



ECHINODERMS FROM THE HUET FORMATION (UPPER ORDOVICIAN), BRABANT MASSIF (BELGIUM): TAXONOMIC REVISION, PALAEOECOLOGY AND PALAEOBIOGEOGRAPHIC IMPLICATIONS

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ECHINODERMS FROM THE HUET FORMATION (UPPER ORDOVICIAN), BRABANT MASSIF (BELGIUM): TAXONOMIC REVISION, PALAEOECOLOGY AND PALAEOBIOGEOGRAPHIC IMPLICATIONS

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In the Ordovician, the Brabant Massif (Belgium) was situated in the eastern part of the Avalonia microcontinent, which then also comprised eastern Newfoundland, southern Ireland, Wales, England, the Netherlands, southern Denmark and northwestern Germany. With the exception of the British Isles, which yielded a more or less continuous fossil record of the diversification of echinoderms from Cambrian Series 2 (Stage 3) to the Late Ordovician (Hirnantian), data are scarcer in most other Avalonian regions.

First documented by Malaise (1873) and thoroughly investigated by Regnell (1951), the echinoderm faunas from the Huet Formation (middle Katian, Upper Ordovician) represent the earliest record of the phylum not only in the Brabant Massif, but also in modern Belgium. Their recent taxonomic revision has largely confirmed the validity of Regnell's (1951) identifications and has also made it possible to assign to *Haplosphaeronis proiciens* most of the diploporean taxa left in open nomenclature (sphaeronitid gen. and sp. indet. 3, 4 and 5). Two distinct coeval echinoderm assemblages could be evidenced within the Huet Formation. The first one is dominated by sphaeronitids (*H. proiciens*), associated to rhombiferans (*Echinospaerites belgicus*) and rare cyclocystoids (Fauquez area), whereas the second one is dominated by rhombiferans (*E. belgicus* and *Helicrinites malaisei*), associated to sphaeronitids indet. and rare specimens of *H. proiciens* (Gembloux area). Future investigations will determine whether the same pattern, which documents the existence of different environmental conditions in the two areas, can be also evidenced for other groups of benthic invertebrates (e.g. brachiopods, trilobites).

From a palaeobiogeographic point of view, the blastozoans of the Huet Formation (diploporeans and rhombiferans) indicate relatively strong affinities with Late Ordovician assemblages from other Avalonian areas and Baltica, but also with late Katian faunas from the higher latitude Mediterranean Province (Boda Event). On the other hand, the cyclocystoids rather suggest affinities with Laurentia (Scotland).

References

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