Actual chorological overview of the Pannonian halophytic vegetation in Slovakia

A pannon szíkes növénytársulások aktuális felvidéki elterjedésének áttekintése

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The Pannonian alkaline and saline vegetation represents an important element of the agricultural landscape. It is a unique plant community-complex from the phytogeographical point of view, since the area of several Pannonian halophytic species reach their northernmost occurrence in the lowlands of Slovakia. Recently, this vegetation is surviving only in scattered fragments. During 50 years their area has decreased below 500 ha which is not more than 6% of the data surveyed in the early 1960ties. The reason of this significant reduction is the intensive agricultural pressure, including drainage, desalinization and ploughing up of the salt-affected soils. In addition, the abandonment and the absence of traditional grazing caused further degradation of the stands.

This contribution is aimed to present the recent stage of 15 halophytic plant associations of Slovakia.

Acorelletum pannonici was published only from one locality near Búcs (Búč). The last decades the community disappeared, included the species *Acorellus pannonicus*, which is now extinct in the country. The most typical occurrence of *Crypsidetum aculeatae* is from Tardoskedd (Tvrdošovce), but in the last 5 years it is missing from all of the historical localites. There is a possibility that it re-appears in the artificial pond in the village after dredging the upper soil surface in the frame of a revitalization project. *Atriplici prostratae-Chenopodietum crassifolii* was reported only in the last 3 years in secondary habitats near villages Tardoskedd, Izsa (Iža) and Perbete (Pribeta). *Heleochloetum schoenoidis* and *Puccinellietum limosae* are more or less abundant halophytic plant associations occurring rather secondarily in field depressions, e.g. by Mocsonok (Močenok) or Szentpálpuszta (Pavel) near Komárom (Komárno).

The area of *Camphorosmetum annuae* has markedly decreased. Compared to the historical data, the vegetation of the salt pans today is published only from 3 microlocalities: Kéménd (Kamenín), Izsa and Nagykeszi (Veľké Kosihy) which are not larger than a few 50 dm2. The seasonal vegetation of *Pholiuro pannonici-Plantaginetum tenuiflorae* was documented from at least 8 historical sites, the last known occurence is known from the farmsteads of Nagysurány (Šurany) and Mocsonok. *Hordeetum hystricis* is reported from 2 localities (Mocsonok, Nagysurány) where these grasslands are managed by sheep grazing. Salt steppes like *Artemisio santonici-Festucetum pseudovinae* and *Achilleo setaceae-Festucetum pseudovinae* are the most common halophytic vegetation of Slovakia. The most typical stands of the first association are in Kőhídgyarmat (Kamenný Most), Jattó (Jatov) and Tardoskedd. Due to the leaching of the solonetz soils they often change to degraded stages of ass. *Achilleo setaceae-Festucetum pseudovinae*. This community, except Nagykeszi and Nagysurány, is known from the SE part of the country as well. There is a lack of recent data about the relative ass. *Centaureo pannonicae-Festucetum pseudovinae*. Two types of salt meadow-vegetation were not confirmed in the recent years: *Agrostio-Caricetum distantis* (5 localities were published in the past) and *Scorzonero parviflorae-Juncetum gerardii* (2 localities). Relevés of *Caricetum divisae* are given only from a single locality (Búcs) and wet subhaline meadows with *Beckmannia eruciformis* are known in the eastern part of Slovakia where it has several sites, such as Őrös (Strážne) and Perbenyik (Pribenik).

Whereas the saline habitats of Slovakia have lost their typical physiognomy and species composition compared to halophytic vegetation occurring in the Alföld, nowadays it is no longer possible to perform phytocoenological studies. Today, beyond the chorological survey of the most important halophytic species and fragmentary communities we are focusing on the degradation processes of chosen plant associations by field experiments taking into account selected ecological factors as well. The study was supported by grant VEGA No. 2/0003/12.