WEED SPECIES IN SYNANTROPIC FLORA OF NOVI SAD

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INTRODUCTION

Ruderal or syntrophic flora and vegetation are the most dynamic floristic-vegetation complex and an integral part of antropogenic environment. On one side the influence of antropogenic factors and on the other a variety of climate, topografic, geological and soil characteristics contribute to highly pronounced diversity of a weed flora. The presence of antropogenic influences have crucial importance of the emergence, development and distribution of ruderal flora and ruderal vegetation making the biotops very dynamic and unstable habitats.

MATERIAL AND METHODS

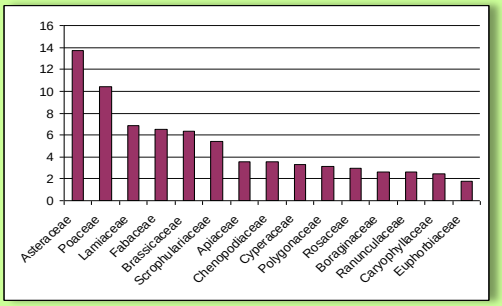
Novi Sad is located in an area with a concentrated agricultural production, a town which is also an international river port and most favorable for importing and spreading of weeds. An analysis of the number of weed flora species in individual biotope types of Novi Sad has pointed out that the largest representation of weeds is in the group of artificial, grassy as well as coastal habitats.

The plant material was collected during the entire vegetation seasons of 2009 and 2010 at chosen localities in Novi Sad (Klisa, Novo Naselje, the Industrial zones North and South, along the canal, along the embankment, the Kej, Štrand).

H A B I T A T S

RESULTS

I Taxonomic analysis of flora



Graph 1. Percentage (%) of the representation of weed flora families with more than ten taxa within the framework of synanthropic flora of Novi Sad

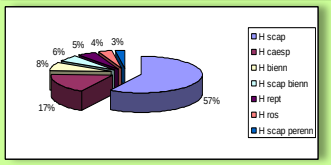
Table 1. Percentage (%) of represented genus of weed flora of Novi Sad

Rod	Broj taksona	%
Veronica	15	2,64
Carex	15	2,64
Chenopodium	13	2,29
Vicia	12	2,11
Euphorbia	12	2,11
Rumex	11	1,94
Bromus	10	1,76
Ranunculus	8	1,41
Polygonum	8	1,41
Vebascum	7	1,23
Poa	7	1,23
Centaurea	7	1,23
Amaranthus	7	1,23

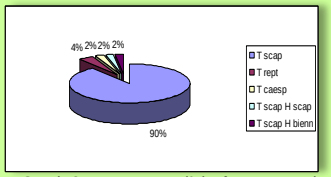
I I Ecological analisis flora

Table 2. The biological range of weed flora in Novi Sad for basic life forms.

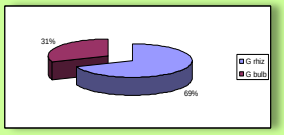
Životna forma	Broj vrsta	%
Hemicryptophyta (H)	225	39,61
Therophyta (T)	183	32,22
Phanerophyta (Ph)	65	11,44
Geophyta (G)	46	8,10
Therophyta/Chamephyta (TH)	17	2,99
Hydrophyta (H)	12	2,11
Scadentophyta (S)	11	1,94
Chamaephyta (Ch)	9	1,58
Ukupno	568	63,10



Graph 2. Percentage (%) of represented life forms of hemicryptophytes of the weed flora of Novi Sad with more than 5 representatives



Graph 3. Percentage (%) of representation of life forms of therophyta of the weed flora of Novi Sad with more than 5 representatives



Graph 4. Percentage (%) of representation of life forms of geophyte of weed flora of Novi Sad with more than 5 representatives

III Phyto-geographic analysis

Table 3. The biological range of weed flora in Novi Sad for basic life forms.

Aerial types	Number of species	Percentage (%)
Eurasian	276	48,59
Centar European	77	13,56
Cosmopolitan	55	9,68
Circumpolar	50	8,8
Adventive	40	7,42
Mediterranean and sub-Mediterranean	36	6,34
Pontic- southern Siberian	29	5,1
Atlantic-Mediterranean	5	0,88

CONSLUSION

For all the tested towns in Serbia, references cite the hemicryptophytic-pterophytic character of the ruderal flora, which is also determined by our research. The mentioned families Asteraceae, Poaceae, Fabaceae and Brassicaceae are also represented in the other towns of Serbia and Europe which points to a wide transparency of weed species and their easy transporting and spreading. The microclimate conditions of urban habitats increasingly suit the weed species of North American, Asian and Mediterranean origin which appear as the most represented in the weed flora of Novi Sad.