

**NEW DATA ABOUT *Limonium tomentellum* IN OLTENIA, ROMANIA****RĂDUȚOIU Daniel**

**Abstract.** The paper presents the results of the observations made on the phytocoenosis populated with *Limonium tomentellum* in the past 13 years (2000-2013). There are brought contributions to the chorology of this taxon, being known that this plant is very rare in the spontaneous flora of Romania. It is also made a grouping on superior cenotaxonomic units of the plants from the analysed relevés. The framing of the phytocoenosis edified by *Limonium tomentellum* in an association is very difficult.

**Keywords:** chorology, coenology, *Limonium tomentellum*, Romania.

**Rezumat. Noi date despre *Limonium tomentellum* din Oltenia, România.** Lucrarea prezintă rezultatele observațiilor efectuate asupra fitocenozelor populate cu *Limonium tomentellum* în ultimii 13 ani (2000-2013). Se aduc contribuții la corologia acestui taxon, știut fiind faptul că această plantă este foarte rară în flora spontană a României. De asemenea, se realizează o grupare pe unități cenotaxonomice superioare a plantelor din relevele analizate. Încadrarea fitocenozelor edificate de *Limonium tomentellum* într-o asociație este dificilă.

**Cuvinte cheie:** corologie, cenologie, *Limonium tomentellum*, România.

**INTRODUCTION**

What is known so far about *Limonium tomentellum*?

Name: *Limonium tomentellum* (Boiss.) Kuntze Nomencl. ref.: *Rev. Gen. Pl.* 2: 396 (1891). Basionym: *Statice tomentella* Boiss. Synonyms: *Statice tomentella* Boiss. (Fig. 1)



Figure 1. *Limonium tomentellum* (orig.).

In Romania, chorological data about the taxa were given by: DIHORU (1990) and DIHORU & NEGREAN (2009), through the correction of the herbarium material, the species' presence mentioned for the first time in Bratovoști (GP 38/39), FOE 703 Leg. Buia et al., 1964, under *Statice latifolia* Sm. [BUCA 126.624] (mentioned after and by CIOCĂRLAN 2000), between Malu Mare (GQ 20.4) and Bratovoști, 1949, leg. Buia et al., under *Statice gmelinii* juv. [BUCA 23.737]; Popoveni (GQ 20.1), near Craiova, leg. ? G. Grințescu, under *Statice latifolia* [BUCA 23.740, 122.419], Dolj County; Romula (Reșca - KJ 99.2), leg. ? G. Grințescu, under *Statice gmelinii* [BUCA 3954], Olt County.

CIOCĂRLAN (2009), RĂDUȚOIU & COSTACHE (2009) and NEGREAN (2011) mentioned it Seaca de Câmp (FP 76), Dolj County.

It is known that the species can be found on humid meadows, on salty terrains (PIGNATTI, 1972; DIHORU & NEGREAN, 2009; CIOCĂRLAN, 2009).

Even though a complete description of the species exists in Romania (DIHORU & NEGREAN, 2009, CIOCĂRLAN, 2009), a coenological group of the species has not been evaluated until today, being just assigned at *Puccinellion limosae* (POPESCU & SANDA, 1998, SANDA et al., 2003).

In Russia, GOLUB et al. (2005) coenotaxonomically assigned the species at:

*Festuco-Puccinellietea* Soó ex Vicherek 1973 (*Puccinellio-Salicornietea* Țopa 1939: 3, *Festuco-Puccinellietea* Soó 1968: 389 (art. 2b), *Festuco-Limonietea* Karpov et Mirkin 1985: 6-8 (art. 8, syntax. syn.); *Festuco Valesiaca* - *Limonietalia Gmelinii* Mirkin in Golub et V. Solomakha 1988: 90; *Limonion tomentellii* Arafonov, Golub 1990 in Golub 1994: 36, with the associations:

- *Limonio tomentelli-Festucetum valesiaca* Arafonov, Golub 1990 – quoting as characteristic species: *Artemisia santonica*, *Elymus repens*, *Festuca valesiaca*, *Limonium tomentellum*.

