

CORRESPONDENCE

Carboniferous Conodonts from Southern Ireland

SIR,—A study of conodont faunas of the Lower Carboniferous of the Republic of Ireland is at present in progress. Samples taken from an area 16 km south-west of Limerick within the Waulsortian reef bank complex, considered to be C₁ in age by Hudson, Clarke, & Sevastopulo (1966) and Hudson, Clarke & Brennand (1966), have yielded a fauna containing *Scaliognathus anchoralis* (Branson and Mehl), *Pseudopolygnathus triangularis pinnatus* (Voges), *Pseudopolygnathus* sp (Branson and Mehl), *Polygnathus communis* (Branson and Mehl), *Gnathodus delicatus* (Branson and Mehl), *Spathognathodus* cf. *regularis* (Branson and Mehl) and fragments referable to the genera *Hindeodella* (Ulrich and Bassler), *Ligonodina* (Ulrich and Bassler), *Lonchodina* (Ulrich and Bassler), *Neoprionodus* (Rhodes and Müller) and *Ozarkodina* (Branson and Mehl). This fauna is markedly different from that described by Austin (1968) from the nearby Askeaton Quarry. This is the first recorded occurrence of *Scaliognathus anchoralis* in Irish stratigraphy and is of considerable interest. Although the species has a somewhat problematical stratigraphic distribution it is a wide-ranging form and is used in the zonal schemes of the Lower Carboniferous reference sections throughout Europe.

The recent correspondence of Morris (1970) in which he describes the occurrence of a *Scaliognathus anchoralis*-*Hindeodella segaformis* (Bischoff) faunal assemblage from North Staffordshire has prompted this communication. The fauna from Staffordshire differs from the Irish fauna in that several of the conodont elements noted in the letter of Morris are lacking from the Irish faunal list, in particular *H. segaformis*. *H. segaformis* is usually found associated with *S. anchoralis* and this association has been recorded for example in Belgium by Conil, Austin, Lys & Rhodes (1969) and by Conil, Lys & Maurier (1964) from limestones of Tn 3b age, a record which was later modified to read Tn 3c-V 1a by Conil, Pirllet & Lys (1967). These species were also recorded in Germany by Bischoff (1957) and Voges (1960) and ascribed to the Zones cuII/β/γ, but Matthews (1970) has subsequently questioned the validity of these zones. The association has also been found in Austria by Flügel & Ziegler (1957) and by Schulze (1968), in Spain by Higgins, Wagner-Gentis & Wagner (1964), Budinger (1965), Boogaert (1967) and Marks & Wensink (1970). It has also been recorded from the Sahara by Remack-Petitot (1960) and from Czechoslovakia by Zikmundova (1967). Branson & Mehl (1941), Hass (1953) and Thompson (1967) have identified *S. anchoralis* in faunas from Lower Carboniferous strata in North America. Burton (1964) has recorded the species from New Mexico.

In Great Britain, however, *S. anchoralis* is restricted, its only recorded occurrences being those of Matthews & Austin (personal communication), Matthews (1969) and Morris (1970). It is significantly absent from the faunas of the Avon Gorge, and Rhodes, Austin & Druce (1969) were uncertain as to the reason for this absence.

Whilst it is unwise at this stage to correlate the southern Irish sequence with those of Europe and North America mentioned above, it is hoped with continued study of conodont faunas, in particular the gnathodid elements, that a more refined stratigraphy may be placed on the Waulsortian reef complex and also a more accurate world-wide correlation of the Lower Carboniferous.

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