

## On the age of the Cardiola Formation (Silurian) in the Carnic Alps (Austria and Italy)

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The Cardiola Formation is a characteristic unit in the Silurian in the Carnic Alps. It is represented by an alteration of black cephalopod limestone, marls and shales of a maximum thickness of about 4 m in its stratotype, the Cellon section. Beside cephalopods, the fauna includes bivalves (from which the name), brachiopods, chitonozoans, conodonts, corals, graptolites, radiolarians and trilobites.

The Cardiola Fm. is bracketed between two “*Orthoceras* limestone” units, named Kok and Alticola Formations, respectively below and above. The sharp change in the depositional settings of the Cardiola Fm. is related to the onset of the Lau Event, one of the major extinction events of the Silurian, which affected conodont faunas globally. The age of the unit was often considered to be limited to the *Polygnathoides siluricus* conodonts Zone; however, recent data from various sections (Cellon, Rauchkofel Boden, Valentin Törl, Hoher Trieb, Cuestalta) allow to state that the deposition of the Cardiola Fm. started within the upper part of the *Ancoradella ploeckensis* Zone and does not reach the top of the *Po. siluricus* Zone. The conodont fauna is abundant and diverse in the lower part of the unit, and become progressively scarce into the lower part of the overlying Alticola Fm. In a few sections (e.g., Cellon, Hoher Trieb) a hiatus is documented between the Cardiola and the Alticola Formations, and the upper part of the *Po. siluricus* Zone is missing.