**GEOSCIENTISTS-IN-THE-PARKS**  
2018 – PROJECT DESCRIPTION

| NPS UNIT: LAKE MEAD NATIONAL RECREATION AREA & NATURAL SOUNDS AND NIGHT SKIES DIVISION | PD #:2018054 |
| Position Title: Acoustic / Night Skies Outreach Intern |  |
| Position Type: Guest Scientist |  |
| Primary natural resource discipline: Natural sounds and night skies |  |
| Location: Boulder City, Nevada |  |

## PROJECT DESCRIPTION AND WORK PRODUCTS

**Position Description:** This intern will spend 50% of their time working with Interpretation at Lake Mead and 50% of their time working with the Natural Sounds and Night Skies Resource Specialist for the Pacific West Region, duty stationed in Lake Mead.

The main goals of this position will be to learn and advance the park’s understanding of Natural Sound and Night Sky Resources. Three main duties include:

1. Assisting with the collection and analysis of high fidelity stereo or binaural audio recordings from a variety of natural and cultural resources in the park.
2. Collecting data to improve night sky quality in the park that includes a lighting inventory and photometric measurements.
3. Writing and disseminating materials related to these two resources to visitors at LAKE and throughout the region.

In order to achieve the goals the selectee will utilize a variety of audio recording equipment, post analysis software and GIS tools provided by the Natural Sounds and Night Skies Division. Work will involve both field and office work. Field work will be conducted throughout Lake Mead National Recreation Area with opportunities to conduct additional work in other park units nearby. Field work will be conducted in both front country and remote backcountry locations occasionally in inclement and harsh conditions.

The intern will work closely with the Natural Sounds and Night Skies Resource Specialist/Biologist for the Pacific West Region and Interpretive staff at the park. Additionally, the intern will utilize a wide variety of hardware and software to develop interpretive tools for educating public about natural resource stewardship at the park.

This position is offered through the National Park Service’s Geoscientists-in-the-Parks (GIP) Internship Program in partnership with Stewards Individual Placement Program (Stewards) and The Geological Society of America (GSA). Upon successful completion of the GIP internship, the participant is eligible for an AmeriCorps Education Award.
Work Products:
1. Developing and presenting interpretive programs relating to night skies and soundscape to a variety of audiences specifically tailored to Lake Mead Recreation Area.
2. Getting Citizen Science involvement with the Lake Mead lighting inventory and getting the inventory 50% completed or more.
3. Analysis of acoustic recordings for a final report about noise impacts in the park.

QUALIFICATIONS
Applicant should have had a field methods course in botany, entomology, climatology, forestry, ornithology, geography or other related biological fields and an interest, if not prior experience with presenting public programs or other sorts of educational efforts. Knowledge of desktop publishing packages, esp. Adobe InDesign, and in Access or similar database programs, would be a plus. Mapping software like ArcGIS and especially their online platform is a plus!

Selectee needs the ability to work both as part of a small team and independently. An interest in acoustics and astronomy is imperative; however, prior experience in the field is not required and training will be provided. Due to the nature of position and field work in general, the individual should be flexible, demonstrate time management skills, and have the physical ability to hike and operate in a wilderness setting while carrying sensitive and heavy equipment. Overnight travel in the field will occasionally be required.

GIP participants are considered AmeriCorps members: AmeriCorps limits the number of terms an individual can serve to 4 terms. If an applicant has previously completed 4 GIP or other AmeriCorps positions, he/she will not be eligible to apply for an additional GIP position.

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. The incumbent will be required to drive a government vehicle on a routine basis to complete field work. The applicant will need transportation to get to and from the office. There is no public transportation that goes near the visitor’s center at the park, or park housing and park buildings are very dispersed. A vehicle is pretty important, that being said it is possible to do it with only a bicycle although the ride would be very strenuous with steep changes in gradient, definitely not for the casual cyclist.

If the GIP is required to drive a park vehicle for their position, a driving records search will be performed and the GIP’s ability to drive a park vehicle will be contingent upon the results. Examples that will preclude a GIP from driving a park vehicle include DUIs, multiple moving vehicle violations, suspended or revoked license, or three or more accidents (regardless of fault) in the last 3 years.

HOUSING
Park housing is provided at no cost to the participant. Intern housing will be provided at Las Vegas Bay or Boulder Beach located within Lake Mead NRA. Intern may be asked to share housing with roommates.

INTERNSHIP START/END DATES
Start Date: 5/21/2018
End Date: 11/9/2018
Number of weeks: 25
Flexibility of dates: Yes

STIPEND PAYMENT
$8,750 for 25 weeks

HOUSING PAYMENT
TRAVEL ALLOWANCE
$250

PHYSICAL/NATURAL & WORK ENVIRONMENT

Physical/Natural Environment: Boulder City is a short drive from the Las Vegas metropolitan area which has all the amenities of a large city. Boulder City has a grocery store, hospital, schools, and many restaurants and shops. Lake Mead National Recreation Area includes two inland reservoirs, rugged mountain ranges, and open wilderness.

Work Environment: In the field, the incumbent will experience temperature extremes in the Mojave Desert of up to 120 degrees in the summer and lows in the 40s in the winter. Work may be conducted in rocky areas requiring hiking over uneven terrain. Weather hazards include strong winds, dust storms, monsoons, and flash floods. Wildlife hazards include venomous snakes and insects. When the incumbent is not in the field, work will be conducted in an office setting. Bending, lifting, and standing for long periods of time may be required.

MENTORING AND LEARNING GOALS

Mentoring: Initially, the intern will get an orientation to the park and its divisions. They will spend time learning about both Resource Education and Resource Management. Lake Mead staff from both Resource Management and Visitor Services will work with the intern to develop any new programs and determine methodologies and sampling schemes for field work. The intern will initially work directly with NPS staff collecting data and educating the public, but once he/she is proficient, they may develop training materials or other documents to be used by future seasonal interpreters/interns. This position would especially suit applicants who seek to develop professional skills in bioacoustic science, astronomical science and resource communication.

Learning Goals: The intern will:
1. Learn about monitoring natural soundscapes, including active short term recording, passive long term acoustic, and bio-acoustic monitoring, and disseminate this information to the visiting public.
2. Learn about the night sky resource and why it is an important resource and threats the resource is facing.
3. Learn the methods of practicing interpretation in interacting with visitors in an informal setting and presenting formal presentations to diverse audiences.
4. Learn how to interface with the public and park visitors.
5. Learn to write effective curriculum for use in implementation of interpretation and education programming.
6. Assist and lead interpretive programming within the park and/or nearby communities to share information relating to the night sky resource.

SUPERVISORS

Primary Supervisor: Thomas Valencia
Title: Education & Outreach Specialist
Address: 601 Nevada Way
Boulder City, NV 89005
Phone number: (702) 274-3950
Email address: thomas_valencia@nps.gov
Park or Program Website: nps.gov/lake

Secondary Supervisor: Ashley Pipkin
Title: Natural Sounds and Night Skies Biologist
Address: 101 Katzenbach Dr.
Boulder City, NV 89005
Phone number: (702) 293-8847
Email address: ashley_pipkin@nps.gov
Park or Program Website: https://www.nps.gov/orgs/1050/index.htm