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8270 - PALEONTOLOGICAL RESOURCE MANAGEMENT

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**8270 - PALEONTOLOGICAL RESOURCE MANAGEMENT**

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Handbook H-8270-1 General Procedural Guidance for Paleontological Resource Management

## 8270 - PALEONTOLOGICAL RESOURCE MANAGEMENT

.01 Purpose. This Manual Section provides uniform policy and direction for the Bureau of Land Management's Paleontological Resource Management Program. This Manual Section is supplemented by Paleontological Resources Handbook 8270-1. The Handbook contains detailed procedures and standards for implementing this Manual Section.

.02 Objectives. The overall objective of BLM's Paleontological Resource Management Program is to provide a consistent and comprehensive approach in all aspects relating to the management of paleontological resources including identification, evaluation, protection and use. The specific objectives of this program are to:

A. Locate, evaluate, manage and protect, where appropriate, paleontological resources on the public lands.

B. Facilitate the appropriate scientific, educational, and recreational uses of paleontological resources, such as research and interpretation.

C. Ensure that proposed land uses, initiated or authorized by BLM, do not inadvertently damage or destroy important paleontological resources on public lands.

D. Foster public awareness and appreciation of our Nation's rich paleontological heritage.

.03 Authority. BLM manages paleontological resources principally under the following authorities:

A. Federal Land Policy and Management Act of 1976 (P.L. 94-579) requires that the public lands be managed in a manner that protects the ". . . quality of scientific . . ." and other values. The Act also requires the public lands to be inventoried and provides that permits may be required for the use, occupancy and development of the public lands.

B. National Environmental Policy Act of 1969 (P.L. 91-190) requires that ". . . important historic, cultural and natural aspects of our national heritage . . ." be protected, and that ". . . a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences . . . in planning and decision making. . . ." be followed.

C. Title 43 CFR, Subpart 8365 addresses the collection of invertebrate fossils and, by administrative extension, fossil plants.

D. Title 43 CFR, Subpart 3622 addresses the free use collection of petrified wood as a mineral material for non-commercial purposes.

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E. Title 43 CFR Subpart 3621 addresses collection of petrified wood for specimens exceeding 250 pounds in weight.

F. Title 43 CFR, Subpart 3610 addresses the sale of petrified wood as a mineral material for commercial purposes.

G. Title 43 CFR, Subparts 3802 and 3809 address protection of paleontological resources from operations authorized under the mining laws.

H. Title 43 CFR, Subpart 8200 addresses procedures and practices for the management of lands that have outstanding natural history values, such as fossils, which are of scientific interest.

I. Title 43 CFR, Subpart 1610.7-2 addresses the establishment of Areas of Critical Environmental Concern for the management and protection of significant natural resources, such as paleontological localities.

J. Title 43 CFR Subpart 8364 addresses the use of closure or restriction of public lands to protect resources. Such closures or restrictions may be used to protect important fossil localities.

K. Title 43 CFR Subpart 8365.1-5 addresses the willful disturbance, removal and destruction of scientific resources or natural objects and 8360.0-7 identifies the penalties for such violations.

L. Title 36 CFR, Subpart 62 addresses procedures to identify, designate and recognize National Natural Landmarks, which include fossil areas.

M. 18 USC Section 641 addresses the unauthorized collection of fossils as a type of Government property.

N. Secretarial Order 3104 grants to BLM the authority to issue paleontological resource use permits for lands under its jurisdiction.

O. Onshore Oil and Gas Order No. 1 and 43 CFR Title 3162 provide for the protection of natural resources and other environmental concerns and can be used to protect paleontological resources where appropriate.

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P. Offer to Lease and Lease for Oil and Gas Form 3100-11 provides for inventories and other short term studies to protect objects of scientific interest, such as significant fossil occurrences, and requires that operations conducted under oil and gas leases minimize adverse impacts to natural and cultural resources.

Q. Federal Cave Resources Protection Act of 1988 (P.L. 100-691) and Title 43 CFR Subpart 37 address protection of significant caves and cave resources, including paleontological resources.

### .04 Responsibility.

A. The Director, through the Assistant Director, Renewable Resources and Planning, and the Group Manager, Cultural Heritage, Wilderness, Special Areas and Paleontology is responsible for overall direction, leadership and coordination of BLM's paleontology program. This is accomplished through the development of program policies, strategies, procedures and directives, and in coordination with other Headquarters Groups as appropriate. This responsibility also includes coordination with other Federal agencies and Departments at the National Headquarters level.

