



Annual Report  
**FY2018**



RESEARCH CORPORATION  
OF THE UNIVERSITY OF GUAM



Else Demeulenaere and Matthew Putnam pictured with the *Serianthes nelsonii* "Mother Tree" which is the only seed producing adult tree left on island. *Serianthes nelsonii* is endemic to Guam.

## BOARD OF DIRECTORS

The Research Corporation of the University of Guam is under the management and control of a ten-member Board of Directors. Board membership includes representation from the UOG Faculty Senate, the UOG Board of Regents, the UOG Research Council, UOG senior administrators, and members representing the community at large.

Dr. Thomas W. Krise, 8/2018 - 9/2018  
*Chairperson/UOG President*

Dr. Robert A. Underwood, 10/2017 - 7/2018  
*Chairperson/UOG President*

Dr. Anita Borja Enriquez,  
*Vice Chairperson/UOG Senior Vice President*

Randall Wiegand,  
*Treasurer/UOG Vice President of Administration and Finance*

Elizabeth Gayle,  
*UOG Board of Regents Representative*

Jillette Leon Guerrero,  
*UOG Board of Regents Representative*

Dr. John Jenson,  
*UOG Research Council Representative*

Dr. Kate A. Moots, Secretary, 10/2017 - 7/2018  
*UOG Faculty Senate Representative*

Dr. Cheryl Sanguenza, Secretary, 8/2018  
*UOG Faculty Senate Representative*

Joseph F. Ada,  
*Community Member Representative*

Artemio R.A. Hernandez,  
*Community Member Representative*

Ray Topasna,  
*Community Member Representative*

## CREDITS

### Cover Photo

Mariana eight-spot butterfly, *Hypolimnys octocula*, is endemic to Guam and listed endangered under the Endangered Species Act.  
G. Curt Fiedler

### Photographs

EPSCoR | G. Curt Fiedler | Alicja Wiecko

### Layout

Olympia Terral

# KEY PERFORMANCE INDICATORS FY2018



8%

Increase in number of grants supported



11%

Increase in grant expenditures which underscores efficiency



103

employees working on various grant projects



12

travel grants awarded to UOG students



10/1/2018

RCUOG self-sufficient no longer receives funding from UOG general operations



**RCUOG core team:** Cathleen Moore-Linn, executive director; Gloria Travis, chief business officer; Bobbie Molarte, accounting specialist; Michelle Santos, grant budget specialist III; and Colleen Bamba, human resources associate.

## PURPOSE

The Research Corporation of the University of Guam completed its fourth year of operations in FY2018. This report highlights the positive outcomes over the last fiscal year and the role RCUOG plays in supporting the University of Guam’s research projects while ensuring efficiency and compliance in daily operations.

### Policies

The following policies were developed or amended to support efficiency within the organization and to ensure RCUOG remains a competitive employer.

- Incentive for RCUOG employees who earn an accounting certification
- The Board approved a one time, two-step increase for employees who earn Certified Public Accountant, Certified Government Financial Manager, Certified Fraud Examiner, or Certified Internal Auditor certification.
- Employer match for full-time employees who contribute to a 403(b) pre-tax or Roth account
- The Board approved a maximum three percent match for full-time employees who contribute to pre-tax or Roth accounts.
- Amended the RCUOG procurement policy to align with Federal micro-purchase and small purchase thresholds
  - Federal thresholds for micro-purchase and small purchases were increased to \$10,000 and between \$10,001 and \$250,000, respectively. RCUOG’s procurement policy was amended to align with Federal government thresholds.
- Establish a reasonable reserve threshold and investment in short-term Time Certificate Deposits
  - A reasonable reserve and distribution plan was established to ensure net proceeds support the knowledge enterprise, research facilities and laboratories, or to provide matching funds to secure major grants such as the NSF EPSCoR 2020 proposal or Institutional Sea Grant status.
- Amending the authorization to open or close bank accounts or credit facilities
  - The policy was amended to include the Chairperson Thomas W. Krise to the list of individuals authorized to open or close bank accounts or credit facilities.

### Human Resources

RCUOG completed 220 personnel hiring actions in FY2018 compared to 225 hiring actions during the prior fiscal

year. After three years of significant growth, grant related human resources activity has stabilized.

These hires include all temporary full-time and part-time positions based on availability of funds as well as summer salaries for UOG faculty for grant related work. At the end of FY2018, RCUOG had 103 employees.

