RESEARCH CORPORATION OF THE UNIVERSITY OF GUAM

December 20, 2017

GL#34-18-1405
Speaker Benjamin J.F. Cruz

JAN 17 2018
Time: 9:40 AM/PM File No
Received By:

The Honorable Benjamin J.F. Cruz
Speaker, 34th Guam Legislature
163 Chalan Santo Papa
Hagatna, Guam 96910

Dear Speaker Cruz,

On behalf of the Research Corporation of the University of Guam (RCUOG) Board of Directors, I have enclosed for your review the Research Corporation of the University of Guam's FY2017 Annual Report. This report highlights the growth achieved by RCUOG over the last fiscal year, provides a snapshot of the grants managed by RCUOG, and features the role the Research Corporation plays in supporting the University of Guam's research projects while ensuring efficiency and compliance in daily operations.

At the close of FY2017, RCUOG realized $396,672 in direct costs and administrative fees charged to those projects without an indirect cost rate included. This figure represents 96 percent of RCUOG's FY2017 budget. In other words, RCUOG nearly achieved self-sufficiency in its third year of operation.

Since it was created in 2014 and accept its first grant in October of that year, the Research Corporation of the University of Guam has become fully operational and provides a robust framework that supports scientific inquiry. Your support of the Research Corporation since its inception was instrumental in fostering an environment that enabled the University of Guam to expand its research activities and portfolio to address important issues facing our community and our region. We thank you for your continued support of research and outreach projects which directly benefit our island and our students.

Si yu'os ma'ase!

Sincerely,

Dr. Robert A. Underwood
Chairperson, RCUOG

2018 JAN 17 AM 9:55

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RCUOG is an EEO Employer and Provider
303 University Drive, Mangilao, Guam 96923
Tel. 671-735-0249/50/51









