

LEGISLATIVE AND REGULATORY HISTORY OF PALEONTOLOGICAL RESOURCES

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Abstract—Since the early 20th Century there have been many legislative and regulatory attempts by the federal government to protect paleontological resources within federal lands, particularly lands containing vertebrate fossils. The effort for a more consistent resource management policy for paleontological resources began in 1906 with the passage of the Antiquities Act and the designation in 1915 of Dinosaur National Monument by President Woodrow Wilson. A new legislative attempt to protect paleontological resources began in the 107th Congress after the publication of the Secretary of the Interior’s report to Congress on the status of paleontological resources management on federal lands. In order to understand the need for protection of paleontological resources on federal lands, a chronology of federal legislative and regulatory actions regarding paleontological resources since the passage of the 1906 Antiquities Act was developed by the author.

INTRODUCTION

In the Fiscal Year (FY) 1999, the Interior Appropriations Subcommittee requested that the Department of the Interior (DOI), the U.S. Department of Agriculture (USDA) Forest Service (FS) and the Smithsonian Institution prepare a report on fossil resource management on public lands. The request was to focus on (1) the need for a unified federal policy for the collection, storage and preservation of fossils; (2) the need for standards that would maximize the availability of fossils for scientific study; and (3) to evaluate the effectiveness of current methods for storing and preserving fossils collected from public lands. The report was published in May 2000 and was well received by Congress and the public (DOI, 2000). As a result of this report, in October 2001 (107th Congress), Representative McGovern of Massachusetts introduced H.R. 2974, the House version of the Paleontological Resources Preservation Act; in July 2002, Senator Akaka of Hawaii introduced S. 2727, the Senate version. The proposed legislation encompassed the following seven principles as detailed in the DOI report:

1. Fossils on federal land are a part of America’s heritage.
2. Most vertebrate fossils are rare.
3. Some invertebrate and plant fossils are rare.
4. Penalties for fossil theft should be strengthened.
5. Effective stewardship requires accurate information.
6. Federal fossil collections should be preserved and available for research and public education.
7. Federal fossil management should emphasize opportunities for public involvement.

In February 2005, the bill was reintroduced in the 109th Congress for the third time. In an attempt to understand the need for legislative and administrative protection for paleontological resources, extensive legal research was conducted by the author with a focus on the regulatory attempts by the Bureau of Land Management (BLM) and USDA Forest Service (FS). That research is summarized in Table 1 which is a chronology of the federal legislative and regulatory history of paleontological resources since the passage of the 1906 Antiquities Act.

TABLE 1. Chronology of legislative and regulatory history of paleontological resources.

YEAR	AGENCY	LEGISLATIVE OR REGULATORY MILESTONE	EXPLANATION	OUTCOME
1906	59 th Congress	Preservation of American Antiquities, P.L. 59-209	Protection of antiquities on federal lands. Prohibition against appropriating, excavating, injuring or destroying any historic or prehistoric ruin or monument, or any object of antiquity. Used by the President for the designation of national monuments.	Uniform regulations under the Antiquities Act at 43 CFR 3; see below. 1979 USDA regulations at 7 CFR 3100; see below. Dept of Army (DOA) policy - Uniform code at 16 USC 431-433 also protects paleontological paleontological resources.
1915	GLO/ DOI,	44 LD 325 (1915), Earl Douglass President Woodrow Wilson	In 1909, Earl Douglass, paleontologist with the Carnegie Museum, discovered dinosaur bones on federal lands which later became Dinosaur National Monument. In 1913, in order to protect his find from homesteaders, Douglass tried to file a placer mining claim with the General Land Office (GLO) on the 80 acres of land containing the bones. The GLO cancelled his mineral entry and he	Decision: Fossil remains of dinosaurs and other prehistoric animals are not minerals; and lands containing fossils are not subject to mineral entry. After the Douglass case was decided, President Woodrow Wilson designated this area in Utah as Dinosaur National Monument. In 1938, the monu-