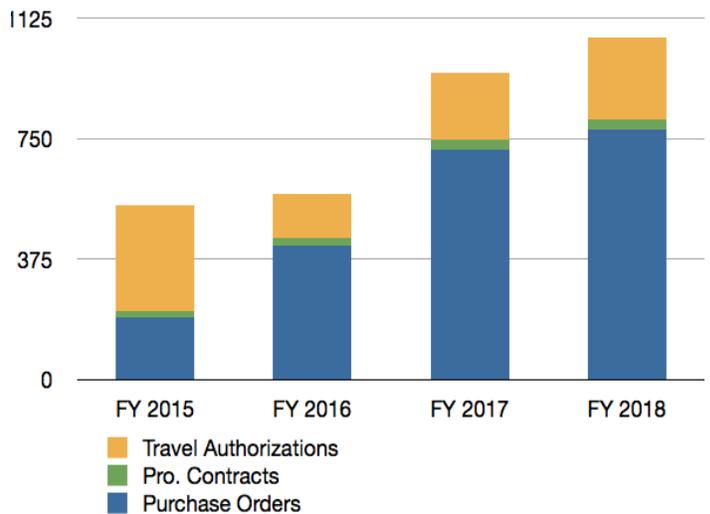


*RCUOG Personnel Actions Processed*

### Financial Transactions

The number of financial transactions, which includes purchase orders and contracts, increased 12% in FY2018 compared to the prior year. Despite the increase, documents are still processed within 24-48 hours. RCUOG’s streamlined procedures work in tandem with UOG systems in payroll, accounting, and human resources.

RCUOG was able to increase outputs in year four utilizing four full-time employees and one part-time employee.



*RCUOG Financial Transactions*

### FY2017 Audit

RCUOG is included as a component unit of the University of Guam with respect to the FY2017 audit. There were

no findings regarding RCUOG activities in FY2017, which indicates RCUOG continues to utilize strong internal controls which comply with federal regulations and its own policies. The FY2017 marked the third consecutive year of no questioned costs on those grants serviced by RCUOG.

## UOG-RCUOG RELATIONSHIP

### Self-sufficient

Public Law 32-114, which established RCUOG, requires the Research Corporation to be self-sufficient by the end of FY2019. RCUOG managed to delink from Government of Guam funding one year early as FY2018 marked the last year the organization received support from University of Guam funds. RCUOG receives 20% of grant generated indirect cost revenue which provides over 50% of RCUOG's general operations budget. The remainder is generated through RCUOG's administrative fee. At the close of the fiscal year, RCUOG realized \$267,619 in indirect costs and generated \$151,324 from fees charged to those projects without an indirect cost rate included.

Net proceeds will support the knowledge enterprise, research facilities and laboratories, and provide matching funds to secure major grants such as the National Science Foundation EPSCoR 2020 proposal or Institutional Sea Grant status.

### Letter of Agreement

The Operating Agreement calls for UOG and RCUOG to negotiate a separate agreement detailing charges and/or reimbursements for facilities, systems and services provided by one party to the other. The Letter of Agreement is in effect through September 2019. Currently, UOG does not charge RCUOG for use of its payroll and other services nor does RCUOG charge UOG for its support services.

### Growth

At the end of the fourth quarter, RCUOG provided support services to 93 different grants, an increase of 8% over the prior year, which equated to \$14.1 M in annual funding. Prior year annual funding was \$12.1 M. A key measurement for RCUOG is grant expenditures. Total grant expenditures for FY 2018 were \$7,980,057 which is an increase of 11% over the prior year.

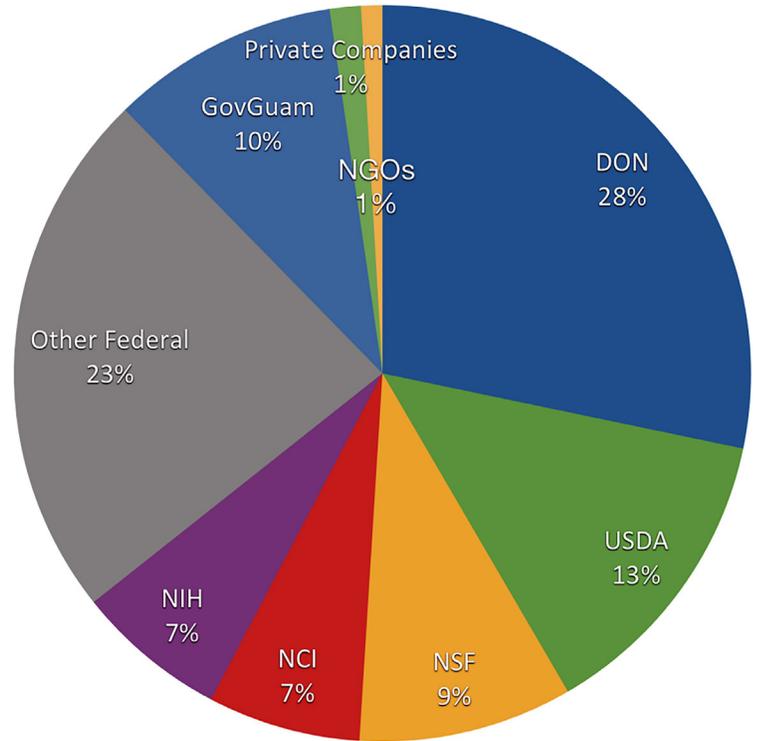
**2018 marked the last year RCUOG received support from University of Guam funds, one year earlier than originally scheduled.**



