

**Students, Volunteers:
Help or Headache?**

Editor's Note: *The following article is offered as a set of guidelines equally useful to park scientists and park managers. As with most processes, an understanding of the forces at work, the benefits at stake, and the need for careful preconditioning and monitoring of the process will go far toward ensuring that all components of the process — science, management, and students — are net gainers.*

By Susan P. Bratton

If a senior researcher tells a park manager: "I'm sending a graduate student . . ." the researcher can expect a variety of responses. The manager may wince and moan: "Don't you remember that idiot from State U. who turned the jeep upside down in the creek," or the manager may smile and say, "Great, graduate students don't care if they get wet." Some park science programs have had a series of bad experiences using students and volunteers and others swear by them, believing it's a good, inexpensive way to get basic field work done.

Although there will always be some individuals who

are hopeless in the field or who don't have enough drive to finish even simple tasks, most students are enthusiastic about their park experience, and produce good quality work. If only a few students are real problems, then why are some student projects productive while others aren't? The key is how students and volunteers are selected and how they are managed in the field.

First, in the case of volunteers, undergraduates and other inexperienced people, the longer they stay the more useful they become. It generally takes two or three weeks for someone to get adjusted to a park and a work routine. Students and volunteers should thus be recruited for continued sampling over long periods of time, such as three days every other week for a year or for work periods of two weeks or more. In this author's experience, a minimum of two months' commitment is best.

Sometimes large organized groups, with good leadership, can get specific chores done in shorter periods of time. A team of seven students from the University of Georgia censused the horses on Cumberland Island in four days in March 1983. This group was led by a Park Service scientist, and a work plan was ready for them when they arrived. The question, however, for effective science management is always, are these people staying long enough to make them worth the paper work and training? In terms of recruiting students, those who have solid science background or previous field experience, usually will be the faster learners. People who have recreational camping experience but no previous field science may adapt well to scientific field work; conversely, they may reject it as too much trouble and something that spoils their fun. An avid outdoors person, one who has worked on a serious field science project in the past, will almost always turn in an adequate performance when presented with a new challenge.

Once a particular school has sent a few good students, it is worthwhile to continue to recruit from that source. On the other hand, mixing students from more than one institution is usually healthy and can result in added benefits.

A second area where good supervision can improve performance is in briefing the students. Most "green" field researchers don't know the first thing about park policy. They may, in fact, have some dangerously false impressions. A good briefing should cover four areas:

(1) What is the student expected to do on the job or what is the expected final product? The research supervisor should conduct this discussion.

(2) What are the park rules concerning on-the-job issues, such as vehicles, road use, locked gates, off-trail camping, etc. Often someone new in a park will find all the GSA regulations, the equipment check out forms, etc., a maze of bureaucracy. Researchers who use firearms, traps, tranquilizers, etc., need to check them in through the chief ranger or the resources manager. Students need an explanation of why they should or should not do something. This will help them to remember the rules and to make better decisions in questionable cases.

(3) What are the social rules and the local housing



A volunteer in the park, Bill Querin helps with a feral horse habitat utilization study by counting scat in the dunes and marshes on Cumberland Island. Querin has a degree in wildlife management and worked in the park for over six months on various field projects.

policies. Many graduate students come directly from a university environment where "anything goes." Students are usually not accustomed to thinking of personal behavior in terms of public or park regulations. Rules about alcohol use, pets and guests at park housing need to be clearly explained. If students are housed in bunk space "no guests" is the best rule. A sound general policy is to warn students that they will be asked to leave if they break state or federal laws or regulations. The possession or use of controlled substances and illegal specimen collecting within the park merit special attention. Many students are naive about NPS's role as a law enforcement agency. Frequently they believe that participation in park science programs allows them to collect whatever they wish and spend part of their spare time indulging in personal natural history interests. Very few students, however, will risk terminating their park stay by picking up a few lichens, or capturing a lizard or two if they know it's against the regulations. Nude bathing presents a substantial temptation in some parks. Again, an explanation of the park's public relation problems and a firm "no" will help to discourage students from getting into trouble. The park staffer or scientist who does the briefing should try to make the student feel like a member of a working team rather than a kid receiving a parental lecture. A student or volunteer who feels responsible and useful will do a more professional job. A few minor infractions and

stupid mistakes are to be expected, but any student who breaks the "major rules" or shows clear disregard for NPS policies should be asked to leave as soon as possible.

(4) Who should a student go to if problems arise? They also should know what to do in case of emergency. Students need contact persons to provide assistance and advice.

Third, a careful judgment should be made as to which students are capable of working with little or no supervision. Undergraduate students are best used as assistants to more experienced people. Older students often can work independently but usually need someone who "knows the ropes" to break them in. Many park graduate research projects have failed because the students encountered logistic difficulties right at the onset and never overcame them. Park staff should expect research supervisors, including university professors, to check on their students occasionally.

Since the job market is tight these days, very few graduate students will "vacation" while they are supposed to be working. Most are, in fact, very industrious and put substantial spare time into their projects. A park manager must, however, learn to recognize the difference between an odd schedule, such as staying up all night to tag sea turtles, and "playing around." An occasional on the spot project review, and a look at the data being collected will help to sort out students who are non-productive.

Fourth, a manager can prevent problems by immediate and direct communication with the students. If a student has been driving on a closed road, neglected to fill a gas tank, or left dishes in the sink, the problem should be mentioned to the student as soon as is convenient. Many chronic student "problems" are really the result of poor communication. Unless someone has explained the rules to the students, don't assume they know them. Expect to have to provide an occasional reminder, particularly if there is frequent "turn over" of students and volunteers.

Fifth, a manager should be cautious when letting students take data from unfinished projects away from the park or a university cooperative unit. A student may suddenly take a permanent job, get married, or just go rambling, and never finish his/her write up. If a student wants to complete the paper at some distant location, make certain s/he leave a copy of the data, or better yet, a rough draft of a project report. For government funded projects, put a final due date on the project report. Then if the student doesn't finish, the park is free to get someone else to do the write up.

Sixth, before assigning a task to a graduate student, be certain it is a suitable project. Is it appropriate for thesis work? Can the park wait till the thesis is completed? Does the student's major advisor really understand what NPS needs? Graduate students rarely finish in less than a year and two to three years is more typical. Thesis formats may not be suitable for reports to park management. Matters such as report structure and completion date need to be discussed at the beginning of a project, not after the work is long overdue or the student has presented the park with an unsatisfactory product.

Finally, the manager should recognize a well run student program has numerous benefits. Students can supply very specific expertise for short periods of time. They may have external (non-NPS) funding. They need only stay in the park as long as data gathering is in progress, and can be terminated easily

at the end of a project. Well supervised, students are inexpensive. Graduate students have a stake in the thesis past any immediate financial compensation, and will often put a tremendous effort into their work. Once a student program is established and running

well, it can usually be continued with a minimal management input and a maximum scientific output for as long as the park needs the help.

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