

# Edinburgh Geological Society – Excursions 2024

## Teesdale Weekend Field Trip: Glaciation of Upper Teesdale



<b>Date &amp; start time:</b>	5/10/2024 0900hrs	<b>Finish time:</b>	6/10/2024 1600hrs
<b>Leaders:</b>	Prof. David Evans and Dr. Brian Young, Durham University		
<b>Base location:</b>	Teesdale Hotel, Middleton-in-Teesdale, County Durham. www.teesdalehotel.co.uk. We will meet here to start the excursion.		

<b>Excursion summary:</b>	<p>Glaciation of upper Teesdale – subglacial landforms and moraines of the Cow Green Reservoir and Langdon Beck area.</p> <p>Geomorphology and glacial sedimentology of the Stainmore ice stream of the last ice sheet – drumlin till stratigraphy, meltwater channels, rubble moraine, glacitected bedrock and chronology of deglaciation.</p> <p>Glacier marginal and ice-contact sediment-landform assemblages in the Romalldkirk area – Hayberries quarry glacitected lake and fluvial sediments, esker deposits and readvance/stillstand moraines.</p> <p>Ice-dammed lakes of the former Teesdale Glacier – Egglesthorpe Burn.</p> <p>Geology and geomorphology of lead mining in upper Teesdale and the role of glaciation and antecedent conditions – Cow Green, Pike Law and Coldberry Gutter.</p>
<b>Meeting point:</b>	Teesdale Hotel, Middleton-in-Teesdale. NY 9472 2556, DL12 0QG, Parking on road nearby.
<b>Transport details:</b>	Local minibus driven by David Evans.
<b>Outline of the excursion route:</b>	Cow Green Reservoir, Langdon Beck, Romalldkirk, Hayberries Nature reserve and Quarry, Egglesthorpe Burn, Pike Law (Newbiggin Common) and Coldberry Gutter (Coldberry), Stack Holme drumlin section.
<b>Terrain, walking distance, height gain:</b>	<p>Cow Green – views from car park</p> <p>Langdon Beck – views from car park</p> <p>Romalldkirk &amp; Hayberries – short walk from car park to disused quarry</p> <p>Egglesthorpe Burn – short walk from car park and views from roadside</p> <p>Pike Law – rambling over hummocky terrain near the road. Some steep grassy slopes of around 20 m high over an area of around 1 km<sup>2</sup>.</p> <p>Coldberry Gutter – ditto.</p> <p>Stack Holme – short walk over field to river section and alongside gravel bed of river margin.</p> <p>Goldsborough – a 1 km walk on moorland paths to summit of table top peak and back. Around 50 m height gain from road.</p>
<b>Additional Hazards not included in the EGS Excursion Handbook:</b>	Adders and Ticks (bring tick tweezers)
<b>Control measures required to mitigate against any</b>	Stout boots and gaiters, tick tweezers

<b>Hazards referred to above:</b>	
<b>Hard hats or Hi-viz clothing needed?</b>	No
<b>May dogs be brought on the excursion?</b>	No
<b>Toilet information:</b>	Toilet facilities are limited to villages, Middleton-in-Teesdale, Romaldkirk
<b>Geological map sheet:</b>	BGS 25, 26, 31 and 32
<b>References:</b>	<p>Dunham, K.C. 1990 (second edition). Geology of the Northern Pennine Orefield: Vol. 1 Tyne to Stainmore. <i>Economic Memoir of the British Geological Survey</i>. H.M.S.O. London.</p> <p>Evans D.J.A. (ed.) (2017) <i>The Quaternary Landscape History of Teesdale and the North Pennines – Field Guide</i>. Quaternary Research Association, London: 265p.</p> <p>Evans D.J.A., Dinnage M. &amp; Roberts D.H. (2018) Glacial geomorphology of Teesdale, northern Pennines, England: Implications for upland styles of ice stream operation and deglaciation in the British-Irish Ice Sheet. <i>Proceedings of the Geologists' Association</i> 129, 697-735.</p> <p>Phillips E. &amp; Evans D.J.A. (2019) Synsedimentary glacetectonic deformation within a glacialacustrine-esker sequence, Teesdale, Northern England. <i>Proceedings of the Geologists' Association</i> 130, 624-649.</p> <p>Evans D.J.A. &amp; Young B. (2022) The abnormally large “hushes” of Teesdale, North Pennines, England: Differentiating mining legacy and natural landforms in glaciated Carboniferous bedrock terrain. <i>Proceedings of the Geologists Association</i> 133, 457-480.</p> <p>Davies B.J., Livingstone S.J., Roberts D.H., Evans D.J.A. &amp; Gheorghiu D.M. (2019) Dynamic ice stream retreat in the central sector of the last British-Irish Ice Sheet. <i>Quaternary Science Reviews</i> 225, 105989.</p>

**Transport:** Minibus transport during the field trip will be provided, as parking is very limited. You will need to make your own way to Teesdale, but we can connect people up to car share.

**Accommodation:** Participants arrange their own accommodation in the Middleton-in-Teesdale area. The trip will start early on Saturday morning, so you will need accommodation in the area for Friday and Saturday nights. We have some rooms reserved at the Teesdale Hotel and also an Air B&B – once you have booked your place, we will be in touch with accommodation advice.

**Booking:** You need to book a place via the EGS WebCollect site with a payment of £30. This will cover sundry expenses and minibus hire etc. Travel to Middleton-in-Teesdale and accommodation/food etc. are for own account on top of this fee. Book at <https://webcollect.org.uk/edinburghgeolsoc>

**The trip is being coordinated by Steve Livera. Contact Angus Miller [promotion@edinburghgeolsoc.org](mailto:promotion@edinburghgeolsoc.org) with any queries.**