Ellmouni, F.Y. **Karam, M.A.,** Refaat M. Ali, Dirk C. Albach. 2017. Molecular and morphometric analysis of *Veronica* L. section *Beccabunga* (Hill) Dumort. *Aquatic Botany,* 136 : 95-111 (*Available online 28 September 2016*)

## Abstract

The Mediterranean is home to rich variety of aquatic plants. Yet, they are less prominent as other groups of plants in this global hotspot of biodiversity. *Veronica* sect. *Beccabunga* is a common member of the semi-aquatic plants in a variety of moist to aquatic habitats in the region. Species numbers vary between two and fifteen with many subspecies and varieties and taxonomic problems. However, most studies involve only regional floras and no global biosystematic analysis is yet available. Here, we present a morphometric and molecular study based on plastid and nuclear ribosomal DNA of the group to provide a phylogenetic framework for the group using ١٠١ specimens of ٢٤ taxa in the morphometric and ٦٥ specimens for ٢٨ taxa. Further, flow cytometry has been used to reveal the ploidy level, especially of the Egyptian endemic taxa. The analyses demonstrate the division in three subsections but fail to resolve further groups within these subsections consistently. Reasons for this lack of resolution are likely a combination of ancient polymorphisms, hybridization and phenotypic plasticity. Especially, the latter two have been shown to be frequent in the group. The study forms the basis for any further study by demonstrating the necessity to analyze the group globally and/or in more in-depth using highly variable molecular markers.