

**Abstract**

Desmids are green streptophyte algae classified in the order of *Desmidiiales*. The cells of desmids are notable for the presence of mirror-symmetrical ornamented semicells connected by a plasmatic bridge, the isthmus. This group of organisms is characterised by a rather high ecological specificity, causing them to respond to changes in environmental conditions by modifying their morphological characteristics. The ability of an organism to exhibit several different phenotypes in response to environmental transformations is called phenotypic plasticity. This has often been the subject of morphometric studies, which provide more specific description of the phenotypic changes in desmids. Due to their ability to respond to alterations in external conditions, desmids have shown the potential for practical use as bioindicators.