## FOCUS ON RESEARCH

The chart to the right provides a breakdown of grants by funding agency. Federal agencies, Government of Guam agencies, and non-profit foundations partner with the University of Guam to produce research and service outcomes. The Research Corporation, with a focus on efficiency, provides support to scientists who pursue research projects that have a direct, positive, and lasting impact on Guam and the region.

	<b>DON</b>	<b>\$ 3,996,221</b>
	<b>USDA</b>	<b>\$ 1,884,105</b>
	<b>NSF</b>	<b>\$ 1,327,726</b>
	<b>NCI</b>	<b>\$ 947,118</b>
	<b>NIH</b>	<b>\$ 937,680</b>
	<b>Other Fed.</b>	<b>\$ 3,301,251</b>
	<b>GovGuam</b>	<b>\$ 1,414,919</b>
	<b>Private Com.</b>	<b>\$ 183,073</b>
	<b>NGOs</b>	<b>\$ 132,000</b>



Jade Chennaux and Maria Snively pictured at an outreach event for the Pacific Islands Cohort on Cardiometabolic Health.

## FINANCIALS

### RCUOG Financial Statement FY18 Unaudited 9/30/18

#### REVENUE & OTHER ADDITIONS

Federal Grants	\$6,665,377.91
GovGuam Grants	484,068.23
Private Grants	92,307.29
Federal Matching	3,049.45
Miscellaneous	<u>985,718.31</u>
<b>Total Revenue &amp; Other Additions</b>	<b>8,230,521.19</b>

#### EXPENDITURES AND OTHER DEDUCTIONS

<b>Total Expenditures</b>	<b>7,908,057.29</b>
Transfer to/fr CFU	<u>148,750.00</u>
Increase/Decrease this Year	471,213.90
Fund Balance Beg.	<u>986,403.03</u>
<b>Fund Balance, End</b>	<b><u>1,457,616.93</u></b>

