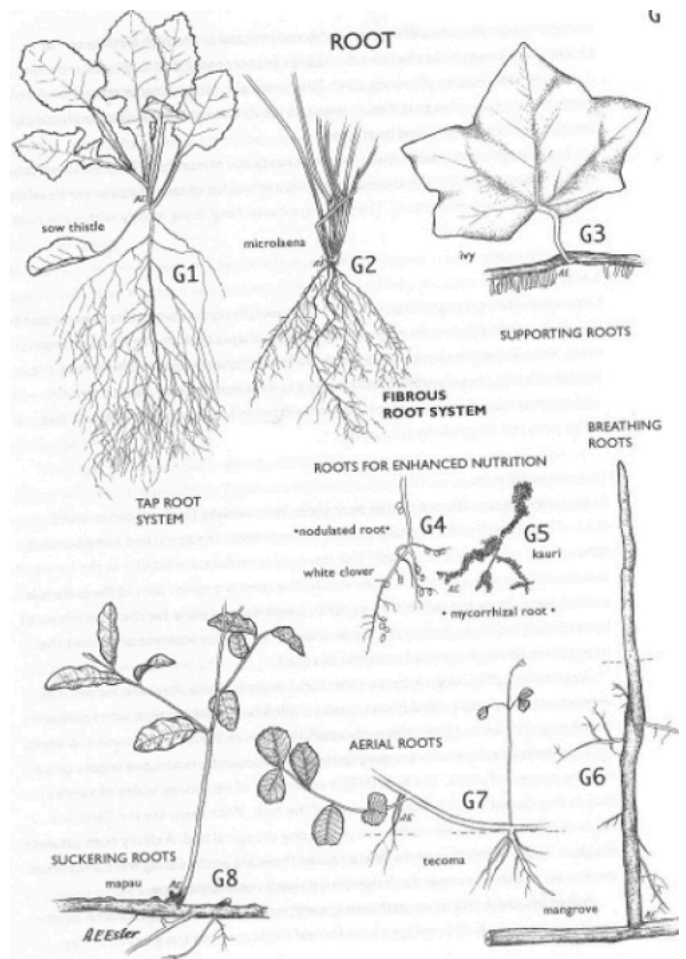


11. Roots

While roots are very useful for the plants to draw up nutrients and water from the soil they are not much used for identification purposes. This is because you usually cannot see them. Usually only the descending roots of the tree epiphytes rātā and puka (*Griselinia lucida*) or the succulent roots of tree orchids are visible.

Aerial roots are produced by pohutakawa and pneumatophore are produced by manawa and swamp maire. The attaching roots of parasites called haustoria are another distinctive root structure. Pukatea and kahikatea produce buttress roots in swampy conditions when mature.

Some different types of plant root are shown here.



Right: Root types.
From *Wild Plants of Auckland* by Alan Esler.

Below: Pukatea (*Laurelia novae-zelandiae*), an example of buttress roots.



