

NORTH DAKOTA'S FOSSIL RESOURCE MANAGEMENT PROGRAM and the PRIVATE LANDOWNER

by
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Editor's Note: Reprinted below is the text of a talk presented by John Hoganson at the Northern Plains Governors' Conference: Fossils for the Future.

I would like to begin this morning by briefly reviewing North Dakota's Fossil Resource Management Program because I strongly believe that each state, as well as the federal government, must have well thought-out, comprehensive fossil resource management programs before state or federal fossil resource managers can effectively deal with the issue of fossils on privately owned land, or fossils on public land for that matter. Briefly, this is what we are doing in North Dakota.

North Dakota's Fossil Resource Management Program was inaugurated in 1983 primarily in response to concern about the historic and ongoing removal of fossils from the state. This program has evolved to include three primary objectives:

1) Education to promote public understanding and awareness of the importance of North Dakota's fossil resources. Education is an extremely important aspect of our program in dealing with privately owned fossils and fossil sites.

2) Research to determine the types of organisms that inhabited North Dakota at various times in the geologic past and to determine the types of climates and environments in which they lived.

3) Identification and preservation of North Dakota's significant fossil sites and specimens.

The program is administered by the North Dakota Geological Survey, an agency of the State Industrial Commission.

There are four, separately administered, categories of lands in North Dakota: 1) lands administered by agencies of the federal government, 2) lands

administered by the State of North Dakota, 3) privately owned lands, and 4) tribal lands. The North Dakota Geological Survey assumes an active role in managing paleontological resources on the first three of these lands, and we are hoping to become an adviser on fossil resources to the various tribal councils in North Dakota.

FOSSIL RESOURCES ON FEDERALLY ADMINISTERED LANDS

The North Dakota Geological Survey has signed formal agreements with the U. S. Forest Service--Custer National Forest (1986), Federal Bureau of Land Management (1988), and the U. S. Army Corps of Engineers (1991) to cooperatively identify, manage, and protect paleontological resources found on lands in North Dakota under the jurisdiction of these federal agencies. These are excellent agreements, and I would like to stress that I believe cooperation between federal and state fossil resource managers is essential to effectively manage fossil resources. I hope that there is much discussion at this conference about the need for state and federal interaction.

FOSSIL RESOURCES ON STATE ADMINISTERED LANDS

In 1989 North Dakota's Paleontological Resource Protection Act became law. The salient points of our law are similar to ones in the recently introduced federal bill, the Vertebrate Paleontological Resources Protection Act (S. 3107).

1) Significant paleontological resources, primarily vertebrate fossils, are identified in our law as being an important part of North Dakota's natural heritage and that they should be protected.

2) Our law places responsibility for management of fossil resources in the hands of the North Dakota

Geological Survey. Previously, fossils had been grouped with Indian artifacts and considered cultural resources. At that time, fossil resources were managed by archaeologists with the State Historical Society.

3) As a result of this law, a permit is required to collect significant paleontological resources on state lands in North Dakota. Significant paleontological resources generally means vertebrate fossils although there is enough flexibility in our law to allow for protection of significant invertebrate and plant fossil resources too. I am pleased to say that because of this law, hobbyists can, with a permit, collect fossils on state lands.

4) Significant paleontological resources collected from state owned lands remain the property of the State of North Dakota; that is, they remain public property.

5) Commercial collecting of fossils is prohibited on state lands in North Dakota.

FOSSIL RESOURCES ON PRIVATELY OWNED LANDS

The State of North Dakota has no jurisdiction over paleontological resources found on privately owned land. Collecting fossils from private property is, therefore, at the discretion of the landowner. I believe that is the way it should be. Private landowners should retain the right to determine what is to be done with fossils found on their property. This philosophy, however, creates problems primarily because of the increasing commercial value of fossils, particularly on the foreign market.

Private landowners are now being faced with the difficult decision to either sell their fossils to commercial dealers or donate them to public-supported institutions where they will remain in the public domain. This competition for fossils complicates management of fossil resources because most states interested in retaining their fossil heritage, like North Dakota, cannot compete with commercial dealers to pay for fossils found on private property. We must, therefore, appeal to the private landowner's sense of civic responsibility to donate these specimens to public institutions. At this we have varying degrees of success. About all we can offer is a handshake, a note of thanks, and a tax write-off.

I am convinced that landowners want to do what is right, and in North Dakota, at least, their primary concern is for what they believe is right for their family.

Landowners often become confused, however, because of all the information or, let's say, misinformation they receive when they seek input about their options. This misinformation can cause major problems. Let me give you an example.

