

Abstract

Stinging nettle (*Urtica dioica*) is a very well-known taxon of genus *Urtica*, but still its taxonomy is not satisfactory resolved. An obvious reason of taxonomic obscurity of entire aggregate is enormous morphological variation. Polyploidization significantly contributes to this variability. Polyploidy probably is a reason of successful expansion of tetraploid cytotype in synanthropic habitats. *Urtica dioica* is rich in secondary metabolites, especially fatty acids, phenolic acids and flavonoids. Secondary metabolites are isolated for various purposes. They are widely applied especially in pharmacy and subsequently used for various medications. Despite the undoubtful economic importance a linkage between secondary metabolites composition and polyploidy has not been studied yet.