



NEW CHOROLOGICAL DATA FOR RARE VASCULAR PLANTS FROM ROMANIA

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Abstract: New chorological data about seven rare vascular plant taxa are reported in the present paper: *Conringia austriaca*, *Jurinea multiflora*, *Linaria arvensis*, *Nonea pallens*, *Ophrys apifera*, *Ophrys scolopax* subsp. *cornuta*, *Saponaria officinalis*. For *Linaria arvensis*, previously considered doubtful in the absence of the herbarium material, we confirm its presence in Romania. The report of *Nonea pallens* is the first for Dobrogea, while the report of *Jurinea multiflora* is the first for Muntenia region of Romania.

Keywords: chorological data, flora, rare plants, Romania

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Introduction

During various field studies in the period 2010–2014, new data on the occurrence of some native vascular plant species have obtained. They are rare species (Oltean et al. 1994), generally with a very limited distribution not only in Romania, but also in Europe (Tutin et al. 1964-1980, Tutin et al. 1993).

The nomenclature is according to The Plant List (2013). Beside the new chorological data, the geographic coordinates (decimal degrees, WGS 1984 system) are given, as well as a discussion about their distribution in Romania. Furthermore, the voucher specimen is indicated, the herbarium code being according to Index Herbariorum (Thiers, continuously updated).

Results and discussion

Conringia austriaca (Jacq.) Sweet (Fam. Brassicaceae)

Dobrogea, Constanța County: Șipotetele E, near the village, bushes with *Paliurus spina-christi*, 19.04.2010; Șipotetele S, Izlaz Hill, bushes, 44.026147°N, 27.950989°E, 30.04.2010; Șipotetele E, near village, rocky grassland, 44.050405°N, 27.965562°E, 30.04.2010; Șipotetele E, edge of bushes with *Paliurus spina-christi*, 21.05.2010 [CL 661637; CL 661638].

According to Oprea (2005), the plant has previously been reported only from a few counties, as follows: Bihor County – in the natural reserve Defileul Crișului Repede; Cluj County – Cheile Turzii; Sibiu County – Bungard, Șura Mare, Slimnic; Mehedinți County – Gura Văii, Vârciorova to Porțile de Fier and Gura Slătincului; Tulcea County – Atmagea on Ghiubelca valley. This last specification is the only existing one to date in Dobrogea.

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Distribution in Europe: SE & EC Europe, extending westwards to Austria and Sardinia (Ball 1993, Marhold 2011a).

Jurinea multiflora (L.) B.Fedtsch. [syn. *Jurinea linearifolia* (DC.) DC.] (Fam. Compositae) (Fig. 1)

Muntenia, Buzău County: Balta Albă S, 45.278428°N, 27.291308°E, ca. 45 m alt., 02.07.2013 and 19.07.2013. The plants (three flowering individuals) have been recorded in dry grassland with *Festuca valesiaca*, *Agropyron cristatum* s.l., *Tanacetum millefolium*, *Teucrium chamaedrys*, *Bassia prostrata*, *Stipa capillata*, *Astragalus austriacus*, *Linum perenne*, *Bothriochloa ischaemum*. In the same habitat with *Jurinea multiflora* we also identified four rare species for Romania (Oltean et al. 1994): *Allium denudatum* (syn. *Allium albidum*), *Astragalus dasyanthus*, *Goniolimon besserianum*, *Tanacetum millefolium*.

Jurinea multiflora is a perennial species, woody at base, with lanceolate or linear-lanceolate, shortly acuminate, usually with revolute margin, arachnoid-tomentose leaves. Capitula are small (5-20 mm), cylindrical, with involucre bracts shortly acuminate, white or pale green below, pink or reddish-purple distally, with scarious apex. Achenes are tetragonal, ribbed, glabrous, with pappus ca. 3 times as long as achene (Kožuharov 1976). This taxa is very closed to *Jurinea tzar-ferdinandii*, but the latter has involucre bracts white or pale green distally. It is also related to *Jurinea stoechadifolia*, but this species has larger capitula (27-30 mm). Both *J. tzar-ferdinandii* and *J. stoechadifolia* have been reported for Romania.

