

Critical evaluation of epiphytic mosses from *Orthotrichaceae* family in the Hrubý Jeseník Mts (Northern Moravia, Czech Republic)

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Abstract: The article compares historical and recent records of epiphytic bryophytes from the *Orthotrichaceae* family in the Hrubý Jeseník Mts. Field survey was carried out between 2005 and 2009. In total, 128 localities were visited. Altogether, 9 species from the *Orthotrichum* genus, 1 from the *Nyholmiella* genus, and 2 from the *Ulot*a genus were recently recorded. The following was used for data comparison: records coming from the bryological database of the second author, herbarium specimens (mainly from OP, SUM and private collections), and available historical literature sources.

Key words: Epiphytic bryophytes, *Orthotrichum*, *Nyholmiella*, *Ulot*a, Hrubý Jeseník Mts

Introduction

The mosses from the *Orthotrichaceae* family are widespread species, which occur throughout the world, from the Arctic to the Antarctic, except in deserts and lowland tropical forests. They grow primarily on trees and rocks (Lewinsky 1993).

The area studied, Hrubý Jeseník Mts, is a range formed by the eastern section of the Sudeten mountain system. It is situated in the north of Moravia (Czech Republic). The mean height is about 890 m a.s.l.; the highest point is Praděd Mt (1491 m a.s.l.).

Overview of historical findings

The first data about the occurrence of mosses in the Hrubý Jeseník Mts were published by Sendtner (1840). Among others, five epiphytic *Orthotrichum* species were mentioned by him: *O. affine*, *O. pallens*, *O. pumilum*, *O. speciosum*, *O. striatum*, and two *Ulot*a species: *Ulot*a *coarctata* and *U. crispa*.

Altogether, 15 *Orthotrichum* species and 2 *Nyholmiella* species were published from the whole of Hrubý Jeseník Mts and the adjacent area till the second half of the 20th century: *O. affine*, *O. alpestre*, *O. anomalum*, *O. cupulatum*, *O. diaphanum*, *O. lyellii*, *O. pallens*, *O. patens*, *O. pumilum*, *O. rupestre*, *O. scanicum*, *O. speciosum*, *O. stramineum*, *O. striatum*, *O. urnigerum*, *N. gymnostoma*, and *N. obtusifolia*.

Only sporadic and casual references on altitudinal distribution of bryophytes were noted in the historical data, e. g. „in der Niederregion und von da etwa bis 600 m“ (Hruby 1915).

Altitude was particularly mentioned for these species: *Orthotrichum alpestre*: 1200 m a.s.l. (Podpěra 1906); *O. pumilum*: 2000 ‘feet’ (Milde 1862), 620 m a.s.l. (Duda 1950), *O. speciosum*: 2000 ‘feet’ (Milde 1862), 1333 m a.s.l. (Hruby 1914); *O. striatum*: 1087 m a.s.l. and 1351 m a.s.l. (Hruby 1914).

Also the reports on the sporophyte occurrence are infrequent within historical data. Fertility was remarked just for *O. alpestre* (Podpěra 1906).

Accompanying bryophyte species were described only for *O. affine* (Matouschek 1902) and *O. striatum* (Podpěra 1906).

Suitable substratum for *Orthotrichum* species was noted by more authors. *Sorbus aucuparia* and *Fagus sylvatica* were noted as the most frequent trees inhabited by *Orthotrichum* species.

No quantitative data on population size and threat of *Orthotrichum* and *Ulot*a species were published till the first half of the 20th century.

Summarizing historical sampling effort of epiphytic mosses, we can see three distinct peaks in the frequency of finding of *Orthotrichaceae* species recorded for the Hrubý Jeseník Mts. (see fig. 1 – dashed line). Two vertices of the graph in 1910 and 1950 could be explained by more intensive bryological survey carried out by leading Czech bryologists Josef Podpěra and Jan Šmarda (cf. Zmrhalová 1993). The third one represents recent bryological survey of the authors.

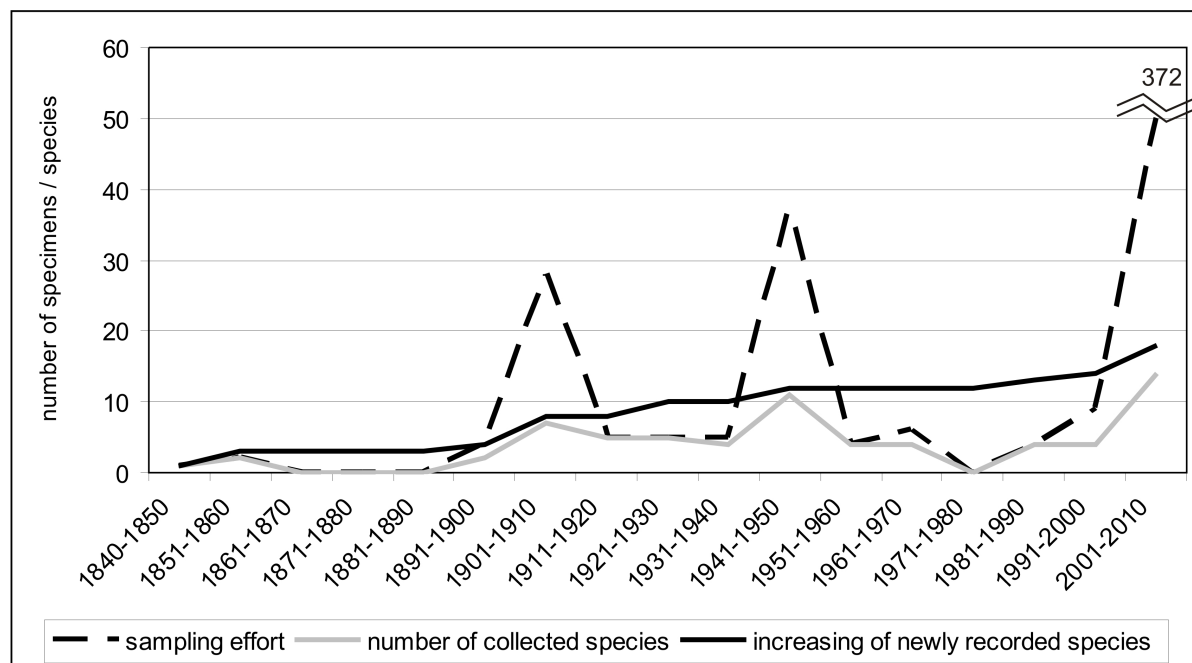


Fig. 1: Summarization of historical and recent sampling effort of epiphytic mosses in the area of Hrubý Jeseník Mts

Methods

The excerption of the literature data together with revision of herbarium material (mainly from OP, SUM and private collections) have been realized continuously since 2005. For better summarizing of the information a database in MS Access was made up. The field survey was carried out between the years 2006 and 2009. Most of the recent material was collected by Lukáš Číhal in the localities listed below (in the course of his diploma thesis). The literature data were located on a map and their GPS positions were added. All historical and recent collections were revised by the second author. The specimens are housed in OP and SUM.

