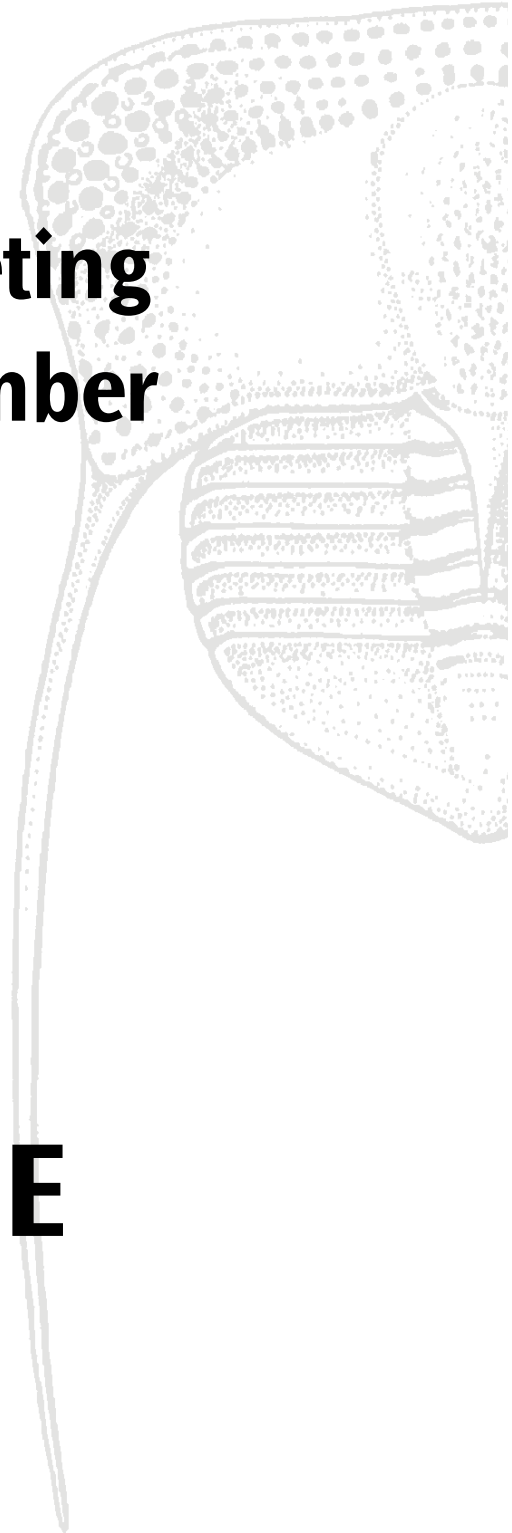


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ABSTRACTS**





Testing the ecological stability of mollusc communities in tropical reefs through the Quaternary: a new approach based on corporations

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The ecological response of reef communities to severe climate change – such as the Pleistocene glaciations or modern global warming – has received much attention from ecologists and palaeontologists. Most studies focus on reef corals but little is known about other reef organisms, such as molluscs. We studied Pleistocene and Holocene mollusc communities to assess their ecological stability through time. These communities are extremely diverse in the modern tropics and well represented in the Pleistocene fossil record. The great diversity and variable ecology of molluscs call for a modification of methods that are usually applied to assessing stability in coral communities. We compared modern communities from the Red Sea (Egypt) with fossil assemblages by degrading modern assemblages considering a preservation probability for each species and by applying sub-sampling methods. Community stability was assessed by changes in community structure revealed by “corporations”, which are similar to ecological guilds but differing in the definition of the resources exploited. Corporations are hierarchically organized allowing their utilisation over large temporal and spatial scales. Preliminary results suggest that the ecological structure of mollusc communities is more stable through time than suggested by taxonomic analyses.

Early ostracods from the Ordovician (Tremadocian) of Iran

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Earliest Ordovician (Tremadocian) ostracod biodiversity was low, with just three (possibly four genera) and perhaps a dozen species. New Tremadocian ostracod material from the Alborz Mountains of Iran confirms the early and widespread occurrence of the Ordovician genus *Nanopsis* – from South America to the Baltic, and the apparently simultaneous first appearance of ostracods in the fossil record at about the level of the ‘*P. deltifer*’ conodont biozone (ca. 483.5 Ma) from China to Argentina. The presence of Early Ordovician ostracods in Alborz, their occurrence elsewhere in Gondwana, Baltica and China coupled to their marked absence from the Tremadocian of Laurentia and Siberia, hints at an earliest occurrence of ostracods centred on Gondwana/Baltica.



The chitinozoans of the ravine 700 m east section of Neuville-sous-Huy, Condroz Inlier, Belgium (Upper Llandovery to middle Wenlock)

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The ravine 700 m east of the Parc de la Neuville is situated in Neuville-sous-Huy, central Condroz Inlier, Belgium. The 200 m thick sequence ranges from the Telychian up to the middle Wenlock. A restudy in detail of this section has led to a lithostratigraphical division into 6 units. Red fine siltstones occur in units 1, 2 and 4. We could distinguish 11 volcanic or volcanoclastic interbedded layers. Almost each of them has his own characteristics that distinguish themselves from the other volcanic or volcanoclastic layers. Chitinozoans were sampled from 54 samples. Although some beds contain only poorly preserved chitinozoans, other beds contain a diverse and moderately to sometimes well preserved chitinozoan assemblages. The biostratigraphical results of the chitinozoans and calibration with the graptolite biozonation will be presented.

Cyrtospiriferid brachiopods from the mid-Late Devonian of southern Belgium (Namur-Dinant Basin)

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Brachiopods of the family Cyrtospiriferidae (Spiriferida) proliferated in the argillaceous environments of the Namur-Dinant Basin (southeastern margin of Laurussia) during the Late Frasnian and the Early Famennian (*rhenana* to *triangularis* conodont zones). Study of abundant material collected on both sides of the Frasnian/Famennian boundary led to the recognition of a quite diverse cyrtospiriferid fauna represented by 16 species belonging or temporarily assigned to the genera *Cyrtospirifer*, *Tenticospirifer*, *Sinospirifer*, *Tiocyrtopsis*, ‘*Cyrtopsis*’ and ‘*Pseudocyrtopsis*’. Moreover, three cyrtospiriferid interval zones are proposed for the Late Frasnian of southern Belgium. In this area, the last Frasnian cyrtospiriferid occurrence is recorded with certainty in the Upper *rhenana* Zone. Soon after the Frasnian/Famennian boundary, cyrtospiriferids re-appeared (Lower?/Middle *triangularis* zones) and re-diversified rapidly; they became again one of the dominant members of the brachiopod fauna. The Early Famennian is also characterized by the development of the Cyrtospirinae which progressively supplanted the Cyrtospiriferinae. However, our knowledge of Late Devonian cyrtospiriferid brachiopods from southern Belgium is still incomplete despite numerous studies and needs revision in order to document their story from the Late Givetian to the very Late Famennian (‘Strumian’) and to provide phylogenetic relationships.

Allometric trends in blastozoans: examples from the genus *Hyperoblastus* (Blastoidea, Fissiculata) from the Middle Devonian of the Rhenish Massif (Germany)

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Ontogenetic trends among blastozoans are poorly known, mostly because of the lack of appropriate and abundant material. Rare studies have focused on the most primitive