Eifelian and Givetian (Middle Devonian) conodonts in the Iberian Chains

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Middle Devonian rocks are exposed in scattered, fragmentary and isolated outcrops in the Iberian Chains. They crop out in two areas (Carls & Valenzuela-Ríos, 2002): 1) the Axial Depression of the Cámaras River (DARC); the largest and more important one, where the main stratigraphic column (with gaps, chiefly for Givetian rocks) has been established and 2) the Montalbán Anticline. The detailed biostratigraphic analysis of the numerous small and incomplete outcrops allows the recognition of six stratigraphic units, which from bottom up are Monforte Fm, Moyuela Fm, Recutanda Fm, Barreras Section (positioned between the Recutanda and the Salobral Fm, but still of difficult biostratigraphic characterization), Salobral Fm and Cabeza Agudo Fm. In this report we focus in the conodont sequence around the Eifelian/Givetian boundary, which is compiled from three sections sited in the DARC, southeast of Loscos. The oldest conodonts comprise the Eifelian *costatus* Zone in the Molino Medio section; these strata show the highest occurrence of *Icriodus corniger* together with the lowest record of *Polygnathus costatus* in sample MM4. Higher strata record *P. pseudofoliatus* β (sample MM5), which after Walliser & Bultynck, 2011 indicates the base of the *australis* Zone. In the nearby Molino Alto section, the successive lowest occurrences of *P. klapperi* (sample MA 5) and *I. hollardi* (sample MA 6) identifies the next *kockelianus* Zone. Finally in the youngest section, Camino Molino, the lowest conodont record includes lower Givetian conodonts, comprising the index of the base of the Givetian, *P. hemiansatus.* Higher in this section the middle Givetian *rhenanus*/*varcus* Zone is identified. The compiled data and their stratigraphic arrangement from these three disconnected sections reinforces the potential of this area for analysing the Eifelian/Givetian boundary in the Iberian Chains and suggests the need for further and more detailed studies of this area. It could be of global relevance for improving the knowledge on the Eifelian-Givetian transition.

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