FORAMINIFERA, PALEOECOLOGY, AND BIOSTRATIGRAPHY OF THE PALEOCENCE "OSTREA THIRSAE BEDS" NANAFALIA FORMATION (WILCOX GROUP), WEST-CENTRAL ALABAMA

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ABSTRACT

Eighty-four species of Formanifera are recognized in the "Ostrea thirsae Beds" at the type locality and in the type area of the Wilcox Group in west-central Alabama. Benthonic species comprise 96 percent of the total foraminiferal fauna. Anomalinoides umboniferus (Schwager) is the dominant element, averaging 45 percent of the total population, but ranging from eight to a maximum of 81 percent of the population of any one sample. Important subordinate benthonic species include Lenticulina midwayensis (Plummer), Discorbis washburni Garrett, Eponides lotus (Schwager), Cibicides howelli Toulmin, Gyroidinoides octocameratus (Cushman and Hanna), and Pulsiphonina wilcoxensis (Cushman). Discorbis washburni Garrett and Gyroidinoides lottensis (Garrett) are persistant benthonic species restricted to the "Ostrea thirsae Beds". Paleoecologic interpretation of the "Ostrea thirsae Beds" indicates accumulation within the middle-neritic (depths of 50 to 300 feet) marine environment with open-marine circulation.

Planktonic coraminifera are represented by seventeen species. Globorotalia pseudomenardii Bolli and Globorotalia pusilla laevigata Bolli establish the beds as middle Late Paleocene in age, equivalent to the upper part of the type Thanetian State in Europe. The range zone of Globorotalia pseudomenardii appears to have a worldwide geographic distribution, providing for biostratigraphic correlation of the "Ostrea thirsae Beds" with Europe, the Mediterranean, Southern India, the Soviet Union, and Australia, as well as North and South America.