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Wayfinding

Literally millions of people visit national parks annually and therefore the opportunities for increasing appreciation, visibility, and interest in science are limitless.

Skilled park rangers dedicated to interpretation and education greet visitors, lead hikes, swear in junior rangers, and in hundreds of ways enrich the park experience. Most revel in talking about site-relevant science, but they won't chat about your study with visitors if they don't know about it. We encourage you take some time to brief them.

The National Park Service is a complicated organization; it's more than what you see at the fee booth or a visitor center. You wouldn't go into a new study site without consulting a map or some people who had been there. Study up a little bit for a more rewarding experience.

Before you begin reaching out to interpreters, you can read a few hard-won insights from the iSWOOP project. Read more about iSWOOP on p. 14. Also check out www.iswoopparks.com for additional resources on featuring science in parks.

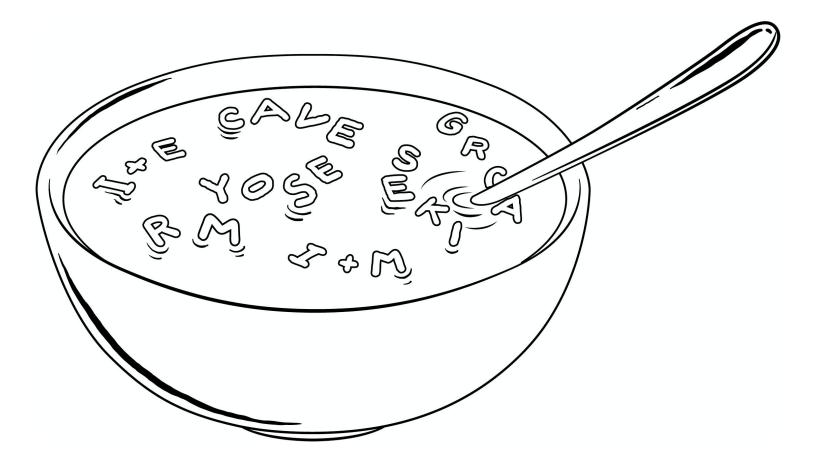


Will I&M Tell I+E and RM at SEKI?

alphabet soup

Be ready to learn a new language, or at least a dozen or more new abbreviations. Hint: Most parks use a 4-letter abbreviation based on their first two letters of the first two words in their designation: GRCA for Grand Canyon and SEKI for Sequoia Kings Canyon. YOSEmite and ACADia are exceptions—they only have one word names. CAVE, the abbreviation for Carlsbad Caverns is another exception (due to the obvious and unfortunate associations with CACA).

Try your favorite park abbreviation.
Rocky Mountain N.P. is ...



Divisions

bridging communication gaps

The National Park Service likely has more divisions than you can name. Resource Management (RM) and Interpretation and Education (I&E) rangers have different priorities from Law Enforcement (LE), and the Inventory and Monitoring (I&M) Division. You might find a cooperative spirit in some parks but not in others. Ask your contact about the best way to communicate to all potentially interested staff.

Information conveyed in one meeting may not reach staff in other divisions.



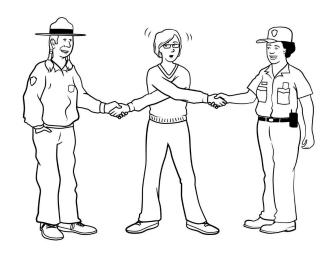


Knock, Knock

keep trying

Looking to collaborate to meet broader impact or broadening participation goals? A relationship with the person who approves permits is wonderful, but don't stop there. Keep asking until you find someone (probably in Interpretation and Education) who seems keen to work with you on outreach!

The chief of education or interpretation will be interested, but will probably be consumed with other tasks. A lead supervisor will likely have working knowledge about enthusiastic staff, the power to arrange schedules, and some say over programming.



- Try to locate enthusiastic supervisors who have input on schedules and programming.
- If you love working with school-aged children, keep asking for those with outreach in their job responsibilities.
- Talk about your interest with staff assigned to fees and maintenance and administration.



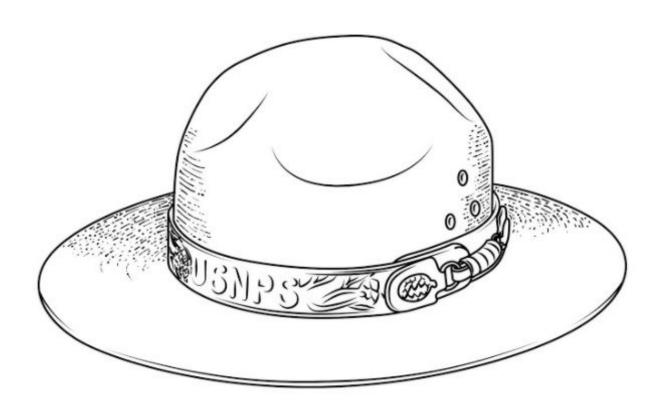
Don't stop networking after getting your permit approved. Keep making friends. Someone's eyes will light up. Someone will know just where to direct you.

