

ASPECTS OF THE LOWER PALAEOZOIC SEQUENCES, CARNIC ALPS, AUSTRIA.

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The Carnic Alps is one of the key Lower Palaeozoic localities around the Northern Gondwana area for stratigraphical correlation. The development of the Silurian Cephalopod Limestone Biofacies is of particular interest especially where the graptolite biofacies is not found. Recent studies of the biofacies, with a dominantly cephalopod and bivalve fauna, have shown that it may be traced from Siberia, Bohemia, Carnic Alps, Sardinia, Montagne Noire and Ossa Morena Zone of the Iberian Peninsula.

A multidisciplinary study of this biofacies in the Carnic Alps by an international working group includes a detailed microfacies investigation and a taphonomic analysis with particular emphasis on the preservational and palaeoecological implications of the cephalopod and bivalve fauna. Two sections in particular are being studied where there is a good stratigraphical constraint by conodonts: the Rauchkofel Boden section and the Cellon section - both located near the Austrian / Italian border.

Preliminary results will be given of a study to locate K-bentonite levels within the well-dated graptolitic shale and carbonate sequences during the Late Ordovician to lower Devonian interval from various sections in the Carnic Alps in order to correlate them with those established in other areas of Europe and possibly North America. Palaeobiological studies show that the Carnic Alps occupied a lower latitudinal position during the Silurian than previously supposed and the bentonite investigations may sustain these findings.