

## CONTRIBUTIONS TO RARE TAXA CHOROLOGY OF THE ROMANIAN FLORA

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**Abstract.** This paper contains some rare taxa chorological data of the Romanian flora and presents *Urtica pilulifera* LINNAEUS 1753 for the first time in the flora of our country. It is also stated the sozological characterization, ecology, geoelement and coenology for each taxon, and the new resorts where it has been found.

**Keywords:** chorology, floristic novelty, Oltenia, Romania.

**Rezumat. Contribuții la corologia unor taxoni rari din flora României.** Lucrarea de față cuprinde date corologice la câțiva taxoni rari din flora României și prezintă pentru prima dată în flora țării noastre pe *Urtica pilulifera* L. La fiecare taxon se menționează: caracterizarea sozologică, ecologia, geoelementul și cenologia, precum și noile stațiuni în care a fost găsit.

**Cuvinte cheie:** corologie, noutate floristică, Oltenia, România.

### INTRODUCTION

Data about the rare taxa chorology of the Romanian flora are presented in various specialized works about the flora or vegetation of a certain territory. There are species whose data on their spreading are unknown.

Among the first botanists “who drawn the first furrow in the still unfallowed land of the Romanian Botany” (DIHORU & NEGREAN, 2009) is GRECESCU (1898), who used some chorological expressions (common, common throughout the country, rare, rarity in our flora). Subsequently, PRODAN (1939) uses the terms: sporadic, very sporadic, etc., without emphasising the chorological aspect.

With the establishment of IUCN (the International Union for Conservation of Nature) it also took place the first collaborations of the great botanists, which resulted in the development of rare, endangered and endemic species lists, to whom there were added the sozological status.

So far there are known four national red lists and the Red Book of Vascular Plants of Romania.

### MATERIAL AND METHODS

In order to carry out this paper numerous field trips were conducted to find the plant material in a state that allows an accurate determination.

The determination was done using the literature (BELDIE, 1977, 1979; CIOCĂRLAN, 2000, 2009). It was also compared with the existing material in the Herbarium of the University of Craiova (CRA) if it was required, to avoid any doubt about the identity of the analysed taxon.

The authors' abbreviations were done after BRUMMITT & POWELL (1992).

The localities where the species were found are presented together with GPS coordinates and where they are missing there is stated the locality code by LEHRER & LEHRER (1990).

### RESULTS AND DISCUSSIONS

*Camelina rumelica* VELEN. – Fam. Brassicaceae

Sozological characterization: In the red list developed by the academician BOȘCAIU *et al.*, (1994) it is mentioned as a rare species, as in the specialized determinators of the country (BELDIE, 1977; CIOCĂRLAN, 2000, 2009).

Ecology and geoelement. It is located in ruderalized places and fields. South-eastern Europe

Coenology. Secalietea.

New locations: Viișoara Mare – N 44°14'611"; E 24° 08'155" and 155 m.

*Crocus chrysanthus* (HERBERT) HERBERT – Fam. Iridaceae

Sozological characterization: This taxon is listed as rare in the various national red lists and specialized determinators (BOȘCAIU *et al.*, 1994; CIOCĂRLAN, 2009; OLTEAN *et al.*, 1994) and it is listed as vulnerable (VU) in the Red Book of Romania.

Ecology and geoelement. It was found in the bushes near the edge of a cemetery. It is a heliophilous, thermophilic species, which grows in moderately moist, neutral soils. Balkan Anatolian.

Coenology. Carpiniion orientalis.

New locations: Rastu Vechi (Dolj County) – FP86 (LEHRER, 1990); (Leg. D. Răduțoiu, Det. D. Răduțoiu et I. Costache March 11, 2012).

*Fimbristylis bisumbellata* (FORSSK.) BUBANI – Fam. Cyperaceae

Sozological characterization: It is considered a rare taxon in the whole literature of the country (BELDIE, 1979; CIOCĂRLAN 2000, 2009; OLTEAN *et al.*, 1994.). Only DIHORU and NEGREAN (2009) consider it a vulnerable species in the Red book of Romania.

Ecology and geoelement. It is found in sandy, moist places, in recent sediments, in neutral soils. South Europe, Asia, Africa.

Coenology. Nanocyperion.

New locations: Piscu Vechi, Ghidici, Rastu Vechi (Dolj County) – FP76 (LEHRER & LEHRER, 1990).

*Hesperis pycnotricha* BORBÁS et DEGEN – Fam. Brassicaceae

Sozological characterization: It is a species that has been recently discovered in the Romanian flora (COSTACHE, 2005) in the Lower Basin of the Motru River. In his paper the botanist CIOCĂRLAN (2009) considers it a very rare species.

Ecology and geoelement. It is located at the edge of shrubs, mesophilic, shady places. Pont. Balc.

