



MOSAICS IN SCIENCE DIVERSITY Internship Program

2019 – PROJECT DESCRIPTION

NPS UNIT: WAR IN THE PACIFIC NATIONAL HISTORICAL PARK	PD #: 2019524
<p>Position Title: Natural Resource Interpretive Assistant Position Type: MIS Intern Primary natural resource discipline: Biological resources Project keywords: Coral Reefs, Ecology, Snorkel, Youth Education Park or Program Website: http://www.nps.gov/wapa Location: Hagatna, Guam</p>	
MOSAICS IN SCIENCE INTERN OVERVIEW	
<p>The Mosaics in Science Program is focused on persons that are under-represented in STEM fields. Students and recent graduates that are African American, Latino/Hispanic, Asian, Pacific Islander, and Native American are encouraged to apply for these internships. In order to be eligible for a MIS intern position, applicants must be a U.S. citizen or U.S. permanent legal resident (“green-card-holder”) between the ages of 18 and 35 years old.</p> <p>A Mosaics Intern within the Mosaics in Science Diversity Program is an entry level natural resource science internship that focuses on career exploration and building fundamental natural resource science skills. Each Mosaics Intern will receive a weekly stipend of \$400 and paid travel expenses. Interns who successfully complete 640 hours of work in one or more eligible internships and are under the age of 30 will be eligible for the Public Land Corps Non-competitive Hiring Authority for two years following the completion of the internship. Successful completion of a Mosaics in Science internship does not guarantee that the participant will be hired in to a federal position.</p>	
PROJECT DESCRIPTION AND WORK PRODUCTS	
<p>Position Description: War in the Pacific National Historical Park (WAPA) commemorates those who participated in the World War II Campaign in the Pacific. The 75th anniversary of the Battle of Guam will be celebrated in July 2019 during this internship. The Park contains the historic beaches where US soldiers and marines landed during the battle to liberate Guam from Japanese war time occupiers. Over half the Park area consists of shallow fringing coral reefs that were heavily bombed and damaged during landing of the US forces in July 1944. The reefs have recovered from extensive war damage and contain the highest diversity of marine species among all national parks. But they are under serious threat from coral bleaching, diseases and death of reef organisms caused by recent marine environmental changes.</p> <p>The Park has established projects to address the threat of coral bleaching, using volunteer youth to supplement the work of park staff and associated partner scientists. The Park and partner agencies have developed and tested pilot methods of using youth, and citizen scientists to monitor reef health. Outreach through experience and education of youth volunteers is WAPA’s priority method of public education on managing the health of reef habitats. The Summer of 2019 will be the tenth consecutive year that WAPA has sponsored its very popular Reef Ranger Camps for local youths. To continue the outreach efforts and to expand monitoring to park reefs during the summer time season of bleaching vulnerability, staff need the assistance of an intern who will assist in training local youth (all represent minorities) to do snorkeling surveys of coral bleaching, reef organism abundance and frequency and giant clams’ health using monitoring equipment (e.g., GPS instruments,</p>	

temperature recorders and underwater cameras) at sites identified by NPS, NOAA and Guam Government biologists and to enter computer data for NPS analysis.

The intern will work with NPS staff and partners to support the Reef Rangers' activities and to train high school and college youth volunteers to do snorkeling surveys of coral bleaching and giant clams' health and growth. They will learn to collect vital environmental data related to coral health from logging instruments and understand how these are applied to management decisions. The survey sites – clean shallow warm waters less than two meters deep – are accessed from beach entrance points. Intern and trainees will use transect lines, quadrat frames, monitoring equipment (e.g., GPS devices, data loggers, still and video cameras) used for NPS surveys. NPS staff, the intern and participants will receive safety training before field trials, while WAPA snorkeling protocols, life guards and emergency response systems will ensure safety. The environmental conditions and occurrence and extent of coral bleaching, as well as the size, growth, and health of the giant clams will be recorded.

Scenes from the work environment in the field showing the fieldwork as conducted in July 2018 can be viewed in: <https://www.nps.gov/media/video/view.htm?id=81B8065F-AAF2-0D25-B80954BC1A0800C2>

This position is offered through the National Park Service's Mosaics in Science Internship Program in partnership with Environment for the Americas and Greening Youth Foundation.

Work Products: Besides supporting the success of summer outreach activities the intern will collect valuable data used for WAPA management plans and actions. This internship will allow the MIS intern to develop a scientific educational or interpretive or management product of the intern's choice that will fill needs of WAPA's coral reef managers. Product will be determined by the intern's knowledge, skills and interest and be based on internship work. This should include data assessment and its interpretation and may be in the form of a technical report or educational material that may be presented in person or through media such as websites, posters, videos, etc.