The Flat Hat

the rules still apply

Does seeing a ranger in uniform remind you and your team of Smokey Bear or a state trooper in a movie? Lessen anxiety by taking time to introduce your team to NPS staff, especially law enforcement rangers. Make sure the law enforcement officers have been clued in to your planned movements, study sites and activities. Confirm that everyone on your team is aware of the conditions on the permit.

- Be proactive about making sure everyone knows the rules--they aren't always posted or obvious.
- Confirm which rules apply to your group--possibly you have permission to go off-trail or into restricted areas.
- Be sure to review what may seem obvious. For example, students who didn't grow up going to parks may not know the expression "Leave no trace".



Take care to make sure everyone knows the rules. They aren't always posted or obvious.

Awkward!

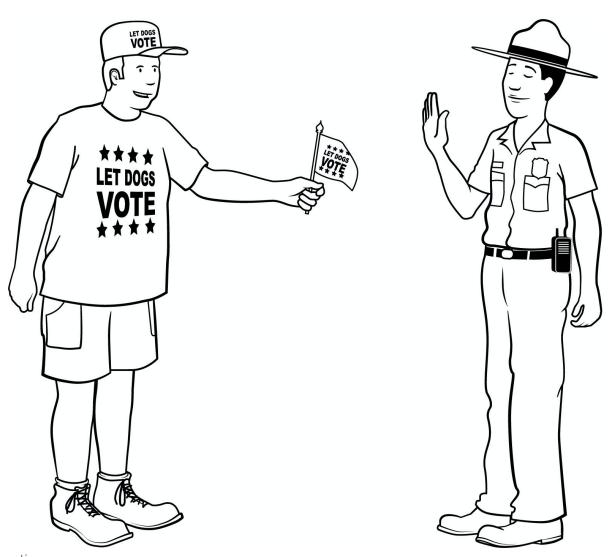
no tips, no gifts

When on the clock, federal workers are not to comment on politics. Specific candidates, conventions, and advocacy are off limits. But what it means to be a citizen, to be an agent for change, to live a life that is sustainable, these are perfect topics for park rangers dedicated to interpretation and education.

Don't be offended if a ranger changes the subject. Park rangers know what they need to avoid talking about and are pretty good about shifting the conversation.

Understand that some conversations may be off limits. Some rangers will say, "That's not a topic that I can discuss in uniform." Others may just change the subject.

Don't be offended; park rangers have to avoid certain topics.

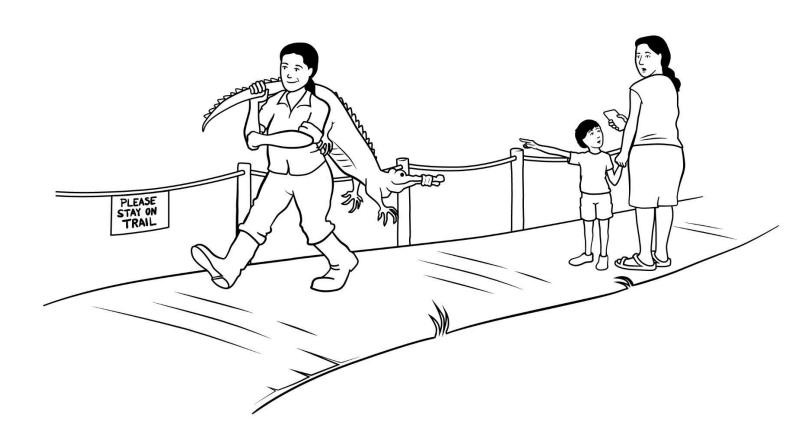


Making Holes?

setting an example

If your research calls for doing something that is typically discouraged, like making holes or collecting plants, visitors will notice and that worries park staff. Setting a bad example makes it that much harder to keep visitors from breaking rules. Putting ideas in people's heads for behavior that could harm the park is not a show-stopper, but it is something to discuss and manage.

Talk it out with park staff. You might get a sign, an escort, or a cool magnet for your vehicle to use while you are moving about the park.



Disappointed Today

thankful tomorrow

Flooding, fire, or ice-enforced closure? A visitor faints or is stranded, has a heart attack or heat stroke. Suddenly your escort to a site got whisked away. Your meeting had to be rescheduled or your talk postponed. All disappointing, and yet, the commitment to safety means when you are with a park ranger, you will be with someone who has had experience managing emergencies. Rangers are quite often talented at navigating, prepared with first aide and a flashlight, and anticipate problems before they crop up.

Rangers leave no stragglers behind.



Encore! Encore!

sharing findings

Although you gave a talk last year, staff may appreciate a refresher. If it was recorded, you may hear, "It's on the C-drive." This means someone took care to file it. It also means it may not be intuitive for others to find it. Whatever you have given the park, such as photos, reports, or background material, you can be pretty certain that having a new copy will save somebody time looking for the original.

