



## Horsetails on the Line

The permanent way gang consists of people of so many varied interests. However since we work outside, year round, it is not surprising that some of the people who choose to work trackside have an interest in the natural world. It never ceases to amaze me how many different wildlife interests are featured amongst us. My special interest is ferns.

A long while back our track gang leader asked me to do a feature on ferns on the line and I tried to take as many pictures of ferns to include artifacts of the railway in the same picture for authenticity. The article was too long and never finished but I always intended to see if this article would slip past the editor's desk on a slow news day as a shorter subset of the Ferns on the line.

Recent work at the Natural History Museum and other institutes across the world has shown how ferns are much closer related to the flowering plants (trees, daisies, conifers etc.) than the other plants. (mosses, seaweeds, lichens etc.)

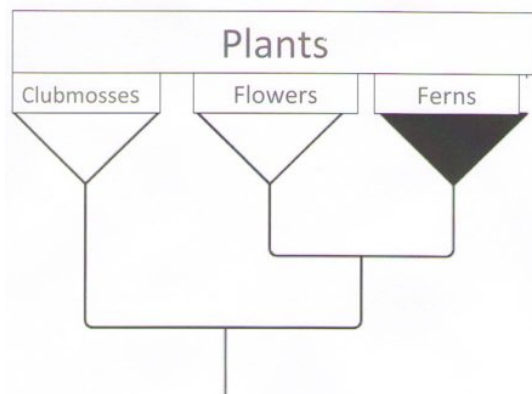
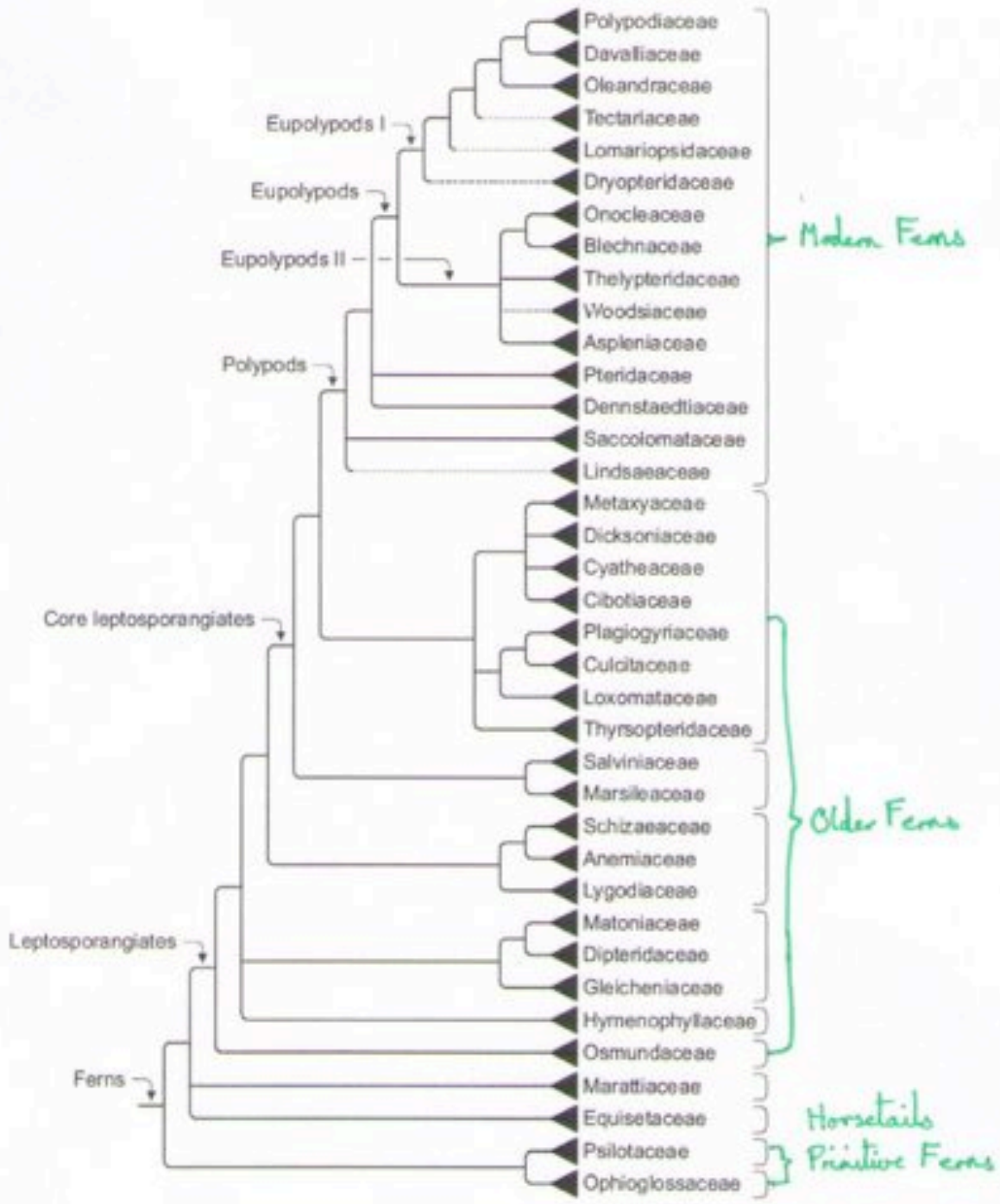


