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Graptolites from the Lisbellaw Inlier, Co. Fermanagh, Northern Ireland

Internal Report IR/02/089

BRITISH GEOLOGICAL SURVEY

INTERNAL REPORT IR/02/089

Graptolites from the Lisbellaw Inlier, Co. Fermanagh, Northern Ireland

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Summary

Five graptolite-bearing localities from the Lisbellaw Inlier, Co. Fermanagh, are reviewed. These were reported by Harper and Hartley in their 1938 paper in the *Proceedings of the Royal Irish Academy*. The graptolites from the ‘Ballast Pit’ and ‘Council Quarry’ are of *triangulatus* Biozone age. Two localities at Homeville are, respectively, of Rhuddanian (*atavus* or *cyphus* Biozone) and probably mid Aeronian (*leptotheca* or *convolutus* Biozone?) age. The Slate Quarry locality at Leambreslen yields graptolites indicative of the *leptotheca* Biozone.

1 Biostratigraphy

Graptolites and other fauna from the Lisbellaw Inlier in Co. Fermanagh were reported on by Harper & Hartley (1938). The graptolite identifications of that paper and the stratigraphical conclusions they reached are discussed in the following description of localities.

Description of localities

1) The Ballast Pit, north side of the village by-pass, Lisbellaw, county Fermanagh (J.M. Wordie coll.)

Grid reference H412 301

Specimen numbers Zg160-170

Fauna: *Monograptus triangulatus triangulatus* (Harkness, 1851)

Glyptograptus sinuatus sinuatus (Nicholson, 1869)

Coronograptus gregarius (Lapworth, 1876) s.l.

Metaclimacograptus cf. *hughesi* (Nicholson, 1869)

Rhapidograptus toenquisti (Elles & Wood, 1906)?

Atavograptus cf. *atavus* (Jones, 1909)

arthropod cuticle

Pribylograptus spp.

“*Glyptograptus*” sp.

Age: Llandovery, early Aeronian, *triangulatus* Biozone

Remarks. The fauna is consistent with the early Aeronian, *triangulatus* Biozone, but differs in some aspects from that recorded by Harper & Hartley (1938). They recognise *Monograptus argutus*, *M. incommodus* and *M. sandersoni* from this locality. These are probably equivalent to specimens here referred to *Pribylograptus* spp. Though there is too little material for individual species to be distinguished with certainty, some closely resemble specimens of *M. sandersoni* figured by Elles & Wood (1911). Harper & Hartley also record *Monograptus regularis*, *Climacograptus rectangularis* and *Rastrites peregrinus* which we have not been able to confirm. At least one of the specimens referred to “*Glyptograptus*” appears to have spine-bearing thecae.

2) The Council Quarry, Enniskillen Road, about one-third of a mile west of Lisbellaw, Co. Fermanagh

Grid reference H295 411

Specimen numbers: Zg171-176

Fauna: *Pseudorthograptus mutabilis* (Elles & Wood, 1907)

Monograptus triangulatus triangulatus

Age: Llandovery, early Aeronian, *triangulatus* Biozone

Remarks. Harper & Hartley (1938) record *Orthograptus bellulus* from the Council Quarry, but this may represent misidentified *P. mutabilis*. They also record *Coronograptus gregarius*.

3) Half way up Glen, stream by Homeville (see Harper & Hartley 1938, p. 75), Lisbellaw, Co. Fermanagh (J.M. Wordie coll.)

Approximately grid reference H304 420

Specimen numbers: Zg177, 178

Fauna: *Paraclimacograptus innotatus innotatus* (Nicholson, 1869)
Pribylograptus? sp.
Normalograptus? (distal fragment)

Age: Llandovery, Rhuddanian, probably the *atavus* or *cyphus* Biozone

Remarks. Harper & Hartley (1938, p. 76) recorded *Climacograptus innotatus*, *Monograptus incommodus* and *Climacograptus hughesi* at this locality. These probably represent the three taxa recorded in this report. The single specimen of *Pribylograptus?* sp. (the *M. incommodus* of Harper & Hartley) is poorly preserved. It possesses some thecae that do appear to have *Pribylograptus*-like introverted apertures. Harper & Hartley suggested a horizon in the Aeronian '*gregarius*' Biozone, but *P. innotatus innotatus* suggests an older mid- to late Rhuddanian horizon.

4) 150 yards north east of Homeville (given as 100 yards NE of the farm in Harper & Hartley 1938, p. 76) (J.M. Wordie coll.)

Approximately grid reference H302 421

Specimen numbers Zg179, 180

Fauna: '*Monograptus capillaris* (Carruthers)' sensu Zalasiewicz, 1996
diplograptid indet

Age: Llandovery, Aeronian, possibly the *leptotheca* or *convolutus* Biozone

Remarks. The specimen of '*M. capillaris*' (the *M. gemmatus* of Harper & Hartley) is similar to those described from the *convolutus* Biozone of central Wales and the *leptotheca* and *convolutus* biozones of central Europe (Štorch 1998). If so, this horizon appears to be several graptolite biozones younger than that recorded from the stream at Homeville (item 3 above).

5) The Slate Quarry, Leambreslen, Lisbellaw, Co. Fermanagh

Grid reference H2975 4170

Specimen numbers: Zg181, 182 (J.M. Wordie coll.), GSM11086-11089, GSM11117 (Portlock coll.)

Fauna: *Pribylograptus leptotheca* (Lapworth, 1876)
Petalolithus folium (Hisinger, 1837)
trilobites (pygidium and free cheek mentioned by Harper & Hartley 1938, p. 75)

Age: Llandovery, mid-Aeronian, *leptotheca* (a.k.a. *argenteus*) Biozone

Remarks. Harper & Hartley (1938, p. 75) report *Petalograptus* cf. *folium*, *Monograptus leptotheca* and *Diplograptus foliaceus* from this locality. *D. foliaceus* is a late Llanvirn – early Caradoc graptolite, whilst the latter two graptolites, confirmed by this study, indicate the mid-Aeronian. Other shelly faunas have also been recorded by Portlock from this quarry.

Selected references

Most of the references listed below are held in the Library of the British Geological Survey at Keyworth, Nottingham. Copies of the references may be purchased from the Library subject to the current copyright legislation.

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