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			appealed to the DOI.	ment was enlarged to 209,000 acres in both Utah and Colorado.
1954	USDA, DOI, DOA	Final Rule – 43 CFR 3, Preservation of American Antiquities: Uniform Regulations	Addresses antiquities permits and process, including reports and inspections and curation. Prohibition authority for anyone appropriating, excavating, injuring or destroying any historic or prehistoric ruin or monument or any object of antiquity.	Regulations in effect in 2006. Amended to address curation of federally owned archaeological collections. Final Rule, 36 CFR 79, 1990; see below.
1962	87 th Congress	H.R. 10540, P.L. 87-713, Act of September 28, 1962	Congress declared petrified wood (a fossil) to be a “mineral material” under the Mineral Materials Act of 1947 and authorized removal of limited quantities without charge.	Contract and free-use regulations for petrified wood; see next.
1963, 1964	BLM	Proposed Rule – 1963, 43 CFR 259, Free-use of Petrified Wood Final Rule – 1964, 43 CFR 3612 Amended – 1983, 43 CFR 3622	Regulations provided for free use of petrified wood without a permit by amateurs and scientists. Under the proposed rule, 10 pounds per year was the limit for removal by amateurs. Under the final rule, the limit was increased to 250 pounds per year.	Amounts to be removed by amateurs amended in 1983 to 25 pounds per day plus one piece, not to exceed 250 pounds per year (43 CFR 3622).
1974	9 th Circuit Court	U.S. v. Diaz, 499 F 2d. 113	The court declared that “objects of antiquity” was unconstitutionally vague because of lack of a definition.	DOI attempted to define “objects of antiquity” in 1978, see next. USDA and DOA have never addressed the issue.
1978	HCRS (DOI)	Proposed Rule – Heritage Conservation and Recreation Service (HCRS) DOI	Proposed rule to address <i>U.S. v Diaz</i> , 499 F. 2d 113 (9 th Circuit, 1974) regarding unconstitutionality of “objects of antiquity.” Proposed definition of “objects of antiquity” under the 1906 Antiquities Act; included vertebrate paleontological resources.	Never published as final rule. A footnote contained DOI current policy regarding protection of vertebrate paleontological resources.
1979	Office of Environmental Quality (USDA)	Final Rule – 7 CFR 3100, Enhancement, Protection and Management of the Cultural Environment	7 CFR 3100.41(a). The Antiquities Act of 1906 provides for the protection of historic or prehistoric remains or any object of antiquity on Federal lands; includes paleontological resources. Proposed rule did not contain this provision for paleontological resources.	Regulations in effect in 2006.
1979	96 th Congress	H.R. 1825, Rep. Udall (NM) P.L. 96-95 (16 U.S.C. 470aa), Archaeolog-	Protection of paleontological resources when found in context with cultural	Uniform rulemaking process began in 1980. Finalized in 1984; see

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		ical Resources Protection Act	resources.	below.
1980	BLM	Notice of Proposed Rulemaking – Regulatory Agenda, 43 CFR 7631	Public notice of BLM’s intent to publish rules on management of paleontological resources. The rule would provide the procedure for the management of paleontological specimens located on public lands.	Proposed rules published August 17, 1982 as 43 CFR 3630, Geologic and Hobby Mineral Materials – Collecting. Withdrawn in 1993.
1981	BLM	Notice of Proposed Rulemaking – Regulatory Agenda, 43 CFR 8360	Public notice of BLM’s intent to publish rules on recreation management and operations.	Finalized in 1983; see below.
1981	FS	Final Rule – 36 CFR 261.9 (g) and (h), Prohibitions for paleontological resources	The following is prohibited: Digging in, excavating, disturbing, injuring, destroying, or in any way damaging, and removing any paleontological ... resource.” Paleontological resources were not addressed in the proposed rule.	Amended in 1986; see below.
1982	BLM	Proposed Rule – 43 CFR 3620, 3630, 8360, August 17, 1982	On geologic and hobby mineral materials, including fossils.	August 17 th proposed rule placed on hold during the NAS study on Paleontological Collecting. Withdrawn in 1993.
		Proposed Rule – 43 CFR 8360, December 23, 1982	Recreation Management; Prohibited Acts and Penalties.	Final Rule, 1983; see next.
1983	BLM	Final Rule – 43 CFR 8360	Provided for collecting of reasonable amounts of common invertebrate fossils for noncommercial purposes.	Regulations in effect 2006.
1983	98 th Congress	S. 1569, S. Pressler (SD) Bill, Paleontological Resources Conservation Act	Unified federal policy for vertebrate fossils collection and established different permit requirements for scientific, commercial and amateur collectors. Allowed for commercial collection of fossils.	Never passed.
1984	DOI	Secretarial Order 3104, Sept. 28, 1984	Delegated Secretarial authority to issue permits under ARPA and the Antiquities Act from the National Park Service to the other DOI land management agencies; included permits to collect paleontological resources.	205 Dept Man (DM) 3, 3.1, Release no. 2615 dated 1-7-1985.
1984	NAS	National Academy of Sciences (NAS) study on paleontological resources on federal lands	Purpose: to develop a general statement on the appropriate role of government in the regulation of collecting fossils. Final report included findings and recommendations for	Final report published in 1987. Recommendation # 5 would allow commercial collection of fossils from public lands under permit.