Photos, findings—whatever it is expect to share it more than once.



Sequestration

stretched thin

Hiring freezes and furloughs are a common experience for the national park workforce. You might hear park leaders talk about "sequestration," which was a congressional move to automatically implement budget cuts. Sequestration has taken a toll on the number of permanent positions and being subject to an annual budget process means some years park leaders may not be able to hire a large contingent of seasonal staff.

When you are in touch with park staff, it can be helpful to ask about upcoming furloughs, details (usually 60-day appointments to other positions within NPS) or other commitments (like safety and rescue training) that may affect their ability to work with you. You may be able to plan your requests in synch with these seasonal rhythms, but it won't work out well if key staff are on furlough!

Patience needed.

The park unit might not have enough staff to cover the basics.

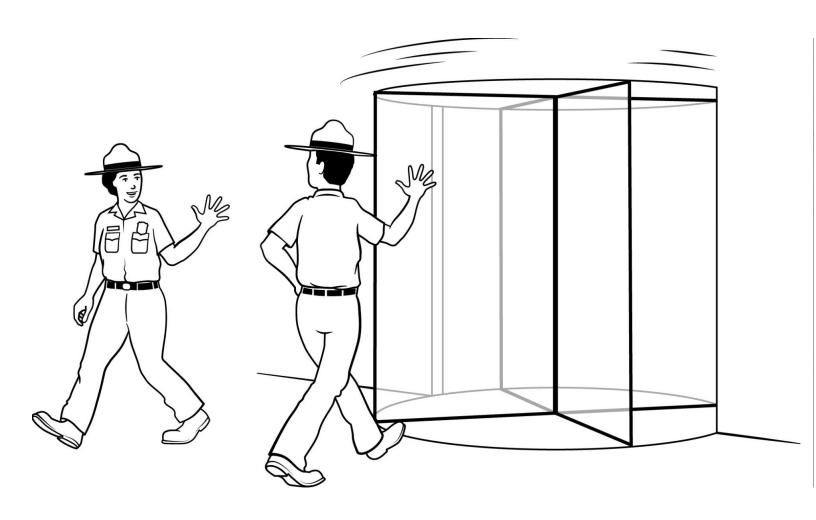


On the Move

hello and good-bye

Seasonal rangers are an important part of the workforce. Their contracts span six months at a particular park. They might be back, they might show up somewhere else. Even permanent park rangers move around, looking for a position that fulfills their career aspirations and the best fit for their preferences—proximity to hiking, caves, town, family, or type of work. Some own houses and stay put, but just because they are permanent, doesn't mean they won't move on.

Having permanent status doesn't mean a ranger won't move on.



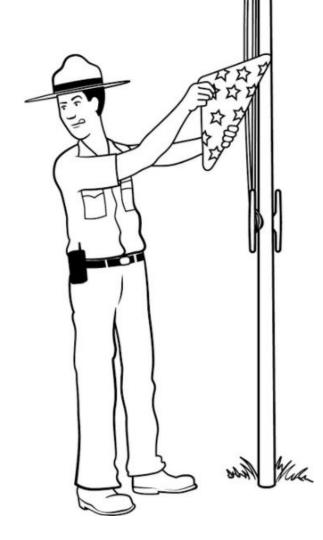
Enabling Legislation

Says Who? Congress!

Spend a day or two with NPS employees and you will almost certainly hear about "enabling legislation." Each park was established by a congressional order that outlines its mandate. Provisions dictating science learning, enjoyment, and preservation, and specific missions of particular parks all drive everyday decisions. Want to impress? Read the enabling legislation or at least ask about it. If your research fits park priorities, you are likely to see more support for your project.

Want to impress? Read the enabling legislation or at least ask about it.





Brought to you by iSWOOP



Interpreters and Scientists
Working on Our Parks, also
known as iSWOOP, has worked
with rangers and scientists to
raise the profile of park-based
science and to celebrate the
under-appreciated role of parks
as laboratories.



Dedicated park rangers have thousands of conversations with public audiences. Showcasing park-based science opens conversations on how scientists know what they know, what it takes to figure it out and why their findings are relevant within and beyond the park boundaries. We hope these tips help scientists work effectively with interpreters, who inspire scientific thinking, get the next generation on board with "leave no trace," and field questions about the changes in the natural world.

iSWOOP's Origin Story begins at Carlsbad Caverns. On summer evenings at dusk, visitors gathered in the amphitheater, waiting expectantly for thousands of Brazilian free-tailed bats to emerge from the cave. When scientists set up thermal cameras to count the bats, visitors approached with questions. But visitors backed off—unless a ranger jumped in to translate the technical terms. Engaging park rangers in getting the scientists' findings and stories out to the public was win-win-win.

iSWOOP leaders can't thank park staff enough for their enthusiasm and creativity. We are so appreciative of scientists' generous gifts of time and their commitment to communicating with



public audiences. We wish we could call each of you to say thank you!





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