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Results of the bryofloristic courses of the Department of Botany, University of South Bohemia, in 2012 and 2013

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Abstract: We present the bryofloristic results of three field courses, which took place in different regions of the Czech Republic in 2012 and 2013. The regions included the northern part of České středohoří hills of North Bohemia, the Žďárské vrchy Mts of East Bohemia and the warm South Moravian region between Hustopeče and Kyjov. Altogether 307 species and four additional varieties (more than one-third of the known country's bryoflora) were recorded in course of all three events, with species counts from the individual 4-days-courses varying between 133 and 187 evaluated taxa. Most important records are briefly commented.

Key words: bryophytes, floristics, Czech Republic, České středohoří, Jestřebí basin, Žďárské vrchy Mts, Hustopeče region, threatened species

Introduction

Department of Botany of the Faculty of Science, University of South Bohemia, organizes bryological field courses each spring, and since 2010 also every other autumn. Given the increasing bryofloristic experience of a part of students, which enrol for the course repeatedly, and also the presence of visiting fellow bryologists from other institutions, the courses became an important source of bryofloristic data. These data seem to be fully comparable with the results of regular meetings of the Bryological and Lichenological Section of the Czech Botanical Society, which have been published in the Bryonora bulletin. The following contribution brings the list of species recorded during the last three courses, which took place in three quite different regions in the spring and autumn 2012, and in the spring of 2013. The spring course of 2012 took place on 27 through 30 April in the České středohoří – a relatively warm volcanic heights of the North Bohemia and the neighbouring sandstone region around Doksy with numerous base-rich fens. The 2012 autumn course was organized in the Žďárské vrchy Mts of East Bohemia, a relatively cooler montane region. The spring 2013 course was based in Klobouky u Brna of South Moravia, exploring mainly the thermophilous ephemeral vegetation of base-rich loesses and clays near Hustopeče and Čejč but also the southern flanks of Ždánický les forest. The results of the three courses are summarized here for purely pragmatic reasons.

České Středohoří hills and Doksy region

The excursions of the spring 2012 course explored very different types of sites: thermophilous communities of open sites on volcanic hills (localities S7–S9 of the following list), thermophilous broad-leaved forests on volcanic hills (S1), screes on other hills, which – on contrary – are strongly influenced by temperature inversion and support a variety of montane to arctic-alpine species (S5–6), and finally the extremely rich and relatively well-preserved fens around ponds on base-rich sandstones in the region of Doksy (S2–4).

List of visited localities (Fig. 1):

S1. Srdov, Lhotsko, Sedlo hill, eastern slopes and the main ridge along the touristic trail, between 50°36'30"N, 14°16'14"E, 50°36'17"N, 14°15'37"E, 50°35'33"N, 14°15'49"E and 50°35'43"N, 14°16'6"E, quad. 5351d/5451b, 430–725 m a.s.l., 27.4.2012.

S2a. Doksy, National Nature Monument Swamp, 'Klůček', between 50°34'40"N, 14°39'40"E and 50°34'37"N, 14°39'48"E, quad. 5453b, 265 m a.s.l., 28.4.2012.

S2b Doksy, National Nature Monument Swamp, 'Swamp', between 50°34'52"N, 14°40'2"E and 50°34'32"N, 14°40'17"E, quad. 5454a, 265 m a.s.l., 28.4.2012.

S3. Doksy, Staré Splavy: National Nature Monument Jestřebské slatiny, earlier fishpond ‘Baronův rybník’, between 50°36'13"N, 14°37'14"E, 50°36'8"N, 14°37'18"E and 50°36'11"N, 14°37'25"E, quad. 5353d, 260 m a.s.l., 28.4.2012.
S4a. Jestřebí, National Nature Reserve Novozámecký rybník, a rich fen between 50°37'17"N, 14°34'31"E and 50°37'16"N, 14°34'40"E, quad. 5353c, 254 m a.s.l., 28.4.2012.
S4b. Jestřebí, National Nature Reserve Novozámecký rybník, alder carr between 50°37'29"N, 14°34'13"E and 50°37'25"N, 14°34'20"E, quad. 5353c, 254 m a.s.l., 28.4.2012.
S5. Verneřice: Nature Reserve Bobří soutěska, 0.5–2 km E of Loučky village, between 50°39'31"N, 14°20'34"E and 50°39'25"N, 14°21'38"E, quad. 5352a, 400–450 m a.s.l., 29.4.2012.
S6. Merboltice/Valkeřice/M. Šachov: Kamenec hill, Nature Reserve Kamenná hůra, between 50°42'18"N, 14°20'55"E, 50°42'9"N, 14°21'27"E and 50°42'26"N, 14°21'49"E, quad. 5252c, 300–510 m a.s.l., 29.4.2012.
S7. Žalhostice: Nature Monument Radobýl, between 50°32'5"N, 14°5'38"E, 50°31'49"N, 14°5'26"E and 50°31'48"N, 14°5'46"E, quad. 5450d, 300–390 m a.s.l., 30.4.2012.
S8. Libochovany, Nature Reserve Kalvárie, southern slopes of the Kalvárie hill, 50°32'48–51"N, 14°2'55–14°3'5"E, quad. 5450c, 200–240 m a.s.l., 30.4.2012.
S9. Velké Žernoseky, Nature Reserve Kalvárie, southwestern slopes of the Malá Vendula hill above the railway, 50°32'45–47"N, 14°3'9–15"E, quad. 5450c, 150–200 m a.s.l., 30.4.2012.

Žďárské vrchy Mts.

The autumn 2012 course explored the montane vegetation of the Žďárské vrchy Mts. Although this mountain range is not particularly high (the highest summit reaches just 836 m a.s.l.), its isolated position and exposure to westerly winds makes its climate relatively harsh, and high montane and oceanic elements are not rare here. Visited localities, summarized in the following list, included montane, predominantly spruce forests with typical gneiss rock formations (Z2, Z3, Z5a), montane, predominantly beech forests (Z5b), moderately rich fens and carrs (Z1, Z4, Z6, Z7a), pine bogs (Z7b), and also regionally rare limestone outcrops (Z8).

List of visited localities (Fig. 1):