Superficial communities in saline depressions, in Russia's central basins, on chernozems, appear mainly in bigger parts on the southern slope of the depression.

- *Limonio tomentelli-Artemisietum santonicae* Arafonov, Golub 1990 in Golub 1994: 36.

## MATERIAL AND METHODS

The observation was the main method, made continuously, in different seasons during the year and year by year. Pursued studies in the phytocoenosis: taxa identification in the mentioned stations, the spotlight of new stations in the research area, the vegetation form and population dynamics, the impact of the zoo-anthropogenic factors on those populations. In the stations where the taxa have been identified there were noticed stationary conditions, ecology, coenological and ecological group, there have been collected soil samples for analysis and photos have been taken.

In the identification of the material there has been used the speciality literature (PIGNATTI, 1972, CIOCĂRLAN, 2009).

The plotting of *Limonium tomentellum* taxa chorology in Romania was made according to LEHRER & LEHRER (1990).

The coenotaxonomical assignment of the identified taxa in the studied phytocoenosis has been made after the speciality works elaborated by: POPESCU & SANDA, 1998; SANDA et al., 2003; POP & al., 2000; GOLUB & al., 2005, RODWELL & al., 2002.

The study of the phytocoenosis was carried out by using the method of phytocoenological surveys, after IVAN (1979) and CRISTEA & al. (2004).

## RESULTS

Having as a basis the data presented before, in a first stage, there has been made a revision of the herbarium material with the species of *Limonium* which exists at Craiova, thus correcting a part of the material and identifying other 7 locations, except the ones mentioned above, therefore:

1. Afumați Village, Dolj County, the old State Farm, Section horticultural salting, alt. about 100 m.s.m. September 9, 1962, leg. et det. I. Safta under *Statice gmelinii* [CRA 60.077-60.081];
2. Gura Jiului, Dolj County, in the meadows near Glavacioc forest (Murta at the moment), alt. 50 m.s.m., August 30, 1959, leg. et det. M. Păun, C. Maloș, V. Chirilă, under *Statice gmelinii* [CRA 60.082-60.086];
3. Poiana Mare, Dolj County, at Serbs Gardens, alt. 70 m.s.m., September 9, 1952, leg. et det. M. Păun, C. Maloș, V. Chirilă, under *Statice gmelinii* [CRA 60.093];
4. Botanical Garden of Craiova, Dolj County, alt. 90 m.s.m., August 31, 1953, leg. et det. M. Păun, M. Trică, under *Statice gmelinii* [CRA 60.094];
5. Urzicuța, Dolj County, Lake Ionele, alt. 100 m.s.m., July 3, 1954, leg. et det. Al. Buia et M. Păun, under *Statice gmelinii* [CRA 60.095, 60.096];
6. Tâmburești, in Lunca Jiului, Dolj County, alt. 80 m.s.m. July 24, 1954, leg. et det. M. Păun, under *Statice latifolia* [CRA 60.097-60.104];
7. Craiova, Lascăr Catargiu, alt. 75 m.s.m., September 16, 1960, leg. M. Păun et M. Olaru, det. Gh. Popescu under *Limonium latifolium* [CRA 60.104-60.107];
8. Between Malu Mare and Bratovoești, 1949, leg. Buia et al., under *Statice gmelinii* juv., after det. Gh. Popescu under *Limonium latifolium* [CRA 60.087-60.092];
9. Bratovoești, Dolj County, on the side of the road, alt. 80 m.s.m., August 13, 1964, leg. Al. Buia, L. Casanova et D. Cârțu, det. Gh. Popescu 1996 under *Limonium latifolium* [CRA 60.108, 60.109] and near the forest, FOE- BUIA et al. 1964, under *Statice latifolia* [CRA 60.110];
10. Seaca de Câmp, Dolj County, alt. 40 m.s.m., September 16, 1999, leg. et det. Gh. Popescu, D. Răduțoiu, C.G. Simeanu under *Limonium latifolium* (POPESCU et al., 1999) [CRA 60.111-60.112].