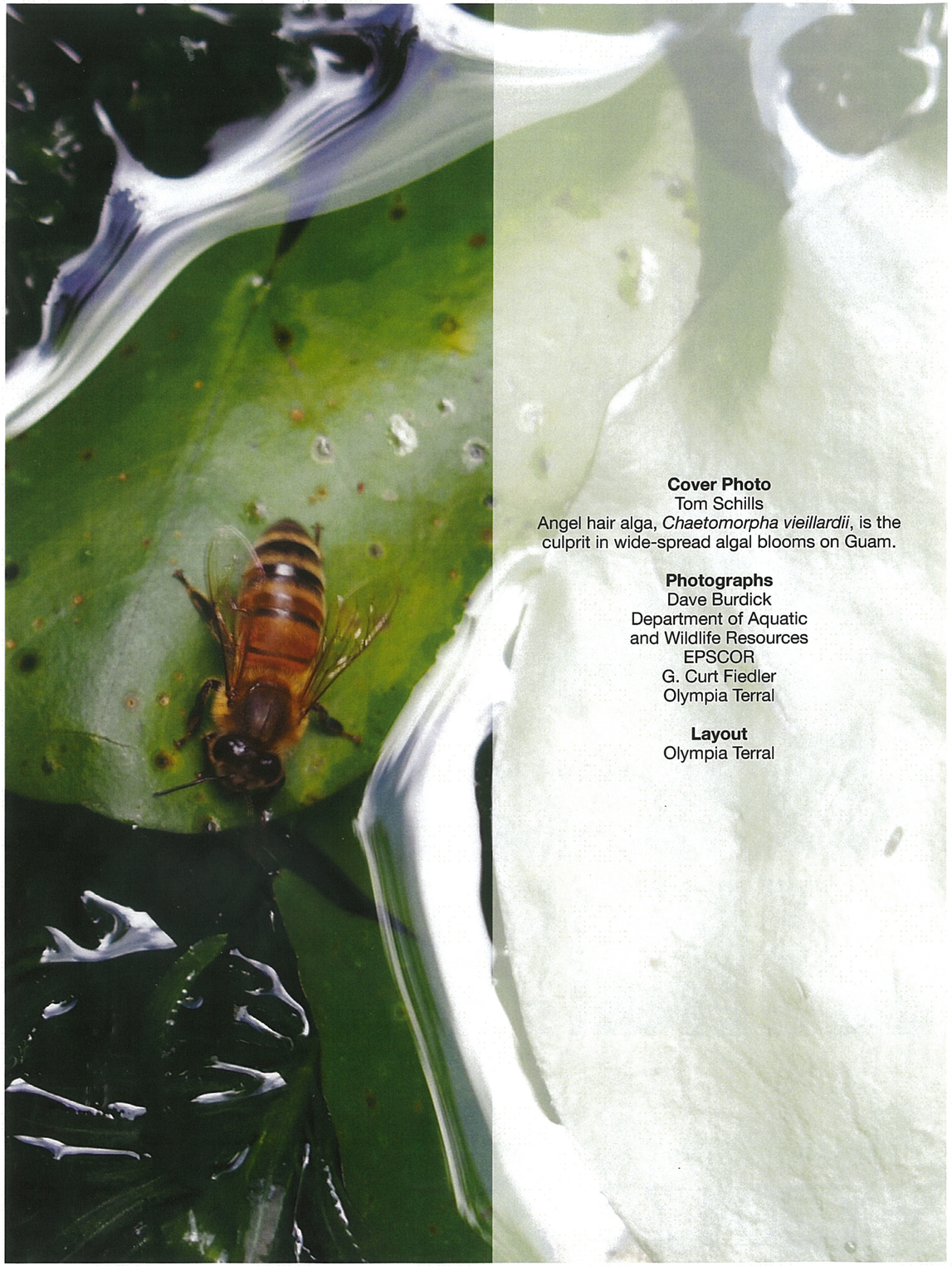




Annual Report FY2017

RESEARCH CORPORATION
OF THE UNIVERSITY OF GUAM

Doc. No. 34GL-18-1405.



Cover Photo
Tom Schills
Angel hair alga, *Chaetomorpha vieillardii*, is the culprit in wide-spread algal blooms on Guam.

Photographs
Dave Burdick
Department of Aquatic and Wildlife Resources
EPSCOR
G. Curt Fiedler
Olympia Terral

Layout
Olympia Terral

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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. Robert A. Underwood, Chair
UOG President

Dr. Anita Borja Enriquez, Vice Chair
UOG Senior Vice President

Randall Wiegand, Treasurer
UOG Vice President of Administration and Finance

Elizabeth Gayle
UOG Board of Regents Representative

Antoinette Sanford
UOG Board of Regents Representative

Dr. John Jenson
UOG Research Council Representative

Dr. Kate A. Moots, Secretary
UOG Faculty Senate Representative

Joseph F. Ada
Community Member Representative

Artemio R.A. Hernandez
Community Member Representative

Year Three

The Research Corporation of the University of Guam (RCUOG) completed its third year of operations and marked a number of positive outcomes at the close of FY2017.

Notably, there were no findings regarding RCUOG operations in the University of Guam's FY2016 audit under which RCUOG is reviewed as a component unit. This underscored RCUOG's success in the management of federal grants and contracts. Additionally, the number of grants flowing through RCUOG increased 32 percent compared to the prior year and funds managed by the Research Corporation grew to over 12 million dollars.

This report highlights the positive outcomes in year three and the role RCUOG plays in supporting the University of Guam's research projects while ensuring efficiency and compliance in daily operations.

Cathleen Moore-Linn
Interim Executive Director



RCUOG Core Team Pictured from left: Cathleen Moore-Linn, Interim Executive Director, Michelle Santos, Grant Budget Specialist III, Gloria Travis, Interim Chief Business Officer, Colleen Bamba, Grant Support Assistant III, and Bobbie Molarte, Accounting Specialist.

Purpose

The purpose of this report is to capture a snap-shot of the organization at the close of fiscal year 2017 and demonstrate how RCUOG supports research and outreach projects through its streamlined policies and processes.

Policies

The following policies were developed or amended to support efficiency within the organization:

Records retention policy

> Guides the retention and dispensation of grant-related documents in alignment with federal regulations.

Credit threshold for RCUOG purchase cards

> Established a credit limit threshold for RCUOG purchase cards.

Amending the policy for time and effort reporting

> Aligned time and effort reporting to the University of Guam's web time entry process and workflow.

Amending the travel policy

> The policy was amended to better align with UOG's travel policy.

