

## **EUPHORBIO VALDEVILLOSOCARPAE-INULETUM SALICINAE ASS. NOVA PÎNZARU, CANTEMIR & JARDAN (*TRIFOLION MEDII* T. MÜLLER 1962) IN THE REPUBLIC OF MOLDOVA**

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**Abstract:** The vegetation of the “Peacock” glades in the “Codru” Scientific Reserve, Republic of Moldova, based on 15 relevés has been grouped in a new association *Euphorbio valdevillosocarpae-Inuletum salicinae* Pînzaru, Cantemir et Jardan, ass. nova, h.l., alliance *Trifolion medii* T. Müller 1962, ord. *Origanetalia vulgaris* T. Müller 1962, cl. *TRIFOLIO-GERANIETEA SANGUINEI* T. Müller 1962. The association consists of mesophilic phytocoenoses, formed on slightly acidic, typical gray soils, at an altitude of 330-336 m. Hemicryptophytes predominate in the phytocoenoses of this association (74.1%), among the more numerous floristic elements, there are the Eurasian ones (53.7%), followed by the European ones (16.6%) and the Central European ones (6.4%).

**Keywords:** characteristic species, ecology, *Euphorbio valdevillosocarpae-Inuletum salicinae* ass. nova, range, Republic of Moldova.

### **Introduction**

The vegetation of glades in the Republic of Moldova, for the most part, was studied from a phytosociological point of view, without identifying the plant associations, except for the glades in the arid cliff forests, which consist of phytocoenoses grouped in the association *Inulo ensifoliae-Anthericetum ramosi* Pînzaru et Coldea 2006 em. Pînzaru 2016, 2017. This article describes a new association – *Euphorbio valdevillosocarpae-Inuletum salicinae*, from the “Peacock” glades of the “Codru” Scientific Reserve. The “Peacock” glades are located on high hills, in the plots 43 and 52, surrounded by sessile oak forests (*Quercus petraea*) near Stejăreni village, Strășeni district.

*Inula salicina* L. (Figure 1) is a hemicryptophyte, Eurasian species, (xeromesophilic-) mesophilic (-mesohygrophilic), occurs in riverside meadows, glades and forest clearings, from hilly to mountainous areas, being part of the floristic composition of various associations. The association *Agropyro elongatae-Inuletum salicinae* Ţerbănescu 1965 (Al. *Plantagini salsaee-Artemision santonicae* Sheleag-Sosonko et Solomakha in Lysenko, Mucina et Iakushenko 2011) [DUBYNA & al. 2019] is found in the meadow vegetation of Ukraine, and the association *Violo elatioris-Inuletum salicinae* Didier et Royer 1989 (Al. *Molinion caeruleae* Koch 1926) [BENSETTITI & al. 2005] occurs in the hilly meadows of France. In the vegetation of Romania, there are no associations of *Inula salicina*, but it occurs as an accompanying species in other associations [COLDEA & al. 2012; CHIFU & al. 2014].

The characteristic species *Euphorbia valdevillosocarpa* Arvat et Nyár. [=*E. volhynica* auct. mold. non Besser ex Racib.] (Figure 2) is a Central European geoelement (endemic), occurring in Romania, the Republic of Moldova and Ukraine (western part). It is

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a mesophile and grows in glades, forest edges and sparse forests on hilly terrain [GELTMAN, 1996; SÂRBU & al. 2013]. In the Republic of Moldova, it is rarely found, it has been observed that it is somewhat more common (abundance + coverage from + to 2 and constancy V) in the phytocenoses of *Inula salicina* in the “Peacock” glades.



**Figure 1.** *Inula salicina* L.



**Figure 2.** *Euphorbia valdevillosocarpa*  
Arvat et Nyár.

### **Materials and methods**

The phytosociological research was conducted in June-September, 2020, according to the Braun-Blanquet approach [BRAUN-BLANQUET, 1964]. The area of the relevés was 100 m<sup>2</sup> [CRISTEA & al. 2004]. Species nomenclature followed PÎNZARU & SÎRBU, 2016. The average annual temperature and precipitation were indicated according to the Atlas of Climate Resources of the Republic of Moldova [NEDEALCOV & al. 2013]. The soils – according to the monograph “The Soils of Moldova” [URSU, 2011].

