

Pliocene–Holocene calcareous nannofossils from the Sergipe-Alagoas Basin (Piston Core SA5-0033): A preliminary study

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The objective of the present study was to identify calcareous nannofossils in seven samples collected between 40 and 100 cm in piston core SA5-0033 that the National Petroleum Agency of Brazil drilled in the Sergipe-Alagoas Basin. A 1-m section in this well can be subdivided into three sedimentary facies – carbonaceous mud with 20% bioclasts (100–90 cm), marl with bioclasts (90–10 cm) and carbonaceous mud (10–0 cm). The samples were prepared using the random decantation method of Antunes (1997), using two adaptations – the use of Norland optical adhesive and allowing the sample to settle for four minutes. The interval studied contains a very rich and diversified calcareous nannofossil assemblage from the Pliocene to Holocene, with a total of 37 species – 23 species of coccolithophores and 14 species related to ascidians, braarudospheres, discoasters and calcareous dinoflagellates. The dissolution was more evident in the thoracospheres that are related to the calcareous dinoflagellates. Three poorly-preserved specimens were observed at 90 cm, and another individual at 70 cm, and it was possible to recognize *Discoaster* cf. *D. brouweri*, *D.* cf. *D. asymmetricus* and *Discoaster* cf. *D. pansulus*, which may indicate that deposition occurred in the Pliocene. As this study continues, we intend to confirm oscillation in the fossil composition and review the influence of geological and paleoceanographic events. [IODP/CAPES 8888.091703/2014-01].

References

Antunes, R.L. 1997. *Introdução ao estudo dos nanofósseis calcários*. Rio de Janeiro, Instituto de Geociências – UFRJ: 115 pp.