



## ***Antarcticella*: a Paleogene typical foraminiferal genus from southernmost South America**

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The Patagonian and Fuegian regions conform a wide latitudinal and chronostratigraphical study area, where the abundant calcareous benthic foraminifera endemic to the Austral high and high-mid latitudes, have a partially or totally tuberculate surface. Among them, is the extinct *Antarcticella*, a small globular genus initially regarded as planktonic. The oldest species, *A. pauciloculata* (Jenkins), is widespread in the Danian from Patagonia, Antarctica, and New Zealand; the subsequent *A. cecionii* (Cañón and Ernst) is constrained to the Fuegian early and early middle Eocene; there is no record of *Antarcticella* from the mid middle Eocene, partially due to a sedimentary gap. The youngest, and type species *A. antarctica* (Leckie and Webb), originally recorded from the latest Oligocene up to early Miocene of Antarctica, ranges from the late Eocene up to the middle Miocene, reaching the maximum latitudinal distribution of the genus in the latest Oligocene-early Miocene, from the Austral Basin up to Península Valdés Basin (43°S). Because extreme morphotypes of megalospheric forms of the three species exhibit some preferential paleogeographical distribution and have a very different morphological aspect from the typical microspheric ones, they are informally named as infrasubspecific entities: *A. pauciloculata* forma primitiva, from the Danian of the Colorado and Golfo de San Jorge basins; *A. cecionii* forma noguerense and *A. cecionii* forma buenoense, from the Austral Basin lower Eocene and lower mid Eocene, respectively, and *A. antarctica* forma incognita, from the Austral Basin upper Eocene. The marked dimorphism, unknown in planktonic foraminifera, confirms the benthic paleohabit of *Antarcticella*. Its distribution in different paleoenvironments points to an opportunistic behavior, and its abundance in organic-rich paleoenvironments is consistent with the preferences of modern infaunal spherical morphotypes. The distribution of this genus reveals the major penetration of Antarctic waters in Patagonia in the latest Oligocene-early Miocene.

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