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# The Lochkovian-Pragian Boundary (Lower Devonian) in the Carnic Alps, Italy and Austria

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## Abstract

Lower Devonian rocks are widely exposed in the Carnic Alps representing diverse sedimentary environments from shallow water to relatively deep shelf. Six formations were discriminated in the upper Lochkovian and Pragian (Corradini et al., 2015). The lagoonal Polinik Fm. and the Seekopf Fm., mainly constituted by bioclastic limestone, sedimented in the shallower part of the basin. In intermediate conditions, the Rauchkofel Fm., represented by well bedded dark limestones alternated by calcarenite and thick breccia bodies, is followed by the Kellerwand Fm., represented by mudstone/interbedded with packstone/grainstone. In the deeper settings the nodular ochraceous limestones of La Valute Fm. grades into the reddish nodular Findenig Fm.

Several sections were measured along the Carnic Alps in order to obtain a precise age of the formation boundaries. In the shallower part of the basin, both the Polinik and the Seekopf fms span the boundary, but evident erosional surfaces are observable in the field at the Lochkovian-Pragian boundary; unfortunately, up to date, it was not possible to constrain chronostratigraphically the hiatus due to the missing of stratigraphically useful fossils. In correspondence of the Seekopf Fm. above the unconformity, at places the so-called megaclast horizon (e.g., Suttner and Kido, 2015) is present. The Rauchkofel/Kellerwand boundary is unconformable and different parts of the upper Lochkovian and the lower Pragian are missing in the various sections. The La Valute/Findenig transition is slightly diachronous from the latest Lochkovian to the earliest Pragian; however, conodonts and tentaculites are rare in the marly boundary beds, preventing a precise chronostratigraphic calibration of these levels.

In general, the hiatus seems to be larger in the western part of the Carnic Alps, in correspondence with the shallower parts of the succession, suggesting a sea level drop in the uppermost part of the Lochkovian, followed by a transgression in the lower part of the Pragian.

## References

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