

Edinburgh Geological Society – Excursions 2023



Excursion title:	The Carboniferous Leven-Midlothian Basin: Lower Largo, Fife		
Date & start time:	Saturday 19 August 2023 09:00	Finish time:	c. 17:00
Leaders:	Graham Leslie & Mike Browne (BGS/EGS) and Mark Wilkinson (EGS/Univ Edinburgh)		

Excursion aims and description:	<p>This excursion will examine and discuss the Carboniferous stratigraphy and sedimentology within the Leven-Midlothian syncline structure. At Lower Largo, located broadly in the axial region of the basin syncline, the focus will be on the passage from the fluvial bar and channel deposits of the Middle Coal Measures Formation (including the locally-named BarnCraig Coal), up into the often parallel-laminated sandstones and siltstones of the Upper Coal Measures Formation and its numerous well-developed palaeosol units. How should this change be interpreted in sedimentological and structural terms? What changes can be seen in the sedimentary facies characteristic of each formation?</p> <p>We will also examine the nature of the junction, across the Durie Fault, into the strata assigned to the Passage Formation that lie on the northern wall of that fault. The succession is conspicuously folded at a number of locations both west and east of lower Largo Harbour – how does the folding and faulting relate, if at all? The stratigraphical/structural section is ‘book-ended’ by volcanic vent structures at both west and east ends, we will also examine the tuff and agglomeratic rocks occupying these volcanic structures.</p>
Meeting point:	Lower Largo, public car park (with toilets) at [NGR ³ 4225 ⁷ 0260] for coastal exposure west and east of Lower Largo harbour. The first geological locality will be at [NGR ³ 4110 ⁷ 0245].
Transport details:	The leaders will travel by (shared) private car; participants should do likewise where possible.
Excursion route:	Following coastal exposure to Lower Largo Harbour mouth and thereafter east of harbour, continuing along the coastal section.
Terrain, walking distance, height gain:	2–3 km. On coastal sections, beaches and low coastal platforms, accessed by paved or otherwise good paths.
Specific or Medium- / High-Risk Hazards	Weather, tides, terrain, hammering
Control measures required to mitigate against any Hazards referred to above:	<p>Good weather might be anticipated in August but be well-prepared, e.g plenty of fluids to drink and a sun-hat! Sun-cream.</p> <p>All on coastal sections, beaches and low coastal platforms, accessed by paved or otherwise good paths. Stout footwear essential, walking poles beneficial.</p> <p>Dates chosen for low tides during daylight hours. Ready access/egress from coast sections at all points.</p> <p>Please refrain from hammering wherever possible, collecting to be kept to a minimum. Camera (phone) and hand-lens <u>strongly</u> recommended.</p>

Hard hats or Hi-viz clothing needed?	Leaders will have Hi-viz in order to be easily identified, hard hats perhaps useful in a few locations but not mandatory.		
May dogs be brought on the excursion?	Yes		
Toilet information:	At rendezvous car park		
Geological map sheet:	Sheets 41 (North Berwick); 625k sheet, UK North	OS map sheet:	Sheet 59 Kirkcaldy
References:	A general knowledge of the stratigraphical succession will be useful (see published maps listed above) or e.g., Geology of Scotland (4 th Ed.). 2002.		