To be mentioned that in the herbarium of the University of Craiova there is no material collected from Romula (Reșca), Olt County and Popoveni, near Craiova, mentioned by DIHORU & NEGREAN (2009).

In the second stage of the research, there have been made observations at the locations indicated by the verified herbarium, from which it has been established that from the 9 locations (excepting the Botanical Garden of Craiova, because the plants have been brought and cultivated), the species has been rediscovered only in 3 locations from Dolj County:

1. Bratovoești, Dolj County, meadows on the side of the forest from Lunca Jiului, Borna IV 200, July 5-12, 2006, September 1, 2011; Alt. 53-55 m, N 44° 06' 073-047", E 23° 54' 799-928", leg. et det. I. Costache et D. Răduțoiu [CRA 60.114-60.125];

2. Seaca de Câmp, Dolj County, the side of the agrarian fields, July 12, 2006, Alt. 41 m, N 43° 55' 695", E 23° 13' 944", leg. et det. I. Costache et D. Răduțoiu [CRA 60.126-60.129].

With the observation that in 2011 it has not been rediscovered;

3. Tâmburești (GP 37), Dolj County, meadows on the side of the forest from Lunca Jiului, September 1, 2011; Alt. 60 m, N 44° 00' 976", E 23° 54' 992", leg. et det. I. Costache et D. Răduțoiu [CRA 60.130-60.133].

As a chorological novelty, we point out the identification of a new location, that being between Vlădueni and Greci, Osica de Sus Village (KK 80), Olt County, meadows on the side of the forest of Lunca Oltețului, June 13, 2010, August 15, 2011; Alt. 92-99 m, N 44° 15' 687-700", E 24° 20' 356-347"), leg. et det. I. Costache et D. Răduțoiu [CRA 60.113, 60.133-136].

Following the researches made in the 4 locations, in the floristic composition associated with *Limonium tomentellum* species, there have been identified 104 vascular taxa, coenotaxonomically analyzed, as is shown in Table 1.

Table 1. Coenotic groups of species associated with *Limonium tomentellum*.

