

Refining Middle Eocene Planktonic Biostratigraphy

Shari L. Hilding-Kronforst¹, Bridget S. Wade²

¹ Department of Geology and Geophysics Texas A&M University College Station Texas USA

² School of Earth and Environment University of Leeds United Kingdom, and Department of Geology and Geophysics Texas A&M University College Station Texas USA

The Eocene cyclostratigraphic gap (53 to 42 Ma) has so far prevented extension of the astronomical time scale through the lower Paleogene. This study examines planktonic foraminiferal assemblages from Ocean Drilling Project (ODP) Leg 171B, Site 1051, Blake Nose in the western North Atlantic Ocean. Planktonic foraminifera are studied from 119 to 280 meters below seafloor at Site 1051A, corresponding to magnetostratigraphic C21r to C18r of the Middle Eocene. All planktonic foraminifera are well preserved (although recrystallized) and assemblages are diverse with common *Acarinina*, *Globigerinatheka*, *Subbotina*, and *Turborotalia* genera.

Quantitative biostratigraphy reveals highest and lowest occurrences of *Turborotalia frontosa*, *Guembelitrioides nuttalli*, *Morozovelloides aragonensis*, *Globigerinatheka kugleri*, *Morozovelloides lehneri*, and allows for significant revision and recalibration of planktonic foraminifera zones E7b through E11.

As the foraminiferal biostratigraphy provides an important tool for unraveling dynamic changes through the middle Eocene, correlation with stable isotopic records will provide chronostratigraphic control and enhance our understanding of the middle Eocene. This study provides an important tool for unraveling dynamic changes resulting in a biostratigraphic and climatic record for the middle Eocene.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Berichte der Geologischen Bundesanstalt](#)

Jahr/Year: 2011

Band/Volume: [85](#)

Autor(en)/Author(s): Hilding-Kronforst Shari L., Wade Bridget S.

Artikel/Article: [Refining Middle Eocene Planktonic Biostratigraphy 89](#)