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			fossil collecting from private, state and federal lands.	
1984	DOI, USDA, TVA and DOD	Final Rule – 43 CFR 7, 36 CFR 296, 18 CFR 1312, 32 CFR 229, Protection of Archaeological Resources: Uniform Regulations	Uniform regulations under the 1979 Archaeological Resources Protection Act (ARPA). Paleontological resources in association with cultural resources are protected.	Regulations in effect in 2006.
1985 to 1987	98 th and 99 th Congress – Interior Appropriation Bills	Congressional Hold – P.L. 98-88, P.L. 99-190; P.L. 99-591	FY 1985 to FY 1987 – Congressional hold by Sen. Pressler - Prohibition on promulgating BLM regulations involving paleontological research until NAS report completed.	Negotiated rulemaking initiated as a result of the NAS study.
1986	FS	Interim Rule, 36 CFR 261.9, Prohibitions for paleontological resources	Revised the 1981 regulation to reflect NAS study, including permitting for vertebrate fossils and commercial collection of fossils.	Regulations in effect in 2006.
1988	100 th Congress	H.R. 1975, Rep. Boucher (VA), P.L. 100-691 (16 U.S.C. 4301), Federal Cave Resources Protection Act	Protection of paleontological resources associated with cave resources on federal lands.	FS Rulemaking – See next. BLM Proposed Rule 1992.
1989	FS	Notice of Proposed Rulemaking, 36 CFR 290, Cave Management	Notice for public comment purposes on Cave Management regulations.	Proposed Rule published 1991. Final Rule, 1994.
1989	BLM	Notice of negotiated rulemaking for paleontological resources management, 43 CFR 8270, as a result of the NAS report on “Paleontological Collecting.”	Under federal negotiated rulemaking procedures, a group was convened that included amateurs, scientists and commercial collectors to discuss regulations for collecting fossils for scientific purposes; federal fossils in non-federal repositories; and commercial collection of fossils from public lands.	Two meetings were held and proposed rules were drafted including commercial collection. BLM Director, Cy Jamison (George H.W. Bush Administration), did not support the proposed rules, so they were never published.
1989	FS	Notice of delay of final rule, 36 CFR 261.9, Prohibitions for paleontological resources	Action on final rule is delayed to receive and consider NAS report on Paleontological Collecting.	A final rule never published and was withdrawn in 1991. Interim Rule in full force and effect.
1990	DOI	Final Rule, 36 CFR 79, Curation of Federally-Owned and Administered Archaeological Collections	Amended by ARPA to address curation of federally owned and administered archaeological collections.	Regulations in effect in 2006.
1992	102 nd Congress	S. 3109, S. Baucus (MT) Bill, Vertebrate Paleontological Resources Protection Act	Permit system for vertebrate fossil collection by scientists and amateurs. No commercial collection of fossils authorized.	Never passed.