Table 1. Plant Family Tree. Imagine the tree like your own family tree. The further you go back and sideways the more distantly related you are.

In the same work the horsetails have been found to be much closer related to the ferns than the other fern allies.



**Table 2. Family Tree of all living Ferns**

Horsetails, sometimes wrongly called marestails which are an aquatic flower, are those terrible things that most gardeners hate to have in their gardens and have nightmare tales of gardeners who they have known who have had to move house to eradicate them. Most people who know them usually know that they have

been on the earth for some considerable time and were around when the first insects flew and the coalfields were laid down.

There are only 15 species left on the earth today but from time to time new hybrids are discovered. As the hybrids are sterile they do not spread by their spores. Ferns do not have seeds. Seeds evolved in seed ferns in the age of coal from one lineage of ferns that eventually became the more successful flowers. Many horsetails are found in Britain and across the northern deciduous, conifer and Tundra belts of the world.

It was thought that on the railway we had only the two commonest horsetails.

**The Giant Horsetail *Equisetum telmateia*** is to be seen close to water and can be seen on the railway near the Ardingly triangle coming up in the sidings and on the branch where it leaves Horsted Keynes Station. It can also be seen both side of the track in great profusion north of Horsted Keynes Station above the bridge as well as on the east side of the track at the approach to the tunnel from the south.



**Figure 1 Giant Horsetail South of Horsted Keynes Station**





Figure 2 Giant Horsetail growing in the track bed of the Ardingly Branch South of Horsted Keynes Station

The Common Horsetail *Equisetum arvense* is the bane of gardeners. This plant is very common on all railways and is the first plant to come up after the weedkiller trains have attempted to eliminate all weeds from the trackbed.



Figure 3 Common Horsetail growing in the track bed near Three Arch Bridge

Can you imagine our surprise when one Sunday in August when working on the East side of the track around milepost nine and a quarter we discovered the very much rarer in the south of England **Wood Horsetail** *Equisetum sylvaticum*.



**Figure 4. Wood Horsetail South of Milepost 9¼. A rare find in the South-east of England. Photograph courtesy of David Lily.**

Each county in Britain has a recorder who notes all plants in their county and these records are stored on a huge government computer. When I sent the recorder a pressed specimen he was overjoyed to receive it as it was a new site for the plant. The other six sites in this part of Sussex may have gone to extinction but have not been confirmed for some time.

Track gangers not just pretty faces but definitely not people who just hit things with large hammers.

Pat Acock