

ASS. *SALICETUM ELAEAGNO-DAPHNOIDES* (BR.-BL. ET VOLK, 1940) M. MOOR 1958 (*SALICION* *ELAEAGNI*) IN THE VEGETATION OF CROATIA

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During field researches on the Drava sandbanks near Donja Dubrava in Croatia *Salix daphnoides* was discovered, and the floristic composition of ass. *Salicetum elaeagno daphnoides* was studied.

Key words: *Salicetum elaeagno-daphnoides*, vegetation of Croatia

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Tijekom terenskih istraživanja dravskih sprudova kod mjesta Donja Dubrava u Hrvatskoj otkrivena je *Salix daphnoides*, a detaljnije je proučen i florni sastav ass. *Salicetum elaeagno-daphnoides*.

Ključne riječi: *Salicetum elaeagno-daphnoides*, vegetacija Hrvatske

The vegetation of river sandbanks is most completely developed in the Alps where the first plantsociological study was made by AICHINGER (1933) and much later by M. MOOR (1958). Moor was the first to describe in the vegetation of the Alpine river sandbanks the separate class *Salicetia purpureae*, the order *Salicetalia purpureae* and the separate alliance *Salicion elaeagni*. This vegetation is composed of a relatively small number of characteristic species, the most important among them being *Salix purpurea*, *S. elaeagnos*, *S. daphnoides*, *S. triandra* and their hybrids and also *Myricaria germanica* and *Hippophaë rhamnoides*.

In the vegetation of Croatia, the vegetation of the order *Salicetalia purpureae* and of the alliance *Salicion elaeagni* is most completely developed on the sandbanks of the Drava river in the central part of its flow, from Petrijanci in the west to the mouth of the river Mura in the east. The vegetation of the Drava sandbanks in that region was studied for the first time by TRINAJSTIĆ (1964) who discovered two as-

Tab. 1. *Salicetum elaeagno-daphnoides* (BR.-BL. et VOLK 1940) M. MOOR 1958

Nr. of veget. record:	1	2	3
Locality:	Donja Dubrava		
Size of veget. record (m ²):	50	50	50
Char. ass.:			
<i>Salix daphnoides</i> Vill.	1.2	1.2	1.2
Char. all. <i>Salicion calcagni</i>			
<i>Salix elaeagnos</i> Scop.	1.2	1.2	1.2
Char. order <i>Salicetalia purpureae</i> and class <i>Salicetea purpurea</i>:			
<i>Salix purpureae</i> L.	2.2	2.3	2.2
<i>Populus nigra</i> L. juv.	2.2	2.3	1.2
<i>Populus alba</i> L. juv.	1.2	+	+
<i>Calamagrostis epigeios</i> (L.) Roth.	+2	+2	+2
Comp.:			
<i>Tanacetum vulgare</i> L.	+	1.2	1.2
<i>Poa compressa</i> L.	+3	+2	+3
<i>Artemisia vulgaris</i> L.	+	+2	+
<i>Taraxacum officinale</i> Web.	+	+	+2
<i>Amorpha fruticosa</i> L.	+2	+	+2
<i>Oenothera biennis</i> L.	+	+	+
<i>Solidago canadensis</i> L.	1.1	1.1	.
<i>Rubus caesius</i> L.	+2	.	+2
<i>Petrorhagia saxifraga</i> (L.) Link	+2	+2	.
<i>Phragmites australis</i> (Cav.) Trin.	.	+3	+
<i>Arenaria serpyllifolia</i> L.	+	+	.
<i>Ligustrum vulgare</i> L.	.	.	+2
<i>Galium mollugo</i> L.	.	.	+2
<i>Clematis vitalba</i> L.	+	.	.
<i>Tussilago farfara</i> L.	+	.	.
<i>Verbascum thapsus</i> L.	.	+	.
<i>Cornus sanguinea</i> L.	.	+	.
<i>Plantago lanceolata</i> L.	.	.	+
<i>Ulmus laevis</i> Pall. juv.	.	.	+
<i>Iris pseudacorus</i> L.	.	.	+
<i>Cornus hungarica</i> Kárpáti	.	.	+

sociations developed there, namely *Salici-Myricarietum* and *Salicetum elaeagno-daphnoides* (cf. TRINAJSTIĆ 1969, too). Before the construction of in the above region storage reservoirs for the Varaždin and Čakovec hydroelectric power stations ass. *Salici-Myricarietum* covered very large surface areas and was floristically very conspicuous (comp. TRINAJSTIĆ 1992). Ass. *Salicetum elaeagno-daphnoides* in the wider region around Varaždin was developed only fragmentarily. For this reason, from the floristical aspect ass. *Salicetum elaeagno-daphnoides* in Croatia was insufficiently known since the presence of one of the most characteristic species which creates it – *Salix daphnoides* – was been dubious in Croatian flora.

For the species *S. daphnoides*, SCHLOSSER and VUKOTINOVIĆ (1869) note: »E Germania occidentali adlata et modo hinc inde culta«, but without indicating any precise locality, and SKVORCOV (1968) was also of the opinion that *S. daphnoides* does not grow naturally in this part of Europe. Nevertheless, during field researche on the Drava sandbanks near Donja Dubrava in Croatia *S. daphnoides* was been discovered, and the floristic composition of ass. *Salicetum elaeagno-daphnoides*, shown in table 1 on the basis of 3 phytocenological records (tab. 1), was studied.

Within the range of ass. *Salicetum elaeagno-daphnoides*, MOOR (1958) distinguishes two variants, one from the Alpine valleys and the other from the pre-Alpine area. In floristic composition the stands from Croatia correspond to those from the pre-Alpine region which are characterized by the presence of the species *Tanacetum vulgare* and *Artemisia vulgaris*. Other than in the characteristic combination mentioned *Hippophaë rhamnoides*, it is not represented although this species is also known on the sandbanks of the river Drava in the northern Croatia.

A large number of accompanying plants indicate the open and unstable character of the association *Salicetum elaeagno-daphnoides*, which is a general feature of river sandbank vegetation.

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SAŽETAK

**Ass. *Salicetum elaeagno-daphnoides* (BR.-BL. et VOLK 1940)
M. MOOR 1958 (*Salicion elaeagni*) u vegetaciji Hrvatske**

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U vegetaciji Hrvatske vegetacija reda *Salicetalia purpureae* i sveze *Salicion elaeagni* najpotpunije je razvijena na sprudovima rijeke Drave u njenom srednjem toku, od Petrijanca na zapadu do ušća rijeke Mure na istoku. Na tom je području vegetaciju dravskih sprudova prvi proučavao TRINAJSTIĆ (1964) i ustanovio da su tu razvijene dvije asocijacije *Salici-Myricarietum* i *Salicetum elaeagno-daphnoides*. Tijekom terenskih istraživanja dravskih sprudova kod mjesta Donja Dubrava u Hrvatskoj otkrivena je *Salix daphnoides*, a detaljnije je proučen i florni sastav ass. *Salicetum elaeagno-daphnoides*.