

Biostratigraphy in the Foz do Amazonas Basin: A multidisciplinary approach

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The Foz do Amazonas Basin – the northernmost offshore sedimentary basin in Brazil – is an area of renewed interest for the petroleum industry due to recent hydrocarbon discoveries in neighboring French Guiana. Because the basin was positioned in the tropics throughout the Cenozoic, it is a poorly-represented region for palaeoenvironmental studies. However, it also has the potential to contain valuable environmental records that span the major intervals of global climate change. While there has been work on shelf sediments, such as the Amapá Formation carbonates and the Amazon Cone, little work has been published on the deeper-water sediments, the fine-grained nature of which may yield well-preserved microfossils, and therefore biostratigraphic and geochemical signals. ‘Well 2’ was drilled on the shelf slope at an approximate 750 m water depth and provides an almost continuous section of Middle Eocene to Pleistocene mudstones and siltstones. Here, we present the results of a calcareous nannofossil biostratigraphic analysis of ‘Well 2’ that was integrated at key Cenozoic intervals with planktonic foraminiferal biostratigraphy, as well as a compilation of other published biostratigraphic data from the basin, with a view to providing a framework for the development of age models in the region.