Sedimentary dynamic based on conodont stratigraphy of the Frasnian interval at the northwest Algerian Sahara

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The Ben Zireg anticline belonging to Bechar Basin yields the currently most-important Frasnian succession on the northern margin of the Algerian Sahara. It represents 26.5 m of calcilutites which are attributed to the middle–late Frasnian. As the early Frasnian is not represented, the succession rests conformably on undifferentiated, probably late Givetian, substrate. Our recent studies revealed a high diversity on conodont fauna allowing consequently to consider Ben Zireg as a reference section for the Frasnian interval of the northwest Algerian Sahara. Fine-scaled conodont biostratigraphy reveals a continuous sequence of Montagne Noire Zones 5–13, superseded by the earliest Famennian Lower *triangularis* Zone.

Interbasinal correlation with the South Marhouma section reveals that the middle Frasnian interval is much thicker there than in the studied section. This suggests an important accumulation rate that reflects high subsidence in the Ougarta trough, while the Bechar Basin suffered condensation.

This is presumably due to voluminous fine-grained detrital influx from the far highlands (i.e. Reguibat Shield) into the Ougarta sill. At Ben Zireg, condensation progressively reversed during MN Zones 11–13. This was also the case in Marhouma and in the Anti-Atlas and Meseta domains. At the end of late Frasnian time, deposits tend to homogenize in thickness over wide areas. This may reflect more uniform depositional conditions and less differentiated subsidence rates, in both platform and basin domains.