

ACTINOPTERYGIAN FISHES FROM UPPER CRETACEOUS ROCKS IN ALABAMA, WITH EMPHASIS ON THE TELEOSTEAN GENUS *ENCHODUS*

JASON P. SCHEIN¹ and RONALD D. LEWIS²

¹Department of Bioscience and Biotechnology, Drexel University, 3141 Chestnut Street, Philadelphia, Pennsylvania 19104, U.S.A., scheijp@drexel.edu; and,

Bureau of Natural History, New Jersey State Museum, PO Box 530, Trenton, NJ 08625;

²Department of Geology and Geography, Auburn University, Auburn, Alabama 36849, U.S.A., lewisrd@auburn.edu

ABSTRACT

Historically, Alabama has benefited from a wealth of vertebrate fossils, especially those from the Upper Cretaceous rock units of the Gulf Coastal Plain. However, fossils from this region have been the subject of disproportionately little scientific interest in recent years. In this study, we reassess the diversity, relative abundance, and stratigraphic distribution of Late Cretaceous actinopterygian fishes from the west-central portion of the state. Surveys of three museum collections in Alabama identified 1,031 curated actinopterygian specimens, including at least 18 genera, three of which (*Phacodus*, *Lepisosteus*, and *Plethodus*) have not been reported previously from the Cretaceous units in the state. The greatest diversity (15 genera) and majority of remains (79.3%) have been recovered from the upper Santonian to middle Campanian Mooreville Chalk. The surveys confirmed that the Mooreville Chalk, as well as the entire Upper Cretaceous sequence in this region, contains the most diverse assemblage of actinopterygians in eastern North America. The most commonly encountered taxon throughout the rock sequence, and the only one found in each unit, is the teleostean genus *Enchodus* Agassiz. Examination of *Enchodus* specimens reveals the following biostratigraphic distributions in Alabama: *E. petrosus* Cope, 1874, dominating Santonian to middle Campanian strata; *E. gladiolus*, Cope, 1872, being rare in Santonian to Middle Campanian rocks; and *E. ferox* Leidy, 1855, being rare in upper Santonian and Campanian sediments, and is the only species in the Maastrichtian strata. Basic diversity and abundance data such as this is essential to revitalize paleontological research of many vertebrate groups in the state.