Amending the authorization to open or close bank accounts or credit facilities

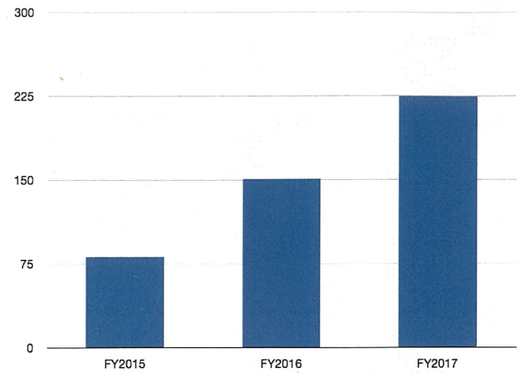
> The policy was amended to include the names of the executive director and the chief business officer to the list of individuals authorized to open or close bank accounts or credit facilities.

Human Resources

RCUOG completed 225 personnel hiring actions in FY2017 compared to 151 hiring actions during the prior fiscal year. This equates to a 49% increase compared to the prior year which underscores the increase in human resources activity related to grant funded projects.

These hires include all temporary full-time and part-time positions as well as summer salaries for UOG faculty for grant related work.

Personnel Actions Processed

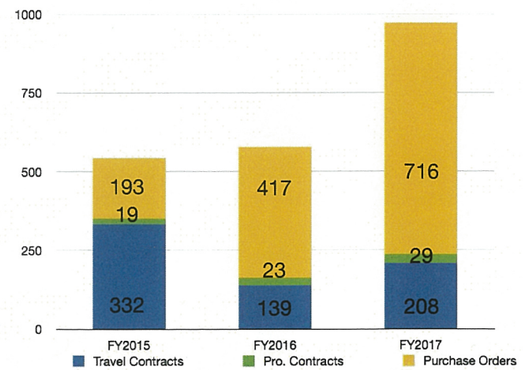


Financial Transactions

The number of financial transactions, which includes purchase orders and contracts, increased 65% in FY2017 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 three utilizing two full-time employees and three part-time employees.

Documents Processed



FY2017 saw a 49% increase in personnel actions and a 65% increase in financial transactions compared to the prior year.

FY2016 Audit

RCUOG is included as a component unit of the University of Guam with respect to the FY2016 audit. There were no findings regarding RCUOG activities in FY2016, which indicates RCUOG continues to utilize strong internal controls while complying with federal regulations and its own policies.

UOG-RCUOG Relationship

Indirect Costs

In September of 2016, the UOG Board of Regents adopted a resolution to distribute 20 percent of grant generated indirect costs to the Research Corporation for the purpose of funding RCUOG's general operations. The distribution took effect in FY2017. At the close of the fiscal year, RCUOG realized $261,623 in indirect costs and generated $135,049 from the 10 percent adminstrative fee charged to those projects without an indirect cost rate included, for a total of $396,672. These revenues covered 96 percent of RCUOG's FY2017 budget. RCUOG is close to achieving self-sufficiency, which is expected by the Guam Legislature to occur by the end of FY2019.

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 current Letter of Agreement is in effect through October 1, 2018. UOG does not charge RCUOG for use of its payroll and other services nor does RCUOG charge UOG for its support services.

In FY2017, funds managed by the Research Corporation grew to over 12 million dollars.

Growth

RCUOG provided support services to 86 different grants equating to $12,144,320 in annual funding in FY2017. To provide perspective on the significant growth that has occurred, the number of grants managed in FY2017 increased 32 percent compared to the prior year as the number of grants managed by RCUOG increased from 65 to 86. The total amount of annual funding increased 35 percent from $9,028,232 in FY2016 to $12,144,320 in FY2017.



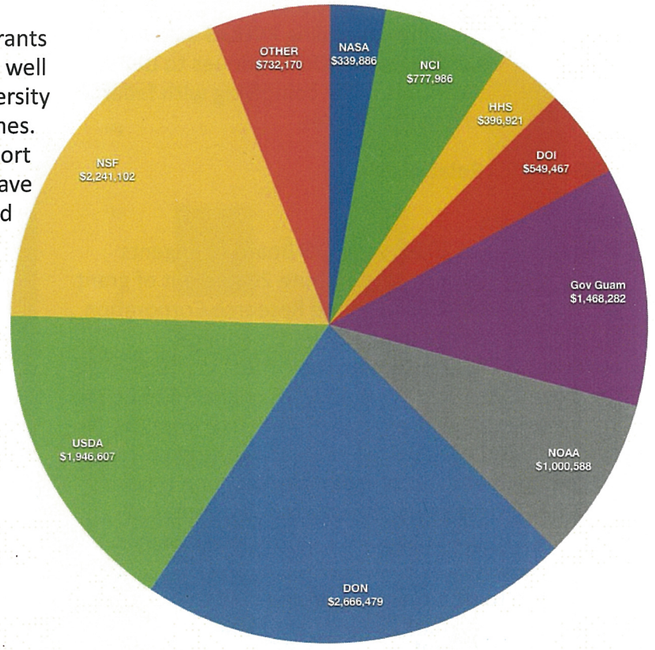
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Funding Sources

