New data on the age of the bone breccia from the locality Czatkowice 1
(Cracow Upland, Poland)

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Fissure deposits are notoriously difficult to date. But, determination of the age of
assemblages they contain is crucial for the evolutionary conclusions based on them. The
early Mesozoic karst infillings within the Lower Carboniferous limestone of the locality
Czatkowice 1 (Southern Poland) containing a diverse terrestrial microvertebrate assemblage
(see Borsuk-Białynicka et al.1999 for review) were originally thought to be most likely Late
Permian to Early Triassic in age. Subsequent study of the assemblage containing
procolophonids, prolacertiforms, basal lepidosauromorphs, a basal archosaur and small
amphibians (including a pre-frog) showed that it is Early Triassic, most probably Late
Olenekian, in age because of the advanced dentition pattern of the procolophonids. The
discovery of tooth plates of the lungfish *Gnathorhiza*, known to range from the Induan into early Late
Olenekian (Vetlugian Superhorizon to Fedorovskian Horizon of the regional scheme) in Eastern Europe,
has further enhanced the dating. The combination of procolophonid and dipnoan evidence now appears to
restrict the age of the Czatkowice 1 assemblage to the Early Olenekian.

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