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ABSTRACTS

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DEVONIAN MIOSPORE STRATIGRAPHY AND CORRELATION WITH THE RECENTLY DEFINED STAGE STRATOTYPES

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Interval zones were introduced for the miospores of the whole Devonian by Streel et al. (1987). The advantage of the interval zone concept on the assemblage zone concept, the latter most commonly used in palynology, is that it allows unequivocal correlations with interval zones based on other fossils. The quality of these correlations (CQI in fig. 1) depends on the "distance" between the miospore data and the faunal and lithological data.

The interval zones are based on biohorizons, i.e. on first (FOB) or exceptionally last (LOB) occurrences of single species, searched for in continuous marine miospore-bearing sequences, preferably in uniform lithologies.

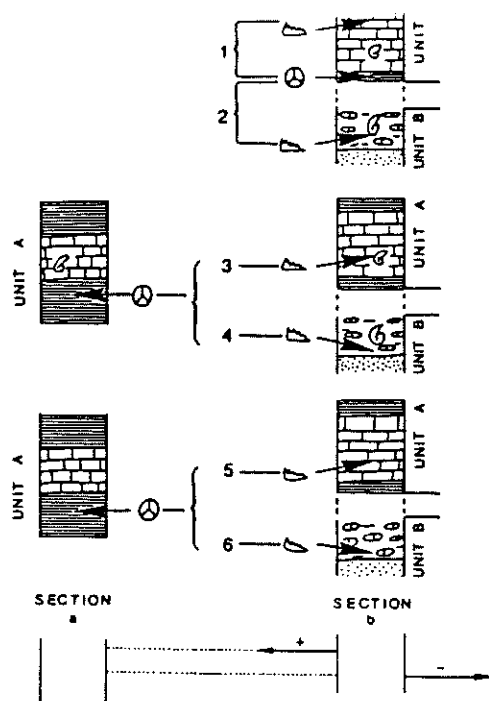
Correlations between these biohorizons and conodont zonation are given for the Middle and Upper Devonian of the Ardenne-Rhine regions (fig. 2). Lower Devonian biohorizons are correlated with chitinozoa zonation.

Consequences for the correlation with the recently defined stage stratotype are emphasized.

References:

Streel, M., Higgs, K., Loboziak, S., Riegel, W. and Steemans, P., 1987. Spore stratigraphy and correlation with faunas and floras in the type marine Devonian of the Ardenne-Rhenish regions. *Rev. Palaeobot. Palyn.*, 50: 211-229.

Streel, M. and Loboziak, S., in press. Observations on the establishment of a Devonian and Lower Carboniferous high-resolution miospore biostratigraphy. *Rev. Palaeobot. Palyn.*



Correlation Quality Index (CQI) between any reference faunal (here conodont) and miospore zones. From 1 to 6 decreasing in quality).

(1) Reference fauna in same section and same lithological unit as reference point of miospore zone.

(2) Reference fauna in same section but other lithological unit as reference point of miospore zone.

(3) Reference fauna in another section (3+ at short distance, 3- at long distance), but in same lithological unit containing other faunal or floral data also known in reference section of miospore zone.

(4) Reference fauna in another section (4+ at short distance, 4- at long distance), but in other lithological unit containing other faunal or floral data also known in reference section of miospore zone.

(5) Reference fauna in another section (5+ at short distance, 5- at long distance), in same lithological unit but without common faunal or floral data with reference section of miospore zone.

(6) Reference fauna in another section (6+ at short distance, 6- at long distance), in other lithological unit but without common faunal or floral data with reference section of miospore zone.

Fig. 1: from Streel and Loboziak, in press.