FOCUS ON RESEARCH

The chart to the right provides a breakdown of grants by funding agency. Federal and local agencies, as well as non-profit foundations, partner with the University of Guam to produce research and service outcomes. RCUOG, 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.

NASA	$339,886
NCI	$777,986
HHS	$396,921
DOI	$549,467
Gov Guam	$1,468,282
NOAA	$1,000,588
DON	$2,666,479
USDA	$1,911,439
NSF	$2,241,102
Other	$732,170







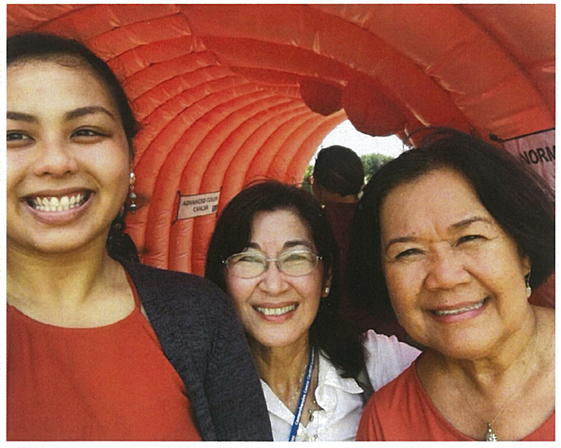


BUILD EXITO scholars traveled to Portland, Oregon in June 2017 for the Scholar Orientation. Students learned about the BUILD EXITO services and support, opportunities for scholars, and upcoming research training. The goal of BUILD EXITO is to equip students with the skills and experience needed to prepare for education beyond the undergraduate degree and for a career in biomedical research fields.





Gregorio Borja and Gary Baxter spent two months in Alaska learning forestry surveying techniques as part of Dr. Jim McConnell's grant project funded by the Forest Service.





U54 Cancer Research Center outreach activities for colon and oral cancer took place throughout fiscal year 2017.

Doc. No. 34GL-18-1405.

TRAVEL GRANTS

RCUOG awarded 11 travel grants to University of Guam students for education related travel in 2017. Recipients traveled to various destinations in Asia, the U.S. mainland, and Europe to present their research projects, pursue research, and enhance their academic experiences.

Recipients include:

Ida Shalilian, who returned to Guam from her hometown of Houston to continue her research on her environmental science thesis which focused on "innovative field measurement and discovery of an extraordinary volume of freshwater discharge flowing from a cave on Guam." She validated her initial work with additional high tech measurements and documented 2.3 million gallons of freshwater which flows into the ocean each day from Ayuyu cave on Guam's northwestern coast. She is expected to finalize her technical report and prepare her manuscript for journal publication. She presented her findings to the Guam Waterworks Authority.

Joleen Unas, fine arts and computer science major, and Katlyn Sutherland, fine arts major, were selected to represent UOG at the *Zureta*- the Misprint Exhibition held at the Chinretsukan Art Gallery at Tokyo University of the Arts in May 2017. This exhibit received submissions from twenty universities around the world. The exhibit will travel to other countries throughout 2017. Unas and Sutherland also participated in the International Printmaking Symposium, which was held in conjunction with the exhibit.

James Fifer, graduate student in biology, traveled to England to continue research on an emerging coral disease discovered by UOG Marine Lab's Dr. Laurie Raymundo. He participated in the analysis and sampling of DNA, RNA, and protein cells, which are essential steps in the study of a new coral disease. James worked in Dr. Mike Sweet's laboratory at the University of Derby in England. Dr. Sweet and Dr. Raymundo are partners in this research project.

Cassandra-Jay Flores-Hughes, an education major, has a strong interest in developing a set of courses centered on climate change that is culturally relevant to the region. The RCUOG travel award supported her participation in the Pacific Education Conference in Palau in July 2017, where she learned more about developing climate science curriculum and lesson plans to use at the high school level.