A list of localities

- 1 0.5 km N of Skřítek Mt towards Klepáčov village, 831 m a.s.l., 50°00'25"N, 17°09'23"E
- 2 0.7 km N of Karlova Studánka village, 831 m a.s.l., 50°03'96"N, 17°18'28"E
- 3 1 km SE of Vrbno pod Pradědem town towards Karlova Studánka village, 585 m a.s.l., 50°07'37"N, 17°21'68"E
- 4 1 km SW of Zlaté Hory town, along a public road, 420 m a.s.l., 50°15'19"N, 17°22'39"E
- 5 1 km of Bílý potok village towards Vidly village, 664 m a.s.l., 50°07'29"N, 17°18'30"E
- 6 1 km of Velké Vrbno village, towards loc. "Zwillingstein", along a public road, 810 m a.s.l., 50°08'23"N, 17°19'29"E
- 7 1.2 km SE of Horní Údolí village towards Heřmanovice village, 657 m a.s.l., 50°12'89"N, 17°21'38"E
- 8 1.2 km SW of Klepáčov village towards Rudoltice village, 700 m a.s.l., 50°00'56"N, 17°07'72"E
- 9 1.4 km NNE of Kouty nad Desnou village towards Červená hora Mt, 650 m a.s.l., 50°06'57"N, 17°08'08"E
- 10 1.5 km SW of Vrbno pod Pradědem town, Ludvíkov village, 566 m a.s.l., 50°07'20"N, 17°21'45"E
- 11 1.5 km S of Karlova Studánka village, 767 m a.s.l., 50°03'57"N, 17°18'26"E
- 12 1.7 km SW of Vrbno pod Pradědem town, Ludvíkov village, 531 m a.s.l., 50°07'11"N, 17°21'31"E

- 13 1.7 km NNE of Kouty nad Desnou village towards Červená hora Mt, 642 m., 50°06'44"N, 17°06'19"E
- 14 1.8 km SW of Klepáčov village towards Rudoltice village, 670 m a.s.l., 49°59'81"N, 17°07'63"E
- 15 150 m NE of Kouty nad Desnou village towards Červenohorské sedlo seedle, 616 m a.s.l., 50°06'27"N, 17°08'10"E
- 16 2 km SW of Vrbno pod Pradědem town towards Karlova Studánka village, 552 m a.s.l., 50°07'40"N, 17°21'77"E
- 17 2 km SW of Zlaté Hory village, along a public road, 550 m a.s.l., 50°14'18"N, 17°20'54"E
- 18 2 km NE of Karlova Studánka village, 527 m a.s.l., 50°05'27"N, 17°20'28"E
- 19 2.4 km SW of Vrbno pod Pradědem town, Ludvíkov village, 574 m a.s.l., 50°06'83"N, 17°20'87"E
- 20 2.5 km N of Vrbno pod Pradědem town, N edge of Mnichov village, 585 m a.s.l., 50°08'38"N, 17°22'51"E
- 21 3.3 km SW of Rejvív village, valley of Vrchovištní potok stream, along a public road, 593 m a.s.l., 50°12'39"N, 17°15'21"E
- 22 3.4 km NW of Karlov pod Pradědem village, 2.3 km SSE from Kamzičník Mt and 915 m E of Široká hora Mt, valley of Volárka stream, 885 m a.s.l., 50°02'05"N, 17°14'29"E
- 23 3.5 km NNE of Kouty nad Desnou village, towards Červená hora Mt, 680 m a.s.l., 50°08'12"N, 17°07'26"E
- 24 3.8 km SW of Rejvív village, valley of Vrchovištní potok stream, loc. "Stará cesta", 593 m a.s.l., 50°12'30"N, 17°15'04"E
- 25 3.8 km N of Vrbno pod Pradědem town, part Mnichov, 644 m a.s.l., 50°09'40"N, 17°22'39"E
- 26 300 m SW of Bělá pod Pradědem village, part Filipovice, 479 m a.s.l., 50°09'37"N, 17°10'39"E
- 27 4 km SE of Vrbno pod Pradědem town towards Karlovice village, 530 m a.s.l., 50°06'59"N, 17°24'96"E
- 28 4.5 km SE of Vrbno pod Pradědem town, W edge of Karlovice village, 525 m a.s.l., 50°06'61"N, 17°25'51"E
- 29 4.5 km ESE of Sobotín village, loc. Skřítek, near tourist cottage, 850 m a.s.l., 49°59'53"N, 17°09'14"E
- 30 4.6 km NNE of Kouty nad Desnou village towards Červená hora Mt, 657 m a.s.l., 50°07'53"N, 17°07'22"E
- 31 450 m SW of Horní Domášov village towards Bělá pod Pradědem village, part Filipovice, 529 m a.s.l., 50°09'73"N, 17°11'75"E
- 32 5 km SE of Vrbno pod Pradědem town, W edge of Karlovice village, 520 m a.s.l., 50°06'09"N, 17°26'68"E
- 33 750 m SW of Horní Domášov village towards Bělá pod Pradědem village, part Filipovice, 522 m a.s.l., 50°10'37"N, 17°11'70"E
- 34 E edge of Bílý potok village, near the bridge, 624 m a.s.l., 50°07'47"N, 17°19'17"E
- 35 Bílý potok village, 640 m a.s.l., 50°07'53"N, 17°18'59"E
- 36 N edge of Bílý potok village towards Vrbno pod Pradědem town, 631 m a.s.l., 50°07'60"N, 17°19'10"E
- 37 NE edge of Bílý potok village, 658 m a.s.l., 50°08'29"N, 17°19'81"E
- 38 E edge of Karlov village, valley of Moravice stream, 665 m a.s.l., 50°01'05"N, 17°18'62"E
- 39 Road between Ramzová settlement and Šerák Mt, m a.s.l., 50°11'27"N, 17°04'37"E
- 40 Road from Vidly village towards Vrbno village, 522 m a.s.l., 50°07'72"N, 17°20'45"E
- 41 Road from Vidly village towards Vrbno village, trees along a river: 630 m a.s.l., 50°07'67"N, 17°19'44"E
- 42 Červená hora Mt, near the summit, 1333 m a.s.l., 50°08'67"N, 17°08'19"E
- 43 Červenohorské sedlo seedle: 992 m a.s.l., 50°07'39"N, 17°09'10"E
- 44 Děrná Mt, valley of Děrný potok stream: 800 m a.s.l., 50°09'14"N, 17°15'35"E
- 45 Divoký důl valley, 900 m a.s.l., 50°03'36"N, 17°12'12"E
- 46 Domášov village, E slope of Malé Bradlo hill, 800 m a.s.l., 50°10'11"N, 17°14'14"E
- 47 SE edge of Filipovice village, 500 m a.s.l., 50°09'21"N, 17°10'24"E
- 48 Filipovice village, centre of the village, 684 m a.s.l., 50°09'39"N, 17°10'38"E
- 49 Filipovice village, near Filipka cottage, 668 m a.s.l., 50°09'31"N, 17°10'69"E
- 50 Filipovice village, N edge of village, 675 m a.s.l., 50°09'41"N, 17°10'10"E
- 51 Upper part Kotelní potok valley, 930 m a.s.l., 50°01'38"N, 17°13'14"E
- 52 Horní Údolí village, in the garden: 643 m a.s.l., 50°12'53"N, 17°21'23"E
- 53 Jelení bučina Reserve, 788 m a.s.l., 50°08'60"N, 17°19'38"E
- 54 NNE edge of Kouty nad Desnou village, towards Červená hora Mt, 550 m a.s.l., 50°06'26"N, 17°08'08"E
- 55 SE slope of Šerák Mt, 300 m of "Chata Jiřího" cottage, 1256 m a.s.l., 50°11'52"N, 17°06'34"E
- 56 SW edge of Vernířovice village, 517 m a.s.l., 50°01'54"N, 17°07'33"E
- 57 Centre of Karlov pod Pradědem village, 650 m a.s.l., 50°01'09"N, 17°17'22"E