Z1a. Sklené: Nature Reserve Olšina u Skleného, rich fen, 49°37'4–6"N, 16°0'38–43"E, quad. 6362c, 725 m a.s.l., 27.9.2012.
Z1b. Dtto, alder carr in the NE part of the reserve, 49°37'6–8"N, 16°0'40–45"E, quad. 6362c, 730 m a.s.l., 27.9.2012.
Z2. Sklené: Nature Monument Brožova skalka and surroundings on the SW slopes of the hill, forest ‘Kopaniny’, between 49°37'25"N, 16°0'15"E, 49°37'12"N, 16°0'45"E, 49°37'21"N, 16°0'55"E and 49°37'37"N, 16°0'25"E, quad. 6362c, 745–785 m a.s.l., 27.9.2012.
Z3. České Milovy/Březiny: Nature Reserve Čtyři palice, surroundings of the yellow-marked touristic trail and the summit ridge of rock formations, 49°41'0–20"N, 16°5'34"E– 16°6'3"E, quad. 6362b, 630–730 m a.s.l., 28.9.2012.
Z4. Pustá Rybná, Nature Reserve Damašek, rich fen, between 49°43'9"N, 16°7'28"E and 49°43'3"N, 16°7'45"E, quad. 6262d, 625–640 m a.s.l., 28.9.2012.
Z5a. Herálec/Cikháj: red-marked touristic trail on N slopes of Stříbrná studánka between the pond on the Břímovka brook and Žákova hora reserve, between 49°39'29"N, 15°59'50"E and 49°39'38"N, 16°0'45"E, quad. 6361b/6362a, 700–750 m a.s.l., 29.9.2012.
Z5b. Cikháj: National Nature Reserve Žákova hora, 49°39'10–30"N, 15°59'10–55"E, quad. 6361b, 780–810 m a.s.l., 29.9.2012.
Z6. Vojnův Městec: National Nature Reserve Radostínské rašeliniště, between 49°39'22"N, 15°53'16"E and 49°39'46"N, 15°53'4"E, quad. 6361a, 620 m a.s.l., 29.9.2012.
Z7a. Radostín: National Nature Reserve Dářko, wet meadows – rich fens on the N edge of the bog pine forest Padrtiny, between 49°38'35"N, 15°52'19"E and 49°38'35"N, 15°52'36"E, quad. 6361c, 620 m a.s.l., 29.9.2012.
Z7b. Radostín: National Nature Reserve Dářko – *Pinus rotundata* wood Padrtiny, 49°38'18–36"N, 15°52'8–43"E, quad. 6361c, 620 m a.s.l., 29.9.2012.
Z8. Nové Město na Moravě, Studnice: disused limestone quarries ca. 0.5 km SE of the village, 49°36'2–6"N, 16°5'38–43"E, quad. 6362d, 780–790 m a.s.l., 30.9.2012.

Hustopeče and Hodonín regions of South Moravia

The spring 2013 course was based in Klobouky u Brna, which enabled the exploration of thermophilous communities on loess, clay and claystone cliffs near Klobouky, Čejč, Čejkovice, and Kurdějov (K1–3, K6) but interesting addition to this specific species spectrum was the bryoflora of southern flanks of the Ždánický les forest near Kyjov (K5).

List of visited localities (Fig. 1):

K1: Klobouky u Brna: along the track to the vineyards ‘Pod Plunary’ and the wood ‘Ochůzky’ W of the town, between 48°59'42"N, 16°51'27"E, 48°59'25"N, 16°50'58"E and 48°59'37"N, 16°50'17"E, quad. 7067a, 250–340 m a.s.l., 25.4.2013.

K2a: Čejč: a track along the NE edge of the former salt lake ‘Čejčské jezero’ with claystone cliffs, including the Nature Monument Výchoz, between 48°56'32"N, 16°58'38"E and 48°56'21.5"N, 16°58'53"E, quad. 7067d, 180–190 m a.s.l., 26.4.2013.

K2b: Dtto, Nature Reserve Špidláky, 48°56'11–16"N, 16°58'58"–16°59'05"E, quad. 7067d, 185–205 m a.s.l., 26.4.2013.

K3: Čejkovice: vineyards ‘Odměrky u Včelína’ NE above the village and Nature Reserve Čejkovické Špidláky, between 48°54'21"N, 16°56'56"E, 48°54'35"N, 16°57'44"E and 48°55'3"N, 16°57'28"E, quad. 7067d, 200–260 m a.s.l., 26.4.2013.

K4: Lovčice: walls and rock outcrops along the road between the church and the end of built-up area in the Jordánek valley, between 49°3'57"N, 17°3'20.5"E and 49°4'11"N, 17°3'22"E, quad. 6968a, 240 m a.s.l., 27.4.2013.

K5: Lovčice: Ždánický les forest, Jordánek valley up to the main ridge ‘U Slepice’, nature reserve ‘U Vrby’ and Lovčický potok valley, between 49°4'13"N, 17°3'12.5"E, 49°6'2"N, 17°3'9"E and 49°4'57"N, 17°4'36"E, quad. 6968a/c, 240–420 m a.s.l., 27.4.2013.

K6: Kurdějov: Nature Reserve Kamenný vrch and open clay exposures ‘Hájenka’, ca. 600 m NNW of Kamenný vrch summit, between 48°57'50"N, 16°45'8"E, 48°58'0"N, 16°45'15"E and 48°58'17"N, 16°44'59"E, quad. 7066a/b, 280–335 m a.s.l., 28.4.2013

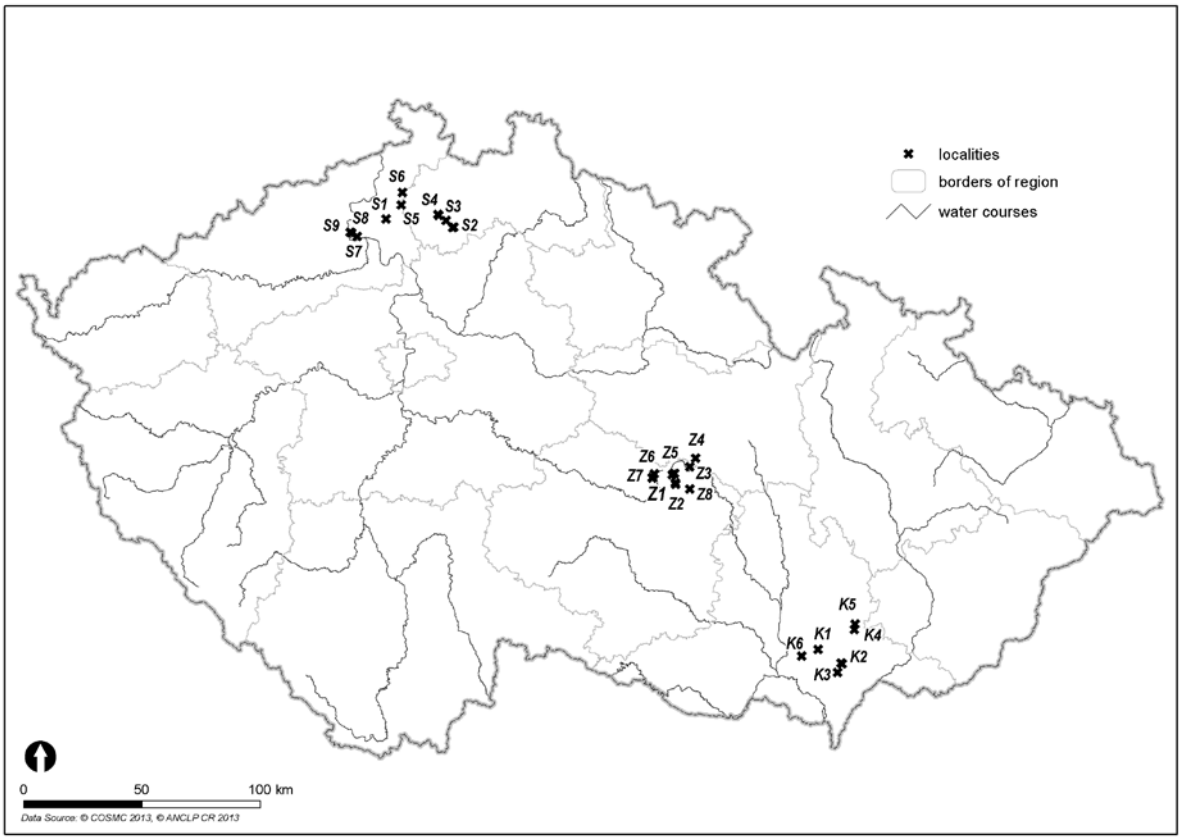

Fig 1: Map of the Czech Republic with location of visited sites

Results

In the following list of the recorded species, the nomenclature and Red List categories correspond to the last checklist version (Kučera et al. 2012). Locality codes correspond to the above listed sites, the abbreviation ‘not.’ stands for noted, uncollected species (in some cases the species were collected for evening determination but not further herbarised). The collectors’ abbreviations and respective herbarium locations are as follows: JK (Jan Kučera,

herbarium CBFS), JB (Jitka Bradáčová, herbarium CBFS), EV (Eliška Vicherová, herbarium CBFS), TS (Táňa Štechová, herbarium CBFS), EM (Eva Mikulášková, priv. herb.), JT (Jana Tkáčiková, herbarium VM), SK (Svatava Kubešová, herbarium BRNM).