Ida Shalilian, Kaylyn Bautista and Bill Whitman measure the extraordinary volume of freshwater outflow from Ayuyu Cave on Guam's northwestern coast.

Cameron Dudkiewicz, a business administration major with a concentration in human resources, attended the 2017 Society for Human Resources Management national conference in New Orleans in June. He had the opportunity to network with HR professionals and learned best practices in the human resources field.

Mischa Calvo Cruz, a senior majoring in Sociology, and Samantha Uncangco, a junior majoring in psychology and sociology, represented UOG at the 4th International Academic Conference in Social Sciences in Singapore. They presented their research on Guam's ever-changing patterns of human ecology at the conference.

Marcel Kate Jardeleza, a senior majoring in biology, participated in a National Science Foundation Research Experience at the University of Hawaii in Hilo in the summer of 2017. Marcel presented her research data at the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) conference in Salt Lake City, Utah in October 2017.

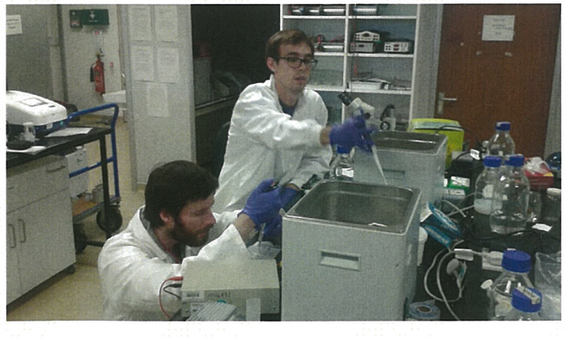
Noelle Bautista, a senior majoring in health sciences, presented her abstract on tobacco, e-cigarette use, and sleep patterns at the American Public Health Association (APHA) national conference in Atlanta, Georgia in November. The travel award allowed her to expand her knowledge on health issues, network with professionals, and remain current with the latest trends and practices in the field.

Christian Delgado represented UOG at the Asia Pacific Association of Fiduciary Studies 17th Pacific Region Investment Conference in Manila, Philippines in November. As a finance/economics major and vice president of the Student Investment Club, Christian learned more about the finance industry in an international setting.

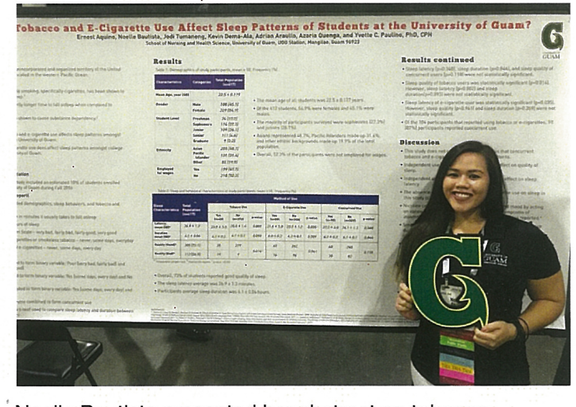
Travel Awards are awarded using mileage accrued from purchases made with the RCUOG official credit card in accordance with Public Law 32-019. RCUOG is pleased to support students as they purse their academic endeavors.



UOG students, from left, Katlyn Sutherland, Joleen Unas, and and UOG Assistant Professor of Art Dr. Irena Kecks pictured at the Zureta exhibition in Japan.



Graduate student James Fifer analyzed samplings of coral DNA, RNA, and protein cells, in Dr. Mike Sweet's laboratory at the University of Derby in England in the summer of 2017.



Noelle Bautista presented her abstract on tobacco, e-cigarette use, and sleep patterns at the American Public Health Association national conference in Atlanta, Georgia.