Jurinea multiflora is a continental element (Dihoru & Negrean 2009, Sârbu et al. 2013), with general distribution in S & SE parts of former U.S.S.R., SE Romania, growing in steppes and semideserts (Kožuharov 1976, Greuter 2006+).

This species has been reported for Romania only in two counties in the E-SE part of the country, as follows: Constanța County, Nistorești (Horeanu 1972), Medgidia (Prodan 1957); Galați County, Galați city, near Brateș Lake (Herbarium C. Zahariadi according to Dihoru & Negrean 2009). Sârbu et al. (2013) mention it as a rare species in the steppe area, dry grassland and stony hills, in *Agropyro-Kochietum prostratae* association. The status of *Jurinea multiflora* has been appreciated as critically endangered (Dihoru & Negrean 2009) or vulnerable (Oprea 2005).

The field research in Nistorești and Brateș Lake area does not confirm the presence of the plant for these locations. The presence of the species in Medgidia is difficult to verify because the area is quite large, and the bibliography does not indicate a specific location. We note that there are no herbaria specimens collected in Romania.

Our information is the first one on the presence of the species in Muntenia; choronyms of Tulcea and Galați, mentioned in the literature, are located in Dobrogea, respectively in Moldova regions. At the same time this data confirms the presence of the plant in the Romanian Flora.

Linaria arvensis Desf. (syn. *Antirrhinum arvense* L.) (Fam. Plantaginaceae)

Transylvania, Hunedoara County: Sălașu de Sus, the natural reserve Fânațele cu narcise, in ruderal places (wayside), with only few accompanying species (*Polygonum aviculare*, *Persicaria hydropiper*, *Erigeron annuus* s.l.), 45.500739° N, 22.947352°E, ca. 515 m alt., 11&12.08.2013 [BUC 402223; BUC 402224].

Banat, Caraș-Severin: Coronini, 44.671233°N, 21.751248°E, ca. 400 m alt., 29.08.2014. The plants have been identified in disturbed soil on the platform around a

wind turbine, accompanied by the following species: *Dactylis glomerata* s.l., *Anthyllis vulneraria* s.l., *Fragaria vesca*, *Medicago falcata*, *Cerastium fontanum* s.l., *Hypericum elegans*, *Stellaria graminea*, *Galium verum*, *Bothriochloa ischaemum*, *Elymus repens* s.l., *Chondrilla juncea*, *Geranium lucidum*, *Trifolium arvense*, *Scabiosa arvensis*, *Plantago lanceolata*, *Salvia verticillata*, *Leucanthemum vulgare*, *Carduus acanthoides*, *Lotus corniculatus*, *Achillea setacea*, *Linaria vulgaris*, *Trifolium pratense*, *Potentilla argentea*, *Convolvulus arvensis*, *Teucrium chamaedrys*, *Tanacetum vulgare*, *Rumex acetosella*, *Dianthus carthusianorum*, *Centaurea phrygia*, *Agrimonia eupatoria*, *Rubus caesius*, *Trifolium repens*. According to Sârbu et al. (2013), it grows in sandy, ruderal and cultivated places, in plains and hills, in *Centaurealia cyani*.

Linaria arvensis is a Central European element (Ciocârlan 2009, Sârbu et al. 2013), with large distribution in European countries (Marhold 2011c). The presence in Romania was considered uncertain in the absence of herbarium material (Chater et al. 1972, Oprea 2005, Ciocârlan 2009, Sârbu et al. 2013). However, the plant was mentioned in several counties: Satu Mare, Cluj, Mureş, Harghita, Braşov, Alba, Sibiu, Iaşi, Suceava, Botoşani, Tulcea (Marian 2000, Oprea 2005, Ciocârlan 2009, Sârbu & Oprea 2011, Sârbu et al. 2013). Sârbu & Oprea (2011) consider this species as allochthonous for Romania.

The two choronyms indicated above confirm the presence of the species in the country and are the first reports for Hunedoara and Caraş-Severin counties.

