Comparative micromorphological and anatomical studies of tribe Cardiochlamyeae (Convolvulaceae) in Thailand.

Natthawut Triyutthachai  1, [@](mailto:kingdom_aof@hotmail.com)  , Paweena Traiperm  2  , Pimwadee Pornpongrungrueng  1, \*, [@](mailto:ppimwa@kku.ac.th)

1 : Applied Taxonomic Research Center, Department of Biology, Faculty of Science, Khon Kaen University, Khon Kaen, Thailand 40002

2 : Department of Plant Science, Faculty of Science, Mahidol University, Bangkok, Thailand 10400

\* : Auteur correspondant

Micromorphological and leaf anatomical characters of four genera and seven species of tribe Cardiochlamyeae (Convolvulaceae) in Thailand, including two species of *Dinetus* Buch.-Ham. ex Sweet, three species of *Tridynamia* Gagnep. and one species each of *Cordisepalum* Verdc. and *Poranopsis* Roberty, were investigated to determine their taxonomic significance. The micromorphological data included in the present study were trichomes on floral parts, pollen and seed morphology; they were examined under a light microscope (LM) and scanning electron microscope (SEM), while the leaf anatomical data were investigated under LM. The results show that the micromorphological characters that are taxonomically useful for identification are the presence and type of trichomes on floral parts; pollen size, shape and exine ornamentation; as well as seed shape and surface sculpturing. In addition, the leaf anatomical characters that can be used for species identification are the shape of epidermal cells in surface view, the number of palisade layers and the type of trichomes.