| Survey number  | 1   |    |    |    | 2   |    |    |    |    | 3  |    | 4  | K   |
|--|-----|----|----|----|-----|----|----|----|----|----|----|----|-----|
|  | R1  | R2 | R3 | R4 | R1  | R2 | R3 | R4 | R5 | R1 | R2 | R1 |     |
| <b>Puccinellion limosae</b>  |     |    |    |    |     |    |    |    |    |    |    |    |     |
| <i>Limonium tomentellum</i>  | 2-3 | +  | +  | +  | 2   | +  | +  | 3  | 2  | +  | 2  | +  | V   |
| <i>Hordeum geniculatum</i>   | -   | +  | 3  | -  | -   | -  | -  | +  | -  | 3  | -  | +  | III |
| <i>Pholurus pannonicus</i>   | -   | -  | 3  | 3  | -   | -  | -  | -  | -  | -  | -  | +  | II  |
| <i>Puccinellia limosa</i>  | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <i>Festuca arundinacea</i> subsp. <i>orientalis</i>                      | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <b>Puccinellion peisonis</b>   |     |    |    |    |     |    |    |    |    |    |    |    |     |
| <i>Puccinellia convoluta</i> var. <i>procera</i>                         | +   | 3  | +  | 1  | -   | -  | -  | 1  | -  | -  | -  | +  | III |
| <i>Puccinellia convoluta</i> var. <i>pseudobulbosa</i>                   | +   | +  | +  | +  | -   | -  | 4  | -  | -  | -  | -  | -  | III |
| <i>Puccinellia distans</i>   | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <b>Puccinellietalia</b>  |     |    |    |    |     |    |    |    |    |    |    |    |     |
| <i>Lotus glaber</i>  | +   | -  | -  | -  | +   | -  | -  | +  | +  | +  | +  | +  | III |
| <i>Dianthus guttatus</i>   | -   | -  | -  | -  | +   | -  | -  | +  | +  | +  | +  | 1  | III |
| <i>Bupleurum tenuissimum</i>   | -   | 1  | -  | -  | -   | -  | -  | -  | -  | 1  | -  | +  | II  |
| <i>Atriplex prostrata</i>  | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <i>Camphorosma annua</i>   | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <i>Chenopodium glaucum</i>   | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <i>Bassia prostrata</i>  | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <i>Aster tripolium</i> subsp. <i>pannonicus</i>                          | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <b>Beckmannion erucaiformis &amp; Scorzonero-Juncetalia gerardii</b>     |     |    |    |    |     |    |    |    |    |    |    |    |     |
| <i>Beckmannia eruciformis</i>  | 3   | -  | -  | -  | +   | -  | -  | -  | -  | -  | -  | -  | I   |
| <i>Rorippa sylvestris</i>  | -   | -  | +  | +  | -   | -  | -  | -  | -  | -  | -  | -  | I   |
| <i>Carex melanostachya</i>   | -   | -  | -  | -  | +   | -  | -  | -  | -  | -  | -  | -  | I   |
| <i>Lythrum virgatum</i>  | -   | -  | -  | -  | -   | -  | -  | -  | +  | -  | -  | -  | I   |
| <i>Ranunculus sardous</i>  | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <i>Trifolium fragiferum</i> subsp. <i>bonannii</i>                       | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <b>Puccinellio-Salicornietea</b>   |     |    |    |    |     |    |    |    |    |    |    |    |     |
| <i>Artemisia santonica</i>   | -   | -  | -  | -  | +   | -  | 1  | 2  | 1  | +  | -  | +  | III |
| <i>Scorzonera cana</i> var. <i>tenuissima</i>                            | -   | +  | -  | -  | -   | -  | +  | +  | +  | +  | -  | -  | III |
| <i>Juncus compressus</i>   | +   | -  | +  | -  | -   | -  | -  | +  | +  | -  | -  | -  | II  |
| <i>Spergularia maritima</i>  | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <i>Taraxacum bessarabicum</i>  | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <b>Agrostion stoloniferae</b>  |     |    |    |    |     |    |    |    |    |    |    |    |     |
| <i>Bromus commutatus</i>   | -   | +  | -  | -  | +   | -  | -  | +  | +  | +  | +  | -  | III |
| <i>Mentha pulegium</i>   | +   | -  | -  | +  | -   | -  | -  | +  | +  | +  | -  | +  | III |
| <i>Oenanthe silaifolia</i>   | +   | -  | -  | +  | +   | -  | -  | +  | +  | -  | +  | -  | III |
| <i>Alopecurus pratensis</i>  | -   | -  | 2  | 2  | 1   | -  | -  | -  | 2  | -  | 1  | -  | III |
| <i>Festuca pratensis</i>   | -   | -  | -  | -  | -   | 3  | -  | -  | -  | -  | -  | +  | I   |
| <i>Cichorium intybus</i>   | -   | -  | -  | -  | -   | -  | -  | +  | +  | -  | -  | -  | I   |
| <i>Tragopogon orientalis</i>   | -   | -  | +  | -  | -   | -  | -  | -  | -  | -  | -  | -  | I   |
| <b>Molinietalia</b>  |     |    |    |    |     |    |    |    |    |    |    |    |     |
| <i>Poa sylvicola</i>   | -   | -  | -  | -  | 3-4 | -  | -  | -  | -  | -  | 3  | -  | I   |
| <i>Carex distans</i>   | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <b>Molinio-Arrhenatheretea</b>   |     |    |    |    |     |    |    |    |    |    |    |    |     |
| <i>Trifolium repens</i>  | -   | -  | -  | -  | -   | +  | 1  | +  | +  | 1  | 1  | +  | III |
| <i>Plantago lanceolata</i>   | +   | -  | -  | -  | -   | -  | -  | +  | +  | +  | -  | -  | II  |
| <i>Poa pratensis</i>   | -   | -  | +  | -  | -   | -  | -  | +  | +  | -  | -  | -  | II  |
| <i>Dianthus armeria</i> subsp. <i>armeriastrum</i> f. <i>glaberrimus</i> | -   | -  | -  | +  | -   | -  | -  | -  | -  | -  | -  | -  | I   |
| <i>Galium palustre</i> subsp. <i>elongatum</i>                           | -   | -  | -  | -  | -   | +  | -  | -  | -  | -  | -  | -  | I   |
| <i>Galium debile</i>   | -   | -  | -  | -  | +   | -  | -  | -  | -  | -  | -  | -  | I   |
| <i>Trifolium pratense</i>  | -   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | +  | I   |
| <i>Rorippa pyrenaica</i>   | +   | -  | -  | -  | -   | -  | -  | -  | -  | -  | -  | -  | I   |

