

Teacher to Ranger to Teacher Program Science and Resource Management Position Description

The purpose of this position is three-fold. First, it will supplement the Resource Management Division science and restoration ecology program by performing duties related to resource conservation, resource education, and other related park duties. Second, it will allow the teacher to more fully explore the national parks to enrich their classrooms with a clearer understanding and appreciation of park resources.

The Teacher/Ranger will have the opportunity to work on various projects and activities at Saguaro National Park, including but not limited to: engaging in field research related to the saguaro cactus and Sonoran Desert plants; participating in exotic plant management activities; developing hands-on science activities for middle and high-school students; and participating in outreach, environmental education, and interpretive efforts.

This position is different than other TRT positions at Saguaro National Park in that it requires that teacher rangers work outdoors during the extreme summer heat in rugged, difficult terrain. In addition, teacher rangers should have a biology background or be very interested in science and natural history.

The Teacher/Ranger will:

- 1) Participate in field research activities at the park. These activities include hiking to saguaro monitoring plots and measuring and mapping saguaros and other Sonoran Desert plants. Other activities may include surveys of leopard frogs, aquatic turtles, and desert tortoises; and collecting data on surface water and other climatic factors.
- 2) Participate in exotic plant management at the park. Activities may include removal of buffelgrass, tamarisk, and other species using manual methods and herbicides.
- 3) Assist in development of a science-based program for middle and high school students based on saguaros and native desert vegetation that involves hands-on data collection, analysis, and interpretation.
- 4) Facilitate visitor understanding and enjoyment of park resources. Work with interpretive park rangers to interpret Saguaro National Park to many audiences, whether visiting physically or intellectually via the web, publications, school programs, and other outreach programs to the community.
- 5) Encourage citizens, especially students, to develop a sense of stewardship for park resources and national park values.

Major Duties while at the National Park:

- Assisted by other staff, to monitor saguaros and other desert vegetation in the field. Count and measure saguaros, identify plants on transects and plots, establish plots, collect accurate data, and work with data using statistical or Geographic Information Systems (GIS) software. Also assist in surveys in desert streams, monitoring leopard frogs, mud turtles, and surface water. Work is difficult field work during the hottest time in the Sonoran Desert, with high temperatures exceeding 105 degrees F, and in very difficult off-trail terrain that contains rocky slopes, spiny plants, and venomous animals.
- As a member of a team, participate in exotic plant management activities, which may include removal of buffelgrass and other grasses using hand tools and herbicides; and removal of trees and shrubs such as tamarisk using hand tools. Survey remote areas of the park for exotic plants.
- Work with park interpretive and resource management staff to develop hands-on science activities for students at the park that relate to saguaros, Sonoran Desert vegetation and wildlife, and climate change. Activities may include measuring plants, taking weather and climate data, data analysis, and data interpretation. Participate in the research, design and development of curriculum-based materials for specific grade levels and assists with the evaluation of all curriculum-based materials for appropriateness, effectiveness, and alignment with state curriculum standards.
- Assist with environmental education activities. Activities may include presentation to our summer Junior Ranger Camp, assistance with the presentation of formal and informal programs and hikes, general interpretive programs, educational programs for children and adults, and roving interpretation.
- Learn about park resources by attending in-park training, reading park research materials and maps, and by interviewing other park rangers or staff, researchers, and other professionals.

Duties when back in the classroom:

- Incorporates activities related to the National Park Service into their classroom curriculum during the school year.
- Wears the Park Service uniform during National Park Week, or another time as agreed to with the park representative and the school district, and conducts activities related to the National Park Service and gives several presentations to their class, a school assembly and to one other school within the district.
- Presents an interpretive program to a community or school audience on Saguaro National Park.
- Coordinates with park staff a community field trip from the teacher's school to Saguaro National Park for a half-day field trip.

Park Responsibilities

Parks will:

- Supply a park ranger uniform and name tag.
- Provide park specific and ranger training at the park, including safety training.
- Provide payment for the teachers for the eight week program.
- Make available equipment and software needed to accomplish work.

Teacher Responsibilities

To qualify for the program, teachers must:

- Complete the application.
- Obtain approval from their school principal, endorsing them.
- Commit to work eight weeks at Saguaro National Park during the summer with possible days during the school year for park special events. This will be negotiated between the teacher and the park supervisor.
- Agree to wear a park ranger uniform according to NPS uniform standards.
- Adhere to all National Park Service policies and guidelines.
- Develop a series of student activities related to Saguaro National Park and the National Park Service to use in their classroom.
- Wear their Park Service uniform during National Park Week, or another time as agreed to with the park representatives and the school district. Teachers will also present programs on the National Park Service to the following: their individual class, other classes within their school, a school assembly and to at least one other school within their district.
- Present a program for peers through the district's professional development program that will present background information about Saguaro National Park and outline curriculum based programs offered by the park.
- Participate in National Park Week activities.
- Write at least one newspaper article for their local paper or a general press release for the park to distribute to media contacts.
- Document their experience with at least 20 photos, some in uniform (both in the park and the classroom), and some in civilian clothes in the classroom.

Training for Teachers

The park staff will provide foundational knowledge about the National Park Service and Saguaro National Park operations. The training will also cover supervisory expectations and will include a large field safety component. The park will provide specific training in biological monitoring, including plant identification, data collection, and data analysis.

The school district will provide teachers currently under contract in the district. The compensation and benefit requirement of the district contracts remain in force during the term of their assignments to the National Park Service at Saguaro National Park.

I agree to the terms and conditions above:

Teacher

Date