Revision of the *Beyrichoceras* Ammonoid-Biozone (Dinantian), NW Europe

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with 2 figures

Abstract. The *Beyrichoceras* Ammonoid-Biozone is a total-range biozone characterised by *Beyrichoceras*. Reinterpretation of German data and comparison with the ammonoid sequence in Britain allows subdivision into two subzones, B1 and B2, and three assemblage-biozones, a lower *Entogonites* Assemblage-Biozone (B1), a middle *Goniatites hudsoni* Assemblage-Biozone (B2a) and an upper *Goniatites globostriatus* Assemblage-Biozone (B2b). These subdivisions are primarily European; however, there is evidence that they are recognisable elsewhere.


1 Introduction

RAMSBOTTOM & SAUNDERS (1985) redefined a series of ammonoid-biozones for the Carboniferous. It is suggested that these authors were incorrect in their interpretation of the composition and stratigraphical sequence of ammonoids within the *Beyrichoceras* Biozone and it is therefore necessary to redefine the biozone and its internal subdivisions.

The *Beyrichoceras* Ammonoid Biozone (B) was first proposed by BISAT (1928) and later divided by HUDSON & TURNER (1933) into two subzones. The lower B1 Subzone contained *Beyrichoceras hodderense* BISAT 1924 (now *Bollandoceras*), which BISAT (1928) used to define the base of the *Beyrichoceras* Biozone, and *Beyrichoceras redesdalensis* HIND 1918 (now *Beyrichoceratoides*). The overlying B2 Subzone consisted of the remaining faunas up to the base of the horizon with *Goniatites crenistria* PHILLIPS 1836 and *Beyrichoceratoides truncatum* (PHILLIPS 1836). Unfortunately the precise stratigraphical relationship of *Bollandoceras hodderense* and *Beyrichoceratoides redesdalensis* remains unknown since the two taxa are geographically exclusive and the latter species, from the Northumberland Trough of NE England, occurs in a succession which is generally poor in ammonoids.