

YORKSHIRE GEOLOGICAL SOCIETY

Registered Charity No. 220014

Joint Meeting with the IUGS Subcommission on Carboniferous Stratigraphy

President: Dr John Knight

9 - 13 October 2015

Field Excursions to Carboniferous Stratotypes (Asbian – Yeadonian) in Northern England

Development of an international chronostratigraphic nomenclature for the Carboniferous System has led to recognition of global subsystems (Mississippian and Pennsylvanian), series, and stages(Heckel & Clayton 2006). As a consequence, many of the Carboniferous chronostratigraphicunitsestablished in Western Europe have been given regional status. Several of the former European series (Namurian, Westphalian, Stephanian) are now recognised as West European regional stages and the former West European stages are now recognised as sub-stages (Heckel & Clayton 2006; Waters, 2011; Richards, 2013). The international framework is still far from complete at the stage level and difficulties occur with precise correlations between Russia, Western Europe, and North America.

Global Carboniferous substages defined by GSSPs have not been established but regional substages have been established in a number of regions including Western Europe and Russia. Northern England encompasses the location of the majority of stratotypes set up for definition of substages within the Viséan and Namurian Regional Stages of Western Europe (Ramsbottom 1981).

The Yorkshire Geological Society is pleased to organise jointly with the IUGS SCCS an excursion to visit and study the stratotype sections in Northern England from the Asbian to the Yeadonian substages. The sites scheduled for visits are indicated on the attached map. It is anticipated that two stratotypes per day will be visited between Saturday 10th October and Tuesday 13th October, in the number sequence indicated on the map. The final programme for the field excursion is under development and the details are in the process of finalisation with members of the SCCS, Natural England and individual site owners. Details of meeting points and times will be posted as soon as they become available on the YGS website – www.yorksgeolsoc.org.uk

Excursion Summary:

FRIDAY 9 October:

Participants make their way to Manchester, by air, rail or other public transport. The time and meeting place for the participants needs to be determined but will probably be the central railroad station (Manchester Piccadilly). From Manchester it is proposed to travel on Friday evening to hotel accommodation in the area of Preston (distance 30 mi/50 km, some 45 minutes by road), where there are a number of reasonably priced relatively large hotels close to the main junction on the M6 motorway (participants would remain accommodated here for three nights).

SATURDAY 10 October

Travel to the most northerly sites (Asbian and Brigantian) - outward distance some 63 miles (approximately 100 km, travel time about 1 hr 15 minutes). Lunch in the Kirkby Stephen area; return in the evening to Preston.

SUNDAY 11 October

Travel to the Pendleian and Chokierian stratotypes- maximum outward distance from Preston is 36 miles (58 km, travel time about 50 minutes). Lunch in the area of Barnoldswick; return in the evening to Preston.

MONDAY 12 October

Travel to Kinderscoutian stratotype, very close to Preston; lunch near Samlesbury Bottoms. Travel in early afternoon to Marsdenian stratotype (near Marsden, W Yorks, distance 49 miles/79 km, travel time some 1 hr 15 minutes). Late afternoon travel from Marsden to Buxton area of Derbyshire (about 32 miles/51 km, travel time approximately 1 hr 15 minutes); check in to hotel in the Buxton area.

TUESDAY 13 October

Travel to Alportian and Yeadonian stratotypes- maximum outward distance from Buxton about 10 miles (17 km). Packed lunch; late afternoon return either to Buxton (regular rail link to Manchester) or return to central Manchester (distance 28 miles/45 km; travel time 1 hr 15 minutes). Excursion finishes on the evening of Tuesday 13 October.

- HECKEL, P.H. & CLAYTON, G. 2006. The Carboniferous System. Use of the official names for the subsystems, series, and stages. *Geologica Acta*, 4. 403-407.
- RAMSBOTTOM, W.H.C. 1981. Fieldguide to the boundary stratotypes of the Carboniferous stages in Britain. *Biennial Meeting of the Subcommission on Carboniferous Stratigraphy, Leeds.*
- RICHARDS, B.C. 2013. Current status of the international Carboniferous time scale. *In*: S.G. Lucas, W.A. DiMichele, J.E. Barrick, J.W. Schneider, &J.A. Spielmann (eds.) The Carboniferous-Permian Transition. *New Mexico Museum of Natural History*, Bulletin 60, 348-353.
- WATERS, C.N. 2011. Definitions of chronostratigraphic subdivisions: subdivisions and event stratigraphy. *In*: J. Gregory (ed.) A revised correlation of Carboniferous Rocks in the British Isles. *The Geological Society*, Special Report 26, 3-10.

