

Field excursion for the BVLG – June, 19th, 2021

**Classical and less classical sections in the Middle Devonian-Tournaisian  
in the Ourthe and Amblève valleys**



*Rocher Sainte-Anne Anticline in Tilff, seen from the opposite side of the Ourthe River.*

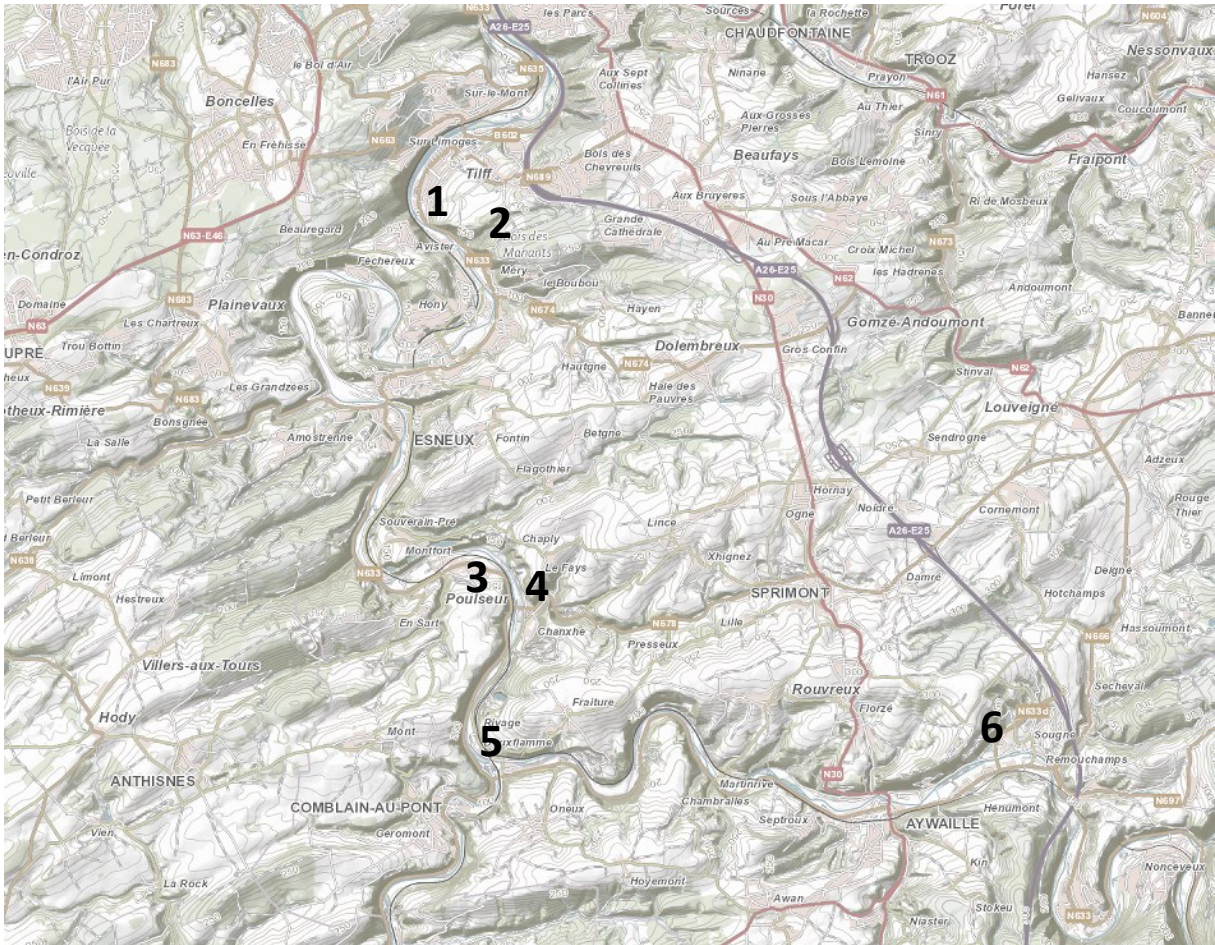
*Julien Denayer, Jean-Marc Marion, Cyrille Prestianni*

Service Géologique de Wallonie

Université de Liège

julien.denayer@spw.wallonie.be; jean-marc.marion@spw.wallonie.be; cyrille.prestianni@uliege.be

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### Programme :

