

## The Neogene strombid gastropod *Persististrombus* in the Paratethys Sea

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Strombids are frequent fossils in Neogene nearshore deposits but are rarely used for biostratigraphy due to their poorly defined stratigraphic ranges. Herein, we document the biostratigraphic value of the group based on a succession of short-lived distinct species in Neogene deposits in the circum-Mediterranean area. These have been intermingled so far into two “super-species”, viz. *Persististrombus bonelli* and *P. coronatus*, seemingly ranging from the Oligocene to the Pliocene. Based on morphometric measurements on 219 specimens we refine the taxonomic concept for this group and document at least 5 distinct species of high biostratigraphic and biogeographic significance. European *Persististrombus* species display a tendency to produce strongly sculptured populations with marked spines or to form populations with elongate shells and reduced sculpture. The development of sculptured morphs is an iterative process as exceptionally sculptured taxa occur in stratigraphically and geographically discrete phases and areas. Yet, within these species the morphology is very variable. Although some of these taxa are distinct species, there is no continuous evolutionary lineage leading to the Pliocene *P. coronatus* with which some of these taxa were confused in the literature so far. Successfully reproducing populations of extant species of *Persististrombus* in the Panamic Province and the African–Eastern Atlantic Province are limited in their distribution by the 20<sup>o</sup> C isotherm. This value may thus be a realistic estimate for the cool-season sea surface temperatures for *Persististrombus*-bearing formations. *Persististrombus pannonicus* sp. nov. is established for a late Badenian species.

**Key words:** Gastropoda, Strombidae, *Persististrombus*, paleobiogeography, Miocene, Paratethys Sea, Mediterranean Sea.

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