Coenology. Arction lappae.

New locations: Fărcășești Locality (Gorj County) (N 44°50'827 "and E 23°15'559") and 155 m; (Leg. D. Răduțoiu, I. Costache and L. Băloniu – May 11, 2011).

*Lathyrus sphaericus* RETZ. – Fam. Fabaceae

Sozological characterization: This species is considered rare in the Romanian literature (BELDIE, 1977; BOȘCAIU, 1994; CIOCĂRLAN, 2000, 2009; DIHORU & DIHORU, 1994). Currently this taxon is more and more spread in the South-West of Romania, being found in many resorts (RĂDUȚOIU & COSTACHE, 2009).

Ecology and geoelement. It is found in ruderalized meadows, fields, vineyards, low-acid soils - alkaline, clayey, clay or skeletal soils. Mediterranean.

Coenology. Festucion rupicolae.

New locations: Vișoara Mare – N 44°14'553"; E 24°08'549" and 158 m.

*Luzula forsteri* (SM.) DC. – Fam. Juncaceae

Sozological characterization: It is considered a rare species in the specialized determinators of the country (BELDIE, 1979; CIOCĂRLAN, 2000, 2009). The same status is found in the red list developed by OLTEAN *et al.*, 1994.

Ecology and geoelement. It is found in the beech or holm oak forests, and sometimes in the gaps at the level of the cerris and Hungarian oak forests in the South-West of Romania. It grows in oligo-mesobasic, acidic to moderately acidic, loose soils.

Coenology. Quercion roboris, Fagion sylvaticae.

New locations: Fărcășești locality (N 44°50'836 "and E 23°15'578"), 165 m and Moi locality (Gorj County) (N 44°54'123 "and E 23°13'234"); (Leg. et det. D. Răduțoiu, I. Costache et L. Băloniu – May 11, 2011)

*Montia fontana* L. subsp. *chondrosperma* (FENZL) WALTERS 1953

Sozological characterization: It is known as a rare or endangered (E) (DIHORU & DIHORU, 1994) taxon in the literature of the country (BOȘCAIU *et al.*, 1994; CIOCĂRLAN, 2000, 2009; OLTEAN *et al.*, 1994).

Ecology and geoelement. It is present in pastures, heaths, fields, in acid, clay soils. Circ.

Coenology. Cardamino-Montion.

New locations: Moi locality (Gorj County) (N 44°54'011 "and E 23°13'192").

*Polycarpon tetraphyllum* (L.) L. – Fam. Caryophyllaceae

Sozological characterization: Nationally this species is known only from Orșova (Caraș Severin) (CIOCĂRLAN, 2009). In the red book of Romania (DIHORU & NEGREAN, 2009) it is considered critically endangered (CR) even extinct (? Ex). In 2010 a material was collected and determined (Leg. et det. I. Costache & D. Răduțoiu – May 15, 2010) to be part of this species, thus contributing to the species chorology.

Ecology and geoelement. It is located in ruderalized places on sandy substrate, next to ditches. South-western Europe.

Coenology. Plantaginetea.

New locations: Valea Stanciului (Dolj County) - GP27/37 (LEHRER & LEHRER, 1990).

*Ranunculus constantinopolitanus* (DC.) D' URV. – Fam. Ranunculaceae.

Sozological characterization: In the centre and southern part of Oltenia is frequent. At national level it is mentioned rare (OLTEAN *et al.*, 1994).

Ecology and geoelement. Mesohygrophilous, subterm.-thermophilous species, on brown soils, mesobasic or gleyic, low on acid (pH = 6-6.6), from river meadows and low terraces, temporary floodable. Balkan.

Coenology. In meadow woods (*Carpinion betuli*).

New locations: Vișoara Mare – N 44°14'611"; E 24°08'155" and 170 m.s.m.

*Salvia aethiopsis* L. – Fam. Lamiaceae

Sozological characterization: It is a taxon rarely included in the red national lists. Few places from Oltenia are known.

Ecology and geoelement. It is encountered in ruderal meadows, fallows or bushes. Mesotrophic, xerophyte and sub thermophilous species. Pont. Medit.

Coenology. *Sisymbrium*, *Festucion rupicolae*.

New locations: Ghidici, Piscu Vechi (Dolj County) – FP76 (LEHRER & LEHRER, 1990).

*Urtica pilulifera* L. (*U. dodartii* L.) – Fam. Urticaceae

Sozological characterization: It is the first mention of this plant in the Romanian spontaneous flora.

Ecology and geoelement. It is a weed of cultivated land and waste places, preferring light soils. South Europe.

Coenology. *Stellarietea mediae*

New locations: Costinești (Leg. D. Răduțoiu and I. Costache – August 10, 2010) – PJ36 (LEHRER & LEHRER, 1990) (Figs. 1, 2).

