Excursion to Queen Elizabeth Forest Park

Saturday 16th July 2016
Leader Dr. Iain Allison Participants 15
Report by Roy Bryce

The coach that left from the Gregory Building was rather empty as several of the 13 participants chose to go directly to the park visitor centre as it was closer to their homes than the Gregory Building! We all congregated at the Lodge Forest Visitor Centre where we took advantage of the facilities and topped up our supplies before being given a brief introduction by Dr. Iain Allison.
The excursion largely followed the Red Trail on the Forestry Commission leaflet of walks from the lodge so allows good footing plus an opportunity for a family visit with the geologically interested parties spending time looking at the outcrops while the rest of the family enjoy the views. We started off with a walk through the trees of approximately one kilometer following the path along the Highland Boundary Fault to the Lime Crags Quarry. The quarry is around 100 metres to the south of the HBF and offers exposures of Lower Old Red Sandstone conglomerates, Ordovician limestones, serpentinite-limestone mixtures, serpentinite and a trace of the Gualann Fault. The quarrying work allows a clear visualisation of the different rock types. Care however needs to be taken when entering the quarry as there is a lot of loose rock underfoot.

Iain explained that the Old Red Sandstone is very resistant to weathering and so the HBF is marked by a line of hills from Conic Hill on Loch Lomond across to the hill we were standing on then on to Loch Venacher. The sandstone was formed from the detritus of very large rivers running down from the North East – possibly from Scandinavia since the cobbles are almost pure quartzite and contain no Highland (Dalriadian) rocks.

It can be seen that some of the cobbles would require a very large river to roll and shape the hard rock.

A further interesting feature of some of the clasts in the ORS is that they can be seen to have been faulted (broken in two) then re-cemented forming unusual shapes. We spent around an hour examining the various rock types. Con Gillan managed to find an outcrop of serpentinite on the left of the quarry. It was possible to see the veins where iron and calcite were being weathered out the rock.

We tried to find an outcrop of shale which had been uncovered during the initial quarrying excavations but it seemed likely that this has now been overgrown and is no longer exposed.
As the weather was at least dry, we decided to continue our walk up to the top of the hill to the old radio mast where we could enjoy the views of Ben Ledi, Ben Venue and Ben Lomond as well as the view south over the low-lying Flanders Moss and Carse of Stirling to the Campsie Fells beyond. A perfect spot for lunch.
We then descended the hill again on our way back to the visitor centre. Our eagle-eyed leader spotted an outcrop of slate in a drainage ditch by the side of the forestry path. As Iain said it is only by finding such small outcrops that geologists have been able to piece together a picture of the history of the rocks in the Aberfoyle area. We spent a short while in a hide hoping to spot some red squirrels but without any luck.
We then went back to the coach and travelled a couple of miles up to the Dukes Pass. We then crossed the moorland to an outcrop of a thick turbidite unit. We spent some time examining the bedding surfaces which were steeply dipping, with particle sizes coarsening up from pebbles to granules up to muds. Iain explained that on the cleavage we have a downward facing structure which is evidence for the famous Aberfoyle anticline.

We then returned to the coach and dropped off the members of our group who had travelled directly to the Lodge. Many thanks to Iain for his enthusiastic leadership