Liverworts:

Aneura maxima [LR-nt]: **Z1b** JK
Aneura pinguis: **S2a** JB; **Z1a** not.; **Z4** JK
Barbilophozia barbata: **S1** not.; **S5** not.; **S6** not.; **S7** not.; **Z3** not.
Barbilophozia hatcheri: **Z2** not.; **Z3** not.
Barbilophozia lycopodioides: **S6** JB
Bazzania trilobata: **S5** not.; **S6** not.
Blasia pusilla: **Z5a** not.
Calypogeia azurea: **Z5a** not.
Calypogeia fissa [LR-nt]: **S2a** not.; **S2b** JK
Calypogeia integristipula: **S1** not.; **S2a** not.; **S6** not.; **Z1b** not.; **Z3** not.; **Z5a** not.; **Z7b** not.
Calypogeia neesiana: **Z7b** JK
Cephalozia bicuspidata: **S1** not.; **S2a** not.; **S5** not.; **Z1b** not.; **Z3** not.; **Z5a** not.; **Z5b** not.
Cephalozia catenulata [LR-nt]: **Z3** JK; **Z5a** JK; **Z5b** not.; **Z7b** EV
Cephalozia connivens: **S2b** not.; **Z7b** JK
Cephalozia macrostachya [VU]: **S2b** JK
Cephaloziella divaricata: **K1** not.; **S6** not.; **Z3** JK
Cephaloziella elachista [EN]: **Z7b** JK
Cephaloziella rubella: **S3** JK
Cephaloziella sp.: **K2b** not.
Chiloscyphus coadunatus: **K1** not.; **S1** not.; **S5** not.; **S6** not.; **S7** not.; **Z1a** not.; **Z5b** not.; **Z8** not.
Chiloscyphus minor: **K1** JT; **S1** not.; **S5** not.; **S7** not.; **Z8** not.
Chiloscyphus pallescens [LC-att]: **Z1a** not.
Chiloscyphus polyanthos: **S4a** not.; **S4b** not.; **S5** not.
Chiloscyphus profundus: **K1** not.; **K5** JT; **S1** not.; **S2a** not.; **S4a** not.; **S5** not.; **S6** not.; **Z1b** not.; **Z3** not.; **Z5b** not.; **Z6** not.; **Z7b** not.
Conocephalum conicum: **S5** not.; **Z1b** not.
Diplophyllum albicans: **S5** JB
Fossombronia wondraczekii: **Z3** JK
Frullania dilatata: **K1** not.; **K5** not.
Gymnocolea inflata: **S2b** JK; **S5** not.
Kurzia pauciflora [VU]: **S2b** JB
Lepidozia reptans: **K1** not.; **S1** not.; **S5** not.; **Z1b** not.; **Z2** not.; **Z3** not.; **Z5b** not.; **Z7b** not.
Lophozia ventricosa s. l.: **S2a** not.; **Z3** not.
Lophozia ventricosa var. *silvicola* [LC-att]: **S5** JK; **Z3** not.
Marchantia polymorpha subsp. *polymorpha*: **K5** not.; **S5** not.
Marsupella emarginata: **S6** JB; **Z3** not.
Metzgeria furcata: **K5** not.; **S5** not.; **Z5b** not.
Mylia anomala: **Z7b** not.
Odontoschisma denudatum [LC-att]: **Z7b** JK
Odontoschisma sphagni [EN]: **S2b** JK
Orthocaulis attenuatus: **Z3** not.
Pellia endiviifolia: **K5** not.; **Z1a** not.
Pellia epiphylla: **Z1a** not.; **Z5a** not.
Plagiochila asplenioides: **S5** not.
Plagiochila porelloides: **K1** not.; **K5** not.; **S5** not.; **S6** not.; **Z8** not.
Porella cordaeana [LR-nt]: **S5** JK
Porella platyphylla: **K5** not.
Pseudolophozia sudetica: **S5** not.; **S6** not.
Ptilidium ciliare: **S5** not.; **S6** not.; **Z3** not.
Ptilidium pulcherrimum: **S1** not.; **S2a** not.; **S5** not.; **Z1b** not.; **Z3** not.; **Z5b** not.
Radula complanata: **K5** not.; **S5** not.
Riccardia chamedryfolia [VU]: **S2a** JK
Riccardia multifida [LC-att]: **S2a** JB; **Z1a** not.
Riccardia palmata [LC-att]: **Z5a** JK

Scapania curta: **S1** JB
Scapania irrigua: **Z1a** not.
Scapania nemorea: **S5** not.; **S6** not.; **Z3** not.; **Z5a** not.
Scapania umbrosa: **Z5a** not.; **Z5b** not.
Scapania undulata: **Z5a** not.
Solenostoma gracillimum: **Z3** JK; **Z5a** not.; **Z5b** not.
Sphenolobus saxicola [VU]: **S5** JK; **S6** JK
Tritomaria exsectiformis [LC-att]: **Z3** not.
Tritomaria quinquedentata: **S5** not.; **S6** not.

Mosses:

