

A MAJOR PHYLLOCERATID-LYTCERATID FAUNAL TURNOVER IN THE LOWER JURASSIC

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Knowledge of earliest Jurassic phylloceratid and lytoceratid ammonites is hampered by the widespread absence of Tethyan Hettangian to Lower Sinemurian pelagic ammonite bearing rocks. Those present are often condensed, containing several ammonite zones within less than 1m of sediment and characterized by minor or major gaps between the zones (e.g. Northern Calcareous Alps). The most prominent hiatus within the Austrian Alps but probably also in other Alpine Mediterranean areas is present around the Hettangian-Sinemurian boundary and especially in the lower part of the latter. During this interval all Hettangian phylloceratids (*Paradasyceras*, *Nevadaphyllites*, *Fergusonites*, *Togaticeras*, "*Geyeroceras*" s.l.) are replaced by well known long ranging Liassic respectively Jurassic forms (*Phylloceras*, *Partschiceras*, *Calaiceras*, *Geyeroceras*, *Juraphyllites*). The same happens with the Lytocerataceae where *Pleuroacanthites*, *Eolytoceras* and *Analytoceras* are followed by a wealth of "true" lytoceratid genera such as *Trachyphyllites*, *Lytoceras* s. str. *Holcolytoceras*, *Aegolytoceras*, *Lytotropites* and *Adnethiceras*. The rapidity of the faunal replacement is difficult to assess due to insufficient sequential data. The indirect cause may have been a major sea level rise in the Tethyan realm which is documented by the common onset of the pelagic ammonitico rosso facies above many shallow water areas (drowned Triassic carbonate platforms) in (Upper) Sinemurian time.

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