Research of Probable Hybridization of Violets in Natural Populations of Belgorod Area

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Viola mirabilis is one of the species of violets that distributed throughout Europe. Its feature is the ability to blossom twice a year: in the spring appear infertile flowers and in the summer are formed fertile ones. From them fruits are formed. But in the Belgorod area was founded samples of Viola mirabilis that form fruit from the spring flowers and grow in thickets rather than tugts. Moreover, the samples have intermediate morphological features relatively to the other species of violets Viola suavis and Viola tanaitica are common in the same area. So the main question of the work was to find out a reason for these differences. Morphological features data are often not enough to confirm or reject the hybridogenetic origin of the researched samples. According to this statement in the research will be used molecular data to find out the evolutionary relationships of the Violets. In the research was analyzed two sequences of chloroplast DNA introns (trnV-ndhC, trnH-psbA) and nuclear DNA by ISSR-markering (Inter-Simple Sequence Repeats). The research showed that hybridization between Viola mirabilis and Viola suavis did not occur. All probable hybrids were the true species of Viola mirabilis. But in the case of probable hybridization between Viola mirabilis and Viola tanaitica ability of hybridization was confirmed

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