

The Morphology of Southern Brazilian Continental Shelf

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The morphology of the Southern Brazilian continental shelf between Cabo Frio (RJ) and Chuí (RS) is, in general, very homogeneous. Between Cabo Frio (RJ) and the São Sebastião Island (SP), the bathymetric lines are sinuous due to the presence of many valleys, probably the remnants of ancient river drainage. Between São Sebastião Island (SP) and Santa Catarina Island (SC), the continental shelf is wider, and the isobath tracing is narrower. There are fewer valleys in this area, but they are much wider than those seen in the previous segment. Between Santa Catarina Island (SC) and Mostardas (RS), the continental shelf becomes narrow, with a homogeneous tracing. From Mostardas (RS) down to Chuí (RS), the continental shelf is wider, and cut by many valleys belonging to river paleodrainages, and presents many sand banks. This part of the southern Brazilian continental shelf has undergone the greatest number of morphological changes. Throughout the continental shelf studied, the presence of many different sea levels, with considerably steeper slopes, is observed. These old sea levels can be followed from Cabo Frio (RJ) to Chuí (RS), and are observed at depths of -20/-25m, -32/-45m, -60/-70m, -100/-110m and -120/-130m. As a result of studies the author proposes the level of -120/-130m as the limit of maximum Pleistocene regression, which occurred 17,500 years B.P.