- 10:00 Meeting and welcome speech – Rocher Sainte-Anne, Tilff
- 10:15 Givetian-Frasnian succession in the Rocher Sainte-Anne
- 11:00 Emsian ?-Frasnian succession in the Chawresse valley – karst and mines
- 12:45 lunch in Poulseur (Place Puissant, parking near the station) – GA of BVLG
- 14:00 Upper Famennian and Devonian-Carboniferous Boundary in Chanxhe (Rue du Pont)
- 15:00 Lower Tournaisian in Rivage (parking near the station, Rue de Rivage)
- 16:00 Middle-Upper Famennian in Remouchamps (Rue Trotofosse, parking near the motorway bridge)
- 17:00 Conclusion and farewell

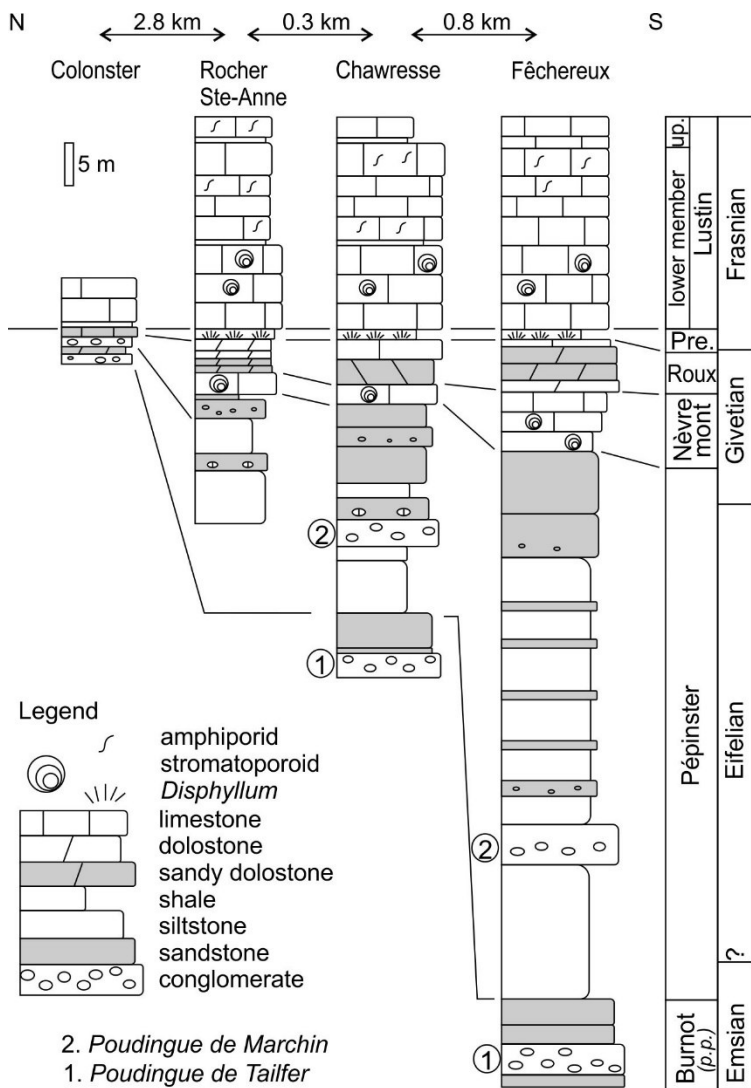


Fig. 1. Schematic lithostratigraphic column of the lower Ourthe area. Note that the middle Frasnian Lustin Formation is divided in two members separated by a pedogenetized cinerite. Abbreviations: Pre. = Presles Formation; mbr. = member. Modified after Marion et al. (in press), Vandenven (1979) and Fourmarier (1940).

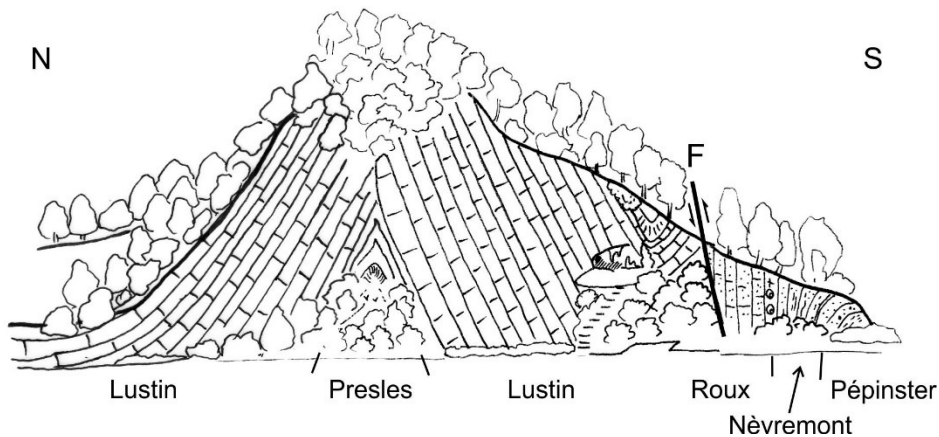


Fig. 2. Rocher Sainte-Anne and adjacent disused quarry exposing the (Eifelian-)Givetian-Frasnian succession.