Abietinella abietina var. *abietina*: **K2b** not.; **K3** not.; **K4** not.; **K6** not.; **Z8** SK
Acaulon triquetrum [VU]: **K2b** EV, JK, JB; **K3** not.
Alleniella complanata: **K5** not.
Aloina aloides var. *ambigua* [EN]: **K3** JK
Aloina obliquifolia: **K2a** not.; **K6** not.
Aloina rigida: **K2a** JK; **K6** cf
Amblystegium serpens: **K1** JT; **K2a** not.; **K2b** not.; **K3** not.; **K5** not.; **S1** not.; **S4a** not.; **S4b** not.; **S5** not.; **S8** not.; **Z3** not.; **Z5b** not.; **Z8** JK
Andreaea rupestris: **S5** not.; **S6** not.; **Z3** not.
Anomodon attenuatus: **K5** not.
Anomodon longifolius: **K5** not.
Atrichum undulatum: **K1** not.; **K5** not.; **S1** not.; **S4a** not.; **S5** not.; **S6** not.; **S7** not.; **Z1b** not.; **Z3** not.; **Z5a** not.; **Z5b** not.
Aulacomnium palustre: **S2a** not.; **S2b** not.; **S3** not.; **S4a** not.; **Z1a** not.; **Z4** SK; **Z7a** not.; **Z7b** not.
Barbula unguiculata: **K1** JT; **K2a** JK; **K2b** JK; **K3** JK; **K5** not.; **K6** not.; **S9** not.; **Z8** not.
Bartramia halleriana [LR-nt]: **S5** JK
Bartramia pomiformis: **K1** not.; **S5** JK; **S6** not.
Brachytheciastrum velutinum: **K1** JT; **K2b** not.; **K5** not.; **S1** not.; **S5** not.; **S6** not.; **S7** not.; **S8** not.; **S9** not.; **Z3** not.; **Z5b** not.; **Z8** not.
Brachythecium albicans: **K1** not.; **K3** JT; **S1** not.; **S5** not.; **Z3** not.
Brachythecium campestre [LC-att]: **S1** JK, JB; **Z3** JK
Brachythecium cf. *mildeanum* [LC-att]: **Z1a** not.
Brachythecium glareosum: **K1** JT; **Z8** not.
Brachythecium rivulare: **S1** not.; **S4a** not.; **S4b** not.; **S5** not.; **Z1a** not.; **Z1b** JK; **Z4** not.
Brachythecium rutabulum: **K1** not.; **K2a** not.; **K2b** not.; **K3** not.; **K5** not.; **K6** not.; **S1** not.; **S5** not.; **S6** not.; **S7** not.; **S8** not.; **Z1b** not.; **Z3** not.; **Z5b** not.; **Z8** not.
Brachythecium salebrosum: **K1** JT; **K2a** not.; **K5** not.; **K6** not.; **S1** not.; **S3** not.; **S5** not.; **Z1a** not.; **Z2** JK; **Z3** not.; **Z5b** not.
Brachythecium tommasinii var. *tommasinii*: **K5** JT
Breidleria pratensis [LC-att]: **Z1a** not.; **Z4** SK; **Z7a** not.
Bryoerythrophyllum recurvirostrum: **K6** not.; **S1** not.; **S5** JK; **Z8** not.
Bryum argenteum: **K1** not.; **K2a** JK; **K2b** JK; **K4** not.; **K5** not.; **S5** not.; **S7** not.; **S8** not.; **S9** not.; **Z8** not.
Bryum caespiticium: **K1** EV; **K2a** not.; **K3** not.; **K6** JK; **S8** not.; **S9** not.
Bryum capillare: **K1** not.; **K2a** not.; **K3** not.; **S7** not.; **S8** not.
Bryum dichotomum: **K2a** JK
Bryum funkii [DD]: **K2a** JK
Bryum moravicum: **K1** not.; **K2a** not.; **K4** not.; **K5** not.; **K6** not.; **S5** JK; **S7** not.; **Z5b** not.; **Z8** not.
Bryum pseudotriquetrum var. *bimum* [LC-att]: **S2a** JK
Bryum pseudotriquetrum var. *pseudotriquetrum*: **S3** not.; **Z1a** not.; **Z4** SK; **Z7a** not.
Bryum radiculosum [LC-att]: **K2b** JB; **K4** EM
Calliergon cordifolium: **S2a** not.; **S4b** not.; **Z1a** not.; **Z4** not.; **Z7a** not.
Calliergonella cuspidata: **K1** not.; **K3** not.; **S2a** not.; **S3** JK; **S4a** not.; **S4b** not.; **Z1a** not.; **Z4** SK; **Z7a** JK
Calliergonella lindbergii: **Z1a** not.
Campyliadelphus chrysophyllus: **K2b** not.; **K3** JT; **K6** JK
Campylidium calcareum [LC-att]: **K1** not.; **K5** EV; **K6** JK
Campylidium sommerfeltii [LC-att]: **Z2** JK; **Z5b** not.
Campylium stellatum [LR-nt]: **S3** not.; **Z1a** not.; **Z4** not.; **Z7a** not.
Campylophyllum halleri [EN]: **Z8** JK
Campylopus flexuosus: **S2b** JK; **S6** not.

Campylopus introflexus: **S2b** JK; **Z6** SK
Ceratodon purpureus: **K1** not.; **K2a** not.; **K2b** not.; **K3** not.; **K4** not.; **K5** not.; **S1** not.; **S4a** not.; **S5** not.; **S6** not.; **S7** not.; **S8** not.; **S9** not.; **Z1a** not.; **Z3** not.; **Z8** not.
Cirriphyllum piliferum: **K1** not.; **S1** not.; **S5** not.; **S6** not.; **Z1a** not.; **Z4** not.
Climacium dendroides: **K6** not.; **S4a** not.; **Z1a** not.; **Z4** SK; **Z7a** SK
Coscinodon cribrosus: **S1** not.
Cratoneuron filicinum: **K5** not.
Ctenidium molluscum: **K6** not.; **S3** JK
Cynodontium polycarpon: **S1** not.; **S5** not.; **S6** JK; **Z2** not.; **Z3** not.
Cynodontium strumiferum: **S1** JK
Cynodontium tenellum [VU]: **S5** JK
Dichodontium pellucidum: **S5** JB
Dicranella heteromalla: **K1** not.; **K5** not.; **S1** not.; **S2a** not.; **S5** not.; **S6** not.; **Z1a** not.; **Z1b** not.; **Z3** not.; **Z5b** not.
Dicranella rufescens: **Z3** JK
Dicranella schreberiana: **K5** EV
Dicranella staphylina: **K5** JB
Dicranodontium denudatum: **Z1b** not.; **Z2** not.; **Z3** not.
Dicranoweisia cirrata: **S2a** not.; **S5** not.
Dicranum bonjeanii [LR-nt]: **S3** JK
Dicranum montanum: **K5** not.; **S1** not.; **Z1b** JK; **Z3** not.; **Z5b** not.; **Z7b** not.
Dicranum polysetum: **S6** not.; **Z6** not.; **Z7b** not.
Dicranum scoparium: **S1** not.; **S2a** not.; **S3** not.; **S5** JK; **S6** not.; **S7** not.; **Z1a** not.; **Z1b** not.; **Z3** not.; **Z5b** not.; **Z6** not.; **Z7b** not.
Dicranum tauricum: **K5** not.; **S1** not.; **S5** JK; **Z3** not.
Dicranum viride [LR-nt]: **Z5b** JK
Didymodon acutus [LC-att]: **K2b** JK
Didymodon cordatus [VU]: **K2a** JK, JB; **K2b** not.; **K6** JK
Didymodon fallax: **K1** JB, JT; **K2a** not.; **K2b** JK; **K3** JT; **K5** JT; **K6** not.; **Z8** not.
Didymodon rigidulus: **K1** JB; **K2a** not.; **K4** not.; **K5** not.; **K6** JK; **Z8** not.
Didymodon spadiceus [LR-nt]: **K5** JK
Diphyscium foliosum [LC-att]: **Z3** SK
Drepanocladus aduncus: **Z6** not.
Drepanocladus polygamus [VU]: **S2a** JK
Encalypta streptocarpa: **Z8** not.
Encalypta vulgaris: **S9** JK
Eurhynchiastrum pulchellum [LC-att]: **K5** JK, JT
Eurhynchium angustirete: **S1** not.; **S5** not.; **S6** not.
Fissidens adianthoides [LC-att]: **S2a** JB; **Z1a** not.; **Z7a** JK
Fissidens bryoides agg.: **K5** not.
Fissidens dubius var. *dubius*: **K2b** not.; **K3** not.; **K5** not.; **K6** JK; **S7** not.
Fissidens exilis: **K1** JB, JT
Fissidens taxifolius: **K1** JT; **K5** EV, JT
Fontinalis antipyretica: **S5** not.
Funaria hygrometrica: **K2a** not.; **K3** not.; **K5** not.; **S6** not.
Grimmia donniana: **S5** not.
Grimmia hartmanii: **S1** not.; **S5** not.; **S6** not.; **Z3** not.
Grimmia laevigata: **S8** not.; **S9** not.
Grimmia muehlenbeckii: **S1** not.; **S6** not.
Grimmia ovalis: **S7** not.; **S8** not.; **S9** not.
Grimmia pulvinata: **K1** not.; **K2b** not.; **K4** JT; **K6** not.; **S5** not.; **S8** JK; **S9** not.
Hedwigia ciliata: **S1** not.; **S6** not.; **Z2** not.; **Z3** not.
Herzogiella seligeri: **S1** not.; **S5** not.; **Z1b** not.; **Z3** JK; **Z5b** not.
Heterocladium dimorphum [LR-nt]: **K1** JK, JB, JT
Heterocladium heteropterum: **S5** not.
Homalia trichomanoides: **S5** not.
Homalothecium lutescens: **K2a** JT; **K3** not.; **K4** not.; **K6** not.
Homalothecium sericeum: **K1** not.; **K4** not.; **S5** not.; **S8** not.; **S9** not.
Homomallium incurvatum: **S7** not.
Hygroamblystegium fluviatile: **S5** not.

