



United States Department of the Interior

NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
P.O. Box 129
Grand Canyon, AZ 86023



IN REPLY REFER TO:

N2219 (GRCA 8213)

MAY 05 2017

Mr. Gary S. McCaleb
Senior Counsel
Alliance Defending Freedom
15100 North 90th Street
Scottsdale, AZ 85260

Dear Mr. McCaleb,

Thank you for your correspondence dated December 22, 2016 regarding Dr. Andrew Snelling's request for a research permit. As you noted in your letter, the Grand Canyon National Park (GRCA) Research Permits program has provided Dr. Snelling with a permit in response to his amended application dated February 8, 2016. This permit authorizes a river research trip to collect more specific information regarding rock sample locations, site visibility, and potential collection methods prior to authorizing collection. In response to your concern that this approach would delay the research and be more costly, we propose an alternative approach that would address both our need to ensure that rock collection at these locations will have minimal impact to GRCA resources (including cultural resources) as well as Dr. Snelling's need to expedite his research. Our proposal is laid out below.

The GRCA Research Permits program notes that Dr. Snelling's proposal is well-stated with methods that are similar or equal to standard scientific practice to test the hypothesis provided. Our staff's request to obtain specific location and methodology information is due to the following multiple concerns that we need addressed prior to authorizing rock collection:

- Three of the folds that Dr. Snelling proposes sampling are in sites highly visible to all other travelers on the river (Monument Fold, Matkatamiba Fold, and Bright Angel Shale Fold near the Whitmore Wash helipad), and the fourth fold, up Carbon Canyon, is visible to hikers up this well-traveled canyon. In addition, the sampling technique he proposes (hammer and chisel) would permanently visibly mar the geologic structures themselves (in contrast to the approach of most other researchers, who simply collect chunks of already-broken rock). Approximately 20,000 people each year float by these very visible folds, and as a result, we are not supportive of chiseling out samples for this research project.
- One proposed location (opposite Whitmore Wash), and possibly others, is likely on tribal land and not in the Park.
- Travel to and from these locations has the potential to create trails, encouraging others to explore these areas, and the potential to damage the talus slopes at the bases of the outcrops.
- In addition to requesting samples from four specific fold locations, Dr. Snelling also requests authority to collect "several samples" of intact sedimentary rock using hammer and chisel at each of eight unspecified locations, described only by river mile sections ranging in length from 2.5 to

17 miles. With such broad location descriptions, we cannot determine what resource impacts might result from such an extensive rock collection effort.

- River mile stretches such as these where rock sampling is likely to be from small overhanging outcrops along the river, are often sites containing prehistoric and historic artifacts and remains.

In order to address these concerns, we need additional information regarding specific sampling locations, site visibility, and sampling techniques. We therefore propose to assist Dr. Snelling by having experienced staff meet with him in person if he is in Arizona to pinpoint locations and determine appropriate sampling methodology; we can alternatively set up a conference call with him in the event that he is not available in person.

It is my recommendation that Dr. Snelling set up a meeting or a conference call with our GIS Coordinator, Wilderness Coordinator, and Research Coordinator (all of whom are in the Flagstaff office) to pinpoint his exact collection locations. Once these sites have been discussed and mitigation measures approved, I will be amenable to issuing Dr. Snelling a Scientific Research and Collection Permit that authorizes collection of rock samples on one of his scheduled 2017 river trips. Please contact Ronda Newton, Research Coordinator, at 928-638-7447 to schedule a meeting with the aforementioned staff to resolve this situation.

Sincerely,



Christine Lehnertz
Superintendent

cc: Jeanne Calhoun, Chief, Science and Resource Management Division
Mark Nebel, GIS Coordinator
Michael Kearsley, Wilderness Coordinator
Ronda Newton, Research Coordinator

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