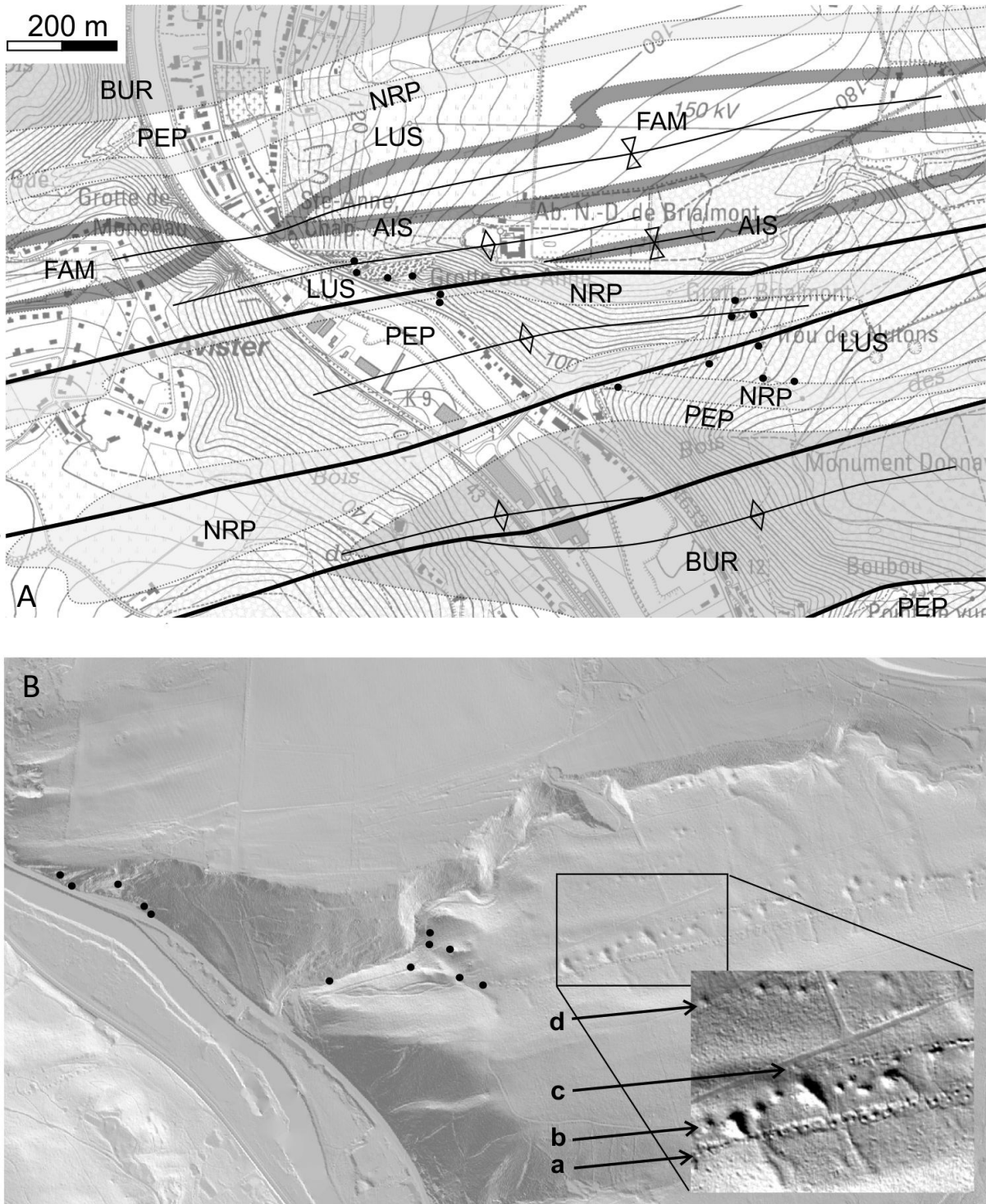


Fig. 3. A. Geological map of the Rocher Sainte-Anne – Chawresse area, after Marion et al. (in press). Legend : BUR : Burnot Formation ; PEP : Pépinster Formation ; NRP : Nèvreumont-Roux-Presles formations unit ; LUS : Lustin Formation ; AIS : Aisemont Formation ; FAM : Famenne Formation. Black dots represent the visited outcrops. B. Hillshade LIDAR image of the same area with a close-up view of the southern Chawresse zone showing (a) a line of iron mines at the Pépinster-Nèvreumont