### **Results and discussions**

The plant communities of *Inula salicina* L. with *Euphorbia valdevillosocarpa* Arvat et Nyár. and other species, in the “Peacock” glades, occur on slightly humic and slightly acidic typical gray soil, at an altitude of 330-336 m. The height of the hills and the slightly acidic soil create favourable conditions for the development of species characteristic of the class MOLINIO-ARRHENATHERETEA Tx. 1937, such as: *Briza media*, *Hypochaeris maculata*, *Ornithogalum pyrenaicum*, *Serratula coronata*, *Serratula tinctoria*, *Silene atropurpurea* etc.

These phytocoenoses have a compact coverage (100%), and a yellowish color predominates in the landscape during the flowering period of the dominant species.

**Ass. *Euphorbia valdevillosocarpae-Inuletum salicinae***

Pînzaru, Cantemir et Jardan, ass. nova, hoc loco

Relevé type hoc loco: Table 1, rel. 6, N 47°05'536'', E 028°27'242'' (Figure 3).

Synoptic table hoc loco: Table 1, 15 relevés

The total area of the phytocoenoses of the association described in this article comprises about 2.6 ha.

Locations: Altitude: 330-336 m. Relief: Central Moldavian Plateau, on top of flat or slightly sloping hills (5°), with southern exposure. Soil: typical gray, slightly humic, slightly acidic, formed on loamy-clayey rocks. Climate: temperate-continental, the average annual temperature is 10.0-10.5°C, and the average annual precipitation varies between 650 and 700 mm.



**Figure 3.** As. *Euphorbia valdevillosocarpae-Inuletum salicinae*  
ass. nova (type) – 21 July 2020, Stejăreni village, Strășeni district.

Characteristic species: *Inula salicina*, *Euphorbia valdevillosocarpa*.

Constant species: *Centaurea jacea*, *Galium verum*, *Peucedanum cervaria*, *Tanacetum corymbosum*, *Serratula tinctoria*, *Achillea pannonica*, *Iris graminea*, *Filipendula vulgaris*, *Stachys officinalis*, *Briza media*.

Rare species: *Ornithogalum pyrenaicum* (= *O. flavescentes* Lam.) [Endangered (EN)], included in the Red Book of Moldova (2015), *Serratula coronata* [Endangered (EN)], included in the Red Book of Moldova (2015), *Silene atropurpurea* (= *Viscaria atropurpurea* Griseb.) [Critically Endangered (CR)], included in the Red Book of Moldova (2015), *Asparagus tenuifolius* (Least Concern (LC)) (Legea...1998), *Briza media* [Nearly Threatened (NT)] (Legea...1998), *Doronicum hungaricum* [Vulnerable (VU)], (Legea...1998), *Iris variegata* [Vulnerable (VU)] (Legea...1998), *Luzula campestris* [Nearly Threatened (NT)] (Legea...1998), *Orchis mascula* [Critically Endangered (CR)] (Legea...1998), *Hypochaeris maculata* L. [Vulnerable (VU)] (Legea...1998).

Structure: The overall vegetation cover is 100% (Figure 3). Although the plants in these phytocoenoses are of different heights, from creeping to erect plants – about 150 cm tall, only the dominant species *Inula salicina* and *Euphorbia valdevillosocarpa* form a well-defined layer, reaching a height of 70-90 cm, the other species have an insignificant

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abundance. The species of small plants (up to  $\pm 15$  cm tall): *Viola odorata*, *Lysimachia nummularia*, *Melampyrum cristatum*, *Luzula campestris*, *Glechoma hirsuta*, *Fragaria viridis*, *Primula veris*, *Prunella vulgaris* etc., in some places, they have a cover between 5-10%, and the tall species (120-150 cm) have sporadic distribution: *Peucedanum cervaria*, *P. alsaticum*, *Thalictrum lucidum*, *Serratula coronata*, *Cirsium pannonicum*.

**Floristic composition.** In the 15 studied relevés, 108 species of vascular plants have been identified, and 47 of them are characteristic of coenotaxa of the class TRIFOLIO-GERANIETEA SANGUINEI T. Müller 1962, 21 species – cl. MOLINIO-ARRHENATHEREAE Tx. 1937, 11 species – cl. QUERCO-FAGETEA Br.-Bl. et Vlieger in Vlieger 1937, 3 species – cl. CRATAEGO-PRUNETEA Tx. 1962, and 26 species – Variae syntaxa.

