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Short communication

PRESENCE OF ORCHIS TIMBALII IN ZSOMBÓ TERRITORY

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Orchis timbalii VELEN. 1882 is the hybrid species of *O. coriophora* and *O. laxiflora* subsp. *palustris*. Although the areas of the two taxa overlap large common territories in Hungary (cf. BORSOS, 1962; 1964), only some literary data are available on the presence and habitats of *O. timbalii* [at Kiskőrös (BOROS, 1923) and at Mórahalom (CSONGOR, 1992)]. BORSOS (1962, 1964) refers to some other data at Sári presented by PÉNZES and PRISZTER and by HORÁNSZKY at Székesfehérvár. SOÓ (1928) refers only to BOROS's date. Some other data are available from the personal communication with R. VIDÉKI: A small permanent population of *O. timbalii* can be found near the town of Cegléd, recent sporadical presences of the plant were recognized from sites that have been mentioned above. We are in lack of not only the floristical data but also the descriptions of cenological and environmental conditions.

In 1992 only one individual of *O. timbalii* was found in Zsombó territory (cf. BODROGKÖZY, 1974; CSONGOR, 1957). The plant flowered from 20 May to 7 June. It was 25 cm tall, the inflorescence had cc. 7 cm lenght. The number of the flowers was 14, mature fruit has not developed. The morphological features of the flowers can be studied in Figs. 1–3 of Plate I (Plate I).

The plant was found in a disturbed *Agrostio-Caricetum distantis* community, where the *Festuca pseudovina* formed a subassociation. Some *Molinion* species also occured in the studied vegetation spot. The list of species and their relative cover values (in percentages) are presented in the followings: *Agrostis stolonifera* 16, *Carex distans* 7, *Rhinanthus serotinus* 2, *Polygala comosa* 1, *Linum perenne* 1, *Plantago maritima* 3, *Silene vulgaris* 1, *Tetragonolobus maritimus* 1, *Plantago lanceolata* 1, *Lotus corniculatus* 1, *Achillea asplenifolia* 7, *Cerastium semidecandrum* 1, *Orchis coriophora* 1, *Orchis laxiflora* subsp. *palustris* 1, *Cichorium intybus* 1, *Euphrasia stricta* subsp. *suecica* 1, *Knautia arvensis* 2, *Festuca pseudovina* 25, *Poa angustifolia* 7, *Cynodon dactylon* 3, *Leontodon hispidus* 7, *Molinia coerulea* 1, *Serratula tinctoria* 1, *Ononis spinosa* 2, *Agropyron repens* 1. The total cover of vegetation is about 95%.

The soil of the habitat can be regarded as solonetzic meadow soil, which has moderately alkaline chemical reaction in its surfacial layer, the pH value slowly increases with the depth from 8.21 to 8.76 (the latest date regards to a soil sample from 50–60 cm depth). The thickness of soil samples is 10 cm. The calcium-carbonate content is between 32 and 38% in the soil samples. The surfacial soil layer contains 5.64% organic matter. The deeper layers have the

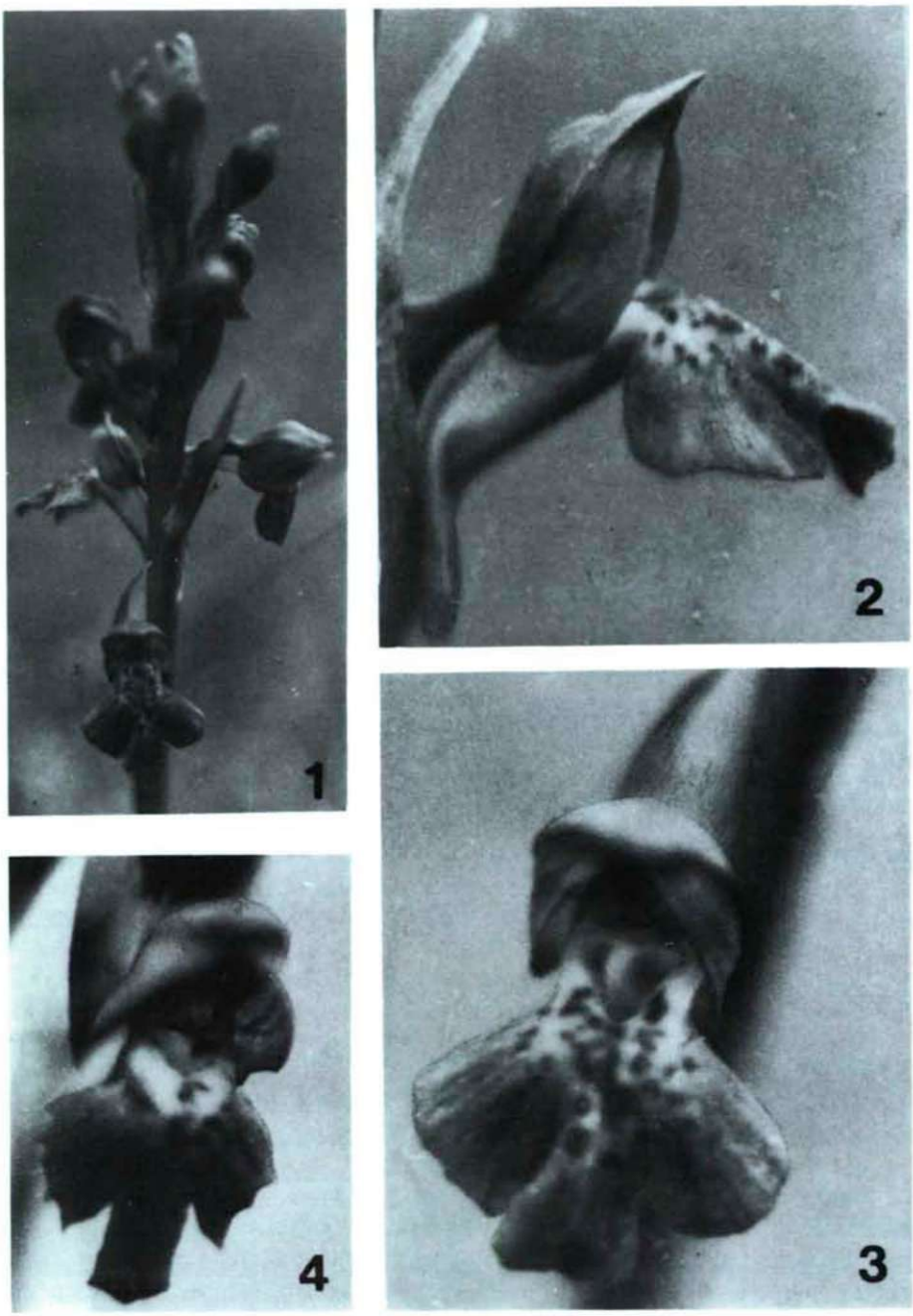

Plate I. Figs. 1—3: *Orchis timbalii*, Fig. 4: *O. coriophora*. The lateral sepals and petals as well as the dorsal sepal (cf. BELL, 1991) form a keel-like structure in both cases. In the Fig. 2 the spure was removed from the natural position.

following organic matter contents: 4.99, 2.36, 2.75, 1.04 and 0.88. The hygroscopic humidity (hy_1) — mainly due to the decrease of the organic matter content — decreases from 4.08 to 1.02%.

At the time of flowering of *O. timbalii*, there were cc. 1.500 individuals of *O. coriophora* and cc. 500 *O. laxiflora* subsp. *palustris* in flowers. The very low ratio of their hybrid species refers to the lack of their common pollinators. So the natural presence of *O. timbalii* may be a very accidental event.

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