



Chapter 52

Forums—Biological Resources

moderated by FRED ARMSTRONG

The purpose of the biological resources forum was to generate ideas for current and future biological resource management. A panel of subject matter experts was selected to address questions or generate discussion points. The following bullets are not categorized, but are in the order of the flow of discussion. Some of the items on the list were already being performed at the park or could not be implemented due to law or policy. Those items were posted to the list to not disturb the brainstorming process.

- Complete park biological inventories and follow through with a monitoring program in order to create snapshots in time
- Develop a way for existing park researchers to communicate with each other so they are aware of contemporaneous projects
- Email copies of research results out to all active researchers
- Post a list of active research on the park Web site. This may generate research ideas and connections.
- Require research debriefing meetings with park managers at the end of projects
- Generate an electronic bibliography of research actions. (The National Park Service natural resource bibliography is being reviewed to make non-sensitive material available.)
- Maintain the park research library, including bound copies of all dissertation work
- Develop a comprehensive map of where all past study plots existed. This would reveal heavily studied and understudied areas of the park.
- Embed photos into an electronic version of this research map to show changes over time. This would require locating photos from past research work.
- Convert paper research data into GIS themes. This would be a potential GIS intern project.
- Geo-reference all known museum specimens and the associated project metadata into the park GIS. This would produce a measure of accuracy for determining future project needs.
- Require researchers to provide specimen locations in UTM's or at a minimum provide a specific collection point on a map
- Recommend that every research site and specimen be photographed and UTM collected
- Post all papers and poster session displays from this symposium on the park Web site to increase exposure of the public to science in the National Park Service
- Distill scientific research information into materials for all audiences: students, casual visitors, Web pages, etc.
- Bioinformatics is an up and coming field. We should systematically post all our known biological resource information on the Internet.
- Develop virtual tours of restricted areas for visitors to view
- Develop virtual tours to other park communities of interest
- Use university students to develop these projects
- Generate links on the park Web page to associated Web sites of similar interest and for in-depth information
- The park needs to do a better job of making research needs known to the research community
- Researchers need to know what the current park management questions are so they can develop useful proposals and projects
- The park should maintain a prioritized list of research needs
- The park and research community need to recycle research project data into as many useful products as possible: the original project report,

brochures, Web pages, student curricula at all levels, etc.

- Look for people who are passionate about their work to develop cost-share agreements
- Seek subject matter experts to review and aid in the development of resource management project proposals
- Maintain a current priority of resource management projects. There will always be more projects than money.
- Develop an interdisciplinary team of people internal and external to the park to identify the top 10 issues and strategies to meet them. Review this list and progress annually.
- Include the public in the process of developing resource management projects
- Use the Web as an electronic think tank
- Obtain input from all park divisions in the development of resource management projects for improved resource protection
- Build a GIS and make it available to all park managers so they have ready access to seeing sensitive resource areas
- Produce a 1–2 page research project review form that can be sent electronically to willing specialists to review and comment on potential projects. No one has time to evaluate 30 page proposals these days.
- Perform a topic by topic review of entries in the park natural resource bibliography to identify voids in research fields or park habitats
- Correlate the park natural resource bibliography data to a park map to identify under studied areas and temporal gaps

Chapter 53

Forums—Cultural Resources

moderated by LARRY HENDERSON

The purpose of the cultural resources forum was to generate ideas for current and future cultural resource management. A panel of subject matter experts was selected to address questions or generate discussion points. The following bullets are not categorized, but are in the order of the flow of discussion. Some of the items on the list were already being performed at the park or could not be implemented due to law or policy. Those items were posted to the list to not disturb the brainstorming process.

