

BUCEGIA ROMANICA, ONE HUNDRED YEARS AFTER DISCOVERY

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Summary: The work presents the actual status of most know liverwort from Romania, *Bucegia romanica*; the name and status has one hundred years old. The discovery made by Radian, represent most important result of Romania in bryology, by now.

Keywords: Liverworts, *Bucegia romanica*, rare species.

Bucegia romanica Radian (syn. *Radiania rumenica* Schiffn.) is a thallose liverwort from *Marchantiaceae* family, *Marchantiales* order, *Marchantiopsida* class, *Marchantiophyta* division, discovered in 1899, in Bucegi mountains on Valea Cerbului, by Romanian researcher Simeon Ștefan Radian, published in Bul. Herb. Inst. Bot. București in 1903 (Radian 1903) and then it was included in biggest works concerning liverworts flora from Europe (Müller 1911, Schumaker & Váňa 2000) as well as in the list of Romanian's liverworts (Mihai 1983).

The species was collected by Radian from Bucegi mountains from Valea Cerbului, Valea Jepilor, Valea Mălăiești, Coștila, Gaura, Obârșia Ialomitei, Omu and Bătrâna (Radian 1903, 1923), it was founded again in 1937 on Brâna Caprelor and Bucșoiu by A.D.Vlădescu (Borza 1938), in 1955 on Hornurile Țigănești (Ștefureac 1955) and in 1999 I collected this species from Valea Mălăiești, Valea Cerbului, Gaura and Obârșia Ialomitei.

At first, Radian and other bryologists they think that *Bucegia* represent a carpathian endemic species. Later research found that this species has a disjunct distribution; it was found in Tatra Mountains: in Poland and Czech Republic and Slovakia (Szwezkowski 1959), in North America Mountains: British Columbia and Alberta Districts - Canada, in Siberia: Lenski subdistrict, and Northeast Asia: Cioukotska Peninsula.

By 45 years, *B. romanica* was known from Carpathians of Romania only from Bucegi. In 1946, Ștefureac found this hepatic on the slope of Râiosu Mountain and Jgheabu Văros, as well as near Bâlea Lake, Avrig Lake and on Ciortea Mountain from Făgăraș Mountains (Ștefureac 1949, 1958). In 2000 I found this species with *Asterella lindenbergiana* (Corda ex Nees) Arnell, *Athalamia hyalina* (Sommerf.) S. Hatt., *Marchantia polymorpha* L., *Preissia quadrata* (Scop.) Nees in glacial circles Valea Doamnei, Bâlea and Capra from this Massif. With this occasion I found, near Bâlea Lake, for the first time for Meridional Carpathians, the liverwort *Moerckia blyttii* (Moerch) Brockm. and I founded again the species *Tritomaria polita* (Nees) Schiffn.

In 1949 and in later research, to 1974, Ștefureac found *B. romanica* in Piatra Craiului Mountains in many places: Brâul Ciorânga, Padina lui Călineț, Brâul Răchita, Cabana Ascunsă, Valea Popii, Șaua Zaplaz, Valea Vlădușca, Westwand, Padina Închisă, Cabana Diana, Valea Râia and Curmătura (Ștefureac 1951). I identified the species *B. romanica* and *Mannia triandra* (Scop.) Grolle in the probes collected from Marele Grohotiș, Piatra Craiului Massif, in 1998.

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Before 1982, *B. romanica* was known in Romania only from Meridional Carpathians. In 1982-1983, after the researches performed in Natural Reserve "Pietrosul Rodnei" (now biosphere reserve) from Rodna's Mountains, at an altitude of 2260 - 2280 m, Ștefureac found this species (Ștefureac 1983a, 1983b, 1986) together with: *Jungermannia sphaerocarpa* Hook., *Plagiochila asplenioides* (L. emend Taylor) Dumort., *Cephalozia bicuspidata* (L.) Dumort., *Lophozia wenzelii* (Nees) Steph., *Blepharostoma trichophyllum* (L.) Dumort., *Lophozia sudetica* (Nees ex Huebener) Grolle and *Marsupella brevissima* (Dumort.) Grolle. We made, in 1999, in Rodna's Mountains some researches, but we don't found the liverwort.

