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## A Lower Tournaisian (Hastarian) silicified brachiopod-coral fauna from South Belgium

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The Hun Member of the Yvoir Formation represents the uppermost part of the Hastarian Substage (Lower Tournaisian, Lower Carboniferous) in the southern part of the Condroz sedimentation area of the Namur-Dinant Basin (S Belgium). This 12 m-thick member is composed of sandy bioclastic limestone alternating with shale layers and cherts; it is interpreted as the lowstand system tract of the third order sequence #3 of Hance et al. (2001). In the Chansin quarry (Bocq valley), this member has yielded an abundant association of silicified fauna showing an exquisite preservation. The association is dominated by rugose and tabulate corals along with brachiopods whereas bryozoans, gastropods and trilobites are only minor components. The rugose corals fauna is composed of solitary trochoid, ceratoid or cylindroid forms belonging to *Amplexus coralloides*, cf. *Amplexizaphrentis* sp., *Bradyphyllum* sp., *Caninia cornucopiae*, *C.* aff. *cornucopiae*, *Caninophyllum patulum*, “*Lophophyllum*” *konincki*, *Proheterelasma omaliusi*, *Rotiphyllum* sp., *Saleelasma delepinei*, *Siphonophyllia cylindrica*, *Sychnoelasma konincki*, *Zaphrentites delanouei*, and *Zaphrentites* sp. The good preservation of some specimens allows the observation of the calicular features that are rarely observed in time-equivalent fauna. Moreover, several corals show coiled or attached protocorallites. The tabulate corals are mainly small-sized (5 cm in diameter) micheliniid colonies, cladochonids and isolated corallites of *Beaumontia*. The massive colonies commonly show growth rings and talons. This coral association corresponds to a moderate diversified level-bottom community in which the external morphologies converge towards a single habitus. The brachiopod fauna, which is currently under study, is quite diverse but dominated by spire-bearers: athyridides (e.g. *Lamellosathyris lamellosa*, *Coveenia* sp.), spiriferides (*Unispirifer* sp., *Tylothyris laminosa*), and spiriferinides (e.g. *Syringothyris* sp.). It also includes some productides, strophomenides (*Leptagonia* gr. *analoga*), orthotetides (*Shellwienella* sp.), orthides (*Rhipidomella michelini*), rhynchonellides and terebratulides. The degree of disarticulation of the shells is particularly high, especially among spiriferides and spiriferinides, and it is clear that they have been disturbed and displaced from their living position, but the transport was probably over a short distance as indicated by the preservation of some delicate structures (e.g. mucronate cardinal extremities, flanges). Such accumulations might have been produced by storm events as suggest by the non-orientation of the corals preserved in chert layers.