

New finding of noteworthy moss *Anacamptodon splachnoides* in the Moravskoslezské Beskydy Mts with summary of its recent occurrence in the Czech Republic

Vítězslav Plášek

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Abstract: During the bryofloristic research in Salajka National Nature Reserve, one population of *Anacamptodon splachnoides* was recorded. The species is considered as endangered in the Czech Republic. Precise description of localization and summary of recent occurrence of the moss is presented by author.

Key words: *Anacamptodon splachnoides*, Salajka, Moravskoslezské Beskydy, Moravia, threatened species

Introduction

The genus *Anacamptodon* was described by Bridel (1819) within the family Fabroniaceae. According to the recent results of molecular phylogenetic analysis, it is placed in the family Amblystegiaceae (cf. Goffinet & Buck, 2004).

In the Czech Republic, only one species from the genus occurs there - *Anacamptodon splachnoides* (Froel. ex Brid.) Brid. Due to the low number of recently known populations and their isolation the moss was included in the category of endangered species in the country (Kučera, Váňa & Hradílek 2012).

Description of the species

The moss species can be distinguished by small, mats forming populations. Stems are prostrate, irregularly branched and densely foliated. The leaves grow on the stem in 5 rows. They are lanceolate to ovate, gradually acuminate, with entire margins. The nerve is single, extending to 1/2-2/3 of the leaf length. Capsules are erect, oblong-cylindric, contracted below the mouth (see figs 3 and 4). They are situated on straight, smooth, red-brown setae. Peristome is double. Spores are smooth to finely papillose, 10-13 µm in diameter.

Description of new discovered locality

National Nature Reserve Salajka is situated on the northern slopes of the Moravskoslezské Beskydy Mts close to the mountain saddle called Bumbálka (see map). This mountain pass lies on the Czech-Slovak border, within the “Beskydy” Protected landscape area. The herb-rich beech forest stands belong to the *Eu-Fagenion* sub-alliance. The main tree species are beech (*Fagus sylvatica*) with a relatively high proportion of silver fir (*Abies alba*) and scattered examples of Norway spruce (*Picea abies*) and sycamore (*Acer pseudoplatanus*). The oldest trees are from 230 to 280 years old there. In the reserve only one population of the moss was found. It was observed growing in the lower part of older beech trunk in north-western edge of the protected area (WGS-84 coordinates: 49°24'8.2"N, 18°24'57.1"E). Altitude of the locality is about 790 m a.s.l. Population size was about 25 x 15 cm and most of the plants were concentrated in the large bark crevice (see fig 1). More than 100 capsules were recorded there. It shows a good state of the population. The specimen which was collected 24. IX. 2012 by author is housed in OP herbarium.

Historical occurrence of the moss in the Moravskoslezské Beskydy Mts

The species was historically published from 2 localities situated in the Slezské Beskydy mountain range (NE part the Moravskoslezské Beskydy Mts). The first report can be found in manuscript written by Plucar (1855). Data about the locality (Návsí village near Jablunkov town) was subsequently published by Milde (1858) and Reichard (1858) together with new discovered localities: the Velká Čantoryje Mt and vicinity of the Jablunkov town. These localities were also cited in some of later works (cf. Limpricht 1895, Milde 1861, 1869). However, later - till the 2012 - an occurrence of the moss was not confirmed in the region.

In the territory of “Beskydy” Protected Landscape Area, *A. splachnoides* has even never been found before.

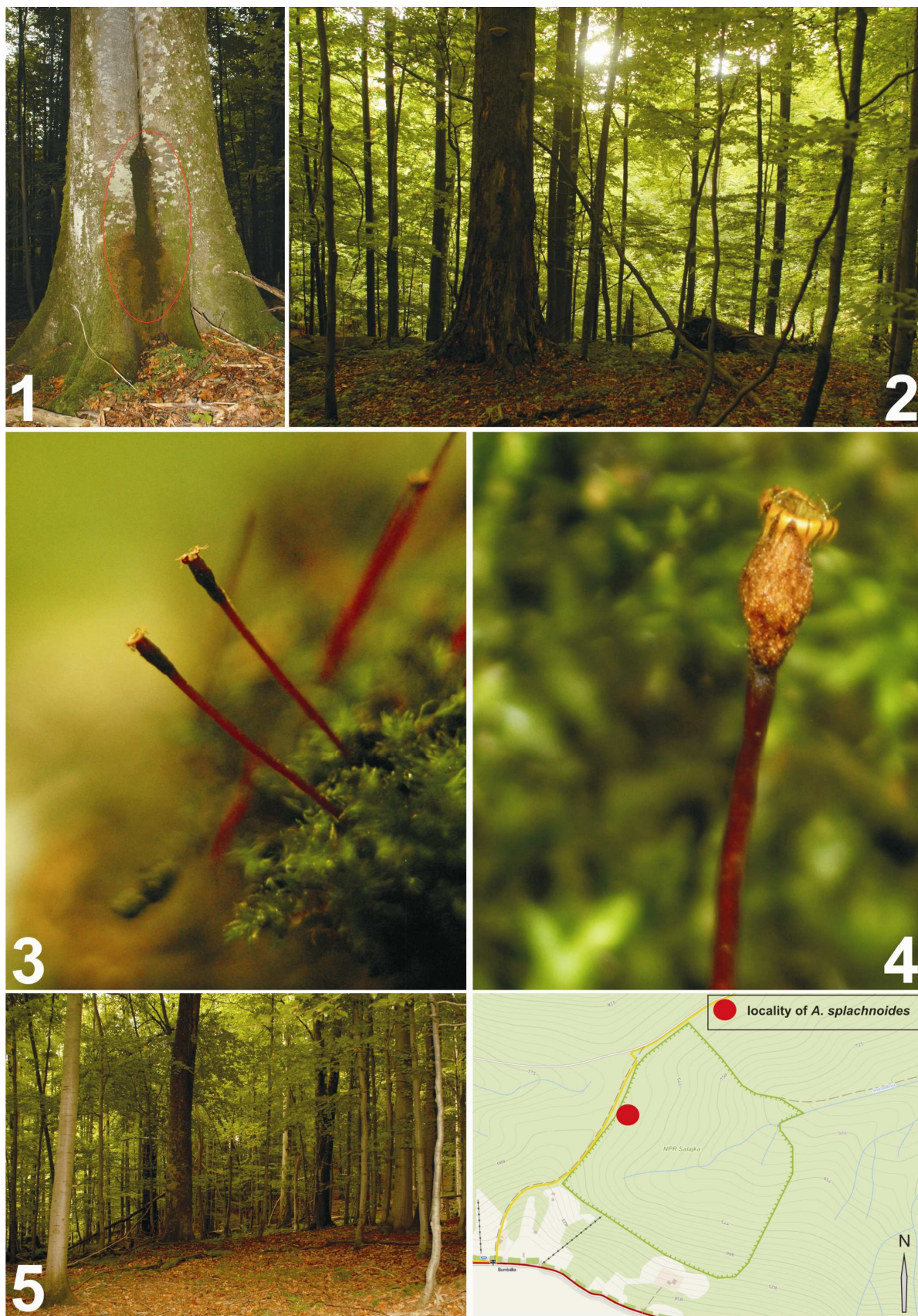
A complete list of recent known occurrences of *Anacamptodon splachnoides* in Czech Republic (in a chronological order)