#### BALANCE SHEET

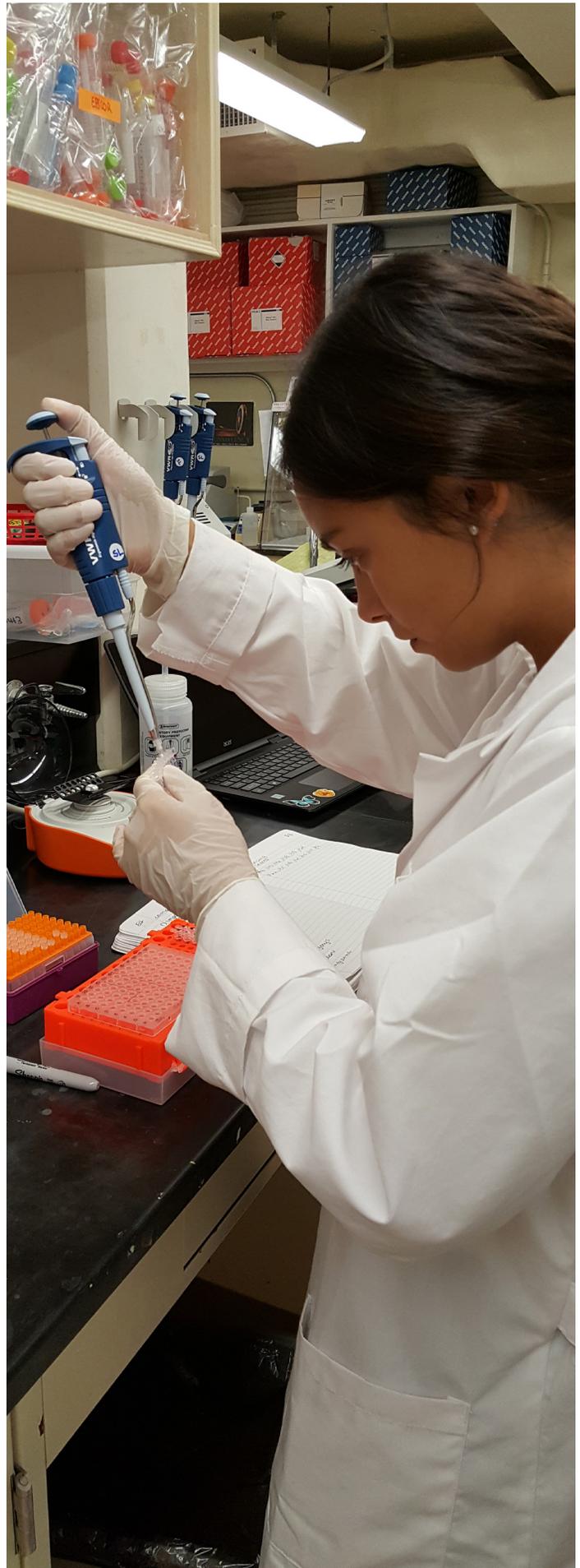
##### ASSETS

Cash in Bank	326,816.23
Account Receivables	1,749,143.15
Advances to Supplier	3,920.33
Advances to Traveler	<u>29,463.58</u>
<b>Total Assets</b>	<b><u>2,109,343.29</u></b>

##### LIABILITIES & FUND BALANCE

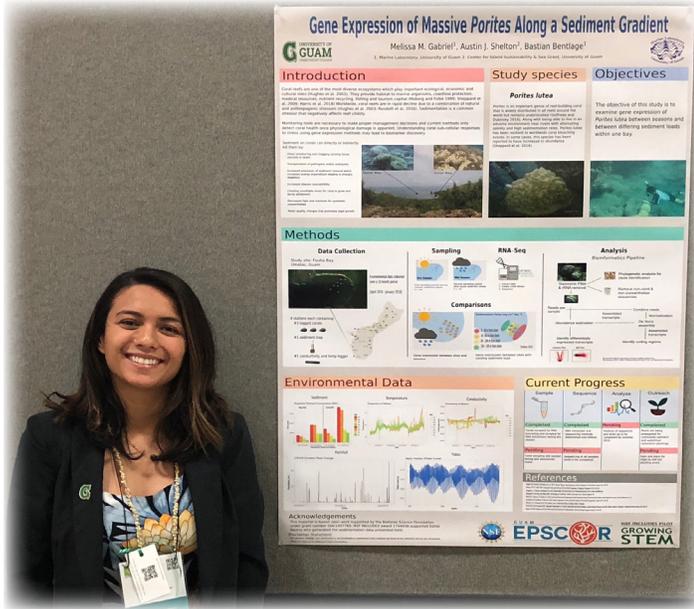
A/P Contracts	559.40
Accrued Payroll	18,545.28
Due to/fr Unrestricted	632,621.68
Deferred Revenue	-
<b>Fund Balance End</b>	<b><u>1,457,616.93</u></b>

**TOTAL LIABILITIES & FUND BALANCE** **2,109,343.29**



## TRAVEL GRANTS

RCUOG awarded 12 travel grants to University of Guam students for education related travel in 2018. Recipients traveled to Japan, Palau, the Philippines, Texas, England, and the Commonwealth of the Northern Marianas to present their research projects, lead workshops, and attend conferences.



*To present a poster on her coral research, Melissa Gabriel traveled to Texas with help from RCUOG.*

Melissa Gabriel, a graduate student pursuing her master's degree in biology, presented her research at the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) conference in San Antonio, Texas. Her thesis research focuses on the response of a specific type of coral to environmental stressors.

Elizabeth Rutun's research paper was accepted for presentation at the 23<sup>rd</sup> Pacific History Association Conference held in December 2018 at the Royal Academy of the Arts and the University of Cambridge in London, England. Ms. Rutun, who is pursuing her master's degree in English, will present her research on traditional Yapese dance as narrative and marker of change and adaptation as part of a panel presentation led by Dr. Evelyn Flores.