Dioicous species (Fig. 1, 2), mesophile, heleo-sciaphilous, saxi-terri-humicole, psychrophile, often cryophile, is grow with *Preissia quadrata* (Scop.) Nees, which is like *Bucegia*, but the absence of assimilatory filaments in the stomatic aeriferous chambers in *Bucegia* (Fig. 3), scales in two rows and the different shape of the stomatic chambers (at *Preissia* stomatic chambers are regular hexagons, but at *Bucegia* these are elongate hexagons). The last two characters may be used in field determination of these species.

B. romanica is a rare species, as is in the European Commission for Bryophytes Conservation report (ECCB, 1995). The species was proposed by Romania to be included it in Directive for Habitats and Species Conservation (Directive 43/92) Annexe II.



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Fig. 1 *Bucegia romanica* - male plant (original by Radian 1923).



Fig. 2 *Bucegia romanica* - female plant (original by Radian 1923).

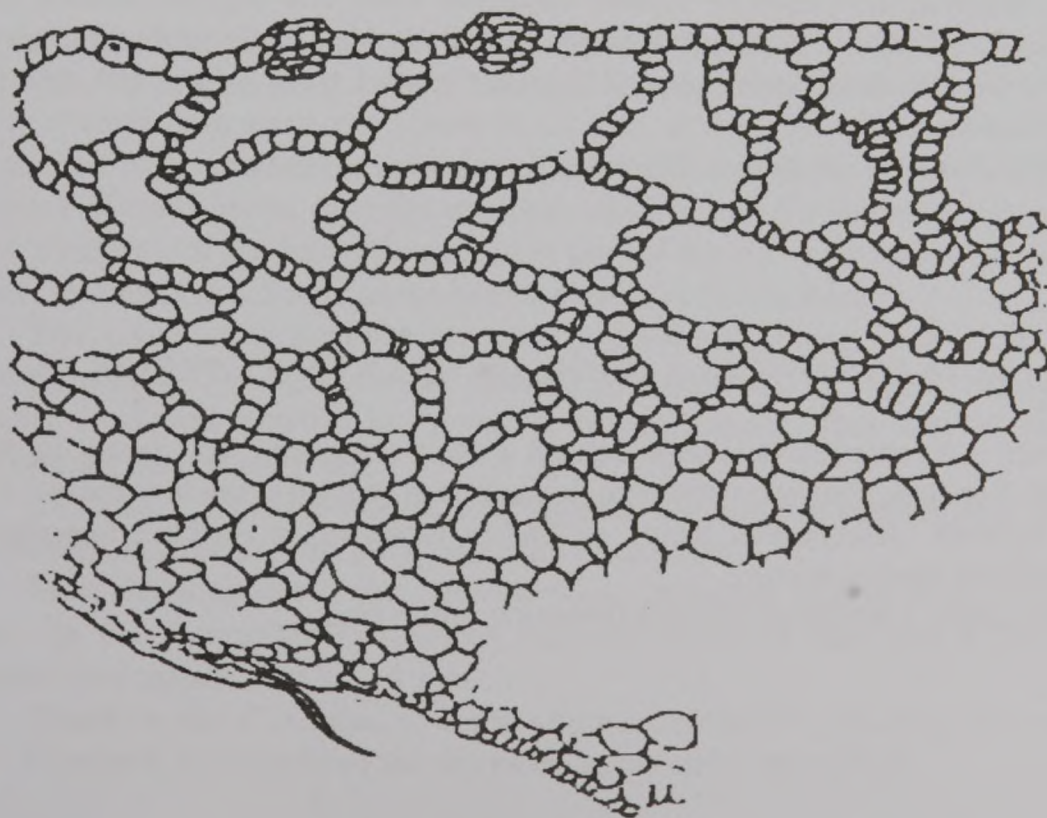


Fig. 3 *Bucegia romanica* - transversal section from thallus (original by Radian 1923).

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BUCEGIA ROMANICA LA 100 DE ANI DE LA DESCOPERIRE

Rezumat: Lucrarea relevă situația actuală a uneia dintre cele mai cunoscute specii de hepatiche din România, *Bucegia romanica*, denumirea și statutul acesteia rezistând o sută de ani. Fără îndoială, descoperirea făcută de Radian reprezintă o realizare importantă a briologiei românești până în prezent.

Cuvinte cheie: Hepaticae, *Bucegia romanica*, specii rare.