

Museum Collection Management – Is it Really Worth Digging in a National Park?



Rachel Benton, Badlands National Park Ann Elder, Dinosaur National Monument

Abstract

National Parks and Monuments often preserve some of the best examples of fossil producing strata in the world. Yet researchers are sometimes leery of pursuing collecting within these Federal borders. Because park areas were established to protect fossil resources for all citizens and for future generations, some researchers wonder if adhering to the well defined guidelines necessary to collect or store specimens from park lands in their repositories is worth the effort. The National Park Service (NPS) Research Permit and Reporting System provides a link between the Research Community and NPS management by providing access to scientifically significant specimens collected on NPS lands. NPS permitting guidelines and museum policy require proper curation and storage of specimens for a research project, which creates an important connection between National Park Service Management and the associated collections storage facility. Some of these requirements include: entering specimen data into the NPS curatorial database, completing annual inventories, and archiving field notes. This mutually beneficial partnership between the NPS and the cooperating museum requires open communication and understanding in order to be successful. Case studies involving Badlands National Park, the South Dakota School of Mines and Technology and the Pine Ridge Indian Reservation provide important examples on developing a positive relationship between National Park Service Units and cooperating museums. Specific National Park Service tools and procedures will be discussed including the computerized collection management system ANCS+, accessioning and cataloging procedures and the annual inventory of museum property.

The National Park Service Research Permit and Reporting System

The National Park Service is responsible for protecting in perpetuity and regulating the use of our National Park Areas. Park managers have a mandate to provide management planning and decisions using the highest quality science and information. The National Park Service welcomes proposals for scientific studies designed to increase the understanding of natural processes and resources in parks. A scientific research and collecting permit is required for most scientific activities pertaining to natural resources in National Park System areas that involve field work, specimen collection and/or have potential to disturb resources or visitors. The Research Permit and Reporting system now makes it possible for potential investigators to use the internet to apply for permission to perform scientific activities in parks. Researchers can apply at the following web address:

<http://science.nature.nps.gov/research>

Curation Requirements within the National Park Service Permit and Reporting System

The National Park Service is custodian in perpetuity of irreplaceable and priceless museum collections representing both cultural and natural resources. ANCS+ is a Windows-based collection management system used to store museum records within NPS collections. The signature of the responsible official at the custodial institution is required on a research permit application. This signifies that the custodial institution agrees to curate all collected specimens following National Park Service curatorial guidelines. At Badlands, specimens are entered into a MS Excel worksheet as shown below. The MS Excel file is then entered into the NPS curatorial database. The park requires that the curation be completed a year from the permit starting date.

Catalog #	Ctrl Prop	Class 1	Class 2	Class 3	Class 4	Sci. Name	Common Name	Accession #	Location
BADL 38852	N	PALEONTOLOGY	PIERRE SHALE	BIVALVIA	INOCERAMIDAE	Inoceramus sp.	clam	BADL-00490	American Museum of Natural History
BADL 38853	N	PALEONTOLOGY	PIERRE SHALE	BIVALVIA	INOCERAMIDAE	Inoceramus sp.	clam	BADL-00490	American Museum of Natural History
BADL 38854	N	PALEONTOLOGY	PIERRE SHALE	CEPHALOPODA	BACULITIDAE	Baculites compressus	baculite	BADL-00490	American Museum of Natural History

Excel worksheet used by researchers to record paleontological specimens collected from Badlands National Park. Information from the worksheet is then loaded into the NPS curatorial database.

Case Studies

South Dakota School of Mines and Technology

The staff at Badlands National Park work in close partnership with faculty and staff at the South Dakota School of Mines and Technology on several shared projects, including a paleontological research quarry and two major paleontological surveys. All research grants that involve paleontological excavation include funding for fossil preparation and curation. All research activities are logged into the National Park Service Research Permit system.



Graduate students from the South Dakota School of Mines and Technology map the location and arrangement of paleontological specimens on a meter grid system at a fossil site in the Badlands Wilderness Area.



Michael Greenwald, Research Scientist, from the South Dakota School of Mines, examines fossil specimens collected from Badlands National Park, now curated under the NPS curatorial system and stored at the South Dakota School of Mines and Technology.

Pine Ridge Indian Reservation

The South Unit of Badlands National Park is located on a portion of the Pine Ridge Indian Reservation. Through a Memorandum of Agreement (MOA) between the Reservation and Badlands National Park (BADL), the staff at BADL work in close cooperation with the tribe in managing fossil resources preserved in this area. In recent years, a moratorium has been placed on paleontological collecting in the South Unit due to controversies generated from the growing interest in the commercial value of fossils. A paleontological research quarry operation was suspended in the South Unit due to concerns voiced by tribal government. Negotiations continue between BADL and the tribe on developing a paleontological research program in the South Unit.



General Map of Badlands National Park showing both the North and South Unit. Modified from Terry (2005).



Tribal members from the Pine Ridge Indian Reservation demonstrate against the opening of a paleontological research quarry in the South Unit.



Park staff complete preliminary documentation at a potential research quarry site in the South Unit at Badlands National Park