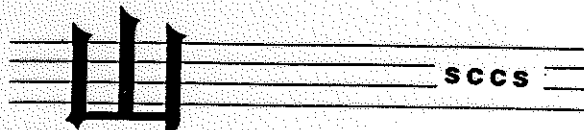


**International Union of Geological Sciences
Commission on Stratigraphy**

Subcommission on Carboniferous Stratigraphy (SCCS)



**BEDS NEAR THE DEVONIAN-CARBONIFEROUS BOUNDARY
IN THE RHENISH MASSIF, GERMANY**

GUIDEBOOK

by

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MIOSPORES NEAR THE D/C BOUNDARY

(after HIGGS & STREEL, 1984)

The most complete and continuous miospore succession at the Devonian-Carboniferous boundary in Western Europe occurs in the extremely thick marine clastic sequences of Southern Ireland. Here a miospore zonation scheme comprising eight biozones has been described for the late Devonian-early Carboniferous (uppermost Famennian or Strunian to Upper Tournaisian) interval. The lack of diagnostic goniatite and conodont control in the southern Irish sections limits their value as possible Devonian-Carboniferous boundary stratotypes. Therefore a study was undertaken in an attempt to apply the Irish spore zonation scheme to the considerably thinner but well dated marine sequences in the classic area of the Northern Rhenish Slate Mountains in Germany.

Preliminary results were published in the field guidebook edited by Paproth & Streeel (1982). Palynological studies of the Devonian-Carboniferous beds in this area were first made by Streeel (1966, 1969) and were then expanded by Paproth & Streeel (1970). Several of the sections studied by Paproth & Streeel (1970) have been re-sampled together with the investigation of several new sections, trenches and boreholes.

The miospore zonation of Clayton *et al.* (1978) for the late Devonian and Carboniferous of Britain and Ireland has been modified by Higgs *et al.* (1988) and this new zonation scheme has been used in the present study (fig. 10). The zonation scheme has been successively applied to many areas in Ireland and Britain and its independence of sedimentary facies has been demonstrated (Clayton & Higgs, 1979).

Selected miospore taxa	Miospore Zonation				
	LL ★	LE ☆	LN ⊛	VI ●	HD ◐
<i>Retispora cassicula</i>					
<i>Retispora lepidophyta</i>					
<i>Vallatisporites pusillites</i>					
<i>Rugospora flexuosa</i>					
<i>Diducites versabilis</i>					
<i>Vallatisporites verrucosus</i>					
<i>Lophozonotriletes triangulatus</i>					
<i>Hymenozonotriletes explanatus</i>					
<i>Verrucosisorites nitidus</i>					
<i>Umbonatisporites abstrusus</i>					
<i>Camptotriletes paprothii</i>					
<i>Cyrtozpora cristifer</i>					
<i>Spelaeotriletes obtusus</i>					
<i>Corystisporites</i> sp.					
<i>Crassispora</i> cf. <i>maculosa</i>					
<i>Raistrickia corynoges</i>					
<i>Kraeuselisporites hibernicus</i>					

Fig. 10.- Selection of the most stratigraphically useful miospores referred to in the present paper
(after Higgs & Streeel, 1984, modified)