

## Abstract

Certain individual types of organisms are presently dying at very high rate – or better to say they are exterminated - which has no parallel in the history of the nature's development on the Earth. Main reasons behind this situation are the humans who are causing global pollution and destruction of natural ecosystems.

*Orchis palustris* (meadow orchid) are the species growing in the wet lowland moors and whose existence is tied to the level of underlying water and thus to the activities of the humans. Land reclamation or the loss of ecology causes gradual degradation of these greeneries, composition of the species in the greenery is changing and the species with a clear-cut requirement for environment conditions are slowly disappearing. The same fate has met meadow orchid also, it has become one of the critically endangered species. This work documents the present instances and conditions of the localities of these endangered species in the Bohemia – Central Elbe Region and explains its ecology in greater detail.

During the last two vegetation seasons the instances of these species were mapped on the entire area of interest, they were compared to historical data and documented in the aerial photographs. Phytocenology images of selected localities were recorded and at the same time the localities were described by their variable conditions (elevation above the sea level, degree of the locality's preservation, humidity and the presence or absence of cuttings). The number of individual blossoming species was recorded each week for the period of one month. The results of Phytocenology images were evaluated by the analytical methods of Canoco software program for Windows.

Presence of these species was confirmed in 7 localities, which was known even in the past. It was confirmed that all four variable environments are important for the successful survival of *Orchis palustris* population in these localities, of which the most important are humidity and elevation above the sea level, which are strongly correlated. These findings have served as a proposal for suitable management of the studied species' localities in order to preserve the *Orchis palustris* population in the flora of the Central Elbe Region.