During the last 50 years the species was found only seven times in the Czech Republic. Most of recent localities are situated in the southern and south-western part of Bohemia, only solitary it was collected in Silesia region.

- **Bohemia, Šumava Mts**, 8 km S of **Volary** town, **Srnčí vrch** hill, 800 m a.s.l., bark crevice of a beech tree, leg. Z. Palice 29. IX. 1994, det. V. Tíkalová, herb. Z. Palice - priv. coll. (Anonymus 1994).
- **Bohemia, Třeboňsko** Protected Landscape Area, spruce forest along a road between **Mirochov** and **Hajnice** villages, 480 m a.s.l., cut surface of a stump, leg. J. Kučera 11. IV. 2002, herb. in CBFS (Kučera *et al.* 2002)
- **Silesia, Vidnavsko-osoblažská pahorkatina** highlands, 2 km ESE of **Kobylá nad Vidnávkou** village, **Smolný vrch** hill, **Venušiny misky** reserve, 404 m a.s.l., bark of beech, leg. Z. Hradílek 9. IX. 2004, herb. Z. Hradílek - priv. coll. (Hradílek 2004).
- **Bohemia, Hojná Voda, Hojnovodský prales** primeval forest, 810 m a.s.l., on branch scar of a fallen beech, leg. J. Kučera 18. IX. 2004, herb. J. Kučera - priv. coll. (Kučera 2004).
- **Bohemia, Benešov nad Černou** town, **Černé Údolí** valley, **Žofínský prales** primeval forest, 770 m a.s.l., on wet base of an older beech, leg. J. Kučera 7. X. 2004, herb. J. Kučera - priv. coll. (Kučera 2004).
- **Bohemia, Hluboká nad Vltavou** town, loc. “**Stará obora**”, 1 km NE of the top of **Malý Kameník** hill, 532 m a.s.l., on bark of older beech, leg. J. Kučera 24. VI. 2006, herb. in CBFS (Kučera 2006).
- **Bohemia, Tachov** distr., **Diana** reserve, beech forest, 515 m a.s.l., on base of older beech and on fallen beech trunk, leg. R. Mudrová 13. V. 2008, herb. in TC (Mudrová 2011).

Discussion

The moss is a sub-Mediterranean-subcontinental-montane species (Martigny 1995) growing on the moist and partly decaying bark of trees (wet bark crevices) or at cut surfaces of stumps. The habit of *Anacamptodon splachnoides* combined with frequently produced and conspicuous sporophyte make the species one of the more easily recognized mosses. That is why it should not be assumed that it can be overlooked by bryologists. An interesting fact is that although the species is widely distributed in all temperate zone, it is very rare, endangered or even regionally extinct in most of European countries (cf. Schnyder 2011) but widespread and locally common in the North America continent (Hallingbäck 2002). In the older literature, it is argued that *Anacamptodon splachnoides* is a Tertiary relic species in the Central Europe (Podpěra 1928). The question is whether this statement is true. However, this species certainly has higher demands on moist microclimate. The common denominator of most Czech recent localities is older, close-to-nature beech forest, situated mainly in sub-montane zone with higher humidity. On the territory of the Moravskoslezské Beskydy Mts, the type of habitat is relatively frequent. Therefore it will be useful to make intensive field survey to find next localities of the noteworthy moss.



Figs 1-5, map: The moss *Anacamptodon splachnoides* in Salajka Reserve. **1.** bark crevice of an older beech tree with marked place, where the population grow; **2, 5.** beech forest in the Salajka reserve; **3, 4.** capsules of the moss in detail; **map:** a map of the reserve with locality of *Anacamptodon splachnoides* (red dot).

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Author's address: Vítězslav Plášek, Department of Biology and Ecology, University of Ostrava, Chittussiho 10, CZ-710 00 Ostrava, Czech Republic; e-mail: vitezslav.plasek@osu.cz