- 58 Karlov pod Pradědem village, valley of Moravice stream, 650 m a.s.l., 50°01'09"N, 17°18'23"E
- 59 Centre of Karlova Studánka village, 734 m a.s.l., 50°04'48"N, 17°18'09"E
- 60 SW edge of Karlova Studánka village, 864 m a.s.l., 50°04'28"N, 17°18'10"E
- 61 Between Karlova Studánka village and Malá Morávka village: 824 m a.s.l., 50°04'28"N, 17°18'10"E
- 62 Summit of Keprník Mt, 1400 m a.s.l., 50°10'25"N, 17°07'03"E
- 63 Centre of Klepáčov village: 705 m a.s.l., 50°00'39"N, 17°08'03"E
- 64 Summit of Velký klín Mt, 1170 m, 50°07'57"N, 17°10'43"E
- 65 Upper part of Česnekový důl valley, near cottage Švýčárna, 1298 m a.s.l., 50°06'09"N, 17°12'79"E
- 66 Centre of Kouty nad Desnou village, 570 m a.s.l., 50°06'02"N, 17°06'86"E
- 67 ESE edge of Kouty nad Desnou village, valley of Divoká Desná stream, 635 m a.s.l., 50°06'07"N, 17°08'57"E
- 68 Malá Morávka village, 657 m a.s.l., 50°00'07"N, 17°18'90"E
- 69 Between Horní Domášov village & Filipovice village, along a public road, 571 m a.s.l., 50°09'35"N, 17°11'86"E
- 70 mezi loc. Vozka & Keprník, přirozený les, 1320 m a.s.l., 50°09'82"N, 17°06'93"E
- 71 Centre of Mnichov village (part of Vrbno pod Pradědem town), 620 m a.s.l., 50°08'43"N, 17°23'03"E
- 72 N edge of Mnichov village (part of Vrbno pod Pradědem town), alley along a public road, 621 m a.s.l., 50°09'52"N, 17°22'48"E
- 73 A pasture near Žďárský potok settlement towards Rýmařov town, 711 m a.s.l., 49°58'88"N, 17°12'56"E
- 74 An edge of a pasture near Žďárský potok settlement towards Rýmařov town, 708 m a.s.l., 49°58'36"N, 17°13'48"E
- 75 E slope of Vozka Mt, 1236 m a.s.l., 50°09'16"N, 17°07'02"E
- 76 NW of Rýmařov town, Stará Ves village, Nature Reserve called „Slatinný potok“, 722 m a.s.l., 49°58'20"N, 17°12'24"E
- 77 WSW slope of Praděd Mt., 1402 m a.s.l., 50°04'82"N, 17°13'27"E
- 78 Lower part of Velká kotlina Reserve, 1139 m a.s.l., 50°03'20"N, 17°14'50"E
- 79 6 km SE of Rudoltice village, Rabštejn ruins, 746 m a.s.l., 49°56'92"N, 17°08'94"E
- 80 Centre of Rejvíz village: 749 m a.s.l., 50°13'47"N, 17°18'10"E
- 81 SE edge of Rejvíz village, along a public road, 747 m a.s.l., 50°13'56"N, 17°19'10"E
- 82 1.5 km SSE of Rejvíz village, near loc. „Koberštejn“, 740 m a.s.l., 50°13'17"N, 17°19'21"E
- 83 Rejvíz village, near the Velké Mechové jezírko reserve, 775 m a.s.l., 50°13'23"N, 17°17'19"E
- 84 1.5 km SSE of Klepáčov settlement, loc. Skřítek: 879 m a.s.l., 49°59'87"N, 17°09'21"E
- 85 N edge of Vernířovice village, 527 m a.s.l., 50°02'09"N, 17°07'80"E
- 86 2 km NE of Vrbno pod Pradědem town, valley of Skalní potok stream, 690 m a.s.l., 50°07'29"N, 17°18'13"E
- 87 2.5 km NE of Vrbno pod Pradědem town, Skalní potok Reserve, 699 m a.s.l., 50°07'44"N, 17°17'10"E
- 88 2.5 km SE of Klepáčov settlement, Skřítek Reserve, 1100 m a.s.l., 49°59'32"N, 17°09'38"E
- 89 S edge of Skřítek Reserve, towards Rabštejn ruins, 800 m a.s.l., 49°58'51"N, 17°09'27"E
- 90 W edge of Skřítek Reserve, along a public road, 830 m a.s.l., 49°59'32"N, 17°09'13"E
- 91 N edge of Vernířovice village, Sedmidvory settlement, 600 m a.s.l., 50°02'39"N, 17°07'46"E
- 92 E slope of Šerák Mt, 1180 m a.s.l., 50°11'10"N, 17°06'31"E
- 93 Summit of Šerák Mt, 1350 m a.s.l., 50°11'11"N, 17°06'24"E
- 94 500 m E of Malé Bradlo Mt., lower part of valley of Děrný potok stream: 780 m a.s.l., 50°10'10"N, 17°15'20"E
- 95 Middle part of valley of Hučivá Desná stream, 750 m a.s.l., 50°07'47"N, 17°07'16"E
- 96 500 m NW of Karlov village, valley of Moravice stream, 800 m a.s.l., 50°02'08"N, 17°16'06"E
- 97 800 m N of Medvědí hora Mt, valley of Divoká Desná stream, 680 m a.s.l., 50°05'52"N, 17°09'01"E
- 98 ENE edge of Rejvíz village, along a path, 675 m a.s.l., 50°13'55"N, 17°19'26"E
- 99 600 m N of Malý Máj Mt, valley of Moravice stream towards Velká Kotlina Reserve, 850 m a.s.l., 50°02'31"N, 17°15'20"E
- 100 300 m SW of the summit of Velký Klín Mt, 1100 m a.s.l., 50°07'48"N, 17°10'38"E
- 101 400 m E of the summit of Velký Máj Mt, 1290 m a.s.l., 50°02'45"N, 17°13'03"E
- 102 Vernířovice village, towards Sedmidvory settlement, 594 m a.s.l., 50°02'27"N, 17°07'52"E
- 103 Vernířovice village, NW edge of Sedmidvory settlement, valley of Kamenný potok stream, 663 m a.s.l., 50°03'04"N, 17°07'06"E
- 104 Centre of Vernířovice village, 525 m a.s.l., 50°01'97"N, 17°07'79"E
- 105 Centre of Vidly village, 780 m a.s.l., 50°06'29"N, 17°16'13"E
- 106 2.5 km NE of Vidly village, valley of Střední Opava stream, 780 m a.s.l., 50°07'14"N, 17°17'57"E
- 107 600 m NW of the summit of Vozka Mt, 1150 m a.s.l., 50°09'20"N, 17°05'57"E

