

Any Catastrophic Event at the Frasnian-Famennian Boundary?

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At Hony, in the northern flank of the Dinant Synclinorium (Belgium), a continuous railway section cuts the Frasnian-Famennian boundary. Streel and Vanguestaine (1989) documented that the 138 cm thick shales between the last Frasnian and first Famennian conodonts bearing limestones, display important organic content variations, from bottom to top: high spore and spined-acritarch concentration; drastic reduction of the organic content with local disappearance of spined-acritarchs; progressive return to the first situation. These variations are interpreted as a sudden acceleration of the sedimentation rate (Hony Event) within a short-term regressive phase.

In the same section, at this Event, Claeys and Casier (1994) have discovered a glass spherules layer assigned to tectites.

Detailed quantitative analyses of acritarch populations confirm Streel and Vanguestaine's (1989) hypothesis. The regressive phase is marked by a remarkable succession of acritarch assemblages (thin-spined forms; *Gorgonisphaeridium* spp.; *Tasmanites stockmansii*). Marine influence and distality indexes clearly demonstrate an offshore – inshore – offshore evolution of the depositional environment at the Frasnian-Famennian boundary.

Careful analysis of several contemporaneous sections are necessary before any definitive answer can be given on the title question. We think that quantitative palynology integrated in interdisciplinary studies could bring a major contribution.

REFERENCES

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