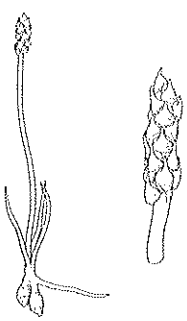
HOW ART THE MIGHTY FALLEN!

This winter, search winter-wet soils on granite swards and around freshwater swamps for the pygmy clubmoss (*Phylloglossum drummondii*). It often grows among damp moss, with other tiny plants such as trigger plants, bladderworts, sundews and *Centrolepis*. You'll have to get down on your knees though – this little feller is seldom taller than 10cm, if that, and so is very easy to miss.



It has been found from Dandaragan to Cape Arid, mainly in the higher rainfall areas, but occurs through the jarrah and karri forests and the wetter wandoo woodland, always in winter-wet sites. It has once been collected as far inland as Dryandra Woodland, on a granite sward, and it may be more widespread than we know. If you have a granite outcrop or a freshwater swamp in good condition, why not have a look for it? (It cannot take salinity.)

Clubmosses are in the family Lycopodiaceae (one of the 'fern allies') that reproduce by spores rather than flowers. Pygmy clubmoss has a tuft of bright yellow-green, grass-like, slightly fleshy leaves with a single stem carrying a cone containing spores. In summer it dies back to a small tuber.

So why is it especially interesting? Well, it is a survivor from dinosaur times, when its ancestors were huge trees forming vast forests across the swampy landscape. Their remains later became coal. In those days, 250–300 million years ago, lycopods were the dominant plants, but flowering plants with their more efficient physiology and reproductive systems have taken over. Now, all we have left in WA is this little fellow and two close relatives that look more like stiff mosses, one in the Denmark-Walpole region and the other in the Kimberley. Indeed, how art the mighty fallen!

Plants like this are 'Gondwanan relics' and the sites where they are still hanging on through all our millions of years of changing climate are 'refugia'. In WA there are many 'relictual species', both plants and animals, in shallow, winter-wet freshwater swamps and seepage areas. In terms of evolutionary biology – and general interest - they have an importance far greater than their areal extent would lead one to believe. If you have such a site on your property, guard it like the precious relic it is.

Penny Hussey

Illustration from 'Flora of the South West'.