Early this summer I was contacted by a rancher from southwestern North Dakota who had some bones weathering out of the rock in one of his pastures. I visited the site and found that at least a partial skeleton of what appeared to me to be a *Triceratops* was being exposed in the Cretaceous Hell Creek Formation. Vertebrae, toe bones, part of the frill and so forth were already exposed. I informed the rancher that the find could be significant and offered to excavate the specimen, suggesting that he either donate the fossil to the State Fossil Collection, to a local museum, or to another public institution of his choice.

One of the first questions of the rancher was how much is the fossil worth. I told him that it would be difficult to assess the value before excavation and emphasized the importance of the involvement of qualified individuals in the excavation process. I explained to him that the state had no money to purchase the fossil but if donated some sort of tax credit could be arranged. The negotiations went on for some time by telephone.

By the time I revisited the site a few weeks later the rancher had been in contact with at least three commercial collectors. One of those collectors told him that if the skull was there and in good condition he would pay him several thousand dollars for the specimen. What did this mean to the rancher--a fishing trip to Alaska, a new swather, or perhaps even a new house? As a result, the rancher and several of his friends went to the site with spades and grain shovels to dig for the skull. Most of the skull was not there and much of the posterior part of the skeleton that was there was destroyed during the digging. Ironically, it appears that the fossil was not of the relatively common *Triceratops* but the rare *Torosaurus* and this would have been an important scientific specimen and possibly worth a great deal of money to the rancher.

Where does the problem lie in cases like this? Who is at fault? Is it the badland rancher surviving the fourth consecutive year of drought? I don't think so. What is the solution? Our educational approach failed in this case. These types of situations are the types of challenges that we face as custodians of fossil resources for future generations.

I would like to close with an optimistic note about a program that we have in North Dakota for preservation of fossil sites on private land--North Dakota's Natural Areas Registry Program. The North Dakota Natural Areas Registry Program was developed by the North Dakota State Parks Department and the North Dakota Chapter of the Nature Conservancy and when fossil sites are involved, the North Dakota Geological Survey takes an active role. The Registry is an important part of North Dakota's Nature Preserves program and relies on citizen-based conservation. The program was created to help preserve important natural areas, in this case, fossil sites in private ownership. Currently there are about 40 registered Natural Areas in North Dakota. Most of them are biological sites, sites of rare or endangered species of plants and animals or unique biological habitats. I am pleased to say that at this time three sites in North Dakota are on the Registry of Natural Areas because they are significant fossil sites.

The Registry is a totally volunteer, non-binding, non-regulatory program. State government officials and Nature Conservancy staff advise the landowner of the significance of their site and provide management advice to the landowner. We will also provide signs stating that the site is a natural area. No payment or receipt of funds is involved in the registry process. The landowners receive plaques from the Governor during a formal

ceremony at the Capitol in appreciation for their commitment to protect part of the North Dakota's natural heritage. Owners of registry areas are asked to:

- 1) the best of their ability protect and preserve the registered area;
- 2) notify the State or Nature Conservancy of any threats to the area; and
- 3) notify the State or Nature Conservancy of any intent to sell or transfer ownership of the property.

The landowner may terminate participation in the program at any time, although he or she is asked to give a 30-day notice prior to cancellation.

Federal and state governments cannot and should not be held solely responsible for survival of our significant fossil sites and specimens. Individual landowners must play an integral role in conserving our fossil resources. Without their active participation and commitment we will lose, year by year, more and more portions of our fossil heritage. And we, as government fossil resource managers, must provide to these concerned landowners attractive options for preservation of fossil sites and specimens, such as the North Dakota Natural Areas Registry Program.

Meeting Announcement

INQUA Commission on Formation and Properties of Glacial Deposits Field Conference and GIS Workshop, coordinated by the Work Groups on Glacial Tectonics and Mapping Glacial Deposits, will be held May 9-15, in Regina, Saskatchewan, Canada. Papers will be presented on glaciotectionics, mapping glacial terrain, use of geographic information systems and remote sensing in glacial mapping, glacial sedimentology, glacial lakes and meltwater drainage systems, Holocene modification of glacial deposits, and related subjects. A workshop demonstration of Arc/Info GIS as used for the North American glaciotectionic map project and related mapping projects will be held. Field excursions across southern Saskatchewan are also scheduled. A registration fee of \$500 CAN (\$450 USA) provides six nights accommodation (double occupancy), meals, proceedings, maps, and transportation during field excursion.

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