Hylocomium splendens: **S5** not.
Hypnum andoi: **K1** JT; **K5** not.; **S5** not.; **S6** not.; **Z3** JK; **Z5b** not.
Hypnum cupressiforme Hedw. s.l.: **Z3** not.; **S6** JK
Hypnum cupressiforme var. *cupressiforme*: **K1** not.; **K2a** not.; **K3** not.; **K5** not.; **K6** not.; **S1** not.; **S5** not.; **S6** not.; **S7** not.; **S8** not.; **S9** not.; **Z1b** not.; **Z8** not.
Hypnum cupressiforme var. *lacunosum*: **K6** JB
Hypnum jutlandicum: **S1** not.
Hypnum pallescens [LC-att]: **K5** EV, JB, JT, EM; **Z1b** not.; **Z5b** JK
Isothecium alopecuroides: **K5** not.; **S1** not.; **S5** not.; **S6** not.; *Isothecium alopecuroides*: **Z5b** not.
Leptodictyum riparium: **K5** EV, JK
Leskea polycarpa: **K1** JT; **K2a** not.; **K2b** not.
Leucobryum glaucum: **S1** not.; **Z7b** not.
Leucodon sciuroides: **K1** not.
Microbryum curvicollum [LC-att]: **K2a** JB, JT; **K2b** JT; **K6** JK
Mnium hornum: **K5**; **S1** not.; **S2a** not.; **S5** not.; **S6** not.; **Z1b** not.; **Z3** not.
Mnium marginatum: **K5** EM
Mnium stellare: **S5** not.; **Z8** not.
Orthodontium lineare: **K5** not.; **S1** not.; **Z7b** not.
Orthotrichum affine var. *affine*: **K1** not.; **K2a** not.; **K3** not.; **K5** not.; **S5** not.
Orthotrichum anomalum: **K1** not.; **K2a** JT; **K2b** not.; **K6** not.; **S5** not.
Orthotrichum diaphanum: **K1** not.; **K2a** JT; **K4** not.; **S5** not.
Orthotrichum pumilum: **K1** JT; **K2a** not.; **S5** not.
Orthotrichum speciosum: **K5** not.; **S1** not.; **S5** not.
Oxyrrhynchium hians var. *hians*: **K1** not.; **K3** not.; **K4** not.; **K5** not.; **K6** not.; **S5** not.; **Z8** not.
Oxyrrhynchium hians var. *rigidum* (Boulay) Ochyra & Żarnowiec: **K1** JB, JT; **K3** not.; **K5** not.; **K6** JK
Oxyrrhynchium schleicheri: **Z8** not.
Oxyrrhynchium speciosum [LC-att]: **S5** JK
Oxystegus tenuirostris [LC-att]: **S5** not.
Paludella squarrosa [EN]: **Z4** JK
Paraleucobryum longifolium: **S1** not.; **S5** not.; **S6** not.; **Z1b** not.; **Z2** not.; **Z3** not.; **Z5a** not.; **Z5b** not.
Philonotis caespitosa [LC-att]: **Z1a** JK; **Z4** not.; **Z5a** not.
Philonotis fontana: **Z1a** not.; **Z4** SK
Physcomitrium pyriforme: **K5** EV, JT
Plagiomnium affine: **K2b** JT; **K5** not.; **K6** not.; **S1** not.; **S4a** not.; **S5** not.; **S6** not.; **S7** not.; **S8** not.; **Z1b** not.; **Z8** not.
Plagiomnium cuspidatum: **K1** not.; **K2b** JT; **K5** not.; **S1** not.; **S5** not.; **S6** not.; **S7** not.; **Z8** not.
Plagiomnium elatum [LC-att]: **S4a** not.; **Z1a** not.; **Z7a** not.
Plagiomnium ellipticum [LC-att]: **Z1a** not.; **Z4** not.
Plagiomnium medium [LR-nt]: **Z1b** JK
Plagiomnium rostratum: **K1** JT, EM; **K5** not.; **Z8** not.
Plagiomnium undulatum: **K1** JT; **K3** not.; **K5** not.; **K6** not.; **S5** not.; **S6** not.; **Z1b** not.
Plagiothecium cavifolium: **K1** not.; **K5** JT; **S5** not.
Plagiothecium curvifolium: **S1** not.; **S6** not.; **Z1b** not.; **Z3** not.; **Z5b** not.
Plagiothecium denticulatum var. *denticulatum*: **K5** not.; **S1** not.; **S4a** not.; **S5** not.; **Z1a** not.; **Z7a** not.; **Z7b** not.
Plagiothecium laetum: **K1** not.; **Z2** not.; **Z3** not.; **Z5b** not.
Plagiothecium nemorale: **S6** not.
Plagiothecium succulentum agg.: **Z1b** not.; **Z5b** not.; **Z8** not.
Plagiothecium undulatum: **S5** not.; **Z5a** SK
Platygyrium repens: **K1** not.; **K5** not.
Pleuridium subulatum: **K1** EV, JK, JT
Pleurozium schreberi: **S1** not.; **S4a** not.; **S5** not.; **S6** not.; **S7** not.; **Z3** not.; **Z5b** not.; **Z6** not.; **Z7b** not.
Pogonatum aloides: **Z5b** not.
Pohlia camptotrachela [LC-att]: **Z5a** EV
Pohlia cruda: **S1** not.
Pohlia nutans subsp. *nutans*: **K1** not.; **K5** not.; **S1** not.; **S2a** not.; **S3** JK; **S4a** not.; **S5** JK; **S6** not.; **Z1a** not.; **Z3** not.; **Z5b** not.; **Z6** not.; **Z7a** not.; **Z7b** not.
Pohlia wahlenbergii: **K1** not.; **K5** JK; **Z3** not.; **Z5a** not.
Polytrichastrum alpinum: **S5** JK; **S6** not.
Polytrichum commune: **S2a** not.; **S2b** not.; **S3** not.; **S4a** not.; **Z1a** not.; **Z4** not.; **Z6** not.; **Z7a** not.; **Z7b** not.