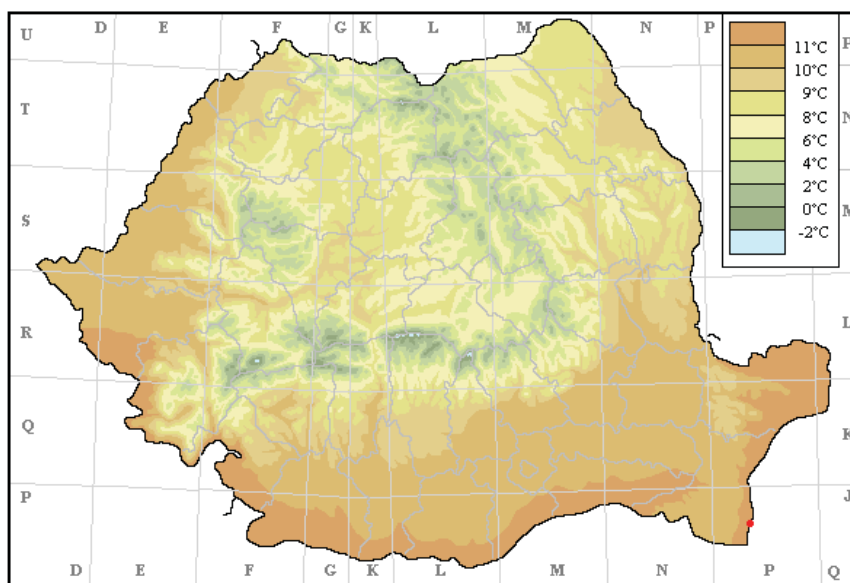


Figure 1. Distribution of species *Urtica pilulifera* L. correlated with mean annual temperature.  
 Figura 1. Distribuția speciei *U. pilulifera* L. corelată cu temperaturile medii anuale (original).

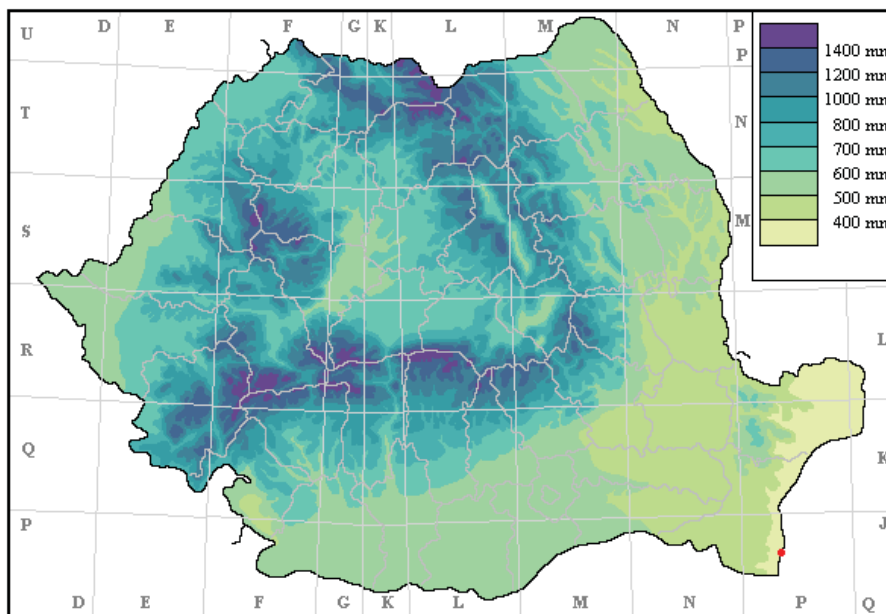


Figure 2. Distribution of species *Urtica pilulifera* L. correlated with mean annual precipitation.  
 Figura 2. Distribuția speciei *U. pilulifera* L. corelată cu precipitațiile medii anuale (original).

*Veronica catenata* PENNELL – Fam. Scrophulariaceae

Sozological characterization: In Oltenia this taxon is mentioned from the localities: Craiova – Botanical Gardens “Al. Buia”, Giulești, Pojogi-Cerna, Cireșu, Stroești, Mogești and Obrocești (RĂDUȚOIU & COSTACHE, 2009). The species is sporadically mentioned at the national level.

Ecology and geoelement. It is found on borders, in places where the water maintains a long time. Circumpolar. Coenology. Glycerio-Sparganion.

New locations: Păușești Otăsău, Șerbănești (Vâlcea County) – KK79 (LEHRER & LEHRER, 1990).

### CONCLUSIONS

The data presented in this paper complete the 11 rare taxa chorology of the Romanian flora. The floristic inventory of Romania is also enriched with another new species: *Urtica pilulifera* L.

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