

Morphometric study of genus *Epipactis* in Slovenia

Morfometrična analiza rodu *Epipactis* v Sloveniji

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Helleborines (*Epipactis*), a genus of orchids (*Orchidaceae* s.lat.), are taxonomically quite a demanding group due to their extreme variability. This variability arises out of reproduction modes which are autogamy, cleistogamy and apomixis. Various habitats, in which helleborines grow, are just another contribution to it. Interspecific hybrids do appear as well, however it is not known enough about them yet. Hence also the classification of the genus is not completely unambiguous.

According to Mala flora Slovenije (N. Jogan and A. Martinčič et al., 2007), there are eleven species with four subspecies growing in Slovenia. They are *E. atrorubens*, *E. greuteri*, *E. helleborine* ssp. *helleborine*, *E. helleborine* ssp. *leutei*, *E. helleborine* ssp. *orbicularis*, *E. latina*, *E. leptochila* ssp. *leptochila*, *E. leptochila* ssp. *neglecta*, *E. microphylla*, *E. muelleri*, *E. nordeniorum*, *E. palustris*, *E. pontica* and *E. purpurata*. In order to find useful distinguishing features among them, a morphometric analysis was made. Concerning literature and preliminary revision of herbarium material (LJU), 62 potentially useful characters were chosen. Morphometric observations were made in the field on 41 locations on 289 OTU. Additional research on 45 flowers, each of them was from one of the visited locality, was conducted in the laboratory.

As it has been expected, the most information is hidden in the shape of structures. Measurements only do not give satisfactory results. The shape of labellum and gynostemium and the presence of clinandrium and viscidum seem to be the most reliable features. However, still much work needs to be done not only in the field of morphometry; also distribution of taxa and their ecology are not well understood.