Polytrichum formosum: **K1** not.; **K5** not.; **S1** not.; **S2a** not.; **S5** not.; **S6** not.; **Z1a** not.; **Z1b** not.; **Z2** not.; **Z3** not.; **Z5a** not.; **Z5b** not.; **Z6** not.
Polytrichum juniperinum: **S5** not.; **S6** not.;: **Z3** not.
Polytrichum longisetum: **Z2** JK
Polytrichum pallidisetum [LC-att]: **Z2** JK; **Z3** JK
Polytrichum piliferum: **S1** not.; **S6** not.; **S7** not.; **S8** not.; **S9** not.; **Z3** not.
Polytrichum strictum: **Z7b** not.
Pseudocampylium radicale [LC-att]: **S4b** not.; **Z1a** not.; **Z7a** not.
Pseudoleskeella nervosa: **K1** not.; **K2a** JT; **K2b** not.; **K5** not.; **S1** not.; **Z8** not.
Pseudoscleropodium purum: **K6** not.
Pseudotaxiphyllum elegans: **Z3** not.
Pterigynandrum filiforme: **K2a** not.; **K2b** not.; **K5** not.; **S1** not.; **Z5b** not.
Pterygoneurum lamellatum [EN]: **K2a** JK, JT; **K2b** JK, JT; **K3** JK, JT
Pterygoneurum ovatum: **K1** not.; **K2a** JK, JB, JT; **K2b** JK, EV; **K3** JK, JT; **K4** not.; **K6** not.
Pterygoneurum subsessile [VU]: **K2a** JK, JB; **K2b** JK
Pylaisia polyantha: **K1** not.; **K2a** JT; **S5** not.
Racomitrium fasciculare: **S6** JB
Racomitrium heterostichum: **S1** not.; **S5** not.; **S6** not.
Racomitrium lanuginosum: **S5** not.; **S6** JK
Racomitrium microcarpon: **S6** not.
Rhizomnium cf. *magnifolium*: **Z1a** JK
Rhizomnium punctatum: **S1** not.; **S5** not.; **S6** not.; **Z1a** not.; **Z3** not.; **Z5b** not.
Rhodobryum roseum: **Z1b** not.
Rhynchostegium megapolitanum [VU]: **K2a** JK, JT; **K6** JK
Rhynchostegium murale: **K1** JT; **Z8** EV
Rhynchostegium riparioides: **S5** not.
Rhytidiadelphus loreus: **Z3** SK; **Z5a** not.
Rhytidiadelphus squarrosus: **S1** not.; **S4a** not.; **S6** not.; **Z1a** not.; **Z4** not.; **Z7a** not.
Rhytidiadelphus triquetrus: **K3** not.; **K6** not.; **Z8** SK
Rhytidium rugosum: **K6** not.
Sanionia uncinata: **S1** not.; **S5** not.; **Z3** not.; **Z5b** not.; **Z7b** not.
Sarmentypnum exannulatum: **S2a** not.; **S4a** not.; **Z4** not.; **Z7a** not.
Schistidium apocarpum: **S5** not.
Schistidium crassipilum: **K1** not.; **K2b** not.; **K4** JT; **K6** JK; **S8** not.; **Z8** not.
Schistidium helveticum [LC-att]: **S9** not.
Sciuro-hypnum curtum: **Z1b** not.; **Z3** not.; **Z5b** not.; **Z7b** not.
Sciuro-hypnum plumosum: **S5** not.
Sciuro-hypnum populeum: **K4** not.; **K5** not.; **S1** not.; **S5** not.; **S6** not.; **S7** not.; **Z5b** not.; **Z8** not.
Sciuro-hypnum reflexum: **S1** not.; **S5** not.; **S6** not.; **Z1b** not.; **Z3** not.; **Z5b** not.
Sciuro-hypnum starkii: **Z3** not.
Scorpidium cossonii [LR-nt]: **S3** JK; **Z1a** not.
Scorpidium scorpioides [EN]: **S2a** JK; **S3** JK
Sphagnum angustifolium [LC-att]: **Z1a** not.; **Z7b** not.
Sphagnum auriculatum: **S2b** not.
Sphagnum capillifolium: **Z7b** not.
Sphagnum contortum [LR-nt]: **S2a** JB; **Z1a** not.; **Z4** not.; **Z7a** not.
Sphagnum cuspidatum: **S2b** JB; **Z6** not.
Sphagnum fallax: **S2a** not.; **S2b** JK; **Z1a** not.; **Z6** not.; **Z7b** not.
Sphagnum fimbriatum: **S2a** not.; **S4a** not.; **Z7b** not.
Sphagnum flexuosum: **S2a** not.; **S2b** not.; **S3** not.; **S4a** not.; **Z4** SK; **Z6** not.; **Z7a** not.; **Z7b** not.
Sphagnum girgensohnii: **S1** not.; **Z6** not.; **Z7b** not.
Sphagnum magellanicum: **S2b** not.; **Z7b** not.
Sphagnum palustre: **Z4** SK
Sphagnum papillosum: **S2a** TS; **S2b** TS; **S3** not.; **Z4** not.; **Z6** not.; **Z7b** not.
Sphagnum quinquefarium: **S6** not.
Sphagnum riparium: **Z5a** not.
Sphagnum rubellum: **S2b** not.; **Z7b** not.
Sphagnum russowii: **Z6** not.; **Z7b** not.
Sphagnum squarrosum: **Z1a** not.; **Z5a** not.
Sphagnum subnitens [LC-att]: **S2a** JK; **S3** not.; **S4a** JK

