

## CONTRIBUTIONS TO THE KNOWLEDGE OF THE VASCULAR FLORA OF ROMANIA

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**Abstract:** There are present and discussed the fact that the legitimate name is *Cirsium heterophyllum* (L.) Hill and the synonyme name is *Cirsium helenioides* auct., non (L.) Hill. In the flora of Romania, as well as in Europe, is growing *Cirsium heterophyllum* (L.) Hill; *Cirsium helenioides* (L.) Hill is growing in Central Asia and in Siberie. Follow, it is showed that the taxa *Juncus trifidus* L. ssp. *monanthos* (Jacq.) Asch. & Graebn. is not growing in the flora of Romania. There is presented an infraspecific taxa, new for the science, namely: *Juncus trifidus* L. ssp. *trifidus* var. *brevifolia* Ciocărlan var. nova., discovered in the Mountains of Cozia (Vâlcea county). Also, in this paper is presented two rare plants in the flora of Romania: *Dianthus kladovanus* Degen and *Thymus longicaulis* C. Presl, species listed in the “Red Lists”, discovered by the author in new localities.

**Key words:** *Cirsium heterophyllum* (L.) Hill (*C. helenioides* auct., non (L.) Hill.); *Juncus trifidus* L. ssp. *monanthos* (Jacq.) Asch. & Graebn. Romania.

### Introduction

The vascular flora of Romania, though is relatively well known, require other investigations in order to assure a better acquaintance of it. Thus:  
– we do not know, with certainty, the presence or absence of some species into the Romanian Flora. In a previous paper [CIOCĂRLAN, 2006] there are mentioned 29 species present under various “Red Lists”, which are not exist in Romania.

- There are a lot of discrepancies among various authors, concerning the taxonomic value of some species.
- There are a lot of discrepancies over the nomenclature of various plants.
- We do not know completely the present location of those rare species in Romania, which must be preserved.

### Results

We will try to clarify some aspects concerning the topics above mentioned, in this paper.

I. NYÁRÁDY showed, in “Flora R. P. Române” (t. IX, 1964), at the genus *Cirsium*, a species, namely *Cirsium helenioides* (L.) Hill (*C. heterophyllum* (L.) Hill). In the investigated references there are other points of view. Thus, we have to answer at two questions:

- if those two species (*Cirsium helenioides* (L.) Hill and *C. heterophyllum* (L.) Hill) are synonymous, which name is the legitimate one?

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- if those two species (*Cirsium helenioides* (L.) Hill and *C. heterophyllum* (L.) Hill) are different, which species is growing in flora of Romania?

In order to clarify these aspects we have seen a lot of botanical references and a great number of herbarium sheets were examined, including the Herbarium of the Cluj-Napoca University (CL). In the botanical references there are four points of view, namely:

1. those two plant species are synonymous, having the species *C. helenioides* (L.) Hill on the first position and *C. heterophyllum* (L.) Hill as a synonyme name [NYÁRÁDY, 1964; WERNER, 1976; POPESCU & SANDA, 1998; OPREA, 2005];
2. those two plant species are synonymous having the species *C. heterophyllum* (L.) Hill on the first position and *C. helenioides* (L.) Hill as a synonyme name [PRODAN, 1939; BORZA, 1949; CIOCÂRLAN, 2000; BELDIE, 1979; LOPEZ & JIMENEZ, 1974; SZAFER & al., 1986; FISCHER, 1994, SENGHAS & SEYBOLD, 2000];
3. those two plant species are synonymous having the species *C. heterophyllum* (L.) Hill on the first position and *C. helenioides* auct., non (L.) Hill as a synonyme name [LAMBINON & al., 1992; KERGUÉLEN, 1993; STACE, 2001];
4. those two plant species are different [CHARADZE, 1963; LAMBINON & al., 1992; KERGUÉLEN, 1993; STACE, 2001].

It is worth to be mentioned that Stace in “New flora of the British Isles” (2001) did not follow the point of view from “Flora Europaea”, t. 4 (1976).

In conclusion, in flora of Romania, as well as in flora of Europe, is growing the species *Cirsium heterophyllum* (L.) Hill. The other species, *Cirsium helenioides* (L.) Hill, is growing in central Asia and Siberie [CHARADZE, 1963].

## II. *Juncus trifidus* L.

In the references there are different points of view. Thus, in the “Flora of Romania”, different authors [PRODAN, 1939; BORZA, 1949] are not presenting any infraspecific taxa at *Juncus trifidus* L.

Later on, other authors [GRINȚESCU, 1966; BELDIE, 1979; POPESCU & SANDA, 1998; CIOCÂRLAN, 2000; OPREA, 2005], presents at *J. trifidus* L. a subspecies, namely: subsp. *monanthos* (Jacq.) Asch. & Graebn.

In order to clarify this controversy among the Romanian authors, the botanical references, as well as the herbarium sheets, were examined.

The results of our analyses indicate that in the flora of Romania does not grow the taxa *J. trifidus* L. subsp. *monanthos* (Jacq.) Asch. & Graebn. This infrataxa is growing as a matter of fact in the Alps and Appennins, only [SNOGERUP, 1980; ZĂNGERI, 1976].

We will present the main differential features between *J. trifidus* L. ssp. *trifidus* and *J. trifidus* L. subsp. *monanthos* (Jacq.) Asch. & Graebn.

- Basal leaves without lamina or having a very short lamina, to 1 cm, setaceous. The stem leaves (bracteals) longer than the inflorescence, which has 2-4 flowers. Tepals of 3-4 mm. A calcifugal taxa .....*J. trifidus* L. ssp. *trifidus*
- Basal leaves with a lamina to 10-15 cm (Fig. 1). The stem leaves (bracteals) are exceed the inflorescence a little. Solitary flowers. Tepals of 4-5 mm. A calcicolous taxa .....*J. trifidus* L. ssp. *monanthos* (Jacq.) Asch. & Graebn.

Obs. in “Flora Italica” [ZĂNGERI, 1976] and “Flora of Austria” [ADLER, 1994] this taxa is given as a species: *J. monanthos* Jacq.

The author of this paper collected from the Mountain of Cozia (Southern Carpathians, Romania), in 1987, two different individuals of *J. trifidus*. As a consequence of the analysis on those two different individuals, the author showed that an individual represents the typical species *J. trifidus* L. ssp. *trifidus* and the second one represents a new variety at *J. trifidus* L. ssp. *trifidus*. This new individual has the stem leaves (bracteals)  $\pm$  equals with the inflorescence (Fig. 2).

*J. trifidus* L. ssp. *trifidus* var. *brevifolia* Ciocărlan var. nova.

Folia caulis (bracteae)  $\pm$  aequalis cum inflorescentia.

Holotypus in Herb. Univ. Sci. Agron. București conservatur. Montes Cozia, circa 1660 m alt. Romania.

III. We present two rare plants in the flora of Romania; both of them are listed on the "Red Lists". These two plants were identified by us in new localities.

1. *Dianthus kladovanus* Degen was identified in Satu Mare county, at Foieni, on fixed sand dunes.
2. *Thymus longicaulis* C. Presl was identified in Brașov county, on Sasului Hill, close to Bran, in meadows and rocks.

Both of these species are stored in the Herbarium BUAG.

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Fig. 1



Fig. 2