

On the age of the upper part of La Valute Limestone (Carnic Alps)

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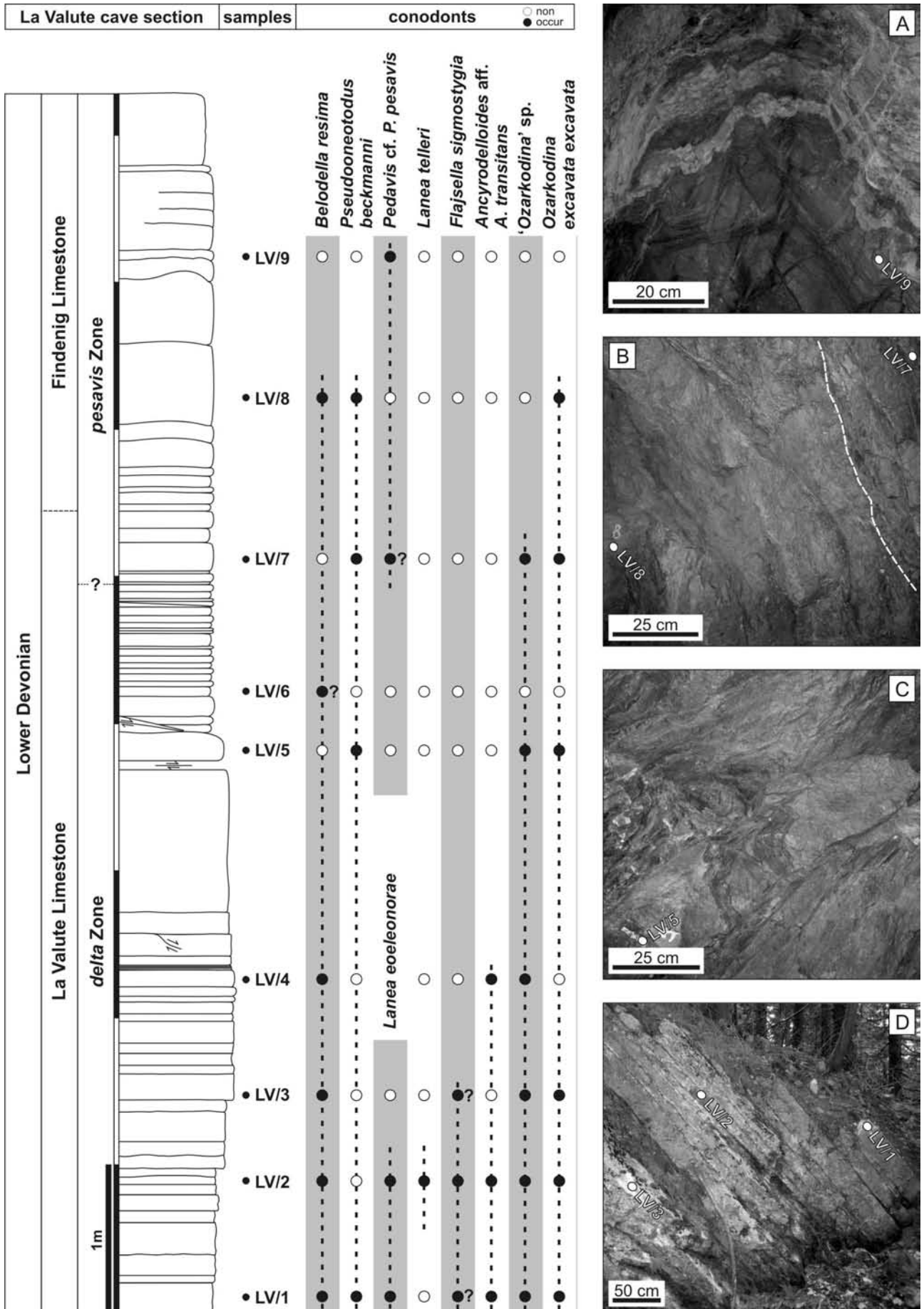
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The Lower Devonian sequence at La Valute cave is about 8 meters thick and includes the boundary of La Valute Limestone and Findenig Limestone (Fig. 1). It is represented by pelagic limestones yielding thin shelled brachiopods, gastropods, some crinoid stem-plates and filaments. Along this section nine samples (each between 3-5 kg) were collected. Nearly all of them yielded conodonts. Very rich faunas were obtained from the lowermost samples LV/1 and LV/2. Except from the simple cone taxa (*Belodella resima* and *Pseudooneotodus beckmanni*) several ozarkodinid taxa occur, which designate the upper part of the La Valute Limestone to the mid Lochkovian *delta* Zone. Species like *Lanea eoeleonorae*, *L. telleri*, *Flajsella sigmostygia*, *Ancyrodelloides* aff. *A. transitans*, some types related to the genus 'Ozarkodina' (*Zieglerodina* sensu MURPHY et al. 2004) and *Ozarkodina excavata excavata* were found. In the first sample specimens of *Flajsella* occur which cannot be assigned to *Flajsella sigmostygia* with certainty, as some features have more affinity to *Flajsella schulzei*. VALENZUELA-RÍOS & MURPHY (1997) discussed not only the stratigraphic value of this genus, but also evaluated the possibility of distinctive apparatus-elements which might belong to each of the four species that they discriminated. It seems that some apparatus-elements can be confirmed within our samples. Furthermore it appears, that elements which were described as "Apparatus A" by MASTANDREA (1985) might also belong to the apparatus of *Flajsella*. Additionally, the assignment of specimens belonging to *Ancyrodelloides* is difficult, because most of the Pa elements are broken, or the basal cavity hidden by the fragile basal plate. One Pa element shows a bifurcation of one of the lateral processes (in lower view) so that – even though all processes of this specimen are broken – it might belong to *Ancyrodelloides kutscheri*. However, most important for stratigraphical designation of the unit is the occurrence of *Lanea telleri*, which is restricted to the upper part of the mid Lochkovian (compare MURPHY & VALENZUELA-RÍOS 1999). The conodont assemblage yielded in the samples clearly points to Lochkovian, but it seems that only samples of the La Valute Limestone can be assigned to the *delta* Zone. In samples LV/7 and LV/9 elements of *Pedavis* cf. *P. pesavis* were found indicating the base of the *pesavis* Zone.

References:

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Fig. 1: The log across the La Valute Lst – Findenig Lst boundary includes conodont ranges documented from nine samples taken (LV/1-LV/9). A-D. Photos of the section taken in the cave continue from the stratigraphically younger to older strata. The position of the formation-boundary is located between sample 7 and 8 (compare B).



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