Mylisa Gillan and Sirena Garrido represented UOG at the Inter-Collegiate Finance Competition in Manila, Philippines in November 2018. Business majors Gillan and Garrido competed against other universities on a series of finance related topics. The competition helps prepare students to take the Chartered Financial Analyst Level One and Chartered Management Accounting examinations.

Four graduate students pursuing their graduate degrees in special education, Rita-Rose Hualde, Rovee Ann Rios, Gilbert Mangosong, and Ferdene Dela Cruz, received travel

awards to Palau to provide a workshop session for staff and parents of the Palau Head Start program on the topic of early childhood special education.

Luisa Victoria Tenorio and Alexander Ken Aflague attended the 12<sup>th</sup> Annual International Conference on Business, Economics and Information Technology which was held in Osaka, Japan in March 2018. Aflague presented his economic analysis of the Federated States of Micronesia while Tenorio presented her research on income distribution.

Julia Berg participated in an underwater remote operated vehicles workshop in the Commonwealth of the Northern Marianas. The Marine Ecology Via Remote Observation workshop was presented by Dr. Andrew Thayer in collaboration with Northern Mariana Trades School, Friends of The Marianas Trench Monument, and other community partners. Through a grant sponsored by NOAA and the Friends of the Mariana Trench Monument, a small fleet of observation-class microROVs were delivered to Saipan to be made available to researchers, conservationists, citizen scientists, managers, and other ocean stakeholders in the CNMI. Berg learned how to construct, maintain, and operate the mini-ROV.



*Julia Berg puts the final touches on a microROV at the Marine Ecology Via Remote Observation workshop held in Saipan.*



2018 RCUOG Travel Award recipients take time out for a photo with RCUOG administrators. Pictured from left are Gloria Travis, RCUOG Chief Business Officer, Gilbert Mangosong, School of Education graduate student, Rita-Rose Hualde, School of Education graduate student, Elizabeth Rutun, College of Liberal Arts and Social Sciences graduate student, Rovee Ann Rios, School of Education graduate student, Mylisa Gillan, School of Business and Public Administration major, and Cathleen Moore-Linn, RCUOG Executive Director.



Colleen Bamba, second from left, attended the Society for Human Resource Management national conference in Chicago with support from RCUOG.

**Travel Awards are given using mileage accrued from purchases made with the RCUOG official credit card in accordance with Public Law 32-019. RCUOG is pleased to support students as they pursue their academic endeavors.**

## LIST OF GRANTS AND CONTRACTS

In 2018 RCUOG provided support services to the following grants:

Project Launch

Violence Against Women Prevention Program

Palm Commodity Survey

Coconut Rhinoceros Beetle Biocontrol

Postdoctoral Entomologist to Develop Biological Control for the CRB

*Oryctes rhinoceros* nudivirus for Biocontrol of the Guam Biotype of the Coconut Rhinoceros Beetle.

Suppression of Orchid Diseases by Influx of Healthy Plants to Guam

Development of a Skilled Workforce for Orchid Nurseries on Guam

Production of Fusarium Wilt Resistant Bananas for Guam farmers; Small Scale and Backyard Growers

Seven Trees, Seven Practices: Demonstrating Agroforestry in the Western Pacific

Cancer Support Services

Guam WSARE Implementation Award Delivery of Educational Programs

Getting Guam Healthy MOU with DPHSS "Walk to Wellness Program"

USU WSARE Pacific Island

Enhancing Marine Science Capacity in the Western Pacific through Science Internships at UOG

Conservation Management of the Mariana Eight-Spot Butterfly at Northwest Field in Live Fire Training Complex

Recovery actions for *Serianthes nelsonii* and species considered for listing under Endangered Species Act

In Situ and Ex Situ Recovery Actions for *Serianthes nelsonii*

Enhancing Forest Inventory and Monitoring throughout the Pacific Islands

Developing Interactive Distance Education Curricula without the Internet

Improving Forest Inventory/Analysis

Development of Online Training Modules for Individuals on Guam Preparing for Arborist Certification

Micropropagation of Guam's Native Trees

MOA Between LMS and UOG

Micronesia Challenge Forest Inventory Data Analysis and Reporting

Training & Technical Support for UOG Faculty Developing STEM Courses for On-line Delivery

Improvement of Tissue Culture, Stereomicroscopy and Biochemical Analysis Laboratory in Agriculture Science Education

Cycad Assessment, Removal, Transplanting and Care within the Live Fire Training Complex Northwest Field, AAFB