- Produce a list of needed cultural resource projects
- Develop a bibliography of park-related cultural resource materials
- The park should seek cultural resource grant money
- Establish a “friends” (501c. 3) group
- Seek out partnerships with universities where students could accomplish cultural resource projects and receive college credit. Students receive training and the park accomplishes projects. Sample projects could include:
 1. Field verification of previously mapped archaeological sites
 2. Re-surveying archaeological sites with modern equipment
 3. Update archaeological site forms
- Develop a cultural resource advisory group
- The park holds a great potential for additional archaeology, early military, and ethnography work to be done and interpreted
- Cultural resource exhibits should be included in the main visitor center
- Interpret the Butterfield Trail trace through Guadalupe Canyon
- Nominate the Butterfield Trail for inclusion in the National Park Service National Historic Trails program
- Develop relationships with other ethnographic groups beyond the Mescalero
- Complete a written history of the park
- Provide interpretation of the Basketmaker Culture
- Encourage interdisciplinary research projects to cover natural and cultural resources
- Development and execution of cultural resource projects should be performed by an interdisciplinary team to include archaeologists, botanists, wildlife specialists, ethnographers and others
- Submit joint park cultural resource proposals for Guadalupe Mountains and Carlsbad Caverns to make stronger issues for understanding and preserving these regional resources
- Seek a joint park (Guadalupe Mountains and Carlsbad Caverns) archaeological inventory
- Develop a Web page to post needed cultural resource work. Include instructions to recruit capable volunteers.
- Use cost-share agreements and use trained local people on projects
- Establish a human resource list of local people who could write grants and perform specialized cultural resource tasks
- Develop an interactive Web page to recruit skilled help for cultural resource work
- Pursue private sector fundraising for park cultural resources, e.g., Pratt Lodge, Williams Ranch, Frijole Ranch, etc.
- Pursue the connection between Wallace Pratt–Humble Oil–Exxon–Pratt structures

- Pursue large corporate images and national park connections, e.g., American Express and vacationing in national parks, petroleum companies and protection of the Permian reef, etc.
- Seek grant money that has in-kind matches
- This park has come a long way. Twenty years ago no one would have entertained the thought of holding a cultural resources forum in a “natural” park

Chapter 54

Forums—Geological Resources

moderated by JANICE WOBbenhORST

The purpose of the geology resource forum was to generate ideas for current and future geological resource management. A panel of subject matter experts was selected to address questions or generate discussion points. The following bullets are not categorized, but are in the order of the flow of discussion. Some of the items on the list were already being performed at the park or could not be implemented due to law or policy. Those items were posted to the list under the brainstorming process.

- Geologists must educate the lay public to the significance of geologic resources
- Field trips to the park should permit students to collect working specimens
- There would be no exhausting the sample collection of canyon bottom gravels
- Create virtual field trips to special geologic outcrops
- Educate interpretive staff in geology and geologists in interpretive methods
- The park should address the concern that every field trip wants to collect reference samples
- Develop a complete reference and study collection at the park
- Take advantage of geology interns to help train interpretive staff
- The park geology site bulletins missed the mark in developing guides for the lay person
- Develop layman's guide to park geology, trail by trail
- Develop a layman's guide to Stratotype Canyon
- For the best product, the guides should be developed by a group of geologists
- Develop a photographic slide series for purchase on park geology
- Establish a set of liaisons to aid in critical geology issues
- Develop a geologist staff position
- Develop geology tours to visit type sections
- Develop and present a video on geology for the visitor center and for purchase
- Develop a teacher's manual on park geology for primary schools
- Hire an earth science teacher in a summer intern project to develop geology curriculum
- Develop a park Web site with geology study units
- Incorporate geology into the park junior ranger program
- Adapt existing field guide material, available from several universities, into primary and secondary school materials
- Experts deserve compensation for developing these materials
- The Geological Society of America (GSA) has Partners in Education Program (PEP) which is an email register of geology educators willing to help with projects
- There are programs in Midland, Texas, that would be interested in funding geology education in the Guadalupe Mountains
- Partnerships between the GSA and the National Science Foundation have funded geology education projects
- The park should maintain records of university field trip groups to develop partnerships
- Allow the general public to tag along on college field trips
- Develop a secondary education pre-field trip planning packet for teachers
- Develop a geology page on the park Web site
- Park staff should attend petroleum company field trips
- Geology researchers should give programs to park staff
- Petroleum companies should give park staff training

- Develop an accurate geology base map. The P.B. King map doesn't match when projected onto topographic maps.
- Guadalupe Mountains National Park is probably within the top 10 national parks preserving geologic resources. The park should have top rate geology products for staff and visitor use.
- If the park fills a potential geology position, fill it with an educator
- The park should network with oil research centers