| Agropyro-Rumicion                                     |   |   |   |   |   |   |   |   |   |   |   |   |     |
|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| <i>Elymus repens</i>                                  | - | + | + | + | - | - | - | + | 1 | + | - | - | III |
| <i>Pulicaria dysenterica</i>                          | 1 | + | + | - | - | - | - | - | + | + | - | - | III |
| <i>Rumex crispus</i>                                  | - | - | - | - | + | - | - | + | + | - | + | - | II  |
| <i>Juncus gerardii</i>                                | - | - | - | + | + | - | + | - | - | - | + | - | II  |
| <i>Trifolium hybridum</i>                             | 2 | - | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Trifolium resupinatum</i> subsp. <i>suaveolens</i> | - | - | 1 | 1 | - | - | - | - | - | - | - | - | I   |
| <i>Inula britannica</i>                               | - | - | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Rumex conglomeratus</i>                            | + | - | - | - | - | - | - | - | - | - | - | - | I   |
| <i>Pulicaria vulgaris</i>                             | - | - | - | - | - | - | - | - | - | - | - | + | I   |
| Glycerio-Sparganion                                   |   |   |   |   |   |   |   |   |   |   |   |   |     |
| <i>Carex spicata</i>                                  | + | - | - | - | + | - | - | - | - | - | + | - | II  |
| <i>Trifolium pallidum</i>                             | + | - | - | - | + | - | - | - | - | - | + | - | I   |
| <i>Catabrosa aguatica</i>                             | + | - | - | - | - | - | - | - | - | - | - | - | I   |
| <i>Carex acutiformis</i>                              | - | - | - | - | + | - | - | - | - | - | - | - | I   |
| <i>Bolbochoenus maritimus</i>                         | + | - | - | - | - | - | - | - | - | - | - | - | I   |
| Festuco-Brometea                                      |   |   |   |   |   |   |   |   |   |   |   |   |     |
| <i>Scorzonera laciniata</i>                           | - | - | + | - | - | + | - | + | + | - | 1 | 1 | II  |
| <i>Galium verum</i>                                   | - | - | - | - | + | - | - | - | - | + | + | 1 | II  |
| <i>Potentilla argentea</i>                            | - | - | - | - | + | - | - | - | - | - | + | 1 | I   |
| <i>Trifolium campestre</i>                            | - | - | - | - | - | - | - | - | - | - | 1 | + | I   |
| <i>Cynodon dactylon</i>                               | - | + | - | - | - | - | - | - | 1 | - | 1 | + | I   |
| <i>Poa angustifolia</i>                               | - | - | - | - | - | - | - | - | 1 | - | + | 1 | I   |
| <i>Cerastium pumilum</i> subsp. <i>glutiniosum</i>    | - | - | - | + | - | - | - | - | - | - | - | - | I   |
| Festucetalia valesiaca                                |   |   |   |   |   |   |   |   |   |   |   |   |     |
| <i>Veronica orchidea</i>                              | - | - | - | - | + | - | - | + | + | - | + | - | II  |
| <i>Achillea setacea</i>                               | - | + | + | - | - | - | - | - | - | - | + | - | II  |
| <i>Elymus hispidus</i>                                | - | - | + | - | + | - | - | - | - | - | - | - | I   |
| <i>Aster sedifolius</i>                               | - | - | - | - | - | - | - | - | + | - | + | - | I   |
| <i>Achillea pannonica</i>                             | - | - | - | 1 | - | - | - | - | - | - | - | - | I   |
| Variae syntaxa  |   |   |   |   |   |   |   |   |   |   |   |   |     |
| <i>Polygonum aviculare</i>                            | - | 1 | - | - | - | + | - | + | + | 1 | - | - | III |