QUALIFICATIONS

Must be at least 18 years old. Needs familiarity with Microsoft Excel and Word programs and have report writing skills. The intern must be an experienced safe swimmer. Academic courses in Biology, Ecology, Marine Sciences, Education and Communication are valued. Experience in studies on coral reefs can raise ranking in applicant selection. Ability to snorkel, free dive and determine safety in the ocean relative to changing conditions are a plus. Ability to understand student volunteer capabilities and snorkeling safety needs also desired. Certification in SCUBA and Life-Saving and GIS skills are not needed but may influence selection. Familiarity with Guam coral reef species will support selection.

The applicant must be a U.S. citizen or U.S. permanent legal resident ("green-card-holder") between the ages of 18 and 35 years old. Prior to starting this position a government security background clearance will be required.

VEHICLE/DRIVER'S LICENSE REQUIREMENTS

Applicant must have a valid driver's license and a good driving record. Intern needs transportation to the park work sites and preferably a personal vehicle for commuting.

HOUSING

Park housing is NOT available. Rental housing is available near the work site and the costs for housing will be covered for the intern if a person is hired that is not from the local commuting area. Small or shared units are available for \$500 to \$750 monthly (or less when shared with a roommate).

INTERNSHIP START/END DATES

Start Date: 5/20/2019

End Date: 8/8/2019

Eleven weeks of the internship will be in the park. A mandatory Career Workshop will be held in Washington, DC from August 4 – 8, 2019.

Are these dates flexible? Yes
STIPEND PAYMENT
\$4,800, all travel and housing costs will be covered
PHYSICAL/NATURAL & WORK ENVIRONMENT
<p>Physical/Natural Environment: The park is on the tropical island of Guam where every day of the year the high temperature is in the mid-80's degrees F. It is humid and subject to heavy rain and in some years violent typhoons. All typical American stores and public facilities are available as well as amenities for vacationing visitors. Clean air and waters support a wide range of outdoor recreational activities and sports. The intern will work in safe waters that are above 80 degrees. Practically all residents have an American school education and speak English but represent a wide variety of Asian and Pacific Islander heritages.</p> <p>Work Environment: The intern will be based in the Headquarters Office of the War in the Pacific National Historical Park in Hagatna, the capitol of Guam, along with the supervisor and supportive technical and administrative staff, with access to computers, printers, GPS units and GIS. Field work will target the WAPA shallow coral reefs in, and adjacent to, the Piti Bomb Holes Marine Protected Area two miles from the office and may extend to the Agat Unit of WAPA, about a half hour drive from the office. Coral reef areas to be surveyed are easily accessible from paved roads and entered from shoreline beaches. Any snorkeling will be limited to less than two meters depth. NPS snorkeling equipment is provided for the intern and the youth trainees. Water temperatures average about 80 degrees F daily year-around. Experienced partners will always be with the intern when traveling to study sites and when in the water. Diving and snorkeling safety protocols will be followed. NPS kayaks may be used as needed.</p>
MENTORING AND LEARNING GOALS
<p>Mentoring: The intern will be supervised by a WAPA coral reef ecologist with 45 years of experience on reefs of Guam and neighboring islands and many years of supervising interns. WAPA Biological Science Technicians, including one finishing her MSc on corals in 2019, will daily work in the field and the office with the intern. This WAPA team will participate in MIS intern selection. NOAA, University of Guam and Coastal Zone Management partners participating in WAPA activities will share their knowledge and expertise with the intern. The intern will be provided CPR and First Aid training and certification and learn the WAPA snorkeling safety protocols developed and used successfully for ten years. The intern will learn National Park Service missions and protocols as well as career opportunities from co-workers and supervisors. Job shadowing of park employees will be encouraged and familiarity with career opportunities with partner agencies and how to apply for positions will be taught.</p> <p>Other interns and young staff will welcome and share interests with the intern and provide contacts for joining sports and social and recreational activities.</p> <p>The supervisor/mentor will develop a detailed workplan and Leadership Development and Mentoring Plan in collaboration with the selected intern.</p> <p>Learning Goals: The intern will obtain knowledge of the coral reef ecosystem of Guam and its highly diverse species (over 400 coral species and over 1,000 fish species occur on Guam). She or he will learn latest scientific approaches and technologies for monitoring and managing coral reefs. Also skills in interpretation of scientific knowledge to the public and youth will be acquired. Experienced organizers of NPS annual Reef Ranger Conservation Corps, Junior Ranger and Community Reef Monitoring Programs at WAPA will transfer to the intern their knowledge of planning and implementing such youth snorkeling activities and general environmental outreach education programs. These include the WAPA resources manager, biological technicians, interpretation rangers, NOAA marine ecologists, park support outreach workers, life guards and others who will interact daily with the intern. Most importantly, she or he will learn how to safely work in the reef environment and ensure the safety of youth and volunteers being guided and mentored.</p>