LIST OF GRANTS AND CONTRACTS

In 2017 RCUOG provided support services to the following grants:

Project Launch

State Grants for Assistive Technology

Violence Against Women Prevention Program

Little Fire Ants

Sea Grant

SARE

Healthy Bananas

Recovery Actions for Serianthes nelsonii and Species Considered for Listing under Endangered Species Act

Assessment of Aphid Releases Against Introduced Aphid Pests on Guam, Saipan, and Rota

insect Curation for NMC collection

Improving Forest Inventory/Analysis

In situ and ex situ Recovery Actions for Serianthes nelsonii

Western SARE Professional Development Program Plan for Guam

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

Engagement of US Pacific Islands Regional Representative to Participate in the PACIOOS activities

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

Biological control on Mikania micrantha in Guam and the Commonwealth of the Mariana Islands

Ongoing surveillance of citrus greening disease in the Mariana Islands of Guam, Saipan, Tinian and Rota

Suppression of Orchid Diseases by Influx of Healthy Plants to Guam

Coconut Viroid Diagnostics

Enhancing Forest Inventory and Monitoring throughout the Pacific Islands

Sustainable Farming Methods

Community Healthy Living

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

Coconut Rhinoceros Beetle Biocontrol

Course in Tropical Forest Ecology of the Mariana Islands

Mitigation of Little Fire Ant, Wasmannia auropunctata, on Guam

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

Continuation of Assessment of aphidiid parasitism on exotic pests on Guam and the CNMI

National Honeybee Survey Guam

Continuation of Surveillance of Insect Pests in Ornamental and Landscape Nurseries in the Marianas

Continued Surveillance of Harmful Exotic and Invasive ants in Guam and the CNMI

Palm Commodity Survey

Production of Fusarium wilt resistant bananas for Guam farmers; small scale and backyard growers

Herbarium Improvement

Developing Interactive Distance Education Curricula with our w/o the Internet

Herbarium Improvement

Identification of the cause of persistent green algal blooms in Guam

Assessing the relative resilience of coral reefs and herbivorous fish communities to climate change in US territories to inform ecosystem-based fisheries management

Expanding Science

Coral mitigation plan for the GTA conduit installation and SEA-US Cable Landings in Piti

Predicting extreme tide events to inform shallow reef community restoration and management in Guam, Micronesia

Coconut Rhino Beetle

Potential Impacts of Adaptive Response to Climate change for DOD Installations in Guam

CIS

PICSC Climate Change

Cancer Registry

Guam Ecosystems Collaboratorium

Pacific Islands Climate Science Center

Plant Surveys Joint Region Marianas

ML NOAA Resources Inventory Mannell Geus

Fruit Bat monitoring on Guam

UOG/UH Cancer Center Partnership

Historical and Current Shoreline Change Analysis

USDA Rural Development Rural Energy for America Program

NASA Guam EPSCoR Research Infrastructure Dev. Program

Improving ecosystem-based fisheries management in the Mariana Islands

ML-MCT Effective Management of Resources in Micronesia

Development of educational material for traditional and new media to promote cancer health awareness in Guam

Serianthes nelsonii Monitoring AAFB

UOG/UHCC Partnership - Oral Microbiome

Archaeological Technical Certification Training

HPV Vaccination: joint project UOG CRC and DPHSS

Sea Turtle Protection and Educational Outreach on Guam

Phylogenetic Study of Serianthes nelsonii

Conservation Management of the Mariana Eight Spot Butterfly

Building Reef Resilience through Environmental Education

ML-DOI/NPS: Building Staghorn Coral Community

The benefit of Enhancing Sustainable Coral Reef Monitoring and Management Capacity

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

CC Network Design: Upgrading the UOG Network to Connect to Ineternet2 and Create a Science DMZ - OAC 1659182

EXITO BUILD with Portland State University

Developing Hydrological Data for Taguan Watershed Management

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

Cetti Bay Watershed Monitoring

Cycad Monitoring and Management on Anderson Air Force Base

LFA Survey, Perimeter Monitoring and Eradication at Anderson South

Biomonitor Support for Natural Resource management Surveys JRM Areas of Responsibility

Vegetation Restoration for the Habitat Management Unit AAFB

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

Dementia Training: Catholic Social Services

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

Guam Water Kids: Protecting Guam's Fresh Water Resources

Northern Guam Lens Aquifer Monitoring System

UOG Student Technician for Guam Kingfisher

Radon Training



Biology senior Marcel Kate Jardeleza presented at the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) conference in Salt Lake City, Utah in October 2017.



Dr. Sarah Lemer and Dr. David Combosch collect genetic samples for their project under the NSF EPSCoR grant.



Graduate Research Assistant, Frank Roberto, doing field work related to Dr. Sarah Lemer's Guam EPSCoR seed-funded experiment titled, "Differential gene expression during bleaching caused by environmental stress."

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