- 108 2.5 km WNW Vrbno pod Pradědem town, near loc. "Zwillingsfels", 850 m a.s.l., 50°07'82"N, 17°19'67"E
- 109 2 km WNW of Vrbno pod Pradědem town, loc. "Zwillingsfels", 810 m a.s.l., 50°08'23"N, 17°19'29"E
- 110 2 km WNW of Vrbno pod Pradědem town, S edge of loc. "Zwillingsfels", 800 m a.s.l., 50°07'82"N, 17°19'67"E
- 111 6 km NW of Vrbno pod Pradědem town, valley of Bílý potok stream, 850 m a.s.l., 50°09'01"N, 17°17'37"E
- 112 NW edge of Vrbno pod Pradědem town towards to valley of Bílý potok stream, 600 m a.s.l., 50°07'82"N, 17°19'67"E
- 113 Centre of Vrbno pod Pradědem town, 600 m a.s.l., 50°07'11"N, 17°22'15"E
- 114 3 km Nw of Vrbno pod Pradědem town, 1 km S of Pytlák Mt, 850 m a.s.l., 50°08'06"N, 17°19'53"E
- 115 NW of Vrbno pod Pradědem town, 1.5 km WNW of Železná settlement, near Rabštejn ruin, 850 m a.s.l., 50°08'32"N, 17°19'25"E
- 116 4 km WNW of Vrbno pod Pradědem town, near Wiesenštejn ruins: 850 m a.s.l., 50°08'26"N, 17°19'06"E
- 117 2.8 km WNW of Vrbno pod Pradědem town, valley of Bílý potok stream, 500 m SE of Wiesenštejn ruins: 816 m a.s.l., 50°08'22"N, 17°19'06"E
- 118 W slope of Červená hora Mt, loc. Vřesová Studánka, 1115 m a.s.l., 50°08'40"N, 17°07'59"E
- 119 Tourist path from loc. Skřítek towards Rabštejn ruins, about 1 km from Rabštejn: 709 m a.s.l., 49°57'17"N, 17°09'07"E
- 120 Tourist path from loc. Skřítek towards Rabštejn ruins, about 1,5 km from Rabštejn: 704 m a.s.l., 49°57'42"N, 17°09'14"E
- 121 Tourist path from loc. Skřítek towards Rabštejn ruins, about 3 km from Rabštejn: 749 m a.s.l., 49°58'31"N, 17°08'53"E
- 122 Tourist path from loc. Skřítek towards Rabštejn ruins, about 4 km from Rabštejn: 802 m a.s.l., 49°58'51"N, 17°09'04"E
- 123 Tourist path from loc. Skřítek towards Rabštejn ruins, about 2,5 km from Rabštejn: 747 m a.s.l., 49°57'59"N, 17°08'54"E
- 124 Centre of Žďárský potok village, along a public road: 702 m a.s.l., 49°58'24"N, 17°12'53"E
- 125 Along a public road from Žďárský potok village towards Rýmařov town, 710 m a.s.l., 49°58'80"N, 17°12'52"E
- 126 SE edge of Žďárský potok village towards Rýmařov town: 713 m a.s.l., 49°58'51"N, 17°13'01"E
- 127 S edge of Žďárský potok village, 705 m a.s.l., 49°58'26"N, 17°12'45"E
- 128 Between Žďárský potok village and Stará ves village, 717 m a.s.l., 49°57'59"N, 17°14'14"E

A list of recorded species

The taxa are sorted in alphabetical order. Numbers of localities are written in bold font and are sorted in ascending order – separately for historical and recent records. The phorophyte species from which the moss specimens were collected is written in italic font. Sources of literature data are in brackets.

Abbreviations of herbarium collections: **BRNU** (Masaryk University, Brno); **BRNM** (Moravian Museum, Brno); **OP** (Silesian Museum, Opava), **SUM** (Regional Museum, Šumperk).

Species from the *Zygodon* genus have never been recorded in the studied area till the present.

The nomenclature of bryophytes follows Kučera, Váňa & Hradílek (2012). Each species placed on the list contains threat status according to Kučera, Váňa & Hradílek (2012), which is presented in brackets after its Latin name.

***Nyholmiella obtusifolia* (Brid.) Holmen et E. Warncke [LC]:**

Hist: **71** (leg. Zmrhalová, 12.VII.1989, det. Vondráček, *Salix* sp., SUM [Vondráček 1993]); **88** (leg. Šmarda, 16.VII.1946, *Sorbus aucuparia*, BRNM [Vondráček 1993]; **43** (leg. Vězda, 23.VIII.1946, det. Vondráček, *Acer pseudoplatanus*, BRNM [Vondráček 1993]); **105** (leg. Vězda, 27.IX.1947, det. Vondráček, *Sorbus aucuparia*, BRNM [Vondráček 1993])

Rec: 2 (leg. Číhal, 23.IX.2007, det. Plášek, *Carpinus betulus*, OP); 3 (leg. Číhal, 16.IX.2007, det. Plášek, *Malus domestica*, OP); 8 (leg. Číhal, 19.VIII.2007, det. Plášek, *Fraxinus excelsior*, OP); 10 (leg. Číhal, 16.IX.2007, det. Plášek, *Malus domestica*, OP); 11 (leg. Číhal, 23.IX.2007, det. Plášek, *Acer pseudoplatanus*, OP); 12 (leg. Číhal, 16.IX.2007, det. Plášek, *Salix* sp., OP); 14 (leg. Číhal, 19.VIII.2007, det. Plášek, *Malus domestica*, OP); 20 (leg. Plášek, 8.X.2006, *Salix fragilis*, OP); 25 (leg. Plášek, 1.X.2006, *Acer pseudoplatanus*, OP); 27 (leg. Plášek, 8.X.2006, *Acer platanoides*, OP); 33 (leg. Číhal, 9.IX.2007, det. Plášek, *Malus domestica*, OP); 59 (leg. Číhal, 23.IX.2007, det. Plášek, *Tilia cordata*, OP); 80 (leg. Číhal, 18.X.2007, det. Plášek, *Populus* sp., *Fagus sylvatica*, OP); 98 (leg. Plášek, 18.X.2007, *Acer pseudoplatanus*, *Fraxinus excelsior*, *Sorbus aucuparia*, OP)

***Orthotrichum affine* Schrad. ex Brid. var. *affine* [LC]:**

Hist: 9 (leg. Schenk, 14.V.1911, BRNM [Vondráček 1993]); 47 (leg. Duda, VIII.1949, det. Vondráček, *Fraxinus excelsior*, BRNU [Vondráček 1993]); 59 (leg. Spatzier, V.1860, OP [Vondráček 1993]; s. collect., 31.V.1880, OP [Vondráček 1993]); 68 (leg. Pokluda, 7.VI.1964, *Acer pseudoplatanus*, BRNM [Vondráček 1993]); 91 (leg. Zmrhalová, 1.VI.1989, det. Vondráček, *Malus domestica*, SUM [Vondráček 1993])