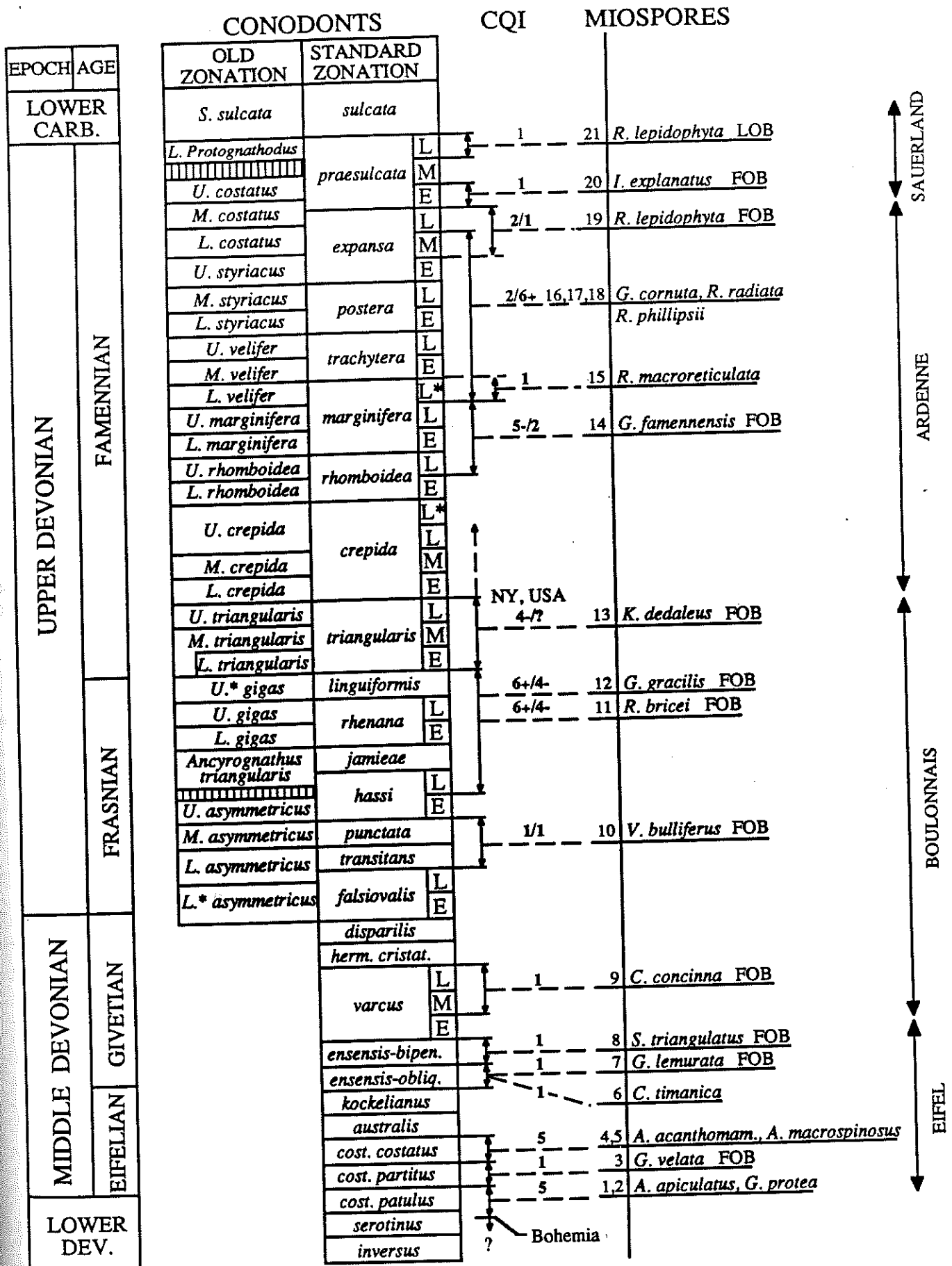


Fig. 2: from Streeel and Loboziak, in press.
 CQI = Correlation Quality Index (See fig. 1)
 */** : * = CQI of the lowest correlation, ** = CQI of the highest correlation.
 FOB = first occurrence biohorizon
 LOB = last occurrence biohorizon.