



Sequence Stratigraphy of the Upper Paleocene Foralgal Reef, Salt Mountain Limestone, Alabama: New Evidence of a Lowstand Systems Tract

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ABSTRACT

This study utilizes sequence stratigraphic evidence to investigate the systems tract in the foralgal reef bed, Salt Mountain, Alabama. The foralgal bed is 16 m thick, consisting of highly fossiliferous limestone, and mostly grainstone to boundstone. This reef characterized by red coralline algae (*Archaeolithothamnium* sp., and two species of corals (*Stylophora ponderosa* and *Oculina* sp.), echinoderms, and ostracods. Foraminifera are also common. Planktonic foraminifera observed include: *Eoglobigerina eobulloides*, *Igorina albeari*?, *Subbotina cancellata*, *Subbotina velascoensis*, *Parasubbotina* variant, and *Parasubbotina pseudobulloides*, and *Zeauvigerina* sp. Benthic foraminifera included in this section include: *Anomalinoidea acutus*, *Anomalinoidea midwayensis*, *Discocyclusina cookie*, *Discocyclusina weaveri*, and *Ranikothalia catenula*. This limestone bed has different algal facies development, and the algal facies help to identify the parasequences and maximum flooding surfaces. We observe four parasequences and maximum flooding surfaces in this outcrop. The changing facies are associated with changing the grain size and sea level.

The interpretation of this reef is based on the algal form associated with the sizeable benthic foraminifera. The alternations of the red coralline algae in this section have been recognized in this reef as frondose and crustose forms. There are four frondose algae and four crustose algae. Accommodation and sediment supply seem to influence system tract development. Based on statistical observations of change in the algal forms, this section

has a highly crustose algal form more than frondose algal form, which seems to be excellent evidence of a lowstand systems tract