Rec: 2 (leg. Číhal, 23.IX.2007, det. Plášek, *Carpinus betulus*, OP); 3 (leg. Číhal, 16.IX.2007, det. Plášek, *Fraxinus excelsior*, *Acer pseudoplatanus*, *Malus domestica*, OP); 8 (leg. Číhal, 19.VIII.2007, det. Plášek, *Fraxinus excelsior*, OP); 10 (leg. Číhal, 16.IX.2007, det. Plášek, *Malus domestica*, OP); 11 (leg. Číhal, 23.IX.2007, det. Plášek, *Acer pseudoplatanus*, OP); 16 (leg. Číhal, 16.IX.2007, det. Plášek, *Fraxinus excelsior*, OP); 18 (leg. Číhal, 16.IX.2007, det. Plášek, *Tilia cordata*, OP); 19 (leg. Číhal, 16.IX.2007, det. Plášek, *Acer pseudoplatanus*, OP); 25 (leg. Plášek, 1.X.2006, *Acer pseudoplatanus*, OP); 26 (leg. Číhal, 9.IX.2007, det. Plášek, *Acer platanoides*, OP); 27 (leg. Plášek, 8.X.2006, *Acer platanoides*, *Salix fragilis*, OP); 28 (leg. Plášek, 8.X.2006, *Acer pseudoplatanus*, OP); 33 (leg. Číhal, 9.IX.2007, det. Plášek, *Fraxinus excelsior*, OP); 36 (leg. Číhal, 24.VIII.2009, *Fraxinus excelsior*, OP); 40 (leg. Plášek, 1.VIII.2009, *Acer pseudoplatanus*, OP); 41 (leg. Plášek, 1.VIII.2009, *Acer pseudoplatanus*, OP); 53 (leg. Plášek, 1.VIII.2009, *Fagus sylvatica*, *Acer pseudoplatanus*, OP); 56 (leg. Číhal, 14.X.2007, det. Plášek, *Alnus glutinosa*, OP); 59 (leg. Číhal, 23.IX.2007, det. Plášek, *Acer pseudoplatanus*, OP); 63 (leg. Číhal, 19.VIII.2007, det. Plášek, *Acer pseudoplatanus*, OP); 73 (leg. Číhal, 31.VIII.2009, *Salix caprea*, *Alnus glutinosa*, OP); 74 (leg. Číhal, 31.VIII.2009, *Salix alba*, OP); 76 (leg. Číhal, 31.VIII.2009, *Salix caprea*, OP); 81 (leg. Plášek, 18.X.2007, *Fraxinus excelsior*, OP); 85 (leg. Číhal, 14.X.2007, det. Plášek, *Salix* sp., *Acer pseudoplatanus*, OP); 98 (leg. Plášek, 18.X.2007, *Fraxinus excelsior*, *Salix fragilis*, OP); 104 (leg. Číhal, 14.X.2007, det. Plášek, *Malus domestica*, OP); 110 (leg. Plášek, 1.VIII.2009, *Fagus sylvatica*, OP); 117 (leg. Číhal, 2.IX.2009, *Acer pseudoplatanus*, OP); 122 (leg. Číhal, 19.VII.2009, *Acer pseudoplatanus*, OP); 124 (leg. Číhal, 31.VIII.2009, *Salix caprea*, OP); 126 (leg. Číhal, 31.VIII.2009, det. Číhal, *Salix caprea*, OP); 128 (leg. Číhal, 31.VIII.2009, *Prunus* sp., OP)

***Orthotrichum alpestre* Hornsch. ex Bruch et Schimp. [CR]:**

Hist: 78 (leg. Podpěra, 1904, PR [Vondráček 1993], collected not as epiphytic moss [cf. Plášek 2007])

Rec: 22 (leg. Plášek, 24.V.2007, det. Plášek, *Acer pseudoplatanus*, OP)

***Orthotrichum anomalum* Hedw. [LC]:**

Hist: common species, recorded on many localities [Vondráček 1993], collected mainly on rocks

Rec: 4 (leg. Plášek, 1.X.2006, *Malus domestica*, OP); 8 (leg. Číhal, 19.VIII.2007, det. Plášek, *Fraxinus excelsior*, OP); 55 (leg. Číhal, 6.X.2007, det. Plášek, *Acer pseudoplatanus*, OP); 60 (leg. Číhal, 2.IX.2009, *Acer pseudoplatanus*, OP); 61 (leg. Číhal, 2.IX.2009, *Acer pseudoplatanus*, OP); 66 (leg. Číhal, 9.IX.2007, det. Plášek, *Acer platanoides*, OP); 80 (leg. Číhal, 18.X.2007, det. Plášek, *Fraxinus excelsior*, *Fagus sylvatica*, OP); 81 (leg. Plášek, 18.X.2007, det. Plášek, *Fraxinus excelsior*, OP); 104 (leg. Číhal, 14.X.2007, det. Plášek, *Fraxinus excelsior*, OP)

***Orthotrichum diaphanum* Schrad. ex Brid. [LC]:**

Hist: 71 (leg. Zmrhalová, 12.VII.1989, det. Vondráček, *Salix* sp., SUM [Vondráček 1993])

Rec: 1 (leg. Číhal, 19.VIII.2007, det. Plášek, *Salix* sp., OP); 3 (leg. Číhal, 16.IX.2007, det. Plášek, *Acer pseudoplatanus*, *Malus domestica*, OP); 10 (leg. Číhal, 16.IX.2007, det. Plášek, *Malus domestica*, OP); 14 (leg. Číhal, 19.VIII.2007, det. Plášek, *Malus domestica*, OP); 18 (leg. Číhal, 16.IX.2007, det. Plášek, *Salix* sp., *Tilia cordata*, OP); 20 (leg. Plášek, 8.X.2006, *Salix fragilis*, OP); 31 (leg. Číhal, 9.IX.2007, det.

Plášek, *Fraxinus excelsior*, OP); **48** (leg. Číhal, 16.VIII.2009, *Fraxinus excelsior*, OP); **66** (leg. Číhal, 9.IX.2007, det. Plášek, *Acer platanoides*, OP); **85** (leg. Číhal, 14.X.2007, det. Plášek, *Salix* sp., OP); **98** (leg. Plášek, 18.X.2007, det. Plášek, *Fraxinus excelsior*, OP); **102** (leg. Číhal, 11.VII.2009, *Salix caprea*, OP); **119** (leg. Číhal, 19.7.2009, *Acer pseudoplatanus*, OP)

***Orthotrichum pallens* Bruch ex Brid. [LC]:**

Hist: **42** (leg. Hruby, J., 1914, *Sorbus aucuparia*, *Fagus sylvatica*, *Acer pseudoplatanus*, SUM); **43** (leg. Vězda, 23.VIII.1946, det. Vondráček, *Acer pseudoplatanus*, BRNM [Vondráček 1993]); **51** (leg. Duda, VIII.1949, det. Váňa, rev. Vondráček, *Fagus sylvatica*, OP [Vondráček 1993]); **81** (leg. Podpěra, VII.1904, rev. Vondráček, PR; leg. Schenk, 5.VII.1928, BRNM [Vondráček 1993]); **118** (leg. Paul, 26.VIII.1844, *Sorbus aucuparia*, SUM; leg. Matouschek, sine dato, det. Matouschek, *Sorbus aucuparia*, [Šmarda 1952])

Rec: **7** (leg. Číhal, 18.X.2007, det. Plášek, *Sambucus nigra*, OP); **16** (leg. Číhal, 16.IX.2007, det. Plášek, *Fraxinus excelsior*, OP); **24** (leg. Plášek, 18.X.2007, *Acer pseudoplatanus*, OP); **25** (leg. Plášek, 1.X.2006, *Fraxinus excelsior*, OP); **30** (leg. Číhal, 6.X.2007, det. Plášek, *Acer pseudoplatanus*, OP); **31** (leg. Číhal, 9.IX.2007, det. Plášek, *Fraxinus excelsior*, OP); **33** (leg. Číhal, 9.IX.2007, det. Plášek, *Fraxinus excelsior*, OP); **34** (leg. Číhal, 24.VIII.2009, *Fraxinus excelsior*, OP); **52** (leg. Plášek, 18.X.2007, *Malus domestica*, OP); **53** (leg. Plášek, 1.VIII.2009, *Fagus sylvatica*, OP); **59** (leg. Číhal, 23.IX.2007, det. Plášek, *Tilia cordata*, OP); **80** (leg. Číhal, 18.X.2007, det. Plášek, *Acer pseudoplatanus*, *Fraxinus excelsior*, *Populus* sp., OP); **85** (leg. Číhal, 14.X.2007, det. Plášek, *Salix* sp., OP); **98** (leg. Plášek, 18.X.2007, *Acer pseudoplatanus*, *Fraxinus excelsior*, *Sorbus aucuparia*, OP); **99** (leg. Zmrhalová, 23.IX.2001, *Acer pseudoplatanus*, SUM; leg. Kučera, 3.VIII.2002, *Acer pseudoplatanus*, priv. coll. J. Kučera); **104** (leg. Číhal, 14.X.2007, det. Plášek, *Salix* sp., OP); **110** (leg. Plášek, 1.VIII.2009, *Fagus sylvatica*, OP); **120** (leg. Číhal, 19.VII.2009, *Acer pseudoplatanus*, OP); **122** (leg. Číhal, 19.VII.2009, *Acer pseudoplatanus*, OP); **124** (leg. Číhal, 31.VIII.2009, *Acer pseudoplatanus*, OP)

