

WARM WATER MOLLUSCS IN THE MARINE QUATERNARY OF URUGUAY

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The focus of this contribution is a preliminary analysis on the presence of warm water molluscs in the Quaternary of Uruguay and their implications for paleoenvironmental reconstruction. The marine Quaternary deposits in Uruguay outcrop from the mouth of the Negro River to the margins of the Merin Lagoon, along a narrow strip parallel to the present coastline, and they are characterized by the presence of abundant mollusk shells. The analysis of the molluscan content of Pleistocene and Holocene deposits (radiocarbon dated), revealed the existence of thermophilic bivalves and gastropods whose current southernmost limit of distribution is situated in Brazilian waters. *Littoraria flava*, *Cerithiopsis greenii*, *Seila adamsii*, *Marshallora nigrocincta*, *Chrysallida gemmulosa*, *Miralda* sp., *Bulla striata* (Gastropoda); *Limaria* sp., *Laevicardium* sp., *Mactra* cf. *M. fragilis*, *Macoma constricta*, *Nioche subrostrata* and *Anomalocardia brasiliensis* (Bivalvia) are the taxa in consideration. Usually, they are not numerically important in the malacological assemblages. Only *A. brasiliensis* is dominant in some localities, being also the most widespread species in the deposits. From a geographic viewpoint, despite the majority of them are recorded sporadically, they are present in the deposits situated in the west, south and east of the country. Warm water species were found in both Pleistocene and Holocene strata, but most are restricted to one of them, being *N. subrostrata* and *A. brasiliensis* the only represented both in Pleistocene and Holocene outcrops. Up to now we have not found any common ecologic constraint –except temperature– that could explain the geographic restriction at present times. Among them are represented sandy burrowers, rocky dwellers, suspensive feeders, detritus feeders, carnivorous, ectoparasites, and species that would be able to live in the salinity regimes currently present in the Uruguayan waters. The presence of these thermophilic mollusks in the marine Quaternary of Uruguay is in agreement with the specific composition of the whole molluscan fauna, both pointing to warmer temperatures in the considered area. They show not only a history of climatic change in the South Atlantic but also a biologic response to those changes, evidenced by their biogeographic distribution since the Quaternary. This is a contribution to CSIC project “Moluscos de aguas cálidas en el Cuaternario marino de Uruguay: implicancias paleobiogeográficas, paleoecológicas y paleoambientales”.