ABSTRACT

The present research work was carried out for anatomical features of different species belonging to family Morasceae. Total 15 species Ficus religiosa L., Ficus banglenses L., Ficus carica L., Ficus deltoidea Jack., Morus alba L., Morus nigra L., Ficus triangularis L., Ficus elastica Roxb. Ex Hornem., Arto carpus heterophyllus J. R. Forst., Ficus nerifolia Sm., Ficus banjamina L., Ficus elastica Roxb. Ex hornem., (verigated leaves) Ficus virens Aiton., Ficus macrophylla Roxb. were collected. On abaxial surface of leaf in Ficus triangularis, Artocarpous heterophyllus, Ficus religiosa, Ficus elastica, Ficus banjamina, Morus nigra stomata were observed while on adaxial surface stomata were present in Ficus macrophylla, Ficus deltoidea, Ficus virens. Different shapes of trichomes were present in Morus alba, Morus nigera, Ficus banglenses, Ficus elastica (verigated leaves). In some species stomata are present only on the adaxial e.g. Ficus macrophylla, Ficus banglenses and Ficus deltoidea, which is an adaptation of this family to survive in various ecological zones. In petiole of Ficus banjamina larger length of collenchyma cells (24.2±3.00 µm) and width (15.4±4.45µm) was observed. While smaller length of collenchyma cells (6.23±2.32μm) and width (12.3±3.24μm) were observed in Ficus deltoidea. The larger pith was observed in Morus nigra than other species. In Ficus banjamina the smaller length of metaxylem cell was 4.33±2.02 µm and width 8.46±1.42 µm. The smaller length of protoxylem cell is 14.7±0.39 um and width is 15.4±4.45 um was observed in Ficus banjamina. Our results may contribute to the classification of species and the species diagnosis for the plantations in various environments for their better adaptation.