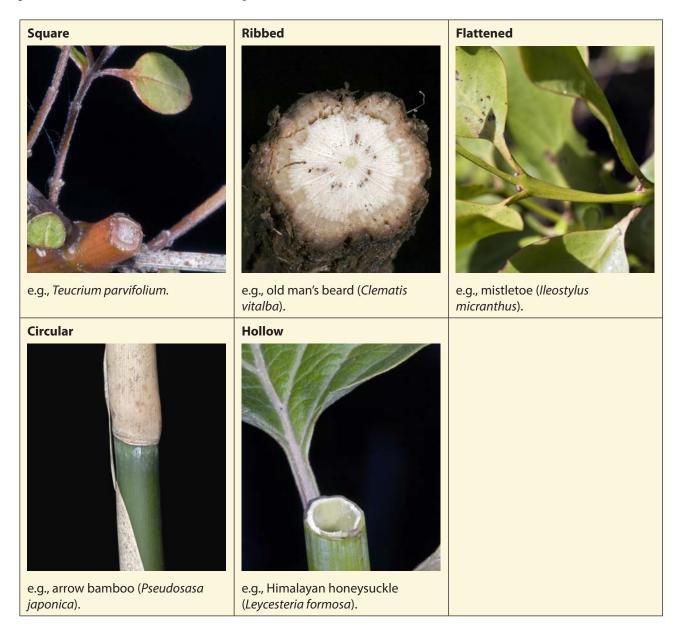
10. Stem and bark

The stem or trunk of a plant can be in various forms such as square, round or hollow. The mint family and related puriri family also have square or 4-angled stems. In some species only the young shoots are square, e.g., *Neomyrtus pedunculata*. Below are some stem shapes:



The surfaces of stems or trunks, including the bark of woody plants, also have many forms including fibrous, hammer marked, hairy or stringy. Stem and bark surfaces are shown below:

| Smooth (glabrous) | Succulent | Rough | Papery |
|---|----------------------------|--|--|
| Smooth exposed epidermis. | Soft, mucilaginous. | Coarse and scratchy to touch. | Thin, dry and flaking. |
| | | | |
| e.g., fennel (<i>Foeniculum vulgare</i>). | e.g., Crassula sieberiana. | e.g., black maire (<i>Nestegis cunninghamii</i>). | e.g., kōtukutuku (Fuchsia excorticata). |
| Prickly/thorny | Hairy (hirsute) | Grooved | Stringy |
| | Fine or soft hairs. | Generally vertical or | Long, stringy serrations |
| | | spiralled striations. | on the bark or stem. |
| e.g., matagouri (<i>Discaria</i> | | | |

It is interesting to compare the trunk and bark features of the "big five" podocarps: rimu, kahikatea, tōtara, mataī, miro (see the pictures below).



Bark of the five podocarps, from left: rimu, kahikatea, tōtara, mataī, miro.