B. State Directors, within their respective geographical jurisdictions, are responsible for the implementation of Bureau policies respecting paleontological resources, and for monitoring and evaluating the effectiveness of the paleontology program within their State.

C. Field Office Managers are responsible for the local management and oversight of paleontological resources within their geographical jurisdictions by ensuring that Bureau policies are implemented and coordinated, and that established program technical standards are met.

D. Regional Paleontologists provide professional expertise in paleontology. They serve as program coordinators for all States in their respective regions, and as the program interface between field offices and the Washington Office. In some cases, the Regional Paleontologist also serves as the State Office Paleontologist.

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E. Paleontology Program Contacts are responsible for working and coordinating with BLM Regional Paleontologists to assure implementation of paleontology program policies, identification and resolution of program needs, and to carry out other day-to-day activities associated with the management of paleontological resources. BLM State Offices and Field Offices shall identify such a paleontology program contact from their staff. While the Cultural Heritage Program is responsible for the providing base funding for paleontology, such office contacts may be selected from any disciplinary background, but should be chosen for their technical background in a related discipline, e.g. geology, biology, botany, archaeology, paleontological training, availability and their personal interest in supporting the goals of the paleontology program.

F. Other BLM staff are responsible within their normal duties for helping to ensure that the Bureau's goals for the management and protection of paleontological resources are met.

### .05 References.

A. Departmental Manual 411 DM 1-3, Policies and Standards for Managing Museum Collections, 1997.

B. Departmental Manual 516 DM, National Environmental Policy Act of 1969.

C. 44 L.D. 325, August 6, 1915, affirmed that fossils are not minerals within the meaning of the mining laws of the United States and are not locatable under such laws.

### .06 Policy.

A. The paleontological resources found on the public lands are recognized by the BLM as constituting a fragile and nonrenewable scientific record of the history of life on earth, and so represent an important and critical component of America's natural heritage. BLM will exercise stewardship of these resources as a part of its public land management responsibility. In meeting this responsibility, it shall be BLM's policy to:

1. Actively work with other Federal, State and Local Government Agencies, professional organizations, private landowners, educational institutions and other interested parties to enhance and further the Bureau's and the American public's needs and objectives for paleontological resources.

2. Consider paleontological resource management a distinct BLM program, to be given full and equal consideration in all its land use planning and decision making actions.

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3.6 Maintain a staff of professional paleontologists to provide BLM decision makers with the most current and scientifically sound paleontological resource data and advice.

4. Mitigate adverse impacts to paleontological resources as necessary.

5. Facilitate appropriate public and scientific use of and interest in paleontological resources.

6. Utilize the additional skills and resources of the Bureau's recreation and minerals programs to develop and implement interpretation strategies and products to enhance public understanding, appreciation and enjoyment of paleontological resources.

7. Vigorously pursue the protection of paleontological resources from theft, destruction and other illegal or unauthorized uses.

8. Authorize land tenure adjustments, when appropriate, as means to protect paleontological localities.

### .07 File and Records Maintenance.

A. Paleontological locality information is non-public information listed under Category 3 of the Bureau's Record Access Category Listing and may be withheld if the following Freedom of Information Act (FOIA) exemptions apply.

1. Exemption 2 covers records related solely to the internal practices of an agency which are of a more substantial internal matter, the disclosure of which would risk circumvention of a legal requirement.

2. Exemption 3 provides for the withholding of information prohibited from disclosure by another statute. Paleontological resources located within significant caves, for example, are thus protected by the confidentiality requirements of the Federal Cave Resources Protection Act.

3. Exemption 4 protects trade secrets and other privileged or confidential information. The release of paleontological locality information for areas where consultants or others, such as educational institutions, are permitted, for example, could severely jeopardize their work.

B. Locality data and reports associated with permits, mitigation work or other paleontology projects shall be maintained as permanent records.



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### .08 Relationships to other Bureau Programs.

A. Resource Protection/Mitigation. All BLM programs that may have an adverse impact on paleontological resources through their actions or authorizations are responsible as benefiting activities for funding any necessary resource inventories, evaluations or other work needed to avoid or mitigate adverse impacts on paleontological resources.