The spectrum of life forms includes: hemicryptophytes (H) = 80 species (74.1%),



**Figure 4.** Locations of the ass. *Euphorbio valdevillosocarpae-Inuletum salicinae* in the Republic of Moldova

Territorial protection. The phytocoenoses of the above-mentioned association are protected on the territory of the "Codru" Scientific Reserve.

**Conservation value.** The plant communities of the highlighted association are of high conservation value; they are rare and include 10 rare, protected species, among them, there are 3 species that are listed in the Red Book of the Republic of Moldova (2015).

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**Table 1.** Ass. *Euphorbio valdevillosocarpae-Inuletum salicinae* ass. nov.

Life form	Geoelements	Edafic humidity	Relevé no.	1	2	3	4	5	*6	7	8	9	10	11	12	13	14	15	K
				330	331	331	335	335	335	335	335	335	335	335	335	336	336	336	
			<b>Altitude (m)</b>	330	331	331	335	335	335	335	335	335	335	335	335	336	336	336	
			<b>Aspect</b>	S	S	S	-	-	-	-	-	-	-	-	-	-	-	-	
			<b>Slope (°)</b>	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	
			<b>General coverage (%)</b>	100	100	100	100	100	100	100	90	100	100	100	100	100	100	100	
			<b>Surface of relevé</b>	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
			<b>Number of species</b>	30	24	39	36	26	36	25	43	29	41	29	24	32	31	34	
			<b>Charact. species</b>																
H	Eua	ms	Inula salicina	4	4	4	4	4	4	3	4	4	3	4	4	4	4	3	V
H	Euc	ms	Euphorbia valdevillosocarpa	1	1	1	1	1	2	2	1	1	2	1	1	1	1	1	V
			<b>Trifolion medii</b>																
H	Eua	ms	Centaurea jacea	+	1	1	+	1	+	+	1	1	-	1	+	1	-	+	V
H	Eur	ms	Achillea pannonica	1	+	+	1	r	+	r	1	+	1	+	-	-	+	-	IV
H	Eua	ms	Lathyrus pratensis	+	+	-	+	+	+	-	-	+	-	-	+	+	+	-	III
H	Eur	ms	Knautia arvensis	-	-	-	-	-	-	-	-	r	-	-	-	-	-	-	I
H	Eua	ms	Leucanthemum vulgare	-	-	-	-	-	-	-	r	-	r	-	-	-	r	I	
H	Eua	ms	Trifolium medium	-	-	-	-	-	-	-	-	-	-	-	-	-	r	I	
			<b>Origanetalia vulgaris</b>																
H	Eua	ms	Galium verum	+	+	+	+	+	+	r	+	+	+	+	+	r	+	2	V
H	Eua	ms	Filipendula vulgaris	r	+	+	+	-	r	r	+	-	1	r	-	+	+	r	IV
H	Eua	ms	Galatella sedifolia	+	+	-	-	-	1	1	-	-	-	1	1	1	1	+	III
H	Eur	xm	Trifolium alpestre	-	-	-	+	+	+	r	+	-	r	-	-	r	+	+	III
H	Euc	xm	Valeriana collina	r	-	r	-	-	-	-	-	-	r	r	r	r	-	r	II
H	Eur	ms	Lathyrus sylvestris	-	-	-	-	-	r	-	-	-	-	-	-	-	-	-	I
H	Eua	xm	Medicago falcata	-	-	-	r	-	r	-	-	r	-	-	-	-	-	-	I
H	Eua	xm	Origanum vulgare	-	-	-	-	r	-	-	-	r	-	-	-	-	-	-	I
H	Eua	ms	Primula veris	-	-	r	-	-	+	-	-	-	-	-	-	-	-	-	I
H	Euc-M	xm	Securigera varia	-	-	-	-	+	-	-	-	r	-	-	r	-	-	I	