Sphagnum subsecundum: **Z4** SK
Sphagnum tenellum: **S2b** JB
Sphagnum teres: **S3** not.; **S4a** not.; **Z1a** not.; **Z4** SK; **Z7a** not.
Sphagnum warnstorfii [LC-att]: **Z1a** not.; **Z4** JK, SK; **Z7a** not.
Straminergon stramineum: **S2a** not.; **S4a** not.; **Z1a** not.; **Z4** SK; **Z7a** not.
Streblotrichum convolutum: **K1** not.; **K2a** not.; **K2b** not.; **K5** not.; **K6** not.; **S9** not.; **Z8** not.
Syntrichia cf. *calcicola*: **K1** not.
Syntrichia papillosa: **K2a** not.; **K5** not.
Syntrichia ruralis var. *ruralis*: **K2a** not.; **K4** JT; **S5** not.; **S7** not.; **S8** not.; **S9** not.; **Z8** not.
Syntrichia virescens: **K1** JT; **K2a** JB; **K4** cf; **K5** not.
Taxiphyllum wissgrillii: **S5** JK
Tetraphis pellucida: **S1** not.; **S2a** not.; **S5** not.; **S6** not.; **Z2** not.; **Z3** not.; **Z5a** JK; **Z5b** not.; **Z6** not.; **Z7b** not.
Tetraplodon angustatus [VU]: **S5** JK
Tetraplodon mnioides [VU]: **S6** JK
Thamnobryum alopecurum: **S5** not.
Thuidium assimile: **K3** not.; **K6** not.; **Z7a** not.
Thuidium recognitum: **Z4** not.; **Z7a** EV
Thuidium tamariscinum: **K5** not.; **S5** not.; **S6** not.; **Z1b** not.; **Z5a** not.
Tomentypnum nitens [LR-nt]: **Z1a** not.; **Z4** JK, SK; **Z7a** JK
Tortella inclinata: **Z8** not.
Tortella tortuosa: **K6** JK; **S8** not.; **S9** not.; **Z8** not.
Tortula acaulon var. *acaulon*: **K1** JT; **K2a** not.; **K3** JK
Tortula caucasica: **K2b** JB; **K3** not.; **S5** JK; **S9** JK
Tortula lindbergii: **K2a** JB, JT; **K2b** JK, JT; **K3** not.; **K4** JT; **K6** JK
Tortula muralis var. *muralis*: **K1** not.; **K2a** not.; **K2b** not.; **K4** not.; **K6** not.; **S5** not.; **S8** not.; **S9** not.; **Z8** not.
Tortula protobryoides [LC-att]: **K2b** EV JK
Tortula subulata: **K1** not.; **K5** JT
Trichodon cylindricus: **K1** not.
Trichostomum crispulum var. *crispulum* [LC-att]: **K2b** EV, JK; **K3** EM; **K6** JK; **S9** not.
Ulota bruchii: **S5** not.
Ulota sp.: **K5** not.
Warnstorfia fluitans: **S2b** JB; **Z6** not.
Weissia brachycarpa: **K5** EV; **K6** JK, EV; **S9** JK
Weissia condensa: **S8** not.
Weissia fallax [LC-att]: **K6** cf.
Weissia longifolia: **K6** not.; **S9** JK

Summarization of the records

	number of recorded taxa	number of red-listed taxa	number of attention list taxa
České středohoří	187	17	12
Žďárské vrchy	174	11	21
Hodonín region	133	9	10

Commented records

The coordinates of the localities are given as UTM projection of S-1942 datum in the M33 zone (with false easting of +3500 km corresponding to the 15th meridian).

Aneura maxima

– Sklené: nature reserve Olšina u Skleného, 1 km NNE of the village, S part of the alder carr in the E part of the reserve, E3573.358, N5498.934, 730 m, Kučera 15438 (CBFS).

The first record of the recently discovered liverwort in the region of Žďárské vrchy Mts. The only other East Bohemian record originates from the sandstone rock area of Maštale, about 25 km to the NNE (Kučera & Košnar 2006).

Cephalozia macrostachya

– Doksy: nature reserve Swamp, northern open part, E 3476.59 N 5605.641, 266 m, poor fen; half-shaded base of a small pine, Kučera 15054 (CBFS)

Verification of the 2001 record at the locality (Váňa & Kučera 2002).

Cephaloziella elachista

– Radostín: nature reserve Dářko, Padrtiny, northern part of the *Pinus rotundata* bog, E 3563.173 N 5501.551, 620 m, base of a *Sphagnum* hummock, Kučera 15454 (CBFS)

To date, this liverwort has been recorded only extremely rarely with most of the records from the mires of the Krušné hory Mts (cf. Duda 1974). The only other published record from the region is the one from surrounding of Drnovec near Cvikov in North Bohemia; relatively large population of the hepatic was found by the first author in 2001 in the rich fen of the nature reserve Břehyně-Pecopala, not visited during the Spring 2012 course but occurring in the same region.

Odontoschisma sphagni

– Doksy: nature reserve Swamp, northern open part, E 3476.604 N 5605.618, 266 m, poor fen; half-shaded base of a small pine, Kučera 15053 (CBFS)

Verification of the 2001 record at the locality (Váňa & Kučera 2002). Other published Czech occurrences include only the bogs of the Krušné hory Mts (Volárna, Brumiště; Mudrová 2006) and a bog in the Jizerské hory Mts (Černá jezírka; Váňa 2009).

Riccardia chamedryfolia

– Doksy: southern bank of the inlet of Máchovo jezero pond north of the camping site Klůček, littoral, E 3476.19-21, N 5605.23-25, 266 m, wet rich fen, Kučera 15048-9 (CBFS)

Rare species, which recent distribution is, however, insufficiently known. The only other recent record from the region has been published from the Peklo valley near Česká Lípa (Buryová 2003).

Sphenolobus saxicola

– Úštěk, Konojedy: Bobří soutěska valley, scree at the N slope of the Starosti hill ca. 1.0 km ESE of the entrance rocks beneath Loučky settlement, ca. 120 m above the brook, E 3454.603 N 5614.062, ca. 450 m, shaded mossy face of the basaltoid scree boulders, Kučera 15070 (CBFS)
– Valkeřice: Kamenec hill, northern side, boulder scree ca. 410 m NNE-NE of the summit, E 3454.647 N 5619.726, ca. 340 m, half-shaded basaltoid scree boulders, Kučera 15074 (CBFS)

Verification of the records at two of the four known localities in the region (Němcová 2000). The liverwort grows here in rather extensive populations, while the other historical occurrences in the country (Jizerské hory and Krkonoše Mts; Váňa 1983) seem to have vanished.

Aloina aloides* var. *ambigua

– Čejkovice: vineyards 1.25 km NE of the castle, E 3643.723 N 5421.82, 230 m, base-rich bare soil, Kučera 15598 (CBFS)

Characteristic, although rare species of base-rich soils in our warmest regions; other recent records also originate from South Moravia (Pouzdřany, Klentnice; Kučera 2005).

Bryum funkii

– Čejč: clay cliffs 0.8 km ESE of the church, WNW of the nature reserve 'Výchoz', E 3645.089 N 5425.144, ca. 190 m, clay cliffs above the road, SE-exposed, Kučera 15584 (CBFS)

The species was historically recorded from relatively numerous localities in limestone regions (surroundings of Prague, Brno, limestones of Krkonoše foothills, montane base-rich substrates in the Hrubý Jeseník Mts; Podpěra 1960) but no collection has been made since 1949. Only scattered plants were seen at the recent locality.

Campylophyllum halleri

– Studnice: disused limestone quarry ca. 0.6 km SSE of the village, E 3579.283 N 5497.162, 785 m, NE facing limestone rocks, nearly vertical, little shaded, Kučera 15456 (CBFS)

Surprising record of a montane calciphilous moss. Previous known occurrences in the Czech Republic are all situated in our highest northern Sudeten mountains (Krkonoše, Hrubý Jeseník). The population at the site is very small and potentially highly threatened.

Cynodontium tenellum

- Úštěk, Konojedy: Bobří soutěska valley, scree at the N slope of the Starosti hill ca. 1.0 km ESE of the entrance rocks beneath Loučky, ca. 140 m above the brook, E 3454.609 N 5614.033, ca. 460 m, shaded mossy face of the basaltoid scree boulders, Kučera 15072 (CBFS).

Rare species throughout the country, with more records from the High Sudeten Mts and the inversion gorges of sandstone labyrinth of North Bohemia. Interestingly, the species has not been recorded during the thorough survey of the screes of České středohoří highlands (Němcová 2000).

Drepanocladus polygamus

- Doksy: southern bank of the inlet of Máchovo jezero pond north of the camping site Klůček, littoral, E 3476.207 N 5605.232, 266 m, wet rich fen, Kučera 15045 (CBFS)

Rare species of rich fens, which nevertheless probably occurs at more sites in the region – a large population has also been recorded by the first author in 2001 in the nature reserve Břehyně-Pecopala and the population has been monitored by Štechová since 2009.