interface, (b) a line of sinkholes in the Lustin Formation ; (c) a second line of iron mines, probably within the Aisemont Formation (between the shaly and calcareous members) ; d : second line of sinkhole in the Lustin Formation, on the northern flank of the syncline.

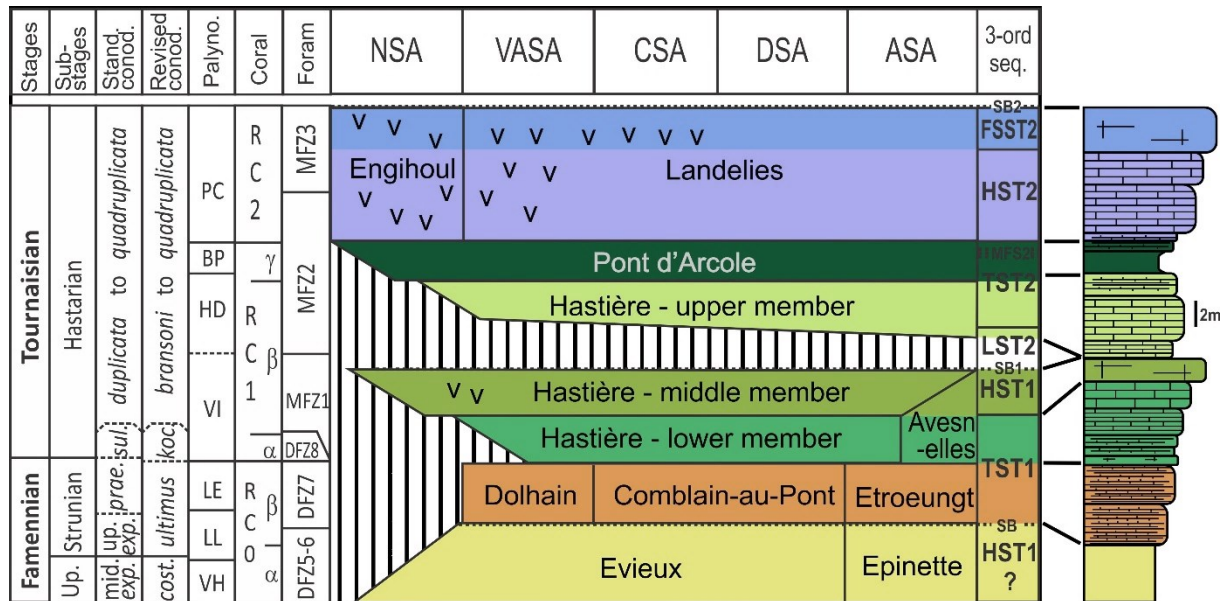


Fig. 4. Emended lithostratigraphic and biostratigraphic patterns of the Late Devonian and early Carboniferous in southeastern Belgium and surrounding areas with indication of the third-order sequences (modified from Poty, 2016). Abbreviations: ASA: South Avesnois sedimentation area; CSA: Condruz sedimentation area; DSA: Dinant sedimentation area; NSA: Namur sedimentation area; VASA: Vesdre–Aachen sedimentation area; 3-ord seq., third-order sequences. LST: lowstand system tract; TST: transgressive system tract; HST: highstand system tract; MFS: maximum flooding ‘surface’; SB: sequence boundary. Depositional hiatuses are indicated by striped pattern. Revised conodont zonation after Corradini et al. (2017) and Spalletta et al. (2017); Palynozones modified after Higgs et al. (1988) Rugose coral zones and foraminiferan biozones after Poty et al. (2006). Modified after Denayer et al. (2020).

