

## **Wildflower Group Report - September 2019**

### **Fern walk 10<sup>th</sup> September at Bowlees Quarry By Rose Pude**

This walk was to learn about and get advice on how to identify ferns. Steve Gater from Durham Wildlife Trust led the walk through Bowlees Quarry.

Ferns are more primitive plants than the flowering plants we usually look for. They have two life stages. The adult plants we see are the sporophyte stage that produce spores by asexual reproduction. If the spores land in a suitable place they grow into the barely visible gametophyte stage that produces male and female structures equivalent to sperm and eggs. The “sperm” can swim through water from one gametophyte plant to another and fertilize an “egg” thus forming a new sporophyte plant. Ferns can therefore only reproduce sexually in damp places or after rain.

Steve showed us a diagram of the main structures of a fern frond. A crucial feature for identification is how divided the fronds are. Hart’s Tongue fern, very common in damp places, has undivided fronds. Pinnate ferns have fronds that are divided once. Many common ferns are bipinnate – that is divided twice. Examples we found were the male and the female fern. Tripinnate ferns are divided thrice. The notoriously invasive bracken is a tripinnate fern.

Another feature used to identify ferns is the method of growth – do all the fronds come from a rosette or do they spread out from underground rhizomes? Finally the shape and colour of the sori that produce the spores on the back of the fronds at this time of the year help identify ferns that look very similar.

Steve’s practical approach and demonstration of the features that enabled him to identify the ferns he showed us was very helpful but we realised that a lot more practice would be needed before we could be confident of identifying all but the most distinctive ferns.