B. Cultural Resources. In rare instances, paleontological resources may be found in association with cultural resources. Such occurrences fall under the provisions of the Archeological Resources Protection Act. In the event of such an occurrence, the authorized BLM Manager, in consultation with the State Office or Regional Paleontologist and the Cultural Resource Specialist will evaluate the discovery and determine an appropriate course of action that will safeguard both the paleontological and archaeological materials. The Cultural Resource Program also provides the Paleontological Resource Management Program with its linkage to the Bureau's budget system. Therefore, these program personnel are responsible for identifying and addressing funding needs for paleontology in the BLM's annual budget process.

C. Recreation. Paleontological resources have high public education and recreation values. Such values can be enhanced by publishing guides to selected collecting areas and developing interpretive trails. Working collaboratively, BLM Paleontologists and Recreation Specialists can develop responsible and outstanding recreational and educational opportunities involving paleontological resources that will enhance public understanding of fossils and the science of paleontology, and showcase BLM's stewardship role.

D. Minerals Management. Minerals management can have both positive and negative effects on paleontological resources. Mineral development, and related activities such as road building, can expose new fossil localities to scientific research or recreational collecting. Regulations, such as those contained in 43 CFR 3809 and 43 CFR 3162.5, as implemented and supplemented by Onshore Oil and Gas Order No. 1, provide means, where necessary, to protect paleontological resources which may be adversely impacted by mineral development. BLM geologists can also provide valuable assistance in helping identify fossil localities, and develop interpretive and educational material related to paleontology. Fossils are not locatable under the mining laws.

E. Land Use Planning and Environmental Review. The management of paleontological resources shall be guided by and be in accordance with approved BLM land use plans.



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1. Paleontological resources constitute a fragile and non-renewable scientific record of the history of life on earth. Once damaged, destroyed, or improperly collected, their scientific and educational value may be greatly reduced or lost forever. In addition to their scientific, educational and recreational values, paleontological resources can be used to inform land managers about interrelationships between the biological and geological components of ecosystems over long periods of time. It is the policy of BLM, therefore, to manage paleontological resources for these values, and to mitigate adverse impacts to them. To accomplish this goal, paleontological resources must be professionally identified and evaluated. Their values should be adequately addressed and integrated fully into the Bureau's planning system and environmental analysis documents. Generally, considerable time, money and effort may be saved by considering paleontological data as early as possible in the decision making process.

2. Paleontological Data Collection and Analysis for Planning. Locating, evaluating and classifying paleontological resources, and developing management strategies for them, must be based on the best scientific information available. Paleontological expertise is necessary to help managers and decision makers resolve issues involving paleontological resources. Because paleontological expertise is scarce within BLM, State Office or Regional Paleontologists are available and should be called upon to provide direct assistance or to identify other appropriate sources of assistance. (Detailed procedures and standards for planning for paleontological resources are contained in Handbook 8270-1 Chapter II.)

3. Mitigation. Adverse impacts to paleontological resources shall be mitigated as necessary. Any field surveys and/or inventories intended to protect paleontological resources will be targeted to specific areas or be issue driven as needed. Unless other arrangements have been made by the local manager, project proponents shall bear all costs associated with this activity. In keeping with the historical policies adopted by the Department of the Interior and the BLM, these mitigation requirements apply primarily to vertebrate fossils. However, where noteworthy occurrences of invertebrate or plant fossils are known or expected, the same planning and mitigation policies and procedures shall be followed. (See 8270-1 Handbook Chapter III for mitigation standards and procedures.)

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.09 Paleontological Resource Use. The desired outcome of managing paleontological resources is to ensure their availability for scientific, educational and recreational uses. Such uses include collection, site interpretation, study and exhibition. Collection may or may not require a permit (See B. below). In cases where permits are required, the permitting process fulfills several important functions. Permits provide for the pro-active management of paleontological resources by alerting managers to the presence of noteworthy occurrences of paleontological resources, their condition and vulnerability. When needed, permits facilitate research by qualified paleontologists and serve as a bridge for communication between land managers and researchers. The permitting process provides appropriate protection to other resources that may be impacted by permitted collecting activities, and provides a consistent administrative structure for BLM's management effort. An efficient and uniform permitting process is also essential to and consistent with BLM's customer-oriented focus.

A. A Paleontological Resource Use Permit is a land use authorization issued to a qualified applicant for the purpose of carrying out various paleontological activities, such as identification, survey, collection or excavation, on lands managed by BLM. Such permits are nonexclusive, noncompetitive, minimum impact permits, and are not subject to Notice of Realty Action, filing fees or cost reimbursement. State Offices are responsible for processing and issuing such permits in consultation with the appropriate Field Office and Regional Paleontologist.

