

## MORPHOLOGICAL AND ANATOMICAL INVESTIGATIONS OF SOME

### *GAGEA* SALISB. SPECIES (LILIACEAE) IN TURKEY

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### ABSTRACT

In this study, the morphological and anatomical features were investigated of *Gagea bithynica* Pascher (endemic), *Gagea bulbifera* (Pallas) Schultes & Schultes and *Gagea luteoides* Stapf, *Gagea pratensis* (Pers.) Dumort and *Gagea villosa* (Bieb.) Duby var. *villosa* species. In the morphological part of the study, bulbs are covered by pale brown tunica of all species. Basal leaves 2 or more per bulb of *Gagea bulbifera*, *G. bithynica*, *G. villosa* var. *villosa*. Basal leaf of *G. luteoides* 1 per bulb and inflorescence paniculate or subumbellate. In anatomical studies, the wall thickenings of the endodermal cells are three sided of root of *G. bithynica*, *G. bulbifera*, *G. luteoides* and *G. pratensis*. Only, *G. luteoides* has tuberculate or warty trichome on scape and leaf shape. D-shaped of basal leaves of *G. villosa* is a distinctive feature. There is no differentiation as palisade and spongy parenchyma at mesophyll of base and stem leaf of all *Gagea* species. The aim of this study is to demonstrate the characteristics of the taxon evaluating the results obtained from morphological and anatomical investigations.

**KEYWORDS:** *Gagea*, Liliaceae, Morphology, Anatomy