

Preliminary stem anatomy of the genus *Cinnamomum* found in Sri Lanka

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Anatomical characters of the stem of Sri Lankan species of *Cinnamomum* (*C. capparucoronae*, *C. citriodorum*, *C. dubium*, *C. litsiaefolium*, *C. ovalifolium*, *C. rivulorum*, *C. sinharajensis* and *C. verum*) were examined for taxonomic purpose and as an objective to fill the anatomy data gap of *Cinnamomum* species. Stem parts collected from three individuals of each species from Cinnamon research center, Matara, were hand sectioned, fixed, stained and observed under light microscope. Shape of the stem of *C. litsiaefolium* is oval while all other species were round in shape. Rectangular shaped vascular bundle was found in *C. litsiaefolium* whereas rest of the species had round shaped vascular bundles with circular arrangement. Sclerides were observed in the pith in different shapes and frequencies. Round shaped sclerides in less than 10 numbers were observed in *C. citriodorum*, *C. dubium*, *C. verum*, *C. capparucoronae* and *C. ovalifolium* whereas more than 20 sclerides of oval or round shape were observed in the pith in *C. litsiaefolium* and *C. sinharajensis*. Mucilage cells were observed both in the pith and cortex of *C. citriodorum*, *C. litsiaefolium* and *C. rivulorum*. In *C. capparucoronae*, *C. litsiaefolium* and *C. verum* tannin cells were present in both vascular region and the cortex. However, in *C. citriodorum*, *C. sinharajensis* and *C. ovalifolium* tannin cells were observed only in the cortex and in rest of the species they were observed in the vascular region. Therefore, some anatomical characters of the stem of *Cinnamomum* could be considered as diagnostic characters for the taxonomic identification and separation of *Cinnamomum* species in Sri Lanka. However, these preliminary data must be confirmed with further studies based on more samples covering the whole country.

Keywords: *Cinnamomum*, stem anatomy, shape, diagnostic characters, identification

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