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H	Eua	ms	Silene vulgaris	-	-	r	-	-	-	-	r	-	-	-	-	-	-	-	I
H	Circ	xm	Solidago virgaurea	-	-	-	r	-	-	-	-	-	-	-	-	-	-	-	I
Th	Eua	ms	Vicia hirsuta	-	-	-	-	-	-	r	-	-	-	-	r	-	-	-	I
			<b><u>Geranion sanguinei</u></b>																
H	Eur	xm	Peucedanum cervaria	r	l	+	+	+	+	+	-	+	+	r	r	r	-	r	V
H	Euc	xm	Galium rubioides	-	+	-	-	-	-	-	-	-	r	r	-	-	r	r	II
Th	Eur	xm	Melampyrum cristatum	+	-	-	r	r	r	r	+	-	-	-	-	-	r	-	II
G	P-P-B	xm	Iris variegata	-	-	-	-	-	-	-	-	-	r	r	-	r	-	-	I
H	Euc	xm	Peucedanum alsaticum	-	-	-	-	r	-	-	-	-	r	-	-	-	-	-	I
H	Euc-M	xm	Prunella laciniata	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	I
H	Med	xm	Silene coronaria	-	-	-	-	-	-	-	-	r	-	-	-	-	-	-	I
H	Eua	xm	Trifolium montanum	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	I
H	Eua	xm	Veronica spicata	-	-	-	r	-	-	-	-	-	-	-	-	-	r	-	I
			<b><u>Antherico ramosi-</u></b>																
			<b><u>Geranieta sanguinei</u></b>																
H	Eua	xm	Tanacetum corymbosum	r	r	r	r	r	r	r	+	r	r	-	r	+	-	+	V
G	Pont-M	xm	Iris graminea	r	r	r	r	r	r	r	-	r	r	-	-	r	r	-	IV
H	P-P	xm	Cirsium pannonicum	-	-	-	-	-	-	-	+	r	r	-	-	r	r	+	II
TH	Med	xm	Arabis sagittata	-	-	-	-	-	-	-	-	r	-	-	r	-	r	-	I
H	Eua	xm	Nepeta nuda	-	-	r	-	-	-	r	-	-	-	-	-	-	-	-	I
			<b><u>Trifolio-Geranieta</u></b>																
H	Eua	ms	Stachys officinalis	+	-	r	r	r	-	r	r	-	r	r	r	r	r	r	IV
H	Circ	xm	Clinopodium vulgare	r	-	r	r	-	+	-	+	-	+	r	-	-	r	-	III
H	Pont	xm	Dianthus membranaceus	-	-	-	r	r	r	-	r	r	-	r	-	-	r	r	III
H	Eua	xm	Veronica teucrium	r	+	r	r	r	r	r	r	r	-	-	-	-	-	-	III
H	Eua	xm	Campanula glomerata	-	-	-	-	-	-	-	r	r	-	-	r	r	-	-	II
H	Eua	xm	var. cervicarioides	-	-	-	-	-	-	-	r	r	-	-	r	r	-	-	II
H	Eua	ms	Hypericum perforatum	-	-	r	-	-	-	r	r	-	r	r	-	-	r	-	II
H	Eua	ms	Vicia cracca	-	-	r	-	+	-	-	r	r	r	-	-	-	-	+	II
H	Eua	xm	Campanula persicifolia	-	-	-	-	-	-	r	-	r	-	-	r	-	-	-	I

