

## Alumni Successes

National Park Service staff and managers often encounter past GIPs at conferences, and they receive updates through emails and telephone calls. While only connected with the National Park Service for a brief period of time, GIPs leave a lasting impact on the parks, the geoscience community, and the public. Like the National Park Service, GIPs view geoscience, resource protection, and the public to be interlinked like nodes in the web of life. Their advancements are contributing to our National Parks as well as to the geoscience community. GIPs often proclaim the GIP Program "has changed my life." Their experience as a GIP usually helps them develop career goals in the geosciences. The following are three examples of the hundreds of success stories.

While **Arvid Aase** was a GIP at Fossil Butte National Monument, he helped excavate and curate fossils, and he engaged visitors via the park's interpretative programs based on the park's geology. He also worked on his master's thesis in paleontology. He has since been hired by the park, and now serves as the park's museum specialist and paleontologist. Arvid was recently awarded the Intermountain Region's Friedman Tilden Award for outstanding interpretive work. He created a traveling exhibit of 200 posters visually representing unique fossil species. The posters will be exhibited at the park's visitor center, the state library, and will then be sent for exhibition to other libraries throughout the state. To serve scientists, artists, and the public's needs, Arvid created an image library of local fossil species. Arvid has involved the owners and managers of local commercial establishments in fossil management by promoting documentation and conservation of newly discovered species. He has also created an interactive fossil hunt for local youth. Arvid will continue to be a strong part of the Fossil Butte and National Park Service community.



Arvid Aase, GIP 1998

**Alison Koch** began her career with the National Park Service as a GIP several years ago with the Geologic Resources Division. She helped develop and administer a survey of National Parks regarding the condition of paleontological sites. Since her time with the Division, she has completed over a dozen Inventory & Monitoring Program reports on paleontological resources, conducted a paleontological survey which was then published for Santa Monica Mountains National Recreation Area, and accepted a Student Career Employment



Alison Koch, GIP 2001

Program position with Black Canyon of the Gunnison National Park and Curecanti National Recreation Area. At Curecanti, she discovered a large paleontological site with fossilized skeletal remains of at least 7 dinosaur genera and one crocodile. She also created 48 podcasts which will be used for self-guided tours of the biologic and geologic resources of Black Canyon. Koch is currently in the process of obtaining a masters degree in science and natural history filmmaking. For her thesis she is filming a documentary about grassroots watershed groups in Montana, tentatively titled "Montana: Headwaters to a Continent."


At Lake Roosevelt National Recreation Area, **John Pennington Metta** met with thousands of park visitors and introduced them to the geologic Ice Age and the park's geology. During his time at Lake Roosevelt, Metta completed his undergraduate degree and became a student teacher for an 8<sup>th</sup> grade science class. As a Native American, John co-chaired a national conference session on Minorities, Women and Persons with Disabilities in the Geosciences. During this conference, he talked with the GIP Program lead about his experience in teaching. He showed both enthusiasm and pride when he explained that he had his students work in teams to apply problem-based learning techniques to building robotic missions to study planetary geology. Metta is still actively involved in the geoscience community as he is completing his master's thesis on watershed restoration in Eastern Europe. He is looking forward to the future, and hopes to some day be involved in helping our national parks manage their watersheds.



John Pennington Metta, GIP 2000

## Interested in Helping?

If you are interested in partnering with or donating to the GIP Program, please feel free to contact Judy Geniac, GeoScientists-in-the-Parks program lead.



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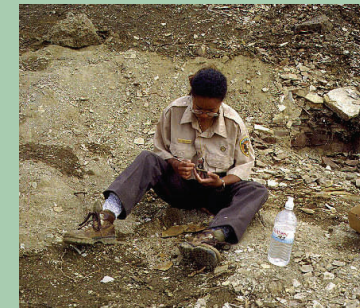
National Park Service  
U.S. Department of the Interior

Geologic Resources Division  
Denver, Colorado



## GeoScientist-in-the-Park Program

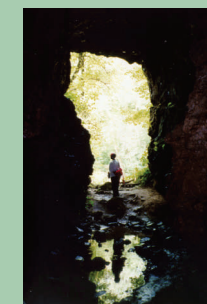
10th Anniversary Prospectus  
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*Parks for Science and...*



*Science for Parks*



## A Decade of Accomplishments

In the ten years between 1996 and 2006, the Geoscientists-in-the-Parks Program (GIP) placed 470 geoscientists providing an estimated \$6.1 M in assistance to 58% of the national parks.

With the help of national organizations, park associations, and geoscientists, the National Park Service developed and expanded the GIP Program. The Program uses volunteers and partnerships to convey and improve park geologic information emphasizing geologic features, natural processes, and geology's influence on other resources. GIPs have helped more than 225 parks across the Service.



Research - Erin Doak, Wupatki National Monument, Arizona

GIP participants, from undergraduate students to retired professionals, often complete their projects within a brief residency in the parks. They address a broad array of geoscience needs in resource management, interpretation, education, public safety, and maintenance.

*How important is geology to understanding park resources? Doug Owen, at Craters of the Moon National Monument explains, "In a natural resource based park it is essential, because geology impacts the entire ecosystem."*

## Making a Difference

The GIP Program has made a difference for parks, the geoscience community, and individual participants.

