

Fossils



17. Do you have any literature on fossils, dinosaurs, and collecting sites in Oklahoma?

A handout, "Information Regarding Mineral/Rock/Fossil Collecting in Oklahoma," by OGS geologist James R. Chaplin, lists publications (technical and nontechnical) on Oklahoma fossils and describes some places where fossils can be found. Several recent field-trip guidebooks, suitable for nongeologists, contain brief summaries of some Oklahoma fossils.

Most of the literature on Oklahoma fossils and dinosaurs available from the OGS is technical. Different aspects of Oklahoma paleontology are being studied by geologists at the University of Oklahoma, Oklahoma State University, the University of Tulsa, and the Sam Noble Oklahoma Museum of Natural History (Appendix 5). This work is published by the OGS and in professional journals. The Museum has several vertebrate paleontologists who can answer many questions about Oklahoma dinosaurs.

Fossils (e.g., Fig. 4) may be collected at many places in Oklahoma in addition to those listed by Chaplin. Many road cuts in far southeastern Oklahoma expose fossiliferous Cretaceous limestone (Appendix 6). Plant fossils, including leaf and stem impressions, are common in Pennsylvanian rocks of eastern Oklahoma (except in the Ouachita Mountains). Marine invertebrate fossils occur in some of the limestone formations in the Ozarks and in Pennsylvanian formations in north-central Oklahoma. In the Arbuckle Mountains, many outcrops and road cuts contain fossils ranging in age from Ordovician to Pennsylvanian. A popular locality for collecting a wide variety of well-preserved fossils is White Mound, near Dougherty (Appendix 5); a fee is charged for collecting there.

Dinosaur bones have been found in southeastern Oklahoma and the Panhandle; however, collecting vertebrate (which include dinosaur) fossils is prohibited on public land (see question 19).

Rock, mineral, and fossil clubs (Appendix 4) are excellent sources of information about collecting sites in Oklahoma. They often go on collecting trips and welcome new members and visitors.

Fossil collecting is a popular pastime for many Oklahomans. *Keep in mind:* (1) don't trespass on private land, (2) use common sense and obey traffic regulations if stopping at a road cut, and (3) collecting vertebrate fossils on public land is illegal.

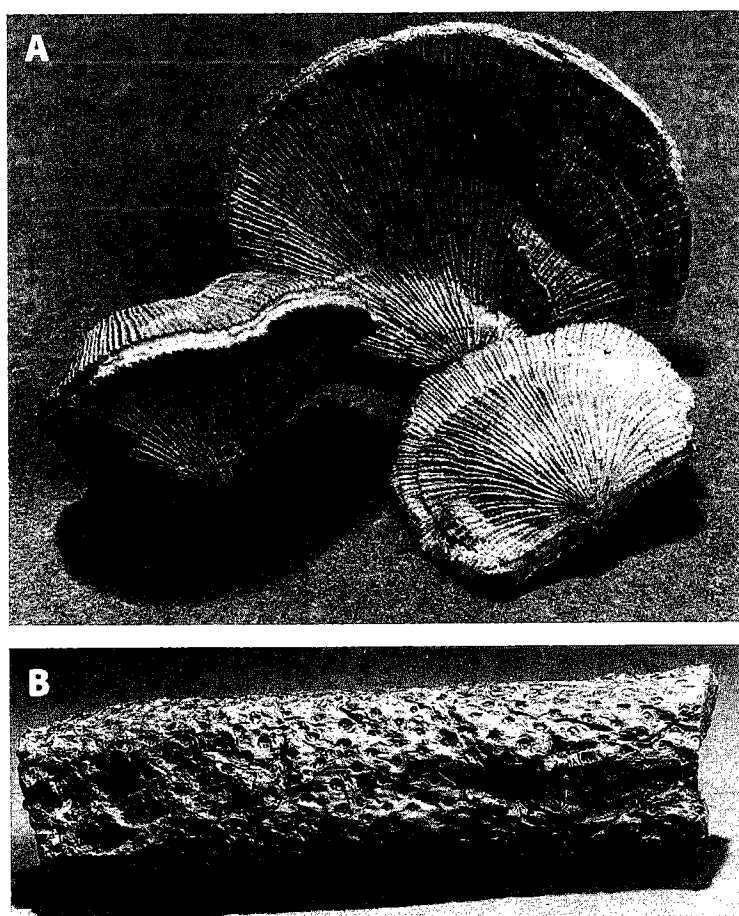


Figure 4 (question 17). Photographs of common Oklahoma animal (A) and plant (B) fossils. (A) Brachiopod *Derbyia crassa*. Brachiopods are a bivalve (two shells) in which each shell is symmetrical. *D. crassa* is found in some Pennsylvanian-aged limestones and shales in Oklahoma. Scale: large brachiopod in rear is 2 inches across. (B) Cast of *Stigmara*, the underground or rootlike part of lycopods. Lycopods comprise about 20% of the fossil plants found in Pennsylvanian-aged sedimentary rocks. Most were large trees with narrow grass-like leaves. They were among the largest plants in the Pennsylvanian swamps, some being over 100 feet tall with trunks 3 to 4 feet in diameter. (Photographs by Robert Taylor, OU Electronic Media and Photographic Services.)