Pterygoneurum lamellatum

- Čejč: clay cliffs 0.8 km ESE of the church, WNW of the nature reserve 'Výchoz', E 3645.089 N 5425.144, ca. 190 m, clay cliffs above the road, SE-exposed, Kučera 15581 (CBFS)
- Čejč: nature reserve 'Výchoz' - clay cliffs 1.07 km ESE of the church, E 3645.252 N 5424.951, SE-exposed clay cliffs, Kučera 15587 (CBFS), J. Tkáčiková s. n. (VM)
- Čejč: nature reserve 'Špidláky', 1.48 km ESE of the church, SE part of the reserve, E 3645.507 N 5424.615, 200 m, low SW-exposed clay wall, Kučera 15594 (CBFS), J. Tkáčiková s. n. (VM)
- Čejkovice: vineyards 1.25 km NE of the castle, E 3643.723 N 5421.82, 230 m, base-rich bare soil, Kučera 15597 (CBFS), J. Tkáčiková s. n. (VM)

Another typical yet rare representative of abs-rich soil, and particularly loess walls, in our warmest regions. Recent records include only Popice near Hustopeče and Přímětice near Znojmo in South Moravia (Musil et al. 2010). The above listed sites supported quite large populations.

Rhynchostegium megapolitanum

- Čejč: clay cliffs 0.8 km ESE of the church, WNW of the nature reserve 'Výchoz', E 3645.084 N 5425.152, ca. 190 m, in the grass on the cliffs, Kučera 15579 (CBFS).
- Čejč: nature reserve 'Výchoz' - clay cliffs 1.07 km ESE of the church, E 3645.252 N 5424.951, in the grass beneath the cliffs, Kučera 15586 (CBFS), J. Tkáčiková s. n. (VM).
- Kurdějov: nature reserve Kamenný vrch, 1 km NW of the village, NW part of the reserve ca. 150 m NW of the summit part, E 3628.366 N 5427.571, 320 m, NE slope, steppic communities, in the grass, Kučera 15603 (CBFS).

Current distribution of this thermophilous species is not well known but probably *R. megapolitanum* is not very rare and under serious threat at suitable biotopes. In southern Moravia, recent records include the surroundings of Znojmo (Dřevojan 2012), Mikulov (Kučera 2006) and Pouzdřany (Kučera 2005).

Scorpidium scorpioides

- Doksy: southern bank of the inlet of Máchovo jezero pond north of the camping site 'Klůček', littoral, E 3476.207 N 5605.232, 266 m, wet rich fen, Kučera 15046 (CBFS)
- Doksy: 'Baronský rybník' – earlier fishpond E of Konvalinkový vrch hill, E 3473.369 N 5608.114, 260 m, wet rich fen, Kučera 15057 (CBFS)

Verification of the localities, listed in Štechová et al. (2010). The region supports most of the large and viable populations of the species in the country.

Tetraplodon angustatus

- Úštěk, Konojedy: Bobří soutěska valley, scree at the N slope of the Starosti hill ca. 1.0 km ESE of the entrance rocks beneath Loučky, ca. 100 m above the brook, E 3454.598 N 5614.074, ca. 450 m, shaded mossy face of the basaltoid scree boulders, Kučera 15069 (CBFS).

Verification of the locality published by Němcová (2000); the nearby screes of Binov hill in the same valley and the screes of Kolný hill are the other known localities in the České Středohoří highlands.

Tetraplodon mnioides

– Valkeřice: Kamenec hill, northern side, boulder scree ca. 410 m NNE-NE of the summit and 380 m NNE of the summit, E 3454.647 N 5619.734 & E 3454.472 N 5619.774, 330–340 m, half-shaded basaltoid scree boulders, Kučera 15075-6 (CBFS).

Verification of the locality published by Němcová (2000); the species has also been reported from the screes of Kolný hill near Kolné.

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References

Buryová B. (2003): *Riccardia chamaedryfolia*. In: Kučera J. (ed.): Zajímavé bryofloristické nálezy I. – Bryonora 31: 28-29.

Dřevojan P. (2012): *Rhynchostegium megapolitanum*. In: Kučera J. (ed.): Zajímavé bryofloristické nálezy XIX. – Bryonora 49: 29-30.

Duda J. (1974): 197. *Cephaloziella elachista* (Jack) Schiffn. In: Duda J. & Váňa J.: Die Verbreitung der Lebermoose in der Tschechoslowakei – XV. – Čas. Slez. Muz. Opava (A) 23: 17-36.

Kučera J. (2005): *Aloina aloides* var. *ambigua*. In: Kučera J. (ed.): Zajímavé bryofloristické nálezy V. – Bryonora 35: 32-35.

– (2006): *Rhynchostegium megapolitanum*. In: Kučera J. (ed.): Zajímavé bryofloristické nálezy VIII. – Bryonora 38: 47-52.

Kučera J. & Košnar J. (2006): *Aneura maxima*. In: Kučera J. (ed.): Zajímavé bryofloristické nálezy VIII. – Bryonora 38: 47-52.

Kučera J. & Müller F. (2005): *Rhynchostegium megapolitanum*. In: Kučera J. (ed.): Zajímavé bryofloristické nálezy V. – Bryonora 35: 32-35.

Kučera J., Váňa J. & Hradílek Z. (2012): Bryophyte flora of the Czech Republic: updated checklist and Red List and a brief analysis. – Preslia 84: 813-850.

Mudrová R. (2006): *Cephalozia macrostachya*. In: Kučera J. (ed.): Zajímavé bryofloristické nálezy VIII. – Bryonora 38: 47-52.

Musil Z., Koval Š. & Zmrhalová M. (2010): *Pterygoneurum lamellatum*. In: Kučera J. (ed.): Zajímavé bryofloristické nálezy XV. – Bryonora 45: 43-45.

Němcová L. (2000): Die Moose auf den Blockhalden des Böhmischen Mittelgebirges und der benachbarten Gebiete. Eine erste Skizze. – Acta Univ. Purkyn. stud. biol. 4: 97-111.

Podpěra J. (1960): *Bryum* generis monographiae prodromus. 1. Species Eurasiae septentrionalis. Pars 14. systematica. – Acta Acad. Scientiarum Čechoslovenicae Basis Brunensis 32: 301-352.

Štechová T., Manukjanová A., Holá E., Kubešová S., Novotný I. & Zmrhalová M. (2010): Současný stav populací druhů *Helodium blandowii* (Thuidiaceae) a *Scorpidium scorpioides* (Calliergonaceae) v České republice. – Bryonora 46: 24-33.

Váňa J. (1983). 113. *Sphenolobus saxicola* (Schrad.) Steph. In: Duda J. & Váňa J.: Rozšíření játrovek v Československu – XXXVI. – Čas. Slez. Muz. Opava (A) 32: 23-35.

– (2009): *Odontoschisma sphagni*. In: Kučera J. (ed.): Zajímavé bryofloristické nálezy XIV. – Bryonora 44: 34-39.

Váňa J. & Kučera J. (2002): *Cephalozia macrostachya* confirmed in the Czech Republic. – Preslia 74: 197-200.

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