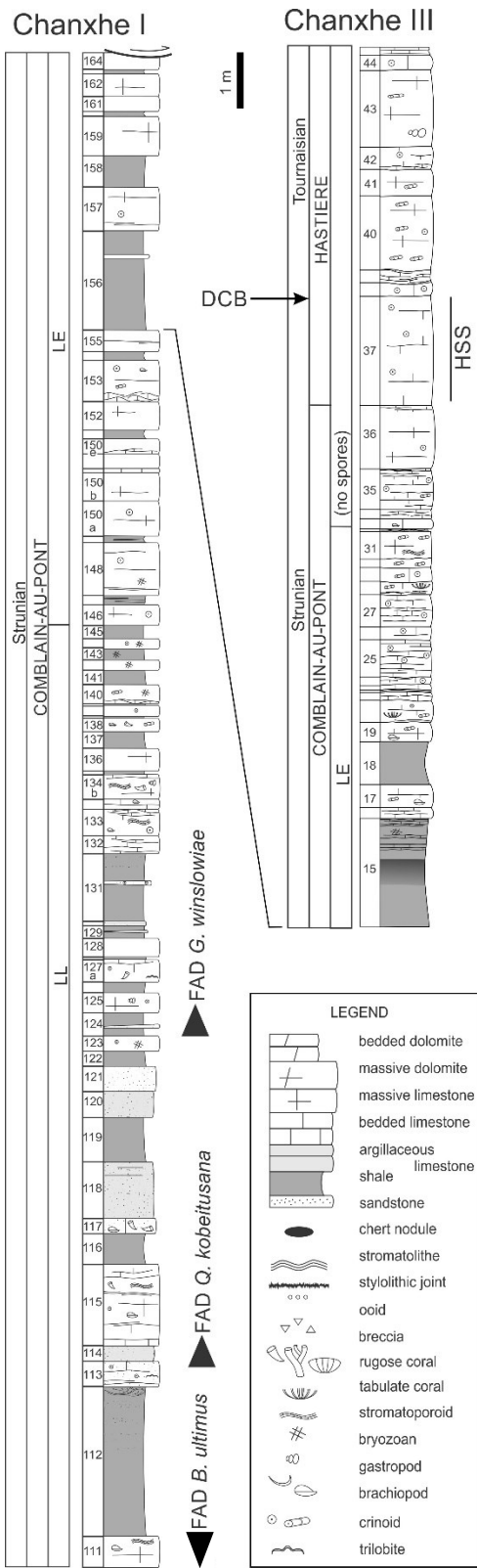


Fig. 5. Lithological log of the Chanxhe section (after Denayer et al., 2019).

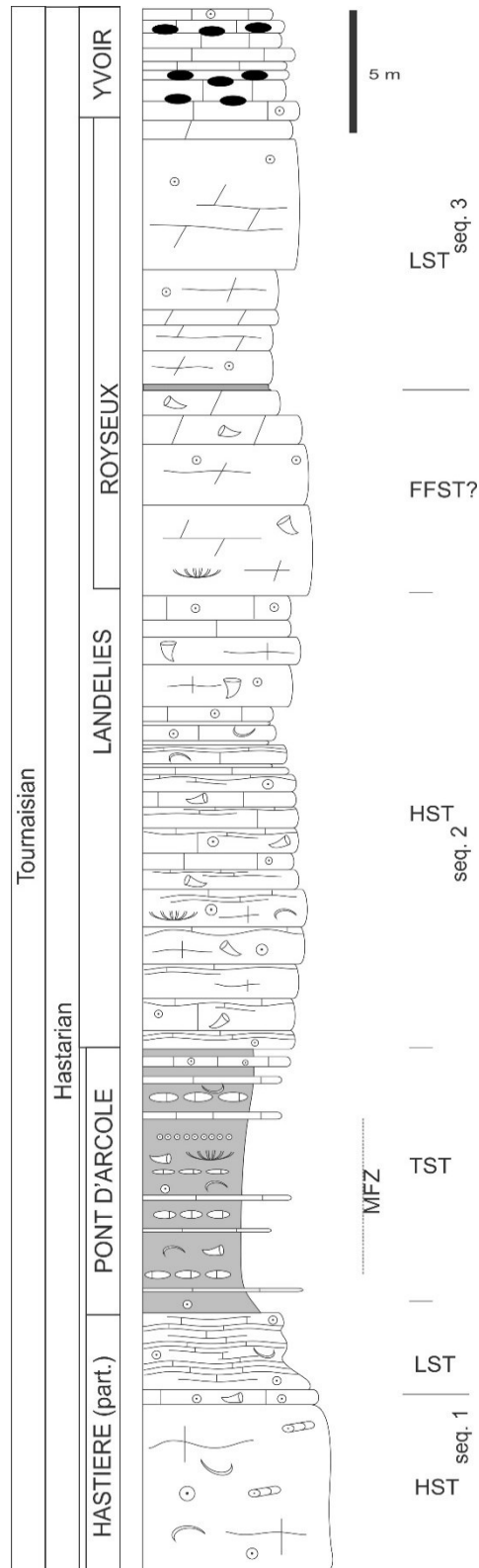


Fig. 6. Schematic lithostratigraphic log of the Rivage section (after Poty et al., 2011).

