

A new perennial *Bupleurum* species for the Bulgarian flora

Stoyan Stoyanov

Institute of Botany, Bulgarian Academy of Sciences, Acad. G. Bonchev Str., bl. 23, 1113 Sofia, Bulgaria; e-mail: stoyanov@bio.bas.bg

Received: February 17, 2004 ▷ Accepted: May 5, 2004

Abstract: During the investigation of the flora of Mt Vitosha in 2003 a new native species *Bupleurum ranunculoides* L. for Bulgarian flora was found. The material was stored in the Herbarium of the Institute of Botany (SOM).

Key words: *Bupleurum*, chorology, vascular plants

Introduction

Genus *Bupleurum* L. is represented by 14 native species in the Bulgarian flora, 3 of which are perennials – *B. longifolium* L., *B. falcatum* L., and *B. sibthorpiatum* Sm. (Assenov 1982). Some authors include the last one in *B. falcatum* (Tutin 1968).

On the territory of the Vitosha Natural Park a new perennial species – *B. ranunculoides* L. (Fig. 1) was found which was not previously reported for the Bulgarian flora. It differs morphologically from most of the Bulgarian species by its wide-elliptical and almost oval bracteoles with 5–7 veins. In Bulgaria similar form of the bracteoles have the annual species *B. rotundifolium* L. and *B. longifolium* from the perennials. However their leaves are wide-elliptical, amplexicaul or semi-amplexicaul, opposed to the linear leaves of *B. ranunculoides*. Another typical feature of this species are the bracts, which are made of 2–5 prolonged, egg-shaped and quite uneven leaves.

Results and Discussions

Bupleurum ranunculoides L.

Mt Vitosha: on open stony grass communities, over limy base, in the ground of Belcheva Skala on the Eastern slope of mount Kupena, 1800m, with flow-

ers, 09.08.2003, FN-81, 42° 31'40"N, 23° 18' 54"E, SC (SS), SOM 159581.

$2n = 2x = 14$ (Fig. 3). The diploid chromosome number agrees with a previous report from France (Goldblatt 1981).

Determination key of Bulgarian *Bupleurum* perennial species

1. Bracteoles elliptical to oval, 3–5 mm wide, with 5–7 arched veins with second veins; at least the upper leaves semi-amplexicaul 3
- 1*. Bracteoles linear up to 1 mm wide, with 3 parallel unbranched veins; all leaves not semi-amplexicaul 2
2. Bracts 2–5 *B. falcatum*
- 2*. Bract 1 or lacking¹ *B. sibthorpiatum*
3. All leaves egg-shaped and semi-amplexicaul *B. longifolium*
- 3*. Basal leaves linear, upper 2–3 wider than the basal, widened in the base and semi-amplexicaul *B. ranunculoides*

¹ The thesis 2 and antithesis 2* are borrowed from the key for the genus *Bupleurum* in the Flora of PR Bulgaria (Assenov 1982).



Fig. 1. Picture of herbarium specimen of *B. ranunculoides*

The natural range of distribution of *B. ranunculoides* (Fig. 2) in Europe includes the subalpine belt of the Pyrenees, the Alps, the Apennins, the Carpathians, and part of the Balkans (Tutin 1968). The closest locality of this species is in Serbia near Nish town in Suva mountain (about 120 km Northwest of Vitosha), where it inhabits karsty terrains, stony pastures, and hollows, exceptionally over limy base (Nikolich 1973).

The population consists of about 1000 individuals. The species was most probably coming in Bulgaria through the most Southern spurs of the Carpathians through the mountain karsty region of Southeast Serbia. This species could probably be found in other places in the karsty mountains in Kraishte and in the most Western parts of Western Stara planina.



Fig. 2. Distribution map of *B. ranunculoides*

- - distribution in Europe
- ▲ - nearest locality, Mt. Suva Planina, Serbia
- - new locality, Mt. Vitosha, Bulgaria

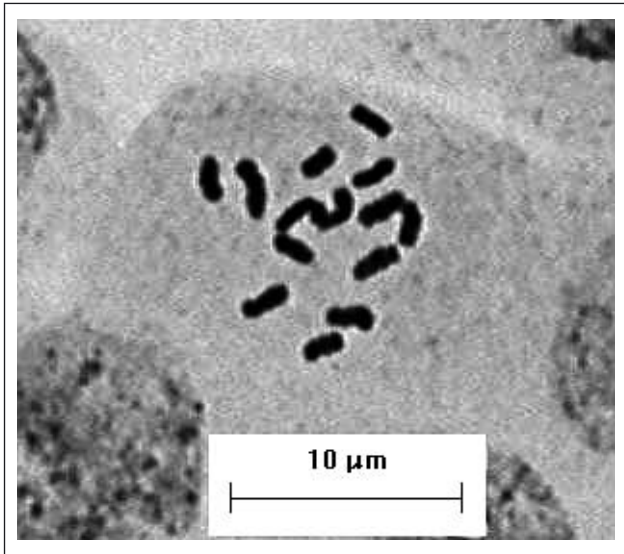


Fig. 3. Microphotograph of root tip mitosis of *B. ranunculoides*, $2n = 14$. Scale bar = 10 μm

Acknowledgements: The author expresses his gratitude to Dr. Mincho Anchev, Head of Flora and Florogenesis Department, Institute of Botany, Bulgarian Academy of Science for the consultations in the process of this manuscript preparation. I owe special thanks also to V. Goranova for the laboratory assistance and technical help in preparation of fig. 3.

References:

- Asenov, I.** 1982. *Bupleurum* L. – In: **Velchev, V.** (ed.), *Fl. Reipubl. Popularis Bulgaricae*. Vol. 8, pp. 109-125. In *Aedibus Acad. Sci. Bulgaricae, Serdicae* (in Bulgarian).
- Tutin, T. G.** 1968. *Bupleurum* L. – In: **Tutin T. G. & al.** (eds), *Flora Europaea*. Vol. 2, pp. 345-350. Cambridge Univ. Press, Cambridge.
- Nikolich, V.** 1973. *Bupleurum* L. – In: **Josifovich, M.** (ed.), *Fl. Republ. Socialiste Serbie*. Vol. 5, pp. 199-215. Acad. Serbe Sci. & Arts, Beograd (in Serbian).
- Goldblatt, P.** 1981. Index to Plant Chromosome Numbers 1975–1978. – *Monogr. Syst. Bot. Missouri Bot. Garden*. Vol. 5.