POSITION DESCRIPTION
Winter 2023

NPS UNIT: Great Lakes Network, Heartland Network, Northern Great Plains Network	Position #: 1243

Position Title: Ecology Assistant

Number of positions available: 1

Primary natural resource discipline: Biological Sciences

Position Keywords: Data Visualization, Coding, Data Analysis, Data Science, Water Quality

Location: Ashland, Wisconsin

Can this position be fully remote: Yes

POSITION DESCRIPTION AND WORK PRODUCTS

Project Description: The Great Lakes Inventory and Monitoring Network (GLKN), Heartland Network (HTLN), and Northern Great Plains Network (NGPN) are subunits of the National Park Service Inventory and Monitoring (I&M) Program, responsible for monitoring ecological 'vital signs' in 37 national park units located in 13 states within the Midwest Region (ND, SD, NE, KS, MN, MI, WI, IN, IA, MO, AR, OH, and IL). 'Vital signs' are environmental indicators that help us determine if the ecosystems within our National Parks are healthy. HTLN and GLKN have been monitoring water quality vital signs since approximately 2004 and 2006, respectively. NGPN has been monitoring water quality since 2013. Inland lakes, large rivers, prairie streams, and springs are the signature features of our parks. As a result, decision makers rely on having easy access to water quality data. The Midwest Region I&M Networks seek to integrate data science approaches into analysis and visualization of our data. Through hiring a 'Scientist In Parks' (SIP) intern, we hope to leverage the knowledge and skills of a data scientist to accelerate our delivery of accurate and timely water quality data to park management and the public that is intuitive and reproduceable. As a SIP Intern, you will work with NPS staff to apply your expertise in coding to create water quality data reporting and visualization tools. This position will help you further develop your programming and project management skills. Day to day tasks will involve writing code to retrieve water quality data from online repositories and creating graphics and tables for use in reports. Ideally, these graphics and tables will be generated or hosted in an online visualization environment (e.g. R data science tools, Microsoft PowerBI, Tableau) or automated reporting tools, such as R Markdown. You will work closely with GLKN and HTLN scientists, and on occasion NGPN scientists to accomplish those goals. Ultimately, the work will be an opportunity to make a lasting and meaningful contribution to natural resource management in parks served by the three I&M Networks in the Midwest Region.

Work Products: You will deliver code (in R, or another appropriate language) that will retrieve GLKN, HTLN, and NGPN data from online-depositories (waterqualitydata.us, NWIS, Aquarius) and generate graphics and tables that incorporate data from field sites, water quality parameters, and time periods chosen by a user. These graphics will be provided through automated reporting tools, such as R Markdown and/or an online visualizer environment for use by Network staff. This will be accomplished using Microsoft Power BI, R data science tools, Tableau or equivalent software useable on government systems. The code and tools you create will be able to be used and maintained by Network staff in the future. When visualization products are functioning correctly, you will have to opportunity to co-author resource briefs and technical publications under the mentorship of GLKN, HTLN, and NGPN staff. We will also encourage and prepare the SIP intern to present the results of their project at local, regional, and national NPS meetings.

NATURAL & PHYSICAL WORK ENVIRONMENT

SIP will be performing coding and data science tasks in a telework or office setting. The SIP is encouraged to telework from their own residence (if they choose to do so). If teleworking, the SIP will self-certify that their residence meets NPS safety requirements of telework spaces and have a suitable internet connection. If the SIP chooses instead to re-locate to a network office, they would have access to an office or cubicle space.

Ashland is a community of about 9,000 people located in rural northern Wisconsin, approximately 75 miles east of Duluth, Minnesota along the shores of Lake Superior. Rental housing can sometimes be difficult to find. Temperatures range from the mid 80's in the summer to sub-zero in the winter. Recreation activities such as skiing, biking, and fishing abound in the nearby Apostle Islands National Lakeshore and the Chequamegon National Forest.

Republic is located in southwest Missouri near the Ozarks region, and is part of the larger Springfield metropolitan area with a population of over 167,000. The region enjoys a temperate climate, and there are many opportunities for outdoor recreation, including hunting, fishing, hiking, and canoeing/kayaking. Several lakes and national forests (Mark Twain National Forest) and national parks (Pea Ridge National Battlefield, Buffalo National River, Ozark National Scenic Riverways) are within easy driving distance. There is abundant availability of rental housing in Republic and the larger Springfield area.

Because this person would also be working with datasets from three Networks (Great Lakes, Heartland and Northern Great Plains), there will be opportunities for the intern to travel among participating networks during the 52-week internship. There will also be opportunities for on-site field work within the network parks as well.

QUALIFICATIONS

As a candidate, you will have a demonstrated ability to be able to write code in the R-Environment, or other equivalent programming language usable by the federal government. You should also possess excellent oral, electronic, and written communication skills that will allow you to collaborate remotely with National Park Service staff. A bachelors' degree in physical, natural, or computer science is encouraged, but any candidate with required coding background and communication skills will be considered.

The applicant must be a U.S. citizen or U.S. permanent legal resident ("green-card-holder"). Prior to starting this position, a government security background clearance will be required.

VEHICLE AND DRIVER LICENSE REQUIREMENTS

Applicant must have a valid driver's license to drive a government vehicle.

A personal vehicle is recommended for this position.

If the SIP is required to drive a park vehicle for their position, Stewards will perform a driving records search, and the SIP's ability to drive a park vehicle during work hours will be contingent upon the results. SIPs will have to have had their license for 3 years or be over the age of 21 to be insured as drivers under Stewards insurance policy. Examples of things that will preclude a SIP from driving a park vehicle include: SIP under the age of 21 years old that has been licensed less than three years, DUIs, multiple moving vehicle violations, suspended or revoked license, or three or more accidents (regardless of fault) in the last 3 years. If the driver's search is favorable, Stewards will provide driver's liability insurance while the intern is driving a NPS vehicle for their SIP position. If the SIP is denied coverage by Stewards, they will not be permitted to drive during work hours.

HOUSING

Park housing is NOT available. The intern will be responsible for finding housing in the nearby area. Remote work will be considered. The SIP can live at their own residence and can live/work anywhere with an internet connection sufficient for telework. If desired, the SIP may choose move to Ashland, WI (GLKN offices) or Republic, MO (HTLN offices stationed at Wilson's Creek National Battlefield).

INTERNSHIP DATES

POSITION DESCRIPTION
Winter 2023

Start Date: 10/02/2022

Number of Weeks: 52

Flexible Start Date: Yes

LIVING ALLOWANCE

52 Weeks ($580.00/week =$30160.00)

RELOCATION ALLOWANCE

350.00

AMERICORPS PROGRAM

AmeriCorps is a program that engages individuals in intensive community service work with the goal of "helping others and meeting critical needs in the community". The SIP Program is supported through AmeriCorps by providing a Segal Education Award in addition to the SIP's living stipend and relocation allowance.

Upon successful completion of the SIP position, the SIPs (AmeriCorps members) are eligible for a $1,638 - $6,195 pre-tax education award that can be used for paying back student loans or for continuing their education. The amount of the education award is based on the length of the position.

AmeriCorps limits the number of terms an individual can serve to 4 terms. If an applicant has previously completed 4 SIP or other AmeriCorps positions, they will not be eligible to apply for an additional SIP position.

Partners

This position is offered through the National Park Service's Scientists in Parks (SIP) Program in partnership with various organizations.