

mentioned species (*C. cypridioides* is restricted to the Deurne Sands) are very common throughout the Belgian Miocene, and form the basis of the ostracod associations, and are therefore important for paleoenvironmental reconstruction. Species of the genera *Sarsicytheridea*, *Cytheridea*, *Pontocythere*, *Muellerina* are sand-dwelling animals. It is therefore not surprising that precisely those species are attacked by naticid gastropods which live in the same environment. The presumed selective predation is only a result of thanatocoenosis analysis. In the biocoenosis naticids attack those ostracods which are living in their direct vicinity.

The analysis of bore-holes in ostracods confirm in this respect the paleoecological conclusions already drawn from faunal association analysis, namely the largely psamphilic character of the ostracod associations of the Belgian Miocene.

Gastropod Predation in some fossil and Recent corbulid Bivalves

by

GINO DE CAUWER

U.I.A. — K.B.I.N.

Several authors have raised the question whether gastropod drilling predation changed in intensity during the geologic record. Investigations mainly carried out on turritellid gastropods had suggested a major increase after the Mesozoic. Although the samples used for those investigations were small, the trend seemed real and had been stated also to occur on other prey animals. In the present study some of the data on corbulids previously used, were critically re-analysed and some other samples were studied personally. Several problems arose. Some are basically taphonomic: damaging and destruction of valves before and after death cause bias in every estimate of predation frequency. Valve transport after death must also be considered as a cause of bias. Other problems were caused by the integration of data of other authors: there is no apparent consensus in the counting methods, and some authors even use methods which may be subject to bias. Corbulid bivalves add, because of their periostracum-like layers in the shell, an additional taphonomic problem. These layers are the cause of the unusual morphology of many of the drill-holes on corbulid valves. As a result of this, it is impossible at present to distinguish on corbulids between naticid and muricid drill-holes.

Our results do not support the hypothesis of previous investigators: gastropod predation on corbulids seems not to have changed noticeably during the geologic record; the only possible difference might have taken place before the end of the Mesozoic (and not afterwards as was stated previously). Local differences in predation intensity at a given geologic moment were confirmed. Additionally the contradiction between fairly high predation intensities and the large proportion of unsuccessful drill-holes was noticed. Corbulidae seem to have very adaptive defense-mechanisms, yet predators still attack them. Further study of the impact of large prey-clusters on the preying behaviour of gastropod predators may help finding an explanation.

Ichnofossils from the Merksem Sands (Lower Pleistocene) in the Antwerp harbour area

by

ROBERT MARQUET

R.U.C.A.

During the construction of the Berendrechtsluis, a new sealock, north of Antwerp, the Merksem Sands (Lillo Fm.) were exposed at between — 6 and — 22 m below sea level. They were covered by the late Pleistocene Zandvliet Sands, Holocene peat and modern deposits. The Merksem Sands show an alternation of loose, sandy sediments and harder, consolidated layers with a much more fine grained sediment. Body fossils are absent because of the decalcification of the sediment. Ichno-fossils are preserved as full reliefs in the loose layers and as convex epireliefs in the harder banks. They become rarer to the top of the Merksem Sands and are lacking in the Zandvliet Sands.

On the hard layers four ichnogenera were found: *Subphyllochorda* and *Cardioichnus*