Nonea pallens Petrovič (Fam. Boraginaceae)

Dobrogea, Constanţa County: Şipotele N, grassland near the road, 44.062817°N, 27.971017°E, 19.04.2010; Şipotele SE, secondary grassland, near the road Şipotele-Tufani, 44.028067°N, 27.971000°E, ca. 140 m alt., 29.04.2010 [CL 661664]; Sevändig N-NE, grassland, 44.019683°N, 27.950200°E, 30.04.2010; Deleni N-NE, Cişmeluţei Valley, grassland, 22.05.2010; Zorile W-SW, Ghiolpunar Hill, grassland, 44.075567°N, 27.910067°E, 23.05.2010; Zorile W-SW, Ghiolpunar Hill, edge of agriculture field, 07.06.2010; Deleni, Refugiului Valley, stony grassland, 44.104933°N, 28.002250°E, 07.06.2010.

According to Ciocârlan (2009) and Sârbu et al. (2013), *Nonea pallens* is a Ponto-Balkan element. It is spread in SE Europe, from Albania to S Ukraine (Chater 1972, Valdés 2011), native in most of countries, except Republic of Moldova where it is considered an introduced species (Valdés 2011). From Romania, it was reported from the SW of the country, in Mehedinţi County, from Gura Văii to Vârciorova (Grecescu 1898) and in grasslands from Gura Oglănicului to Gura Slătinicului (Roman 1974). The first record in Dobrogea was communicated at a national scientific symposium in 2010 (Anastasiu 2010a) and subsequently some further information (“Constanţa: Şipotele către păd. Deleni”) was published by Sârbu et al. (2013). The occurrence of *Nonea pallens* in SE of the country demonstrates a continuity of the distribution area between Bulgaria and Ukraine.

Ophrys apifera Huds. subsp. *apifera* (Fam. Orchidaceae) (Fig. 2)

Muntenia, Buzău County: Cocârceni, grassland, 45.363671°N, 26.486291°E, ca. 440 m alt., 01.06.2014, two mature individuals. *Ophrys apifera* subsp. *apifera* is an Atlantic-Mediterranean taxon (Sârbu et al. 2013), previously reported only from a few counties in Romania: Sibiu, Hunedoara, Mehedinţi, Dâmboviţa, Prahova (Oprea 2005, Sârbu et al. 2013). This taxon is appreciated as critically endangered at national level

(Dihoru & Negrean 2009), but as “least concern” in the IUCN Red List (Bilz et al. 2011). This report is the first one for Buzău County.



Fig. 1. *Jurinea multiflora*, Balta Albă, Buzău County, 02.07.2013 (photo: P. Anastasiu)



Fig. 2. *Ophrys apifera* subsp. *apifera*, Cocârceni, Buzău County, 01.06.2014 (photo: P. Anastasiu)

***Ophrys scolopax* Cav. subsp. *cornuta* (Steven) Camus (Fam. Orchidaceae)**

Muntenia, Buzău County: Ulmet, bushes with *Hippophaë rhamnoides* s.l., 45.368787°N, 26.465205°E, ca. 470 m alt., 09.06.2014 [BUC 401676]. This is the fifth report from Buzău County, the plant having been previously reported from Cislău (Nyárády & Beldie 1972, Oprea 2005, Dihoru & Negrean 2009), Pătărlagele (Popova et al. 1981 in Oprea 2005), Cănești (Anastasiu et al. 2008) and Cocârceni (Anastasiu 2010b). *Ophrys scolopax* subsp. *cornuta* is very rare in Romania and critically endangered (Dihoru & Negrean 2009). It has been reported from Banat, Oltenia, Muntenia, Moldova (Oprea 2005, Săbu et al. 2013).

***Saponaria glutinosa* M.Bieb. (Fam. Caryophyllaceae)**

Dobrogea, Constanța County: Șipotele E, at the edge of Ponto-Sarmatic deciduous thickets, 44.050417°N, 27.965000°E, 21.05.2010 [CL 661639]; Dumbrăveni, at the edge of forest, 02.06.2011. Considered a Mediterranean species (Dihoru & Negrean 2009), *Saponaria glutinosa* is distributed in SE Europe and Spain (Chater 1993, Marhold 2011b). It is rare in Romania, reported from a few places in Mehedinți

County and Constanța County – Dumbrăveni, Canaraua Fetei (Arcuș 1998). Its status in Romania has been appreciated as being at Low Risk (Dihoru & Negrean 2009).

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