

AMMONOID FAUNAS FROM THE DEVONIAN AND EARLY CARBONIFEROUS OF THE CARNIC ALPS

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Devonian and early Carboniferous ammonoids have been known from several localities in the region of the Plöckenpass of the Carnic Alps since primary work was reviewed by Frech in the last century. Schindewolf revised Frech's collection and records of Kayser and Gortani and Von Gaertner added new records and described some sequences. This report is based largely on new collecting. No Lower Devonian records have been confirmed in this work. Middle Devonian records are sparse but include the anarcestids.

The Frasnian is well represented with faunas collected mainly by von Gaertner near the Wolayer Glacier including, *Ponticeras*, *Trimanticoceras*, *Maternoceras*, *Manticoceras*, *Probeloceras*, and *Beloceras* and aulatomoceratids but no evidence for terminal Frasnian faunas. The early Famennian Nehdenian is represented by *Cheiloceras* (*Torleyoceras*), *Cheil.* (*Cheil.*) and *Polonoceras*. Hembergian faunas are more varied and include *Platy Clymenia*, *Rectoclymenia*, *Falciclymenia*, and the goniatites *Prolobites*, *Pseudoclymenia*, *Sporadoceras*, *Maeneceras*, *Lobotornoceras* and prionoceratids. The *Clymenia* Stufe is well developed at Grosser Pal and Casera Malpasso with the clymenid genera *Clymenia*, *Ornatoclymenia*, *Cyrtoclymenia*, *Cymaclymenia*, *Falciclymenia*, *Kosmoclymenia*, *Gonioctlymenia*, *Sellaclymenia* and *Progonioctlymenia*. Associated goniatites are *Discoctlymenia*, *Alpinites*, *Gondolfoceras*, *Maeneceras* and *Mimimitoceras*. They indicate the presence of the *acuticosta* and *ornata* Zones. Faunas match closely those of the Rhenish Massif but there is a high percentage of miniature forms. For example, the *Cl. laevigata* Group reaches only 40 mm in diameter in the Carnic Alps but more than 160 mm in the Rhenish Massif. Limestones of the *Wocklumeria* Stufe in sections at Grüne Schneid, Grosser Pal and Casera Malpasso yield *Kalloctlymenia*, *Finioclymenia*, *Sphenoclymenia*, *Wocklumeria*, *Parawocklumeria*, *Glatziella*, *Postglatziella*, *Kosmoclymenia*, *Linguaclymenia* and *Cymaclymenia* as well as the goniatites *Mimimitoceras* and *Balvia*. Early and late divisions are represented and the faunal composition is identical with equivalents in the Rhenish and Thuringian Massifs and Sudetans but lower in species diversity.

The Devonian-Carboniferous boundary is well exposed at Grosser Pal and Grüne Scheid (Korn 1992). The Hangenberg Event is represented by an unfossiliferous bed of marl. The latest Devonian *prorsum* Zone as well as the basal Carboniferous *acutum* Zone are represented by characteristic faunas, the latter with *Acutimitoceras*, *Gattendorfia* and *Eocanites*. Late Tournaisian goniatite faunas occur at three places in the Plöckenpass area with the genera *Merocanites*, *Muensteroceras* and *Ammonolepsites*.