***Orthotrichum pumilum* Sw. ex Anon. [LC]:**

Hist: **69** (leg. Duda, 1.I.1949, *Sorbus aucuparia*, [Duda 1950]); **80** (leg. Pospíšil, 7.VII.1966, det. Vondráček, *Fraxinus excelsior*, BRNM [Vondráček 1993])

Rec: **1** (leg. Číhal, 19.VIII.2007, det. Plášek, *Salix* sp., OP); **3** (leg. Číhal, 16.IX.2007, det. Plášek, *Malus domestica*, *Acer platanoides*, OP); **8** (leg. Číhal, 19.VIII.2007, det. Plášek, *Fraxinus excelsior*, OP); **10** (leg. Číhal, 16.IX.2007, det. Plášek, *Malus domestica*, OP); **11** (leg. Číhal, 23.IX.2007, det. Plášek, *Acer pseudoplatanus*, OP); **12** (leg. Číhal, 16.IX.2007, det. Plášek, *Salix* sp., OP); **14** (leg. Číhal, 19.VIII.2007, det. Plášek, *Malus domestica*, OP); **16** (leg. Číhal, 16.IX.2007, det. Plášek, *Fraxinus excelsior*, OP); **17** (leg. Plášek, 1.X.2006, *Malus domestica*, OP); **18** (leg. Číhal, 16.IX.2007, det. Plášek, *Tilia cordata*, *Acer pseudoplatanus*, OP); **19** (leg. Číhal, 16.IX.2007, det. Plášek, *Prunus* sp., *Malus domestica*, OP); **20** (leg. Plášek, 8.X.2006, *Salix fragilis*, OP); **25** (leg. Plášek, 1.X.2006, *Acer pseudoplatanus*, OP); **26** (leg. Číhal, 9.IX.2007, det. Plášek, *Acer platanoides*, OP); **27** (leg. Plášek, 8.X.2006, *Acer platanoides*, *Salix fragilis*, OP); **33** (leg. Číhal, 9.IX.2007, det. Plášek, *Fraxinus excelsior*, *Malus domestica*, OP); **55** (leg. Číhal, 6.X.2007, det. Plášek, *Salix* sp., OP); **56** (leg. Číhal, 14.X.2007, det. Plášek, *Alnus glutinosa*, OP); **59** (leg. Číhal, 23.IX.2007, det. Plášek, *Acer pseudoplatanus*, OP); **66** (leg. Číhal, 9.IX.2007, det. Plášek, *Acer platanoides*, OP); **74** (leg. Číhal, 31.VIII.2009, *Salix alba*, OP); **80** (leg. Číhal, 18.X.2007, det. Plášek, *Fraxinus excelsior*, *Tilia cordata*, *Fraxinus excelsior*, OP); **81** (leg. Plášek, 18.X.2007, *Fraxinus excelsior*, OP); **85** (leg. Číhal, 14.X.2007, det. Plášek, *Salix* sp., *Acer pseudoplatanus*, OP); **89** (leg. Číhal, 19.VII.2009, *Acer pseudoplatanus*, OP); **98** (leg. Plášek, 18.X.2007, *Sorbus aucuparia*, *Acer pseudoplatanus*, *Fraxinus excelsior*, OP); **104** (leg. Číhal, 14.X.2007, det. Plášek, *Malus domestica*, *Salix* sp., OP); **123** (leg. Číhal, 19.VII.2009, *Acer pseudoplatanus*, OP); **127** (leg. Číhal, 31.VIII.2009, *Salix caprea*, OP)

***Orthotrichum rupestre* Schleich. ex Schwägr. [VU]:**

Hist: **82** (leg. Duda, 1.I.1949, det. Duda, *Fagus sylvatica*, [Duda 1950]); **115** (leg. Duda, 1.I.1949, det. Duda, *Fagus sylvatica*, [Duda 1950])

***Orthotrichum speciosum* Nees [LC]:**

Hist: **38** (leg. Šmarda, 1.VIII.1949, det. Šmarda, *Fraxinus excelsior*, *Sorbus aucuparia*, BRNM; leg. Jedlička, 2.VIII.1953, det. Vondráček, *Salix* sp., BRNM); **42** (leg. Hruby, 28.III.1905, *Sorbus aucuparia*, *Fagus sylvatica*, *Acer pseudoplatanus*, SUM); **43** (leg. Vězda, 23.VIII.1946, det. Vondráček, *Acer*

pseudoplatanus, BRNM); **47** (leg. Duda, VIII.1949, *Fraxinus excelsior*, BRNU, BRNM); **59** (leg. Hein, 30.V.1860, *Pinus* sp., OP; leg. Hein, 1.VIII.1939, *Pinus* sp., OP); **67** (leg. Tomášek, 16.VII.1962, *Acer pseudoplatanus*, BRNM); **77** (leg. Paul, 2.VIII.1900, *Acer* sp., PRC, SUM); **78** (leg. Laus, 24.III.1905, *Sorbus aucuparia*, *Picea abies*, SUM; leg. Hruby, 28.III.1905, *Sorbus aucuparia*, *Picea abies*, SUM); **80** (leg. Podpěra, VII.1904, *Fraxinus excelsior*, PR; leg. Pospíšil, 7.VII.1966, det. Vondráček, *Fraxinus excelsior*, BRNM); **82** (leg. Duda, VIII.1949, det. Vondráček, *Fagus sylvatica*, BRNM); **84** (leg. Paul, 28.V.1903, *Sorbus aucuparia*, PRC, SUM); **88** (leg. Paul, 3.VIII.1896, *Sorbus aucuparia*, PRC, SUM; leg. Šmarda, 16.VII.1946, *Sorbus aucuparia*, OP); **93** (leg. Podpěra, VIII.1905, *Sorbus aucuparia*, PR, BRNM); **113** (leg. Šmarda, 25.VII.1949, det. Vondráček, *Acer platanoides*, BRNM); **118** (leg. Paul, 5.V.1915, det. Plášek, *Sorbus aucuparia*, SUM)