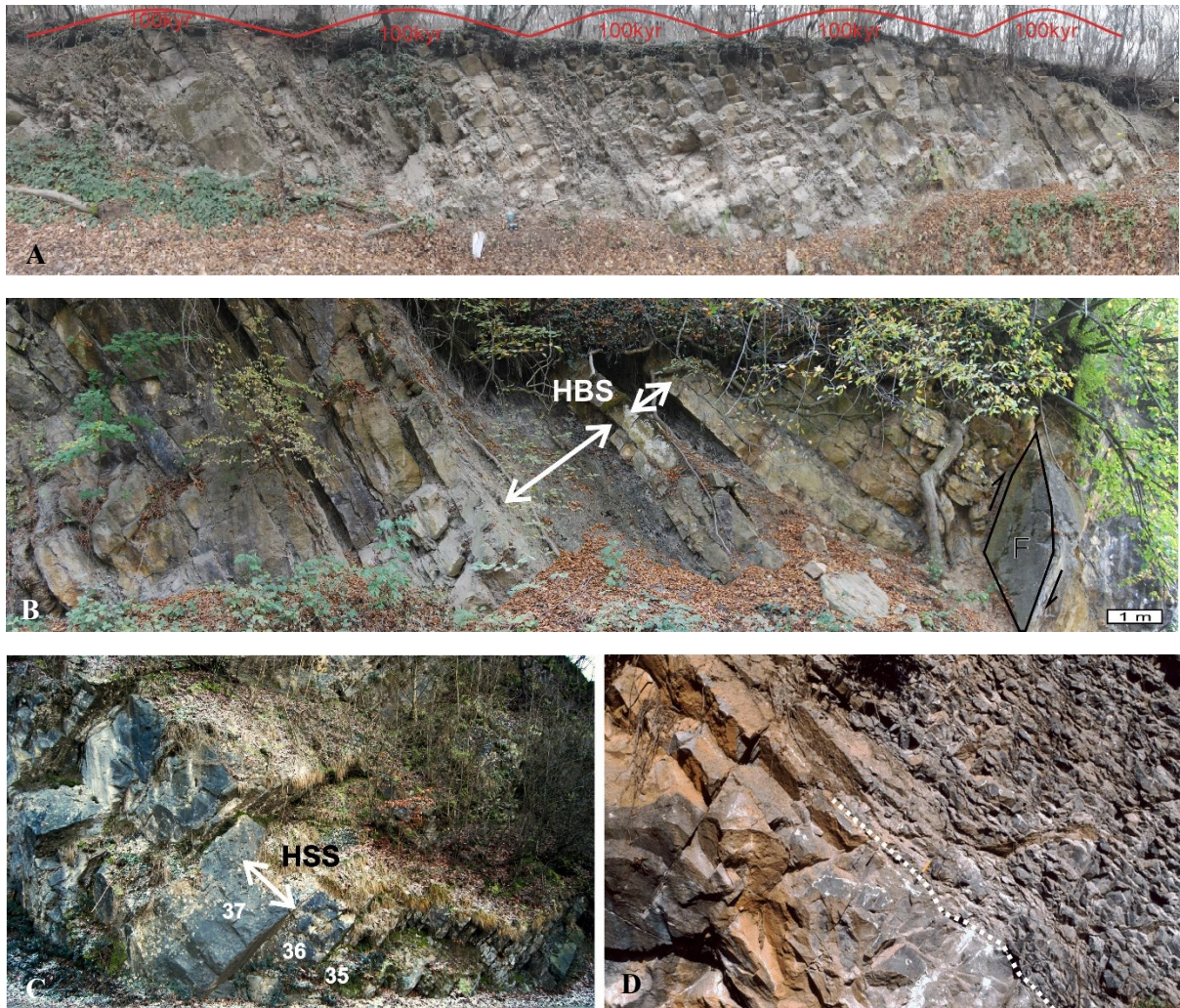


Fig. 7. A. Picture of the Chanxhe I section with preliminary interpretation of the cyclostratigraphic pattern (100 kyr eccentricity bundles of c. 20 kyr precession cycles). B. Hangenberg Black Shale event equivalent near the top of the Comblain-au-Pont Formation, recording the *tener* event (Prestianni et al., 2016). C. Hangenberg Sandstone event equivalent in the basal bed of the Hastière Formation in Chanxhe III. D. Sequence boundary between the middle and upper members of the Hastière Formation. Modified from Denayer et al. (2020).

