



PUY MARY & PAS DE PEYROL AUVERGNE FIELD EXPEDITION JUNE 1 2012

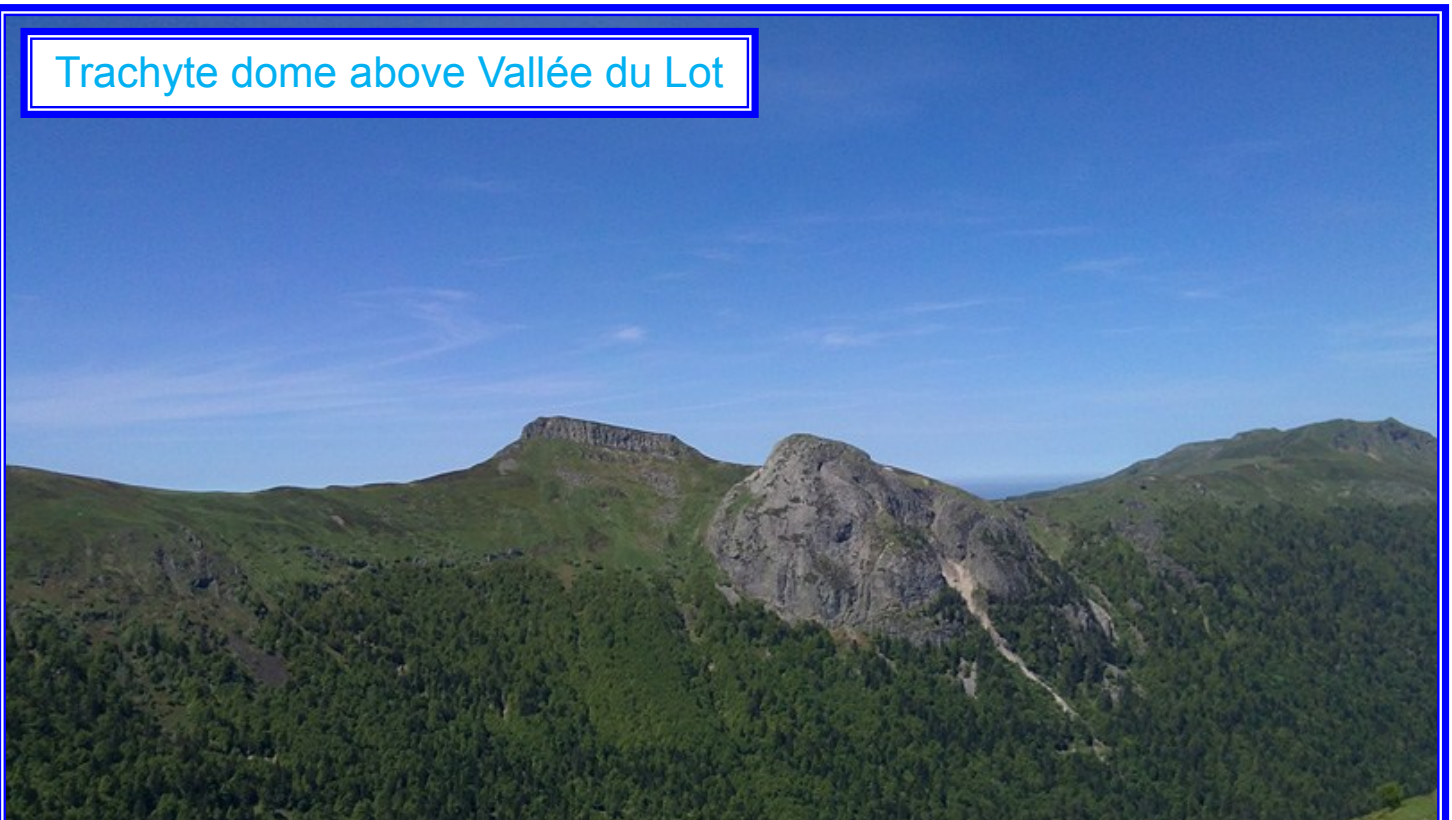
We were graced with yet another incredibly hot, sunny day on our first day in the Cantal region. In the early morning we went for a walk round the village, where we saw some samples of phonolite - ringing rock - in a small quarry. This rock is often used for roof tiles around the area. The valley in which Le Claux was situated showed geomorphological features such as drumlins - evidence of past glaciation.

Dormant stratovolcano

Around midday we reached Puy Mary,

pa relic of the Cantal stratovolcano which at 2,700 km² covers a wider area than Mt Etna, Italy. We drove to the tourist centre at Pas de Peyrol, then hiked up the remaining 1000 m of footpath to the summit. As we ascended we could see dykes, normal faults running North - South, and a magnificent trachyte dome on the mountain opposite. The basement of Puy Mary is granite and schisty metamorphics. 12 Mya, basalt was erupted, then from 9 Mya there was a shift towards trachyandesite as the dominant lava composition. As in other parts of the Auvergne, we noticed a lot

Trachyte dome above Vallée du Lot



of amphibole in hand specimen.

