SOME FLORIDA UPPER MIOCENE BRYOZOA: POLEOECOLOGY AND TAXONOMY

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ABSTRACT

The Bryozoans of the Arca, Ecphora, and Cancellaria biofacies of Upper Miocene age of northwestern Florida are reviewed and the taxonomy is revised. The Arca biofacies contains scattered fragments of three species. Because of the pareity of the Bryozoan fauna, little additional information can be added to the present knowledge of the paleoecology of the Arca biofacies. The fauna of the Ecphora and Cancellaria zones is now known to number 41 species, of which 22 are here first reported from the Choctawhatchee deposits. In addition, the biozones of two Recent species not known as fossils are extended to the Miocene. The total assemblage most closely resembles the Recent fauna in the Gulf of Mexico. Based on a review of the ecology of extant Bryozoan species, the Ecphora and Cancellaria biofacies are interpreted as subtropical or warm temperate, shallow water deposits. The minimum winter temperature is fixed at 14° C. and the maximum depth of deposition is estimated to be about 100 feet. Vinculariform Bryozoans are absent in the Cancellaria biofacies and are present in the Ecphora; thus, stronger currents are indicated for the Cancellaria. The Bryozoan suite is useful for paleoecologic interpretations. However, the presumed index Tremogasterina horrida reported by Canu and Bassler (1923) was not recovered by this writer from these deposits. Since the majority of the other species range from Miocene to Recent, the usefulness of the assemblage as a stratigraphic guide is limited at present.