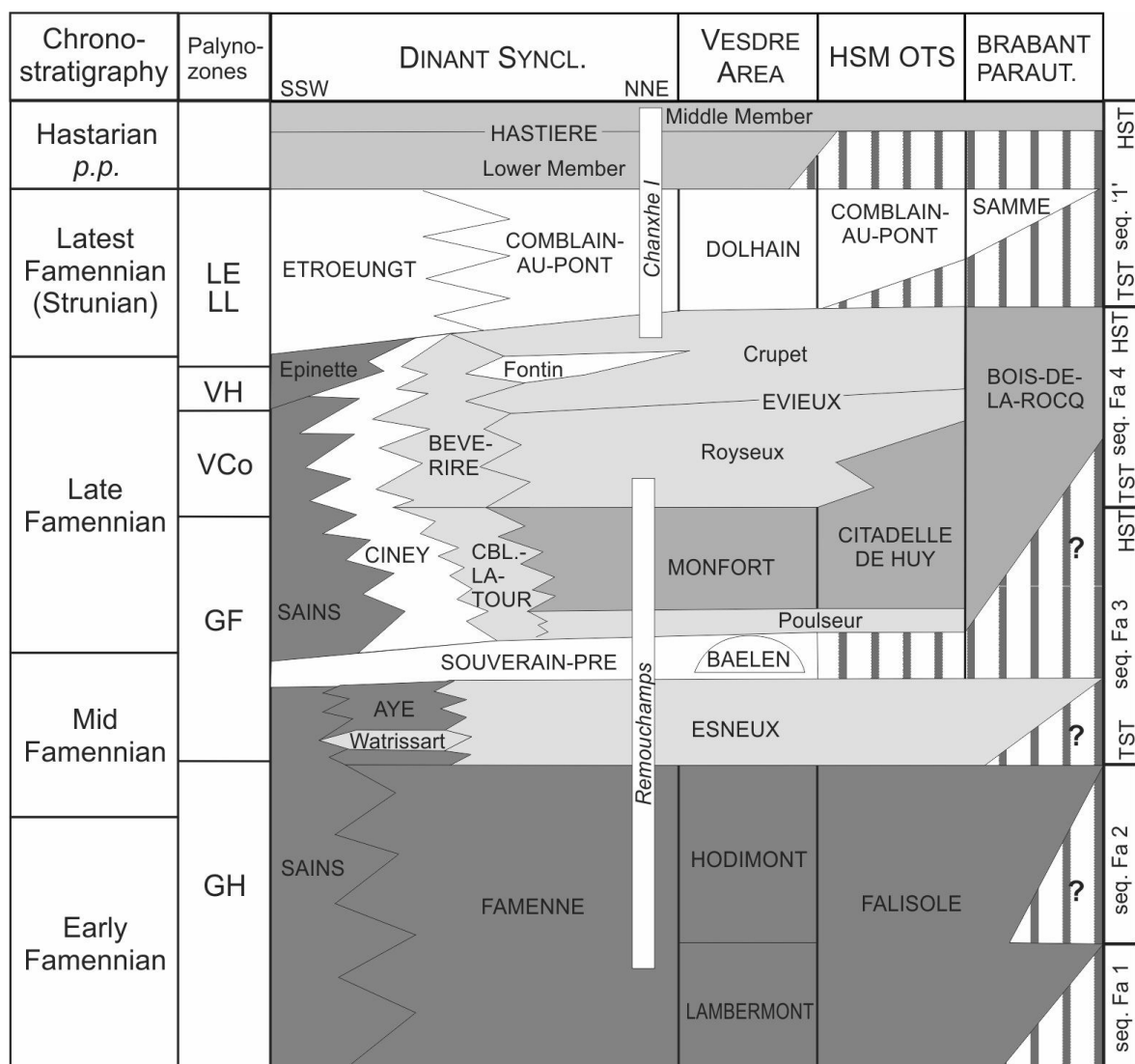


Fig. 8. Lithostratigraphic chart of the Famennian stage in S Belgium, with tentative sequence stratigraphic interpretation. (Strongly) Modified from Thorez et al. (2006). Palynozones adapted from Strel et al. (1987). Stripped area figures depositional hiatuses. White bands indicate the succession exposed in Chanxhe and Remouchamps.