### B. Determining the need for a Paleontological Resource Use Permit

1. Invertebrate Fossils, Plant Fossils and Petrified Wood. In accordance with existing regulations, the public lands, except where otherwise posted or prohibited, are open for the collection of invertebrates, plant fossils and petrified wood. (See Section .03, Authority) Permits are not normally required for such collection. (See 8270-1 Handbook for collecting standards.) However, in some situations, localities containing noteworthy occurrences of such fossils may be closed to collection except under permit. Such closures shall be established through the land use planning process, and shall be carried out in consultation with the BLM Regional Paleontologist.

2. Vertebrate Fossils. Unregulated collection of vertebrate fossils is not allowed in 43 CFR 8365.1-5. Therefore, permits are required for the collection of vertebrate fossils, including their trace fossils, such as trackways and coprolites. Refer to 8270-1 Handbook for permit procedures.

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C. BLM issues two types of Paleontological Resource Use Permits.

1. Survey and Limited Surface Collection Permits are issued to expedite broad ranging survey/reconnaissance work in order to identify vertebrate fossil localities for scientific research, inventory or planning purposes, or in advance of projects which may threaten such localities. Collection of material for carrying out locality (site) investigations and evaluation/characterization studies, and where the use of such small sites as temporary field work stations will be restored to their natural condition within the same work season, is allowed, providing that such activities can ordinarily be expected to result in only negligible surface disturbance, i.e., less than 1 square meter, and can be done with hand tools. Such non-destructive paleontological data collection, inventory, research or monitoring activities are generally deemed to meet the provisions of Chapters 2 and 6, Appendices 1 and 5 respectively, of Departmental MS 516, Categorical Exclusions.

2. Excavation Permits are issued for the collection of vertebrate fossils where surface disturbance exceeds the limits permissible for the survey and limited surface collection work stated in C.1 above.

D. Permit Administration. Permittee qualifications and other matters relating to the administration of Paleontological Resource Use Permits may be found in the 8270-1 Handbook Chapter IV.

E. Commercial Collection. BLM does not authorize the commercial use of fossils collected on public lands. Petrified Wood may be purchased as a mineral material under procedures described in 43 CFR Subpart 3610.

F. Paleontological Resources in Special Areas.

1. Wilderness and Wilderness Study Areas. Paleontological resources may be found in designated Wilderness or Wilderness Study Areas. Scientific research involving collection and removal of paleontological resources is not considered incompatible with the concept of wilderness preservation as provided for in Section 4(b) of the 1964 Wilderness Act. Additionally, paleontological resources are considered to be supplemental values, as provided for in Section 2(c) of the Act. The following provisions are recommended for addressing the management of paleontological resources in such areas:

a. The BLM will permit on a case-by-case basis the survey and limited surface collection of fossils by qualified paleontologists, where such resources have important scientific value. Such activities must be carried out in a manner that would not degrade the wilderness character.

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b. The use of motorized transportation or mechanized equipment in a wilderness area is prohibited except when approved as the minimum tool necessary to accomplish the work. Such use must be approved by the State Director.

c. Salvage, excavation and collection of fossils may be done only on a case-by-case basis where the project will not degrade the overall wilderness character of the area and where such activity is needed to preserve paleontological resources.

2. Other Special Management Areas. A variety of Special Area designations may be available to enhance the management and/or protection of paleontological resources. Such designations include Research Natural Areas, National Natural Landmarks and Areas of Critical Environmental Concern. Such areas are established through the land use planning process and shall be done in consultation with the BLM Regional Paleontologists.

G. Collection Management. Fossils collected under a Paleontological Resources Use Permit remain the property of the Federal Government and shall be curated in an approved repository in conformance with the provisions of Departmental Manual 411. BLM managers shall select repositories which can appropriately maintain such collections from public lands and their associated records, and make this information available to BLM upon request. Repositories should be encouraged, if they have not already done so, to establish and maintain electronic databases of specimen, locality and other associated data.

H. Split Estate Lands. Split estate lands are those lands where title to the surface and mineral estate have been severed. Title to the different estates are often held by different parties. In many instances where the surface estate is not owned by the Federal Government, the mineral estate is, and is administered by the BLM. Paleontological resources are considered to be part of the surface estate. If BLM is going to approve an action involving the mineral estate that may affect the paleontological resources, the action should be conditioned with appropriate paleontological mitigation recommendations to protect the interests of the surface owner. In most States the owner may elect to waive these recommendations. Such a waiver shall be documented in the case file.