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1992	DOI	Proposed Rule, 43 CFR 37, Cave Management	Separate regulations for DOI because of different Law Enforcement authorities on NFS lands.	Final rule 1993. Regulations in effect in 2006.
1993	BLM	Notice of withdrawal of 43 CFR 8270 in Regulatory Agenda	Notice stated they were withdrawn with no further action at this time.	Proposed rules were in conflict with Senate legislation, S. 3109.
1994	FS	Final Rule, 36 CFR 290, Cave Management	Protection of paleontological and other resources associated with cave resources on federal lands.	Regulations in effect in 2006.
1994	FS	Proposed Rule, 36 CFR 261 and 262 (all)	Proposed language combined the paleontological and archeological paragraphs and removed reference to commercial activities.	Notice in the April 2000 Regulatory Agenda that because of the “high level of interest and comment” on Part 261, that revisions to Part 261 would proceed separately.
1996	BLM	Notice of Proposed rulemaking, 43 CFR 6600, Paleontological Resources, in Regulatory Agenda.	Notice stated BLM rules were being revised as part of “Reinventing Government” initiative in the Clinton Administration. BLM rules from 43 CFR 3622 and 8365 regarding paleontological resources management were to be consolidated and rewritten in plain English.	Proposed rules were never published. Johnson bill was introduced in 1996 in the Senate. The action to consolidate was withdrawn in 2001.
1996	104 th Congress	H.R. 2943, S. Johnson (SD) Bill, Fossil Preservation Act	Provided for reconnaissance fossil collecting of all fossils by amateur, commercial and scientific fossil collectors without a permit. Provided for quarrying permits for commercial collection of fossils that generated fees and royalties to the federal government.	Never passed.
1998	BLM	BLM Manual 8270 and Handbook H-8270-1, Paleontological Resources Management	BLM policy and procedures for Paleontological Resources Management on public lands.	Policy in effect in 2006.
1998	CRS	Report to Congress, “Fossils on Federal Lands: Current Federal Laws and Regulations”	Congressional Research Service (CRS) reports are generated by requests from members of Congress or their staff.	In 1999, the Senate requested a report from the federal land management agencies, the Smithsonian and the USGS assessing the status of federal fossils.
2000	DOI agencies, FS, SI	Final Secretarial Report to Congress on Fossil Resource Management on Federal and Indian Lands	S. Rept. 105-227 request on behalf of Senators Johnson and Daschel (SD) added to Committee report on Interior Appropriations (FY 1999) for these	Recommended seven principles for further action by Congress and the agencies regarding paleontological resources management. The

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			agencies to assess paleontological resources management on federal lands with the goal of working towards a uniform policy on federal lands administered by NPS, BLM, FS, BIA, FWS and the Tribes.	report is the basis for subsequent legislation introduced in Congress the 107 th Congress.
2001	107 th Congress	H.R. 2974, Rep. McGovern (MA) Bill, S. 2727, S. Akaka (HI) Bill, Paleontological Resources Preservation Act	Comprehensive and uniform authority for the management of paleontological resources on federal lands managed by DOI and FS. Contained strong civil and criminal penalties for fossil theft; clear authority for amateur collecting of invertebrate and plant fossils without a permit; clear authority for permits for collecting of vertebrate fossils. Does not provide for commercial collection.	Never passed. Reintroduced in the 108 th Congress.
2002	FS	Notice of proposed rulemaking, 36 CFR 251.50 and CFR 261.9 (j), Special Uses and General Prohibitions for Paleontological Resources, Regulatory Agenda	Proposal for technical changes to the special use and prohibited acts regulations for paleontological resources. Would have changed the definition of "paleontological resources" similar to 36 CFR 292.21, and required a special use permit for vertebrate paleontological collecting.	Proposed rules never published and withdrawn in 2004.
2003	108 th Congress	H.R. 2416, Rep. McGovern (MA) Bill, S. 546, S. Akaka (HI) Bill, Paleontological Resources Preservation Act	Comprehensive and uniform authority for the management of paleontological resources on federal lands managed by DOI and FS. Contained strong civil and criminal penalties for fossil theft; clear authority for amateur collecting of invertebrate and plant fossils; clear authority for permits for collecting of vertebrate fossils. Does not provide for commercial collection. H.R. 2416 contained language for authority to collect rocks and minerals on NFS lands. S. 546 passed the Senate in June 2003; this is the first time a fossil bill passed in a house of Congress.	S. 546 passed in the Senate with amendments and sent to the House of Representatives where it died in Committee. Reintroduced in the 109 th Congress.
2004	FS	Notice of withdrawal of proposed rulemaking, 36 CFR 251.50 and CFR 261.9 (j), Special Uses and General Prohibitions for Paleontological Resources, Regulatory Agenda	Proposed rules were withdrawn.	Continue to manage paleontological resources under the Organic Act of 1897.
2004	CRS	Two Reports for Congress were requested	"Paleontological Resources Preservation Act: Proposal for the	Requested by Sen. Akaka at the end of the 108 th Congress in

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			Management and Protection of Fossil Resources Located on Federal Lands,” (Sept. 2004) and “Federal Management and Protection of Paleontological (Fossil) Resources Located on Federal Lands: Current Status and Legal Issues,” (Nov. 2004).	support of the introduction of the PRPA in the 109 th Congress. Placed on the Senate Calendar as No. 50. Awaiting further action. No House companion bill has been
2005	109 th Congress	S. 263, S. Akaka (HI) Bill, Paleontological Resources Preservation Act	Virtually the same language as S. 546 as passed in the Senate in the 108 th Congress which reduced the level of penalties from S. 2727 with technical amendments on procedure.	introduced to date.

REFERENCES

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