Turkish Journal of Botany

Turkish Journal

of

Botany

Pollen morphology of some Gypsophila L. (Caryophyllaceae) species and its taxonomic value

Ebru ATAŞLAR, İsmühan POTOĞLU ERKARA, Süleyman TOKUR
Eskişehir Osmangazi University, Faculty of Science and Literature, Department of Biology,26480 Eskişehir - TURKEY

Abstract: Pollen morphology of 12 taxa (6 of them endemic) that belong to the genus Gypsophila L. were investigated using light microscopy (LM), scanning electron microscopy (SEM), and transmission electron microscopy (TEM). Differences in pollen morphology between these taxa were determined based on palynological studies. Pollen grains are spheroidal and polyporate. The exine structure is tectate, but that of G. sphaerocephala var. sphaerocephala is intectate. The exine sculpture is granulate-microechinate-microperforate, but that of G. sphaerocephala var. sphaerocephala displays clavate-microechinate ornamentation. The operculum exists in the form of scattered pieces in G. curvifolia, while it exists as a whole in the other taxa. G. perfoliata var. perfoliata has the largest pollen grain diameter, whereas G. tubulosa has the smallest. The exine consists of 2 parts; the upper part is the thick ectexine and the lower part is the thin endexine. The endexine is thin and continuous.

Key words: Caryophyllaceae, Gypsophila, pollen, LM, SEM, TEM

Keywords
Authors

bot@tubitak.gov.tr

Scientific Journals Home Page

Turk. J. Bot., **33**, (2009), 335-351.
Full text: pdf
Other articles published in the same issue: Turk. J. Bot.,vol.33,iss.5.