Mitigation of Little Fire Ant, *Wasmannia auropunctata*, on Guam

Course in Tropical Forest Ecology of the Mariana Islands

Surveillance of Harmful Exotic and Invasive Ants in Guam and the Mariana Islands

Continuation of Surveillance of Citrus Pests and Huanglongbing Diseases in the Marianas

Continued Surveillance of Insect Pests in Ornamental and Landscape Nurseries in the Mariana Islands

Continuation of Assessment of Aphid Parasitism on Exotic Pests in Guam and the CNMI

National Survey of Honeybee Pests and Diseases

Survey of Tomato for *Raistonia solanacearum* race 3 biovar 2 and *Tuta absoluta* in Guam

Biological Control Asian Citrus Psyllid, *Diaphorina citri*, on Guam

NMC Insect Collection

Herbarium Improvement

Coral Mitigation Plan for the GTA Conduit Installation and SEA-US Cable Landings, Piti

Pacific ENSO Application Climate Center

Use Fish DNA to Create a New Predictive Fisheries Management Tool for Micronesia

Cetti Bay Watershed Monitoring

Sea Turtle Monitoring, Protection, and Educational Outreach on AAFB

Conservation Management of the Mariana Eight-Spot Butterfly

Vegetation Restoration for the Habitat Management Unit AAFB

Bio Monitor Support for Natural Resource management Surveys JRM Areas of Responsibility

Water Wells Salvage and Transplantation of Federally Listed Species at AAFB

Building Reef Resilience through Environmental Education

Phylogenetic Study of *Serianthes nelsonii*

Salvage Transplantation of Federally Listed Plant Species at Northwest Field in the Construction Footprint of the Live Fire Training Range Complex

Environmental Education Outreach Awareness on Naval Base Guam

Sea Turtle Aerial Surveys in Farallon de Medinilla Nearshore Waters

Guam Restoration of Watersheds: GROW Uguam

UH CCSG Supplement

Plant Surveys Joint Region Marianas

*Serianthes nelsonii* Monitoring AFB

Cycad Monitoring and Management on Anderson Air Force Base

Center for Island Sustainability

USDA Rural Dev. Rural Energy for America Program

Geocore: Geospatial Studies of Reef Ecology and Health using Satellite and Airborne Data

Historical and Current Shoreline Change Analysis

Vulnerability Analysis of the Built-Environment at Various Coastal Bays / Climate Change Assessment

University of Guam Sea Grant Omnibus Proposal 2018-2022

Cancer Center Registry

UH Pacific Islands Climate Science Center

NSF Includes DDLP: STEM Engagement and Participation in Native Pacific Islander Communities

NASA Guam EPSCoR Research Infrastructure Development Program

Bleaching Mitigation and Reef Resilience

Predicting Extreme Tide Events to Inform Shallow Reef Community Restoration and Management in Guam, Micronesia

ML-DOI/NPS: Building Staghorn Coral Community

Use fish DNA to Create a New Predictive Fisheries Management Tool for Micronesia

Farallon de Medinilla Fish Video Analysis

The Benefit of Expanding Science-to-Management Frameworks for Coral Reef Ecosystems Across Micronesia Program

Establishing a Fisheries-Dependent Monitoring Network Across Micronesia to Maximize Economic Benefits, Food Security, and Ecosystem Health

CC Network Design: Upgrading the UOG Network to Connect to Internet2 and Create a Science DMZ - OAC 1659182

LFA Survey, Perimeter Monitoring and Eradication at Anderson South

Sub Award UOG/UH Cancer Center Partnership

Sub Award UH Children's Health Living Center of Excellence to Collect Child Health Data on Guam and support CHL Intervention Training

Forest Bird Monitoring & Assessment on Tinian Joint Region Marianas (JRM) Leased Lands

Guam Ecosystems Collaboratorium

Fruit Bat Monitoring on Guam

Water Quality Monitoring on Naval Base Guam Submerged Lands

NRMP Hammerhead Shark in Apra Harbor and Orote Point

Radon Mitigation Training

UOG Student Technician for Guam Kingfisher

BUILD EXITO with Portland State University

U24 Cardiometabolic Diseases

Northern Guam Lens Aquifer Monitoring System

Toguan Watershed Management

Guam Water Kids: Protecting Guam's Fresh Water Resources

Autonomous Control Technology for Unmanned Aerial Systems with Agricultural and Environmental Applications in the Central Pacific Islands

Santa Rita Spring: Hydrogeologic Evaluation to Determine Engineering Design Options for Rehabilitation (MOA between GWA and UOG WERI)





RESEARCH CORPORATION  
OF THE UNIVERSITY OF GUAM