Rec: **3** (leg. Číhal, 16.IX.2007, det. Plášek, *Malus domestica*, OP); **5** (leg. Číhal, 2.IX.2009, *Acer pseudoplatanus*, OP); **20** (leg. Plášek, 8.X.2006, *Salix fragilis*, OP); **23** (leg. Číhal, 6.X.2007, det. Plášek, *Salix* sp., OP); **24** (leg. Plášek, 18.X.2007, *Acer pseudoplatanus*, OP); **25** (leg. Plášek, 1.X.2006, *Fraxinus excelsior*, *Acer pseudoplatanus*, OP); **26** (leg. Číhal, 9.IX.2007, det. Plášek, *Malus domestica*, OP); **27** (leg. Plášek, 8.X.2006, *Acer platanoides*, OP); **29** (leg. Plášek, 13.III.2007, *Acer pseudoplatanus*, OP); **32** (leg. Plášek, 8.X.2006, *Acer pseudoplatanus*, OP); **36** (leg. Číhal, 24.VIII.2009, *Fraxinus excelsior*, OP); **40** (leg. Plášek, 1.VIII.2009, *Acer pseudoplatanus*, *Acer platanoides*, OP); **49** (leg. Číhal, 16.VIII.2009, *Fraxinus excelsior*, OP); **50** (leg. Číhal, 16.VIII.2009, *Acer pseudoplatanus*, OP); **53** (leg. Plášek, 1.VIII.2009, *Acer pseudoplatanus*, OP); **55** (leg. Číhal, 6.X.2007, det. Plášek, *Acer pseudoplatanus*, OP); **63** (leg. Číhal, 19.VIII.2007, *Salix* sp., OP); **66** (leg. Číhal, 9.IX.2007, det. Plášek, *Acer platanoides*, OP); **68** (leg. Číhal, 23.IX.2007, det. Plášek, *Salix* sp., OP); **76** (leg. Číhal, 31.VIII.2009, *Salix caprea*, OP); **80** (leg. Číhal, 18.X.2007, det. Plášek, *Acer pseudoplatanus*, OP); **85** (leg. Číhal, 14.X.2007, det. Plášek, *Salix* sp., *Acer pseudoplatanus*, *Carpinus betulus*, OP); **89** (leg. Číhal, 19.VII.2009, *Acer pseudoplatanus*, OP); **98** (leg. Plášek, 18.X.2007, *Fraxinus excelsior*, *Sorbus aucuparia*, *Acer pseudoplatanus*, OP); **102** (leg. Číhal, 11.VII.2009, *Salix caprea*, OP); **108** (leg. Plášek, 1.VIII.2009, *Acer platanoides*, OP); **109** (leg. Plášek, 1.VIII.2009, *Acer pseudoplatanus*, OP); **116** (leg. Číhal, 24.VIII.2009, *Fagus sylvatica*, OP); **121** (leg. Číhal, 19.VII.2009, *Acer pseudoplatanus*, OP); **123** (leg. Číhal, 19.VII.2009, *Acer pseudoplatanus*, OP); **124** (leg. Číhal, 31.VIII.2009, *Acer pseudoplatanus*, OP); **125** (leg. Číhal, 31.VIII.2009, *Salix caprea*, OP); **128** (leg. Číhal, 31.VIII.2009, *Salix caprea*, OP)

***Orthotrichum stramineum* Hornsch. ex Brid. [LC]:**

Hist: **42** (leg. Hruby, 28.III.1905, *Sorbus aucuparia*, *Fagus sylvatica*, *Acer pseudoplatanus*, SUM); **58** (leg. Jedlička, 2.VIII.1953, det. Vondráček, *Salix* sp., BRNM); **59** (leg. Pokluda, 26.IX.1964, *Sorbus aucuparia*, BRNM); **62** (leg. Matouschek, 18.III.1905, *Acer* sp., SUM); **78** (leg. Laus, 24.III.1905, *Sorbus aucuparia*, *Picea abies*, SUM; leg. Hruby, 28.III.1905, *Sorbus aucuparia*, *Picea abies*, SUM); **80** (leg. Schenk, 5.VII.1928, det. Vondráček, *Fraxinus excelsior*, BRNM); **88** (leg. Šmarda, 16.VII.1946, *Sorbus aucuparia*, BRNM); **101** (leg. Šmarda, 1.VIII.1949, det. Vondráček, *Fagus sylvatica*, BRNM); **107** (leg. Podpěra, 27.III.1905, det. Hruby, *Sorbus aucuparia*, SUM)

Rec: **3** (leg. Číhal, 16.IX.2007, det. Plášek, *Malus domestica*, OP); **6** (leg. Plášek, 1.VIII.2009, *Fagus sylvatica*, OP); **10** (leg. Číhal, 16.IX.2007, det. Plášek, *Malus domestica*, OP); **16** (leg. Číhal, 16.IX.2007, det. Plášek, *Fraxinus excelsior*, OP); **23** (leg. Číhal, 6.X.2007, det. Plášek, *Salix* sp., OP); **24** (leg. Plášek, 18.X.2007, *Acer pseudoplatanus*, OP); **29** (leg. Plášek, 13.III.2007, *Acer pseudoplatanus*, OP); **30** (leg. Číhal, 6.X.2007, det. Plášek, *Acer pseudoplatanus*, OP); **34** (leg. Číhal, 24.VIII.2009, *Fraxinus excelsior*, OP); **35** (leg. Číhal, 2.IX.2009, *Aesculus hippocastanum*, *Fraxinus excelsior*, OP); **36** (leg. Číhal, 24.VIII.2009, *Fraxinus excelsior*, OP); **40** (leg. Plášek, 1.VIII.2009, *Fraxinus excelsior*, *Acer pseudoplatanus*, *Acer platanoides*, OP); **43** (leg. Číhal, 9.IX.2007, det. Plášek, *Fagus sylvatica*, OP); **48** (leg. Číhal, 16.VIII.2009, *Fraxinus excelsior*, OP); **53** (leg. Plášek, 1.VIII.2009, *Acer pseudoplatanus*, *Fagus sylvatica*, OP); **54** (leg. Číhal, 6.X.2007, det. Plášek, *Salix* sp., OP); **59** (leg. Číhal, 23.IX.2007, det. Plášek, *Acer pseudoplatanus*, OP); **60** (leg. Číhal, 2.IX.2009, *Acer pseudoplatanus*, OP); **61** (leg. Číhal, 2.IX.2009, *Acer pseudoplatanus*, OP); **63** (leg. Číhal, 19.VIII.2007, det. Plášek, *Salix* sp., OP); **66** (leg. Číhal, 9.IX.2007, det. Plášek, *Acer platanoides*, OP); **68** (leg. Číhal, 23.IX.2007, det. Plášek, *Salix* sp., OP); **80** (leg. Číhal, 18.X.2007, det. Plášek, *Fagus sylvatica*, *Aesculus hippocastanum*, *Acer pseudoplatanus*, OP); **81** (leg. Plášek, 18.X.2007, det. Plášek, *Fraxinus excelsior*, OP); **85** (leg. Číhal, 14.X.2007, det. Plášek, *Carpinus betulus*, *Salix* sp., OP); **86** (leg. Číhal, 24.VIII.2009, *Acer pseudoplatanus*, OP); **98** (leg. Plášek, 18.X.2007, *Fraxinus excelsior*, OP); **103** (leg. Číhal, 11.VII.2009, *Sorbus aucuparia*, OP); **106** (leg. Zmrhalová, 29.IX.2000, *Acer pseudoplatanus*, OP); **108** (leg. Plášek, 1.VIII.2009, *Acer pseudoplatanus*, *Fagus sylvatica*, OP); **109** (leg. Plášek, 1.VIII.2009, *Acer pseudoplatanus*, OP); **110** (leg. Plášek, 1.VIII.2009, *Fagus sylvatica*, OP); **111** (leg. Plášek, 1.VIII.2009, *Fagus sylvatica*, OP)

Fagus sylvatica, OP); **112** (leg. Plášek, 1.VIII.2009, *Fagus sylvatica*, OP); **117** (leg. Číhal, 2.IX.2009, *Acer pseudoplatanus*, OP); **120** (leg. Číhal, 19.VII.2009, *Acer pseudoplatanus*, OP)

***Orthotrichum striatum* Hedw. [LC-att]:**

Hist: **59** (leg. Ježek, 13.IX.1957, *Sorbus aucuparia*, BRNM; leg. Pokluda, 26.IX.1964, *Sorbus aucuparia*, BRNM); **75** (leg. Podpěra, sine dato, det. Podpěra, *Sorbus aucuparia*, [Šmarda 1952]); **80** (leg. Pospíšil, 7.VII.1966, det. Vondráček, *Fraxinus excelsior*, BRNM); **105** (leg. Vězda, 27.IX.1947, det. Vondráček, *Sorbus aucuparia*, BRNM)

