The adaptation of orchids to changing conditions - what in reality?

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The report discusses various possibilities for protecting orchids in the Tver region in Central Russia. An analysis is made of whether the actual conservation of species populations in specially protected natural areas is ensured. The adequacy of the identified habitats for maintaining the species within the Network of the ecological Network and the Emerald Network in Russia is assessed (for example, *Cypripedium calceolus*). Examples of conservation of orchids in temporary ecological niches created under the influence of anthropogenic activity and the stability of orchid populations to the impact of introduced species are considered. The main endangered factors in the Tver region for orchids are the disappearance of habitats (deforestation), industrial development of territories, the spread of aggressive introducent species (*Heracleum sosnowskyi*), the growth of urban agglomerations. Currently, 33 species from 20 genera of the Orchidaceae family are found on the territory of the Tver region. Over the past 100 years, 2 species have not been recorded on the territory of the region and are considered extinct (*Cypripedium guttatum, Calypso bulbosa*), 2 species have not been found for more than 70 years (*Cephalanthera longifolia, Neottianthe cucullata)*. In the Red Book of the Russian Federation (2008) 12 species (36.4%) are listed, in the Red Book of the Tver region - 24 species (72.7%). On the other hand, habitats and large populations of rare orchid species have been preserved for more than 100 years (*Cypripedium calceolus, Orchis militaris, O. ustulata*) in areas where human economic activity is conducted. In the Tver region, orchids are noted in various types of disturbed habitats: along roads and railways, in quarries, on dumps of old quarries, on deposits, in forest plantations, along meliorative ditches, in urbanized areas. A database was created using GIS.