Park managers repeatedly use the program because of its "stellar candidates" and its ability to efficiently address park needs. A number of park managers feel the program is "vital." Given 5 years of feedback data, there is a 99% satisfaction rate, with an estimated 80% of GIP supervisors finding the placements to be outstanding. While park managers provide a small amount of funding support (e.g., housing and administration), they acquire highly qualified geoscientists who can professionally and quickly produce outstanding end products, usually at less than a quarter of standard costs.

*Testimonials are common. In August of 2006, Gregg Bruff of Pictured Rocks National Lakeshore exemplifies other's sentiments. He began, "You are probably not always aware of the impact your program has had on parks and the geological community..." He went on to explain that the field work and writings of GIP Bob Rose led to collaborative lab research at two universities which further initiated regional collaboration of scientists. Through this collaboration a better understanding of the area's geology and hence park resources was developed. It also led to the park's development of waysides and other information products for park visitors.*

Many studies, including work supported through the National Science Foundation, indicate that the United States is in dire need of engaging students and the public in the geosciences.

GIP Partners are meeting needs voiced by the geoscience community. They are providing experiences for their members, helping motivate students, and helping the public and land managers understand the environmental significance of geologic features and processes.

The GIP Program has provided life changing experiences to the participants. Students have primarily been upper-level undergraduate, graduate, and PhD candidates that are in the top of their class rankings. Other participants have included professors, professionals, and retired professionals. The program has attracted White, Black, Asian, Hispanic, and Native Americans as well as international volunteers. Their projects have ranged from analyzing coastal LIDAR data to creating fossil inventory databases to determining underground faulting and groundwater flow. GIPs have developed products for park visitors, and given media interviews, such as, those for the National Public Radio and the periodical Explorer. Many students have seen their GIP experience as the springboard or validation for achieving an advanced degree. For example, former GIP Christi Vissagi reflected, "It continued my interests in paleontology and furthered my decision to get a PhD." Their experiences have given them a better understanding and interest in the National Park Service. Former GIP Brit Arlow also believes that her work on a coastal restoration project broadened her skills, led to subsequent jobs, and got her public speaking engagements. Her experiences working with the public have given her a well-rounded skill set.

*GIP Brit Arlow observed, "It's really in our best interest to communicate with the public in a way that they understand." She has learned to convey the importance of research to a public interested in land management decisions.*



Connecting with park Visitors - Carrie Check, White Sands National Monument, New Mexico

## Benefits through Collaboration

The GIP Program is a way to collaborate with many partners inside and outside the Service to meet common goals. The results are linked with the ability to pool resources to fund both the initiation and experimental growth of this program. By conservative estimates, the program has leveraged millions of dollars in geoscience expertise.

*Geological Society of America's Wesley Massey affirms, "This is a wonderful partnership."*

The GIP program has received seed funding or direct and in-kind support from the following:

- Associate Director for Stewardship and Science
- Managers and program leads in the Geologic Resources Division
- Volunteer in Parks Program
- Parks
- Regions
- International Volunteer in Parks Program
- Individual park associations
- Student Conservation Association
- Geological Society of America
- Association for Women Geoscientists
- National Association of Geoscience Teachers
- National Association of Black Geologists and Geophysicists
- American Geological Institute
- Individuals in the geoscience community

## The Program's Approach

The Geologic Resources Division places GIPs where parks need them most. It works with parks and partners to determine needs, match expertise, and support placements. The Geologic Resources Division manages the GIP Program that provides a means for parks to examine and define their needs, and also links with outside partners. Partners often find and financially support the GIPs who are willing to donate their time and skills. Parks provide oversight, most equipment, and usually housing.



Resource inventory - Paul Stumpner, Wupatki National Monument, Arizona

## Goals: Then and Now

In 1995 the NPS created the Geologic Resources Division. With acknowledgement from a number of park managers that the Service could not immediately hire hundreds of geologists, the GIP Program began as a way to help get "outside geoscience expertise" into parks. It was clear that if parks obtained the



Cave management - Andrea Prichard, Oregon Cave National Monument, Oregon

appropriate level of expertise, when openings became available, they would take advantage of hiring geologists to help them address their needs. Both goals have been met. The program has placed hundreds of geologists in GIP positions, and some of these people have been hired as seasonal, term, and permanent employees.

While not defined in the initial design of the program, the GIP-related partnerships and relationships created within and outside the National Park Service have been invaluable. In the interest of the Service and the nation, GIP partnerships are a tool to reach common goals. The partnerships have added other perspectives, united opposing factions, and improved focus. The GIP partners network is expected to grow, and involvement by others is encouraged and appreciated.

The GIP Program has only begun to address geoscience issues in the National Park System. The Service currently has hundreds of identified geoscience needs. Four of the seven National Park Service regional offices still have no geoscientist on staff, limiting their ability to help the parks identify and address such needs. Parks need and want the GIP Program's help. The future goals of the GIP Program are to:

*Ellen Seeley of Grand Canyon National Park notes, "It is a wonderful program ... a great recruiting mechanism for the NPS."*

- Highlight accomplishments that parks have made to date;
- Continue to help parks identify and address their geoscience needs;
- Find short term (5 year) funding;
- Examine and address identified options for long-term, sustainable funding;
- Continue accepting partial, administrative funding assistance from regions, parks, and their associations;
- Continue to work with current partners;
- Expand the number of partners working with and supporting the program.