Th	Eur	xm	Dianthus armeria	-	-	-	-	-	-	-	-	r	-	-	-	I		
H	Eua	ms	Fragaria vesca	+	1	+	+	-	-	-	+	+	-	-	-	I		
Ch	Euc-M	xm	Teucrium chamaedrys	-	-	-	-	-	-	-	-	-	-	-	r	I		
H	Eur	xm	Vincetoxicum hirundinaria	r	-	r	-	-	-	-	-	-	r	-	-	I		
<b><u>Molinio-. Arrhenatheretea s.l.</u></b>																		
H	Eua	ms	Serratula tinctoria	+	+	+	r	-	+	1	-	+	r	+	+	1	V	
H	Eua	ms	Briza media	-	r	-	r	-	+	-	+	r	r	r	r	r	IV	
H	Eua	ms	Dactylis glomerata	+	+	+	-	r	-	1	-	-	-	+	+	-	III	
G	Euc-M	ms	Ornithogalum pyrenaicum	+	+	r	+	-	-	-	-	-	+	-	+	-	III	
H	Eur	ms	Salvia pratensis	r	r	r	r	r	-	-	r	r	-	-	-	-	III	
H	Eua	ms	Hypochaeris maculata	r	-	r	-	-	-	-	-	-	-	r	r	-	II	
H	Pont	ms	Serratula coronata	-	-	r	-	-	-	-	r	-	r	-	r	-	II	
H	Balc	ms	Silene atropurpurea	-	-	-	-	-	r	-	r	-	-	r	-	r	II	
H	Euc-Po	ms	Thalictrum lucidum	r	r	-	-	-	-	r	-	-	r	+	r	-	II	
H	Eua	ms	Calamagrostis epigejos	+	-	-	-	-	-	-	-	-	-	-	+	-	I	
H	Eua	ms	Leontodon hispidus	-	-	-	r	-	-	-	-	-	-	-	-	-	I	
H	Eua	ms	Lotus corniculatus	-	-	-	-	-	-	r	-	r	-	-	-	-	I	
H	Eur	ms	Luzula campestris	-	-	-	-	-	+	-	-	-	-	-	-	r	I	
Ch	Eur	ms	Lysimachia nummularia	r	-	+	+	-	-	-	-	-	-	-	-	-	I	
H	Eua	ms	Plantago media	-	-	-	-	r	-	-	r	r	-	-	-	-	I	
H	Circ	ms	Prunella vulgaris	-	-	-	-	-	-	-	-	-	-	-	-	r	I	
H	Circ	ms	Scutellaria galericulata	-	-	-	-	-	+	-	-	-	-	-	-	r	-	I
H	Eua	ms	Stellaria graminea	-	-	-	r	-	-	r	-	-	-	-	-	r	I	
H	Eua	ms	Veronica longifolia	-	r	-	-	-	-	-	-	-	-	-	r	-	I	
H	Eua	ms	Viola jordanii	-	-	-	-	r	-	-	r	-	-	-	-	-	I	
H	Eua	ms	Viola pumila	-	-	-	-	-	-	-	-	-	-	-	+	-	I	
<b><u>Crataego-Prunetea s.l.</u></b>																		
Phn	Eur	xm	Crataegus monogyna	r	-	-	r	-	r	-	r	r	r	r	+	-	III	
Phn	Eur	xm	Rosa canina	-	-	r	-	-	r	-	-	r	-	-	r	-	II	

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Phn	Eua	xm	Prunus spinosa <b><u>Querco-Fagetea s.l.</u></b>	-	-	-	-	-	-	-	+	-	r	-	-	-	-	-	I	
G	Pont	xm	Carex brevicollis	-	-	+	-	+	+	-	r	r	r	r	-	-	-	-	-	III
G	Pont-M	xm	Asparagus tenuifolius	-	-	r	r	-	-	-	r	-	-	r	r	-	-	-	-	II
H	Eua	ms	Ranunculus auricomus	-	-	r	r	r	-	-	r	-	-	r	r	-	-	-	-	II
H	Med	xm	Viola odorata	r	-	r	+	-	r	-	r	-	-	-	-	-	-	-	-	II
G	P-P-B	ms	Doronicum hungaricum	-	r	-	-	-	-	-	-	r	-	-	-	-	-	-	-	I
H	Pont-M	xm	Glechoma hirsuta	-	-	+	-	-	-	+	-	-	+	-	-	-	-	-	-	I
H	Eua	ms	Brachypodium sylvaticum	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	I
H	Eua	ms	Hypericum hirsutum	-	-	r	-	-	-	-	-	-	-	-	-	-	-	-	-	I
H	Euc	xm	Lathyrus niger	-	-	r	-	-	-	-	-	-	-	-	-	-	-	-	-	I
G	Eur	ms	Orchis mascula	-	-	-	-	-	r	-	-	-	-	-	-	-	-	-	-	I
Phn	Eur	xm	Pyrus pyaster	-	-	-	-	-	-	-	-	r	-	-	-	-	-	-	-	I
<b><u>Variae syntaxa</u></b>																				
G	Eua	ms	Elymus repens	1	1	1	+	-	1	-	1	1	1	2	1	1	1	-	IV	
H	Eua	xm	Festuca valesiaca	+	-	-	+	+	+	-	1	-	+	-	-	-	+	+	III	
Ch	Eua	xm	Artemisia austriaca	-	+	r	r	-	-	-	r	-	-	-	-	-	-	-	-	II
H	Eua	xm	Euphorbia virgata	-	-	-	+	-	-	+	+	-	-	+	-	-	-	+	-	II
H	Eur	ms	Ajuga reptans	-	-	r	-	-	-	-	-	-	-	-	-	-	r	-	-	I
G	Eua	ms	Allium oleraceum	-	-	-	-	-	-	-	-	-	-	-	-	r	-	-	-	I
Th	Eur	xm	Alyssum alyssoides	-	-	-	-	-	r	-	-	-	-	r	-	-	-	-	-	I
H	Eua	xm	Artemisia pontica	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-	-	I
H	Eua	xm	Bromus inermis	-	-	-	-	-	-	+	-	-	r	-	-	-	r	-	-	I
Th	Eua	xm	Buglossoides arvensis	-	-	-	-	-	-	r	-	-	-	-	r	-	-	-	-	I
H	Eua	ms	Carex polystylloides	-	-	-	-	-	-	-	-	-	-	-	-	-	r	-	-	I
G	Eua	xm	Carex praecox	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	I
Th	Adv	ms	Erigeron annuus	-	-	-	-	-	-	-	-	-	r	-	-	-	r	-	-	I
H	Euc	xm	Koeleria pyramidata	-	-	-	-	-	-	r	-	-	-	-	-	-	-	-	-	I
H	Eua	ms	Linaria vulgaris	-	-	-	-	-	r	-	-	-	-	-	-	-	-	+	-	I

