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Regular talk

**THE DEVONIAN CORAL FAUNA OF THE BRUCHE VALLEY
(NORTHERN VOSGES MASSIF, FRANCE)**

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The Saxo-Thuringian zone of Western Europe displays rare Devonian sediments such as deep-water siliciclastics which are commonly metamorphosed. In some parts, however, carbonate sediments are preserved or only slightly affected by variscan metamorphism. In addition to Ossa Morena in Spain, the Northern Vosges in Eastern France is one of these rare points. In the Bruche river valley, west of Strasbourg, fossiliferous sediments are known to crop out. Fossil invertebrates from this location were described firstly by Jaekel (1888) who recognised *Calceola sandalina* and some stromatoporoids. The carbonates, quarried in the locality of Russ as an ornamental stone, form large lenses embedded in a coarse-grained siliciclastic matrix. Firtion (1957) described tabulate and rugose corals from the area and established a Givetian (Middle Devonian) age for the assemblage based on the occurrence of a single specimen of the brachiopod *Stringocephalus burkini* in a polished slab of the 'Marbre de Russ' in the church from this locality. After the updating of Firtion's (1957) taxonomic attributions the following genera are recognised from this area: *Calceola*, *Lekanophyllum*, *Mesophyllum*, *Cystiphyllodes*, *Acanthophyllum*, and *Xystriphyllum*.

Re-investigation of the Devonian carbonate of the Bruche river valley yielded a larger collection of rugose and tabulate corals among which include *Acanthophyllum* spp., *Mesophyllum* spp., *Cystiphyllodes* spp., *Dohmophyllum* sp., a putative *Siphonophrentis*, *Tryplasma* sp., *Synaptophyllum* sp. and *Zelophyllum* sp. However, the most abundant taxon is a small-sized fasciculate rugosa probably belonging to the genus *Fasciphyllum* but requiring a new specific name. The tabulate corals are represented by ramose *Coenites* sp., *Hillaepora* sp. and *Heliolites* spp. Stromatoporoids and chaetetid sponges are the other reef-building organisms. The coral fauna has is different from Givetian assemblages from other parts of Western Europe (Cantabria, Ardenne, Rhenish Schiefergebirge), and Eastern Europe (Carnic Alps, Pomerania, Bohemia) – lacking the typical disphyllids, sociophyllids and themnophyllids. The depauperate fauna, however, is more suggestive of an age older than the Givetian. Attempts to date with spores and conodonts have, so far, yielded inconclusive results.

The 'lenses' are not sedimentary bodies contemporaneous with the surrounding siliciclastic but form olistoliths in a flysch context, the size of the limestone blocks varying from a few millimetres up to 200 m-long and 40 m-thick. Some of the 'lenses' display boundstone facies that suggest a reefal origin, however the matrix and cement are usually recrystallized, precluding a correct sedimentological approach.

References

- Jaekel, O. 1888. Über middledevonische Schichten im Breuschtal. *Mitteilungen der Geologischen Landesanstalt von Elsass-Lothringen* 1: 1–229.
- Firtion, F. 1957. Les éléments paléontologiques dévoniens du Val de Bruche. *Annales universitatis Saraviensis Scientia* V-VI/2-3: 97–184.