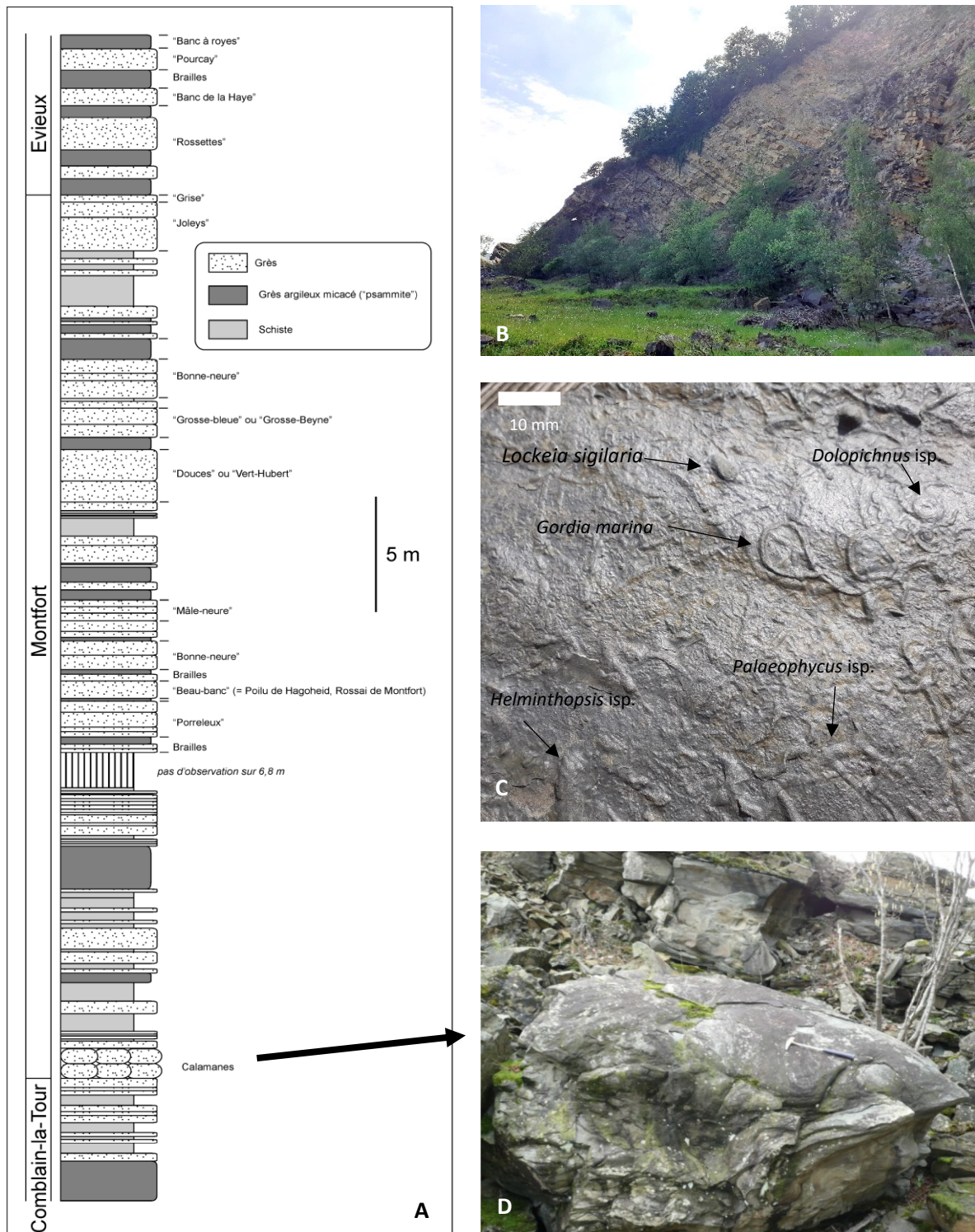


Fig. 9. A. Lithological column of the Montfort Formation in the Hey des Gattes quarry in Remouchamps with name given to each quarried bed by the quarrymen (after Mottequin & Marion, in press). B. View of the Falize Rock, western side of the quarry. C. Bedding plane of palty sandstone-siltstone covered with ichnofossiles, typically found in the lower part of the Montfort Formation (see Morelle & Denayer, 2020). D. « Calamanes » : large pseudonodules marking the base of the Montfort Formation.

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