

## Contribution to the flora of Bulgaria II

### Príspevek ke květeně Bulharska II

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*Centaurium littorale* (D. TURNER) GILMOUR subsp. *uliginosum* (WALDST. et KIT.) MELDERIS, *Odontites salina* (KOTOV) KOTOV, *Inula salicina* L. subsp. *sabuletorum* (CZERN. ex LAVR.) SOJÁK and *Digitalia adscendens* (H., B. et K.) HENR. are for the first time recorded from Bulgaria. The status of *Odontites salina* is briefly discussed and the rank of species is considered to be justified.

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The following four taxa are recorded for the first time from Bulgaria:

1. *Centaurium littorale* (D. TURNER) GILMOUR subsp. *uliginosum* (WALDST. et KIT.) MELDERIS

Bulgaria orient., distr. Burgas; in depressionibus in arenis litoralibus apud opp. Slănčev brjag; solo arenoso, disperse. Leg. M. KRÁL 4926, 8. 8. 1986, PRC.

In the locality it grows together with *Centaurium spicatum* (L.) FRITSCH (leg. M. KRÁL 4904, PRC) and *Blackstonia serotina* (KOCH ex REICHENB.) G. BECK (leg. M. KRÁL 4936, PRC). MELDERIS (1972) does not record *C. littorale* from Bulgaria. *Centaurium turcicum* (VEL.) RONN. ex FRITSCH differs in having broader, not parallel-sided leaves, the basal and the lower cauline ones being 5nerved. The author had for the comparison a material of *C. turcicum* from Romania and Abchazia.

2. *Odontites salina* (KOTOV) KOTOV

Bulgaria orient., distr. Burgas; in arenis stabilisatis in litore maris apud opp. Slănčev brjag; solo arenoso, disperse. Leg. KRÁL 4969, 15. 8. 1986, PRC.

Two different populations of *Odontites* were present in the maritime sands near Slănčev brjag close to one another. The plants of the first one have been identified as *O. vulgaris* MOENCH (*O. serotina* DUM.) (leg. M. KRÁL 4967, PRC); they were unusually tall (up to 73 cm) but in other morphological characters they were undistinguishable from the Central European plants of this species. As these tall plants are connected with the usual ones by intermediates collected in other parts of Bulgaria the present author considers their taxonomic recognition in any rank as unjustified.

The plants of the other population were remarkable by their thick, carnosely and easily (even in the flowering stage) deciduous leaves. According to the Flora SSSR they could be identified as *O. salina* (KOTOV) KOTOV. This plant is not recognized as a distinct taxon in the Flora Europaea.

Botanist who have at his disposal merely herbarium specimens can express doubts about the distinctiveness of this species as in herbarium its main features are lost: the carnosity of the leaves can hardly be registered and moreover most leaves are already fallen off. However, living plants in the field can be readily recognized as a species distinct from *O. vulgaris*.

These two species do not flower simultaneously. However, on 15. 8. 1986 in *O. vulgaris* the first flowers were already open, in *O. salina* the most plants were in fruit but some of them were still in flower. Therefore phenological (as well as ecological) barrier does not exist between them. As none intermediates or possible hybrids have been found it must be supposed that an effective genetic barrier exists and that the rank of species is fully appropriate and justified for *O. salina*.

### 3. *Inula salicina* L. subsp. *sabuletorum* (ČZERN. ex LAVR.) SOJÁK

Bulgaria orient., distr. Burgas; in depressionibus in arenis litoralibus apud opp. Slănčev brjag; solo arenoso. Leg. M. KRÁL 4925, 8. 8. 1986, PRC.

HROUDA (1974) does not record this subspecies from Bulgaria but according to him it may occur in this country. This subspecies differs from the others in having narrow leaves (only 4–11 mm broad, 5–8,7 times as long as broad) and in being always completely glabrous.

### 4. *Digitaria adscendens* (H., B. et K.) HENR.

Bulgaria orient., distr. Burgas; in margine viae in opp. Slănčev brjag; rare. Leg. M. KRÁL 4935, 7. 8. 1986, PRC.

This species is not mentioned in the Flora Europaea. However, it is recorded from Abchazia (CVELEV 1966). The plants from Bulgaria show the characters given by CVELEV (1966) and exactly match the Abchazian material of this species present in PRC (leg. M. KRÁL 2311). Beside the characters given by CVELEV this species is also remarkable by its long and slender spikes.

From the single finding it cannot be decided whether this species is naturalized in Bulgaria (as it seems to be in Abchazia) or only adventive.

SOUHRN

*Centaurium littorale* (D. TURNER) GILMOUR subsp. *uliginosum* (WALDST. et KIT.) MELDERIS, *Odontites salina* (KOTOV) KOTOV, *Inula salicina* L. subsp. *sabuletorum* (ČZERN. ex LAVR.) SOJÁK a *Digitaria adscendens* (H., B. et K.) HENR. jsou po prvé uváděny z Bulharska. Je krátce pojednáno o *Odontites salina* a pojetí tohoto taxonu v hodnotě druhu je považováno za oprávněné.

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