Rec: **9** (leg. Číhal, 6.X.2007, det. Plášek, *Salix* sp., OP); **15** (leg. Číhal, 9.IX.2007, det. Plášek, *Acer platanoides*, OP); **16** (leg. Číhal, 16.IX.2007, det. Plášek, *Fraxinus excelsior*, OP); **35** (leg. Číhal, 2.IX.2009, *Aesculus hippocastanum*, *Fraxinus excelsior*); **36** (leg. Číhal, 24.VIII.2009, *Fraxinus excelsior*, OP); **37** (leg. Číhal, 2.IX.2009, *Fraxinus excelsior*, OP); **53** (leg. Plášek, 1.VIII.2009, *Fagus sylvatica*, OP); **81** (leg. Plášek, 18.X.2007, *Fraxinus excelsior*, OP); **108** (leg. Plášek, 1.VIII.2009, *Acer platanoides*, *Fagus sylvatica*, OP)

***Ulota bruchii* Hornsch. ex Brid. [LC]:**

Hist: **78** (leg. Paul, 2.VIII.1900, *Acer* sp., BRNM; leg. Podpěra, 8.V.1905, *Sorbus aucuparia*, PR); **120** (leg. Paul, 2.VIII.1871, BRNU [Vondráček 1994]); (leg. Paul, 5.VIII.1896, *Sorbus aucuparia*, SUM; leg. Šmarda, 16.VII.1946, *Sorbus aucuparia*, BRNM [Vondráček 1994]); **97** (leg. Šmarda, 11.VII.1946, *Acer pseudoplatanus*, OP); **13** (leg. Paul, 26.VIII. 1884, *Sorbus aucuparia*, SUM [Vondráček 1994]); **62** (leg. Schenk, 30.VII.1931, *Fraxinus excelsior*, BRNM [Vondráček 1994]) **90** (leg. Podpěra, VIII.1905, BRNM [Vondráček 1994])

Rec: **13** (leg. Číhal, 6.X.2007, det. Plášek, *Salix* sp., OP); **20** (leg. Plášek, 8.X.2006, *Salix fragilis*, OP); **21** (leg. Plášek, 18.X.2007, *Acer pseudoplatanus*, OP); **27** (leg. Plášek, 8.X.2006, *Salix fragilis*, OP); **80** (leg. Číhal, 18.X.2007, det. Plášek, *Acer pseudoplatanus*, OP); **103** (leg. Číhal, 11.VII.2009, *Sorbus aucuparia*, OP); **122** (leg. Číhal, 19.VII.2009, *Acer pseudoplatanus*, OP); **128** (leg. Číhal, 31.VIII.2009, *Salix caprea*, OP)

***Ulota coarctata* (P. Beauv.) Hammar [CR]:**

Hist: **59** (leg. Hein, 30.V.1860, OP [Vondráček 1994]); **114**(leg. Duda, VII.1949, det. Vondráček, *Sorbus aucuparia*, BRNM); **13** (leg. Schenk, 1912, *Fagus sylvatica*, BRNM [Vondráček 1994])

***Ulota crispa* (Hedw.) Brid. [LC]:**

Hist: **62** (leg. Šmarda, 23.VI.1955, det. Vondráček, *Sorbus aucuparia*, BRNM [Vondráček 1994]); (leg. Šmarda, 4.III.1954, BRNM [Vondráček 1994]); **36** (leg. Šmarda, 1.VII.1947, *Sorbus aucuparia*, OP); **83** (leg. Šmarda, sine dato, *Sorbus aucuparia*, [Šmarda 1952]); **13** (leg. Šmarda, VII.1947, *Acer pseudoplatanus*, BRNM); **45** (leg. Duda, 16.X.1950, *Acer pseudoplatanus*, OP); **46** (leg. Duda, VIII.1949, det. Vondráček, *Fagus sylvatica*, BRNM); **79** (leg. Schenk, 8.VII.1929, *Fagus sylvatica*, BRNM); **90** (leg. Šmarda, 16.VII.1946, *Sorbus aucuparia*, BRNM); **92** (leg. Pospíšil, 4.VII.1947, *Sorbus aucuparia*, BRNM); **97** (leg. Šmarda, 11.VII.1946, det. Vondráček, *Acer pseudoplatanus*, BRNM); **100** (leg. Šmarda, VII.1947, det. Vondráček, *Sorbus aucuparia*, OP); **108** (leg. Duda, VII. 1949, *Sorbus aucuparia*, BRNM); **114** (leg. Duda, 1.VII.1949, det. Vondráček, *Sorbus aucuparia*, BRNM)

Rec: **5** (leg. Číhal, 2.IX.2009, *Acer pseudoplatanus*, OP); **6** (leg. Plášek, 1.VIII.2009, *Fagus sylvatica*, OP); **24** (leg. Plášek, 18.X.2007, *Acer pseudoplatanus*, OP); **35** (leg. Číhal, 24.VIII.2009, *Fraxinus excelsior*, OP); **37** (leg. Číhal, 24.VIII.2009 et 2.IX.2009, *Fraxinus excelsior*, OP); **66** (leg. Číhal, 9.IX.2007, det. Plášek, *Acer platanoides*, OP); **74** (leg. Číhal, 31.VIII.2009, *Salix alba*, OP); **76** (leg. Číhal, 31.VIII.2009, *Salix caprea*, OP); **87** (leg. Číhal, 24.VIII.2009, *Acer pseudoplatanus*, OP); **98** (leg. Plášek, 18.X.2007, *Fraxinus excelsior*, OP); **110** (leg. Plášek, 1.VIII.2009, *Acer pseudoplatanus*, OP); **116** (leg. Číhal, 24.VIII.2009, *Fagus sylvatica*, OP); **120** (leg. Číhal, 19.VII.2009, *Acer pseudoplatanus*, OP)

***Ulota drummondii* (Hook. et Grev.) Brid. [RE]:**

Hist: **83** (leg. Hein, sine dato, *Betula pubescens*, [Hein T. 1874])

Discussion

A total of 12 epiphytically growing taxa have been recently found in the area: *Nyholmiella obtusifolia*, *Orthotrichum affine*, *O. alpestre*, *O. anomalum*, *O. diaphanum*, *O. pallens*, *O. pumilum*, *O. speciosum*, *O. striatum*, *O. stramineum*, *Ulota bruchii*, and *U. crispa*. Moreover, *Orthotrichum lyellii* and *O. patens* were found in the vicinity of the studied area. On the other hand, 3 historically recorded taxa were not successfully confirmed there - *Orthotrichum rupestre*, *Ulota coarctata* and *U. drummondii*.

Among the most interesting recently recorded species *Orthotrichum alpestre* can be mentioned. The moss was rediscovered in the Czech Republic after 103 years in 2007. Until that time it was considered vanished in the country (Kučera & Váňa 2005). The species is one of the widespread species of the genus, occurring both on trees and on diverse types of rocks. Despite this fact, the species is considered threatened in most of the European countries. The species was recently recorded in the valley of Volárka stream (Plášek 2007), in a short distance from the historically known locality (the Velká Kotlina corrie) discovered by Podpěra (Podpěra 1906, Vondráček 1993). The moss grew on bark of *Acer pseudoplatanus*, whereas the previous specimen collected by Podpěra was found on a rock.

Acknowledgement: The study has been carried out in connection with the project of the Institute of Environmental Technologies, reg. no. CZ.1.05/2.1.00/03.0100 supported by the Research and Development for Innovations Operational Program, financed by Structural Funds of the European Union and the state budget of the Czech Republic. Authors thank for the partial financial support from the SGS project of University of Ostrava, No. 18/PřF/2012.

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