| <i>Gypsophila muralis</i>                             | - | + | - | + | - | - | - | + | + | - | - | - | II  |
| <i>Crepis setosa</i>                                  | - | - | - | + | + | - | - | - | - | - | + | - | II  |
| <i>Plantago uliginosa</i>                             | - | - | - | - | - | - | - | + | + | - | - | + | II  |
| <i>Lolium perenne</i>                                 | - | - | - | - | - | - | - | + | + | + | - | - | II  |
| <i>Lactuca saligna</i>                                | + | - | - | - | - | - | - | - | - | + | - | - | I   |
| <i>Atriplex tatarica</i>                              | - | + | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Linaria vulgaris</i>                               | - | - | - | - | + | - | - | - | - | - | + | - | I   |
| <i>Chenopodium polyspermum</i>                        | - | - | - | - | - | - | - | - | - | + | - | - | I   |
| <i>Centaurea indurata</i>                             | - | - | + | + | - | - | - | - | - | - | - | - | I   |
| <i>Bromus inermis</i>                                 | - | - | - | - | - | - | - | - | + | - | - | - | I   |
| <i>Lepidium graminifolium</i>                         | - | - | + | - | - | - | - | - | - | - | - | - | I   |
| <i>Bromus squarrosus</i>                              | + | - | - | - | - | - | - | - | - | - | - | - | I   |
| <i>Carduus nutans</i>                                 | - | - | - | + | - | - | - | - | - | - | - | - | I   |
| <i>Centaurea iberica</i>                              | - | - | - | + | - | - | - | - | - | - | - | - | I   |
| <i>Butomus umbellatus</i>                             | - | - | + | - | - | - | - | - | - | - | - | - | I   |
| <i>Bromus japonicus</i>                               | - | - | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Convolvulus arvensis</i>                           | - | - | - | + | - | - | - | - | - | - | - | - | I   |
| <i>Stachys annua</i>                                  | - | - | - | - | - | + | - | - | - | - | - | - | I   |
| <i>Matricaria recutita</i>                            | - | - | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Peucedanum latifolium</i>                          | - | - | - | - | + | - | - | - | - | - | - | - | I   |
| <i>Rumex sanguineus</i>                               | - | - | - | - | - | + | - | - | - | - | - | - | I   |
| <i>Allium vineale</i>                                 | - | - | - | - | - | + | - | - | - | - | - | - | I   |
| <i>Vicia tetrasperma</i>                              | - | - | - | - | - | + | - | - | - | - | - | - | I   |
| <i>Lavathera thuringiaca</i>                          | - | - | - | - | - | + | - | - | - | - | - | - | I   |
| <i>Tragopogon graminifolius</i>                       | + | - | - | - | - | - | - | - | - | - | - | - | I   |
| <i>Ranunculus sceleratus</i>                          | - | - | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Spergularia rubra</i>                              | - | - | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Polygonum arenastrum</i>                           | - | - | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Melilotus albus</i>                                | - | - | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Centaurium pulchellum</i>                          | - | - | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Trigonella procumbens</i>                          | - | - | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Cyperus fuscus</i>                                 | - | - | - | - | - | - | - | - | - | - | - | + | I   |
| <i>Crypsis aculeata</i>                               | - | - | - | - | - | - | - | - | - | - | - | + | I   |

