FOSSILS AS A RESOURCE IN RESEARCH, EDUCATION, AND ECONOMICS IN NORTH DAKOTA

Joseph H. Hartman*
Energy and Environmental Research Center, University of North Dakota, Grand Forks ND 58202

In many ways, the people of North Dakota have never been more interested in fossils. Most of this interest is associated with the rather phenomenal popularity of dinosaurs. In addition, over the last decade of environmental activism, there has been renewed discussion on the disposition of fossils as a natural resource. How (or if) to regulate the use of fossils as a resource (primarily in regard to their collection) has been the subject of panel discussions, workshops, memoranda of understanding, policy statements, legislation, and a considerable amount of argument among the various vested interests. The purpose of this symposium is to openly present and discuss issues about the varied use of fossils in North Dakota. Towards this end, well-qualified people, with a deep concern about the appropriate use of fossils in North Dakota, will present basic information and their views about fossils as a resource to exploit for the purposes of academic and applied research (including museum exhibits), the public’s recreational and hobbyist activities, primary and secondary education, and commercial-scale collecting.

Interest in fossils in North Dakota, particularly in dinosaurs, has been enhanced by press coverage and stimulated by a few vocal individuals, which together have promoted an attitude that North Dakota fossils should remain in North Dakota. Paleontologists from outside the state, who have undertaken research in North Dakota, have been portrayed as looters of North Dakota’s fossil treasure trove. The negative publicity that “outsiders” have received for “stealing” North Dakota fossils seems inappropriate in that they have been removed for academic study that will benefit North Dakota by the knowledge gained (at others’ expense). The public has been generally poorly informed about the process of paleontological research and the nature of North Dakota’s fossil record. In terms of the collection of fossils by North Dakotans for North Dakotans, the state has only very recently directly supported any program that provides the means to maintain collections or establish for itself an active role in understanding the extent of its fossil resources. What we do know about North Dakota fossils has resulted largely from the blending of graduate student and faculty research from both within and outside the state as a result of indirect use of limited state funding for higher education and from a few research-specific federal grants.

Although treated by some only as a commodity to be utilized for tourist dollars or other commercial enterprises, North Dakota’s primary interest in fossils should be educational, so as to promote and develop a more thorough understanding of the geological history of the state that will most appropriately serve the needs of all concerned. Education and economic considerations without attendant research by North Dakotans clearly limits how and what knowledge can be passed on to state agencies, institutions of higher learning, and the commercial sector. Only from purposeful state-supported endeavors, such as collections development, can a system be put into place that provides for the transmission of useful information to all concerned. The exhibit of fossils for tourism can be promoted, but this activity must be consistent with maintaining the educational and research value of fossils in existing programs.

Institutions, agencies, and interested citizenry of North Dakota should work together towards the scientific and public use of fossils. Existing research institutions, such as the North Dakota Geological Survey (NDGS) and the University of North Dakota Department of Geology and Geological Engineering (UND), have largely been responsible for the development and maintenance of paleontological collections and resulting knowledge about the state’s fossil resources. Paleontologists at the NDGS, UND, North Dakota State University (NDSU), and Minot State University (MSU) should play a fundamental role in providing expertise and information for the purposes of fossil utilization, whether for transmission of knowledge for public education, resource management, or for display. The NDGS is mandated to maintain fossil collections for the purpose of information dissemination to the public on the basis of representative examples of North Dakota fossils. As a state agency, the NDGS can serve as a liaison for public and government agency interaction with the greater paleontological community. UND has been the paleontological research facility for the state for forty years, with its substantial fossil collections and existing undergraduate and graduate programs in geology. UND’s responsibilities to the state should naturally continue to include the curation of fossil collections for the purposes of scientific study, undergraduate and graduate education, academic and applied research, and as a paleontological information resource to educators and other institutions and agencies in the state. Information from research collections maintained by other institutions, such as NDSU, MSU, and Dickinson State University, which have resulted from the research activities of their respective scholars, can be incorporated into a continuously augmented data base on the fossil collections of North Dakota. Paleontologists are fundamentally enthusiastic about fossils and, given appropriate opportunities, such as the request for help from the folks of the Pioneer Trail Museum in Bowman, are willing to be supportive and cooperative.

* The author is an invertebrate research paleontologist with the Energy and Environmental Research Center and an associate professor in the UND Department of Geology and Geological Engineering.
A Symposium on the PALEONTOLOGY IN NORTH DAKOTA: FOSSILS AS A RESOURCE IN RESEARCH, EDUCATION, AND ECONOMICS

North Dakota Academy of Science 1992 Annual Meeting
University of North Dakota

Symposium Coordinators and Editors
Joseph H. Hartman and Allen J. Kihm

Symposium Agenda
April 30, 1992

Introduction (8:30-8:45 a.m.)

1) Fossils as a Resource in Research, Education, and Economics in North Dakota:
   Joseph H. Hartman, Energy and Environmental Research Center, University of North Dakota, Box 8213, University Station, Grand Forks, ND 58202 (701) 777-2551

Fossils as a Resource

2) Fossil Vertebrates as a Resource in Research, Education, and Economics in North Dakota:
   Allen J. Kihm (8:45-9:00 a.m.), Department of Earth Sciences, Minot State University, Minot, ND 58701 (701) 857-3864

3) Fossil Invertebrates as a Resource in Research, Education, and Economics in North Dakota:
   Joseph H. Hartman (9:00-9:15 a.m.), Energy and Environmental Research Center, Box 8213, University Station, Grand Forks, ND 58202 (701) 777-2551

4) Microfossils and Fossil Plants as Resources in Research, Education, and Economics in North Dakota:
   Timothy J. Kroeger (9:15-9:30 a.m.), Department of Geology and Geological Engineering, University of North Dakota, Grand Forks, ND 58202 (701) 777-2821

5) Quaternary Fossils as a Resource in Research, Education, and Economics in North Dakota:
   Allan C. Ashworth (9:30-9:45 a.m.), Department of Geosciences, North Dakota State University, Fargo, ND 58105 (701) 237-7919

Coffee/Discussion Break (9:45-10:00 a.m.)

Management and Utilization of Fossils as a Resource

   John W. Hoganson (10:00-10:15 a.m.), North Dakota Geological Survey, 600 East Boulevard Avenue, Bismarck, ND 58505 (701) 224-4109

7) The Role of the Federal Government in the Management of Fossil Resources:
   Dale Hanson (10:15-10:30 a.m.), Bureau of Land Management, P.O. Box 940, Miles City, MT 69337 (406) 232-4331

8) The Perspective of the Hobbyist in the Utilization of the Fossil Resources of North Dakota:
   Earle H. Campbell (10:30-10:45 a.m.), P.O. Box 1921, Bismarck, ND 58502 (701) 255-3658

9) Access and Utilization of the Fossil Resources of North Dakota in Primary Education:
   Mike Barnhart (10:45-11:00 a.m.), Center High School, Center, ND 58530 (2704 10th Avenue NW, Mandan, ND 58554) (701) 663-4980

Summary and Discussion (11:00-11:30 a.m.)

10) Summary and Diagnosis of Paleontology in North Dakota:
    Allen J. Kihm (11:00-11:10 a.m.), Department of Earth Sciences, Minot State University, Minot, ND 58701 (701) 857-3864

The symposium coordinators wish to acknowledge and specifically thank the Energy and Environmental Research Center for providing support for clerical and sundry expenses for this Academy meeting.