

THE ANISIAN SECTION OF KÜHWIESENKOPF/MONTE PRÀ DELLA VACCA (DOLOMITES, N-ITALY): INTEGRATED BIOSTRATIGRAPHIC, PALEOCLIMATIC AND PALEOENVIRONMENTAL STUDIES

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The discovery of a rich plant deposit at Kühwiesenkopf/Monte Prà della Vacca (Prags/Braies, N-Italy) gave rise to integrated biostratigraphic, palaeoclimatic and palaeoenvironmental studies of this area, based mainly on stratigraphy, ammonoids and palynomorphs. The 200 m thick stratigraphical sequence belongs to the Dont Formation traditionally considered Pelsonian–Illyrian in age.

Ammonoids collected from the section attribute it to a time interval related at least from the middle Pelsonian (Balatonicus Subzone of Mietto and Manfrin, 1995) to the lower Illyrian. The expanded stratigraphic section permitted also to identify three different palynological assemblages and to calibrate them with ammonoids collected from other important stratigraphic sections (Dont and M. Rite). Comparisons with local biostratigraphical scales, refers the section to the middle-upper Pelsonian following Brugman (1986) or to the middle Pelsonian – lower Illyrian considering Kustatscher & Roghi (2006) and Kustatscher et al (2006).

For quantitative analysis up to 300 palynomorphs have been counted per sample on a total of 84 samples. The results have been applied to several methods known from the literature. Following the procedure outlined by Visscher & Van der Zwan (1981) a general dominance of the hygrophytic taxa becomes evident. This indication suggests a local warm and humid climate confirmed by the dominance of the “wetter” Lowland SEG taxa using Abbink’s method (1998). However, throughout the section some oscillations in the palynological composition become visible, also at short time intervals. The cause of these variations could be either due to variations of the

climate conditions and/or sea-level fluctuations. Palynofacies analysis indicates a deposition of the organic material in a marginal and shallow environment with short transportation. Since the stratigraphical indications of the formation suggest a basinal depositional environment for the section, the organic material could have been deposited in more basinal conditions.

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