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H	Eua	ms	<i>Phleum phleoides</i>	-	-	-	-	-	-	+	-	r	-	-	-	-	-	I
H	Eua	xm	<i>Pilosella bauchinii</i>	-	-	-	-	-	r	-	r	-	-	-	-	-	r	I
H	Eua	xm	<i>Poa angustifolia</i>	-	-	-	+	-	-	-	-	-	-	-	-	-	-	I
H	Eur	xm	<i>Polygala comosa</i>	-	-	-	-	+	-	-	-	-	-	-	+	-	+	-
H	Eua	xm	<i>Potentilla argentea</i>	-	-	-	-	-	-	-	-	r	-	-	-	-	-	I
H	Eua	xm	<i>Poetntilla recta</i>	-	-	-	-	-	+	-	-	-	-	+	-	-	-	I
H	Eua	ms	<i>Tanacetum vulgare</i>	-	-	-	-	-	-	-	-	r	+	-	-	-	-	I
Ch	Eua	xm	<i>Thymus pannonicus</i> var. <i>marschallianus</i>	-	-	-	-	-	r	-	r	-	-	-	-	-	-	I
TH	Euc-M	ms	<i>Tragopogon dubius</i>	-	-	-	-	-	-	r	-	-	-	-	-	r	-	I
Th	Eur	ms	<i>Valerianella locusta</i>	-	-	-	-	-	-	-	r	-	-	-	-	-	-	I
Th	Med	ms	<i>Trifolium campestre</i>	-	-	-	-	-	-	+	-	-	-	-	-	-	r	I

Place and date of the relevés: 1-3, glade no. 1, plot no. 52, Stejăreni village, Strășeni district, 10.VI.2020, 21.VII.2020, 11.IX.2020; 4-12 (\*6 -typus), glade no. 2, plot no. 43, Stejăreni village, Strășeni district, 10.VI.2020, 21.VII.2020, 11.IX.2020; 13-15, glade no. 3, plot no. 43, Stejăreni village, Strășeni district, 10.VI.2020, 21.VII.2020, 11.IX.2020.

## Conclusions

The association *Euphorbio valdevillosocaruae-Inuletum salicinae* Pînzaru, Cantemir et Jardan ass. nova includes plant communities of hemicryptophytes (74.1%), mesophiles and xeromesophiles, formed on high hills (330-336 m altitude), on slightly acidic, typical gray soils.

In the floristic composition, the Eurasian elements predominate (53,7 %), followed by the European (16.6%) and Central-European ones (6.4%). The differential species *Euphorbia valdevillosocarpa* Arvat et Nyár. is a Central European geoelement (endemic), therefore the association can also be considered Central European (Eastern).

The association *Euphorbio valdevillosocaruae-Inuletum salicinae* Pînzaru, Cantemir et Jardan ass. nova has been included in the alliance *Trifolion medii* T. Müller 1962, order *Origanetalia vulgaris* T. Müller 1962, class TRIFOLIO-GERANIETEA SANGUINEI T. Müller 1962.

It has been proposed to include the association *Euphorbio valdevillosocaruae-Inuletum salicinae* in the List of Rare Plant Associations of the Republic of Moldova, with high conservation value.

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