## Panonski elementi v flori jugozahodne Madžarske: vpliv klimatskih in edafskih dejavnikov

## Pannonian influences in the flora of South-West Hungary: the role of climatic and edaphic factors

Gergely Kırály, Angéla Kırály Fő u. 127, H-9462 Völcsej, Hungary; gkiraly@emk.nyme.hu

During the former investigations of SW Hungary from phytogeographic point of view species indicating sub-Atlantic or sub-Mediterranean connections played outstanding role, while these give special features to the flora of this region and also have significant role composing the local associations.

There are few researches studying the border of flora elements of "Pannonian" type. "Pannonian" means at present species with oriental focal point of their area whose occurrences are typical in the inner part of the Carpathian Basin.

Especially few works analyse the spatial and temporal changes of the distribution patterns. To investigate this question our examinations based on the evaluating of distribution maps on regional scale. The studied area was the hill country of 150-350 m s. m. situated in SW Hungary.

Conclusions:

In the region authentic "Pannonian" species (endemisms and plants of classic steppe habitats) are absent, or are confined in 1-2 special localities. Therefore for the examination of the transitions are species more applicable which are frequent in Hungary, but become rarer and rarer towards south-western direction.

It's is obvious, that eastwards from the Alps and north-eastwards from the Illyricum the frequency of the occurrences of these species increase. Although in these directions due to the similar relief the climatic factors become more and more favourable for them, the frequency of the occurrences do not increase constantly but by leaps according the changes of the edaphic factors.

For these species the most important edaphic factor is even the local existence of calcareous substrates, primarily loess. Their actual small-scale spread patterns are not independent from the locally typical land use. First of all the pasture and grazing management generate these satellite occurrences.

Insular occurrences of these species usually cannot be termed relicts in a qualified sense, because anthropogenous landscape changes played an important role in their development. Regional area changes during the decades can reach a 10 km scale.