It was tough going to reach the summit, as we had to brave hordes of flies, but the views were worth it. We could see right across to Sancy, where we had been the previous day, and we could see more clearly the effects of glaciation on the valleys below. This glaciation, although concurrent with the last ice age, was not connected to it, and was simply a result of the altitude of the volcano at the time.

On the slopes of Puy Mary itself we saw evidence of a pyroclastic flow, displaying flow banding and, in hand specimen, xenocrysts and more amphibole were present. The flows were about 4 metres thick in total.

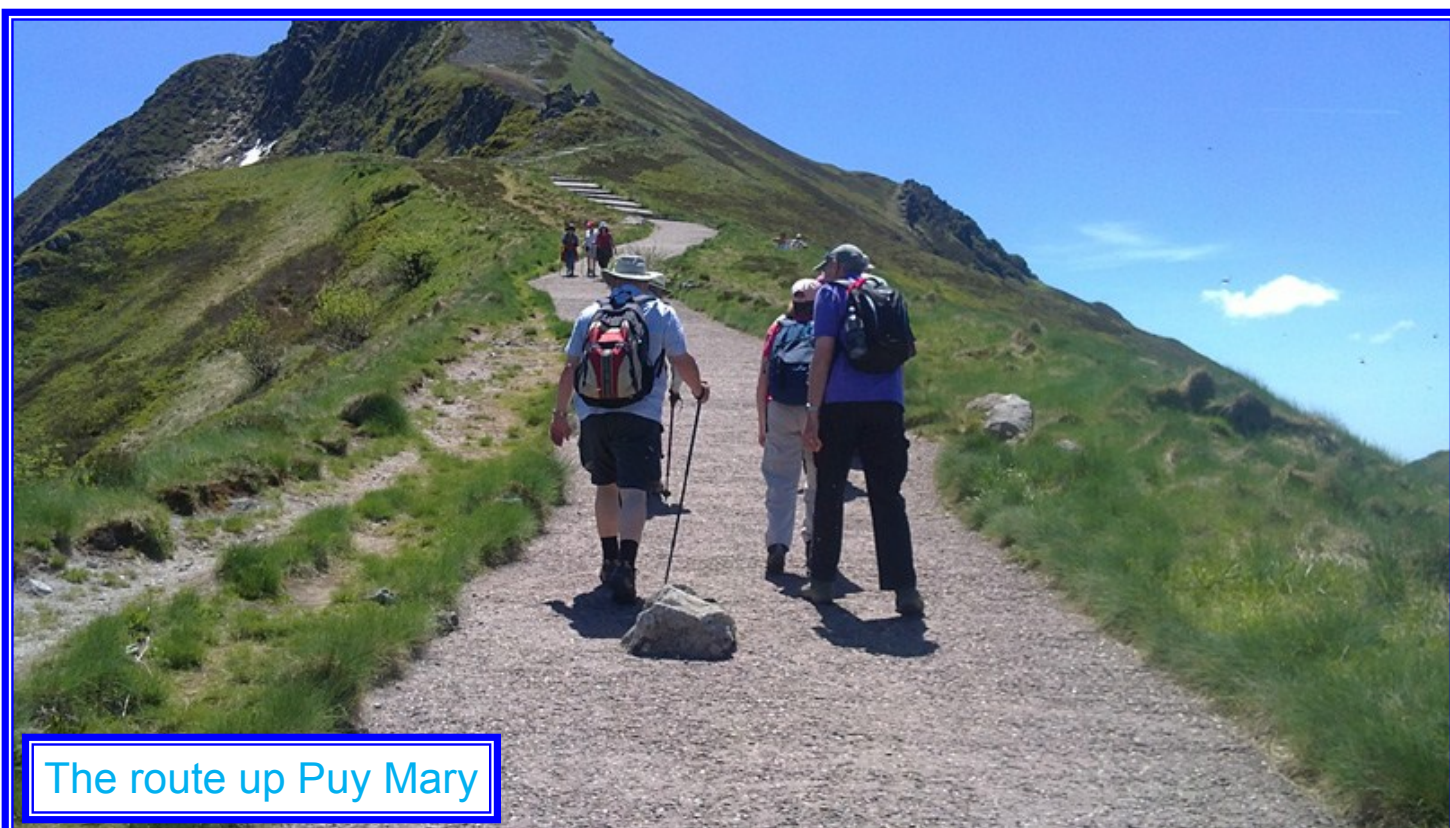
lahar

Our final stop of the day was a roadside exposure near Puy Mary. Here we could

see a brecciated deposit with clasts of various sizes, held in a muddy matrix. This was a lahar, a high speed flow caused by eruptive material becoming fluidised through contact with ice and snow. In all it was around 50 metres thick and would have been highly destructive.

So yet another busy day in all, but we were able to enjoy the wonderful weather and, what with Lesley's expertise and knowledge of the best geo-spots of the area, absorb lots of geological history at the same time.

filed by
Holly Ferrie.



The route up Puy Mary