**Place and date of performing the surveys:** **1** - Meadows on the side of the forest of Lunca Oltețului, between Vlăduțeni and Greci, Osica de Sus Village (KK 80), Olt County June 13, 2010; Alt. 92-99 m, N 44° 15' 687-700", E 24° 20' 356-347"); **2** - Meadows on the side of the forest from Lunca Jiului, Bratovoiești, Dolj, Borna IV 200, July 5-12, 2006, Alt. 53-55 m, N 44° 06' 073-047", E 23° 54' 799-928"; **3** - Tâmburești, Dolj District, meadows on the side of the

forest from Lunca Jiului, September 1, 2011; Alt. 60 m, N 44° 00' 976", E 23° 54' 992";; **4** - Seaca de Câmp, Dolj County, edge of the agricultural land (July 12, 2006, Alt. 41 m, N 43° 55' 695", E 23° 13' 944").

Analysing the abundance-dominance indices (Table 1), registered by *Limonium tomentellum* in the studied locations, it results the fact that the values are smaller in the phytocoenoses dominated by: *Puccinellia convoluta*, *Hordeum geniculatum*, *Pholiurus pannonicus* and a little higher in the phytocoenoses dominated by *Beckmannia eruciformis*, *Poa sylvicola*, *Elymus repens*, *Poa angustifolia*, species that require further studies regarding affiliation to *Puccinellion limose*.

The assigned species to *Limonium tomentelli* Arafonov, Golub 1990, mentioned in Russia by GOLUB et al. (2005), cannot be valuable for our phytocoenoses, because the alliance is described according to the edified associations by *Festuca valesiaca*, missing in our phytocoenoses, or *Artemisia santonica* which, even present in Bratovoști, does not present the abundance-dominance necessary for making an association.

In the annual dynamics, regarding the species phenophase, it has been observed that the flowering period starts in the second part of June, reaching a maxim at the final of August - the beginning of September, being relevant its dominance in the phytocoenoses, as far as the primary dominant species are dry.

## CONCLUSIONS

*Limonium tomentellum* has been identified in Oltenia in 9 locations, only from Dolj County. Today, the species is certainly present in only 3 locations 2 of them in Dolj County (Bratovoști and Tâmburești) and a new one in Olt County (between Vlădueni and Greci village, Osica de Sus locality), which is an argument in keeping of the vulnerable status for this species, strengthened by the intense collecting by the local people for sale in flower shops, intense grazing, and the introduction of these areas in the agricultural circuit.

The floristic composition of the phytocoenosis is very rich, 104 vascular taxa, some very special taxa being present: *Tragopogon graminifolium* (new species for Oltenia), *Galium debile*, *Dianthus guttatus* (rare species), *Scorzonera cana* var. *tenuissima*, *Dianthus armeria* subsp. *armeriastrum* f. *glaberrimus* (new locations, Vlădueni and Greci), *Aster sedifolius* (new locations, Bratovoști).

Analysing the abundance-dominance indices, registered by *Limonium tomentellum* in the studied locations, we can conclude that the values are smaller in the phytocoenoses dominated by: *Puccinellia convoluta*, *Hordeum geniculatum*, *Pholiurus pannonicus* and a little higher in the phytocoenoses dominated by *Beckmannia eruciformis*, *Poa sylvicola*, *Elymus repens*, *Poa angustifolia*; further studies are needed regarding the coenotic affiliation to *Puccinellion limose*.

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