



## EARLY TO MIDDLE EOCENE RADIOLARIAN BIOSTRATIGRAPHY FOR THE MID-LATITUDE SOUTH ATLANTIC OCEAN, SITE 356, DSDP LEG 39.

Alexandre Lourenço de Souza <sup>a,\*</sup>, Valesca Maria Portilla Eilert <sup>a</sup>, Thays de Souza Lima Fidalgo <sup>a</sup>, João Graciano Mendonça Filho <sup>a</sup>

<sup>a</sup> Universidade Federal do Rio de Janeiro, Instituto de Geociências/Departamento de Geologia, Laboratório de Palinofácies & Fácies Orgânica. Av. Athos das Silveira Ramos, 274, Cidade Universitária, Ilha do Fundão, 21.941-916, Rio de Janeiro, Brazil.

\*Corresponding author.

E-mail addresses: alexandre@lafo.geologia.ufrj.br (A.L. Souza), eilert@lafo.geologia.ufrj.br (V.M.P. Eilert), thaysfidalgo@lafo.geologia.ufrj.br (T.S.L. Fidalgo), graciano@geologia.ufrj.br (J.G. Mendonça Filho)

### Abstract

Radiolarian assemblages from mid-latitude Site 356, drilled on the São Paulo Plateau, Santos Basin, South Atlantic, are studied in this work. A total of 124 radiolarian events from the early to middle Eocene are identified at this site. As a consequence of a lithological change at 218.50 mbsf, a decline in both radiolarian preservation and abundance was noticed. Previous lithological analyses carried out at this site revealed a hiatus from the uppermost middle Eocene to the lowermost Miocene. This hiatus is substantiated by the stratigraphic distribution of radiolarian assemblages. The standard radiolarian zonation for low latitudes is used for the Site 356 cores, and allowed the identification of the zones *Podocyrtes (Lampterium) mitra* (RP14), *Podocyrtes (Podocyrtes) ampla* (RP13), *Thyrsocyrtis triacantha* (RP12), *Dictyoprora mongolfieri* (RP11) and *Theocotyle cryptocephala* (RP10), from the middle Eocene, and *Phormocyrtis striata striata* (RP9) from the early Eocene. The biostratigraphic results from the Eocene section at Site 356 in mid-latitude are compared to others from low and mid-latitudes, revealing that the range of some key species present differences relative to the tropics, and similarities to other studies from mid-latitudes.

Keywords: Radiolarians, Biostratigraphy, Eocene, Santos Basin, South Atlantic

### 1. Introduction

During Deep Sea Drilling Project (DSDP) Leg 39, sediments from Albian to Pleistocene were drilled at Site 356, on São Paulo Plateau. This physiographic feature lies in the Santos Basin, on the Brazilian continental margin, in the South

Download English Version:

<https://daneshyari.com/en/article/5788179>

Download Persian Version:

<https://daneshyari.com/article/5788179>

[Daneshyari.com](https://daneshyari.com)