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# Plant species distributing spontaneously in Capital Budapest

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Abstract: Taxonomical distribution of species: Asteraceae (13,7%), Poaceae (12,5%), Brassicaceae (5%), Fabaceae (5%), Cheopodiaceae (4%). Origin: Proanthropophytes (Ar): *Fallopia convolvulus, Capsella b.-p., Setaria viridis, S. verticillata.* Neophytes (Ne, that is Kenophytes): *Amaranthus retroflexus, A. deflexus, Conyza canadensis, Galinsoga parviflora, Ailanthus altissima, Acer negundo, Morus alba.* Characteristic associations: *Matricario – Polygonetum arenastri, Poetum annuae, Cynodonto – Atriplicetum tataricae.*

Keywords: flora, association, greenery, synanthrop.

## Flora of Capital

We found nearly 1500 species as members of total flora of Capital. This summa includes the species of original habitats and those of urban biotops as well.

In the ground-town, or centre of Budapest, which were mentioned already, there were found 321 species. Their characteristics are as follows:

Species belong to 59 families which are the followings (concerning the numbers of species): Asteraceae 14%, Poaceae 12%, Rosaceae 8%, Brassicaceae 8%, Chenopodiaceae 4%. Spectrum of families is like that of in West-Europaean cities (Wittig 1991).

On the basis of geographycal and historical method (KORNAS 1981, SUDNIK-WÓJCIKOWSKA 1987, TERPÓ 1994) 34% of species are Ap5 (euapophyton), most of them belong to Poaceae, Asteraceae and Chenopodiaceae. 75% of these

species are therophyton. In all the 28 investigated places we could find belonging to Ap5 only 11 species and to neophyton only 3 species (Tab. 1).

Frequency and dominancy of neophytons is less, however their dangerous character should not be emerge from our attention.

**Tab. 1. Characterization of any Ap5-species concerning their frequency and A-D values.**

| | Number of localities (28=100%) | Covering (A-D) |
|---|---|---|
| *Polygonum aviculare* (s.l.) | 28 | 30-40% |
| *Taraxacum officinale* (rud.) | 26 | 10-20% |
| *Lolium perenne* (wild) | 26 | 10-30% |
| *Chenopodium strictum* | 26 | 5% |
| *Sonchus oleraceus* | 24 | 5% |
| *Artemisia vulgaris* | 23 | 5% |
| *Poa annua* | 23 | 15% |
| *Hordeum murinum* | 23 | 10-30% |
| *Plantago major* | 22 | 1-5% |
| *Cynodon dactylon* | 22 | 5-30% |
| *Eragrostis minor* | 22 | 5-10% |
| *Convolvulus arvensis* | 21 | 1-5% |
| *Agropyron repens* | 20 | 5-20% |

These can be called also urbanophilous species because their distribution is common in the Capital.

The above mentioned species could live originally in fields of agriculture, of animal keeping and of ancient settlements as well. Even recently we can find rather often such species in big cities which are mostly members of natural vegetation, e.g. in Budapest: *Tribulus terrestris, Clematis vitalba, Circaea lutetiana, Hibiscus trionum* etc.

However the expansion of neophyton species starts from the city, e.g.: *Euphorbia maculata, Amaranthus deflexus, Eleusine indica, Senecio inequidens*.

## Vegetation of Capital

Recognition and utilization of stand communities and associations are of great importance in form of greenery. In the centre of Capital can be found the following plant stands and communities of significant importance:

1. *Polygonum arenastrum* stands (Syntax.: *Matricario-Polygonetum (avicularis) arenastri* T. MÜLLER in OBRED. 1971)
*Polygono arenastri-Lepidietum ruderalis* MUCINA 1993
2. *Poa annua* comm. (Syntax.: *Poetum annuae* FELFÖLDY 1942)
3. *Lolium perenne-Plantago major* stands (Syntax.: *Lolio-Polygonetum arenastri* BR.-BL. 30 em. LOHM. 75, *Lolio-Plantaginetum majoris* (Beger 32.)
4. *Hordeetum murini* LIBBERT 1933
5. *Pastinaco-Arrhenatherum* PASSARGE 1964
6. *Atriplex tataricae* stands (Syntax.: *Atriplicetum tatarici* UBRIZSY 1949, *Cynodonto-Atriplicetum tatarici* MORAVIN 1943)
7. *Cynodontetum dactyloni* FELFÖLDY 1942
8. *Poa bulbosa* stands
9. *Balloto-Malvetum sylvestris* GUTTE 1966
10. *Agropyron repens stands* (Syntax.: *Agropyretum repentis* FELFÖLDY 1942, *Convolvulo arvensis-Agropyretum repentis* FELFÖLDY 1945

Rare associations can be found in centre Budapest:
*Malvo neglectae-Chenopodietum vulvariae* GUTTE 1966
*Cymbalarietum muralis* GÖRS. 1966

## Value of communities as greenery

The above mentioned stands provide with green fields not the same intervals. Grasses being green even in the winter are of great importance.

Stands of *Poa bulbosa* and *Hordeetum murini* are fresh green from autumn till the end of spring (they can be cut ones, in the spring).

Communities and stands of number 3., 5. and 10. are green during whole year (they can be cut 2-3 times).

Grasses in which dominant are *Polygonum arenastrum* and *Cynodon dactylon*, they are green from May till end of autumn.

*Cynodon dactylon* lives most often in stends of *Polygonum arenastrum* which start to space out. In the vegetation period about 30-40% of grasses are formed by *P. arenastrum* in the centre of Capital.

In winter and early in the spring live on place of *P. arenastrum* two groups: a/ winter annuelles and b/ annuelles. From a/ group can be found mostly: *Capsella bursa-pastoris, Erodium cicutarium, Stellaria media*. To b/ group belong: *Poa bulbosa, Lolium perenne, Cichorium intybus, Taraxacum officinale*.

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