners includes whole-landscape function (including hydrology and ecological connectivity), with initial efforts focused on critical linkages. These include the Nez Perce Precious Lands and its watershed, and keystone symbolic species such as camas, Coho salmon, and California condor.

The first project is a Seasonal Round Trail Project to help monitor changes to traditional foods, draw awareness to cultural survival, native plants, wildlife, and ecological integrity. Education, Cross-sectoral, cross-cultural collaboration, research, and community based planning are all critical to the success of this project.

Team: Tiwana Casey (PI, Independent Contractor), Stefanie Krantz (Nez Perce Tribe, Water Resources), Angela Sondenaa (Nez Perce Tribe, Department of Wildlife), Thomas Tall Bull (Nez Perce Tribe, Water Resources) AJ Whiteplume (Nez Perce Tribe, Water Resources) Josiah Pinkham (Nez Perce Tribe, Cultural Resources), Nakia Williamson (Nez Perce Tribe, Cultural Resources), Christina De Villier (Greater Hells Canyon Council), Jessie Grossman (Yellowstone to Yukon Conservation Initiative), David Mildrexler (Eastern Oregon Legacy Lands & Nez Perce Tribe)