



Distribution of spore taxa in the Ludlow Series - 1

| Series and stages | | Spore zones | subzones | <i>Hispanaedisca rugulatus</i> | <i>Scylaspora downiei</i> | <i>Velatitetras cristata</i> | <i>Hispanaedisca verrucatus</i> | <i>Insolisporites anchistinus</i> | <i>Hispanaedisca lamontii</i> | <i>Synorisporites cf. libycus</i> | <i>Artemopyra radiata</i> | <i>Chelinospora rumneyi</i> | <i>Chelinospora vermoluta</i> | <i>Insolisporites bassettii</i> | <i>Ambitisporites avitus</i> | <i>Ambitisporites dilutus</i> | <i>Archaeozonotriletes chulus</i> var. <i>chulus</i> | <i>Archaeozonotriletes chulus</i> var. <i>nanus</i> | <i>Cheilotetras caledonica</i> | <i>Concentricosisporites sagittarius</i> | <i>Laevolancis divellomedia</i> | <i>Laevolancis plicata</i> | <i>Tetrahedraletes medinensis</i> var. <i>medinensis</i> | <i>Emphanisporites ? concentricus</i> | <i>Chelinospora obscura</i> | <i>Lophozonotriletes? poecilomorphus</i> | <i>Stellatispora inframurinata</i> var. <i>cambrensis</i> | <i>Apiculiretusispora ? asperata</i> | |
|-------------------|------------|-------------------------------|---|--------------------------------|---------------------------|------------------------------|---------------------------------|-----------------------------------|-------------------------------|-----------------------------------|---------------------------|-----------------------------|-------------------------------|---------------------------------|------------------------------|-------------------------------|--|---|--------------------------------|--|---------------------------------|----------------------------|--|---------------------------------------|-----------------------------|--|---|--------------------------------------|---|
| Pridoli | | <i>tripapillatus-spicula</i> |  | | | | | | | | | | | x | x | x | x | x | x | x | x | x | | | | | | | |
| Ludlow | Ludfordian | <i>libycus-poecilomorphus</i> | <i>inframurinata</i> | | | | | | | | | x | x | x | x | x | x | x | x | x | x | x | | | x | x | x | x | |
| | | | <i>asperata</i> | | | | | | | | | x | x | x | x | x | x | x | x | x | x | x | | | x | x | x | x | |
| | Gorstian | | <i>cambrensis</i> | | | | | | | x | x | x | x | x | x | x | x | x | x | x | x | x | x | | | x | x | x | x |
| | | | <i>obscura</i> | | | | | x | x | | x | x | x | x | x | x | x | x | x | x | x | x | x | | | x | x | x | |
| Wenlock | | <i>downiei-sagittarius</i> |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | | | | | | | |

The distribution of spore taxa through the Ludlow Series is based on data obtained by Burgess & Richardson (1995) from south Wales. Richardson & McGregor (1986, p. 9) considered the *libycus-poecilomorphus* Biozone to be represented in the Middle Elton, Bringewood, Leintwardine and Whitcliffe formations of Shropshire, including the type Ludlow area. Of the subzones, only the *Stellatispora inframurinata* var. *cambrensis* Subzone has been recognized in Shropshire, being present in the Upper Elton Formation of the Millichope-Diddlebury area in Shropshire, and in the Lower Bringewood Formation of the Ludlow type area (Burgess & Richardson 1995).

Burgess, N.D. & Richardson, J.B. 1995. Late Wenlock to early Pridoli cryptospores and miospores from south and southwest Wales, Great Britain. *Palaeontographica Abteilung B*, **236**, 1-103.

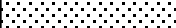
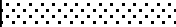
Richardson, J.B. & McGregor, D.C. 1986. *Silurian and Devonian spore zones of the Old Red Sandstone continent and adjacent areas*. Geological Survey of Canada, Bulletin **364**, 79 pp.

See: '[The type Ludlow Series: Biostratigraphy - spores](#)' for further discussion and information.

[Return to 'The Ludlow Series \(Upper Silurian\) of the type area - introductory page'](#).

(Author: SGM)

Distribution of spore taxa in the Ludlow Series - 2

| Series and stages | | Spore zones | subzones | <i>Emphanisporites</i> sp. A | <i>Hispanaedisca</i> major | <i>Synorisporites</i> sp. D | <i>Stellatispora</i> <i>inframurinata</i> var. <i>inframurinata</i> | <i>Ambitisporites</i> parvus | <i>Ambitisporites</i> <i>tripapillatus</i> | <i>Apiculiretusispora</i> <i>spicula</i> | <i>Apiculiretusispora</i> <i>synorea</i> | <i>Apiculiretusispora</i> sp. A | <i>Apiculiretusispora</i> sp. B | <i>Apiculiretusispora</i> ? sp. A | <i>Cymbosporites</i> <i>echinatus</i> | <i>Cymbosporites</i> <i>verrucosus</i> | <i>Emphanisporites</i> cf. <i>micronatus</i> | <i>Emphanisporites</i> cf. <i>neglectus</i> | <i>Hispanaedisca</i> sp. B | ? <i>Perotrilites</i> sp. A | <i>Retusotrilletes</i> <i>charulatus</i> | <i>Retusotrilletes</i> <i>minor</i> | <i>Retusotrilletes</i> sp. A | cf. <i>Streelispora</i> <i>granulata</i> | <i>Synorisporites</i> <i>downtonensis</i> | <i>Synorisporites</i> <i>labeonis</i> | <i>Synorisporites</i> <i>tripapillatus</i> | <i>Synorisporites</i> <i>verrucatus</i> | <i>Synorisporites</i> sp. A | <i>Synorisporites</i> sp. B |
|-------------------|------------|-------------------------------|---|------------------------------|----------------------------|-----------------------------|---|------------------------------|--|--|--|---------------------------------|---------------------------------|-----------------------------------|---------------------------------------|--|--|---|----------------------------|-----------------------------|--|-------------------------------------|------------------------------|--|---|---------------------------------------|--|---|-----------------------------|-----------------------------|
| Pridoli | | <i>tripapillatus-spicula</i> |  | ? | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | cf. | x | x | x | x | x | x | x | x | x |
| Ludlow | Ludfordian | <i>libycus-poecilomorphus</i> | <i>inframurinata</i> | x | x | x | x | | | | | | | | | | | | | | | | | | | | | | | |
| | Gorstian | | <i>asperata</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | <i>cambrensis</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | <i>obscura</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wenlock | | <i>downiei-saggitarius</i> |  | | | | | | | | | | | | | | | | | | | | | | | | | | | |

The marked increase in spore diversity across the Ludlow-Pridoli boundary has been documented by Richardson & Lister (1969) in the type Ludlow area, and by Burgess & Richardson in south Wales. Data from both sources were used to compile the floral composition of the *tripapillatus-spicula* Biozone.

Burgess, N.D. & Richardson, J.B. 1995. Late Wenlock to early Pridoli cryptospores and miospores from south and southwest Wales, Great Britain. *Palaeontographica* Abteilung B, **236**, 1-103.

Richardson, J.B. & Lister, T.R. 1969. Upper Silurian and lower Devonian spore assemblages from the Welsh Borderland and south Wales. *Palaeontology*, **12**, 201-252.

See: '[Synorisporites tripapillatus-Apiculiretusispora spicula Assemblage Biozone](#)' for details.

[Return to 'The Ludlow Series \(Upper Silurian\) of the type area - introductory page'.](#)

(Author: SGM)