

Recent findings of the epiphytic mosses from *Orthotrichaceae* family in Zlatohorská vrchovina highlands (Silesia, Czech Republic)

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Abstract: The article presents results of bryofloristic survey focused on the epiphytic mosses from Orthotrichaceae family in the area of Zlatohorská vrchovina highlands (NE part of the Czech Republic), which was carried out from September to November 2013. During the research the number of 527 specimens was recorded in 187 localities. The presence of 13 taxa from the Orthotrichaceae family was proved. More specifically, 1 species from the genus *Nyhommiella*, 9 species and 1 variety from the genus *Orthotrichum* and 2 species from the genus *Ulota*. Two taxa, *Orthotrichum patens* and *O. affine* var. *bohemicum*, were recorded in the study area for the first time.

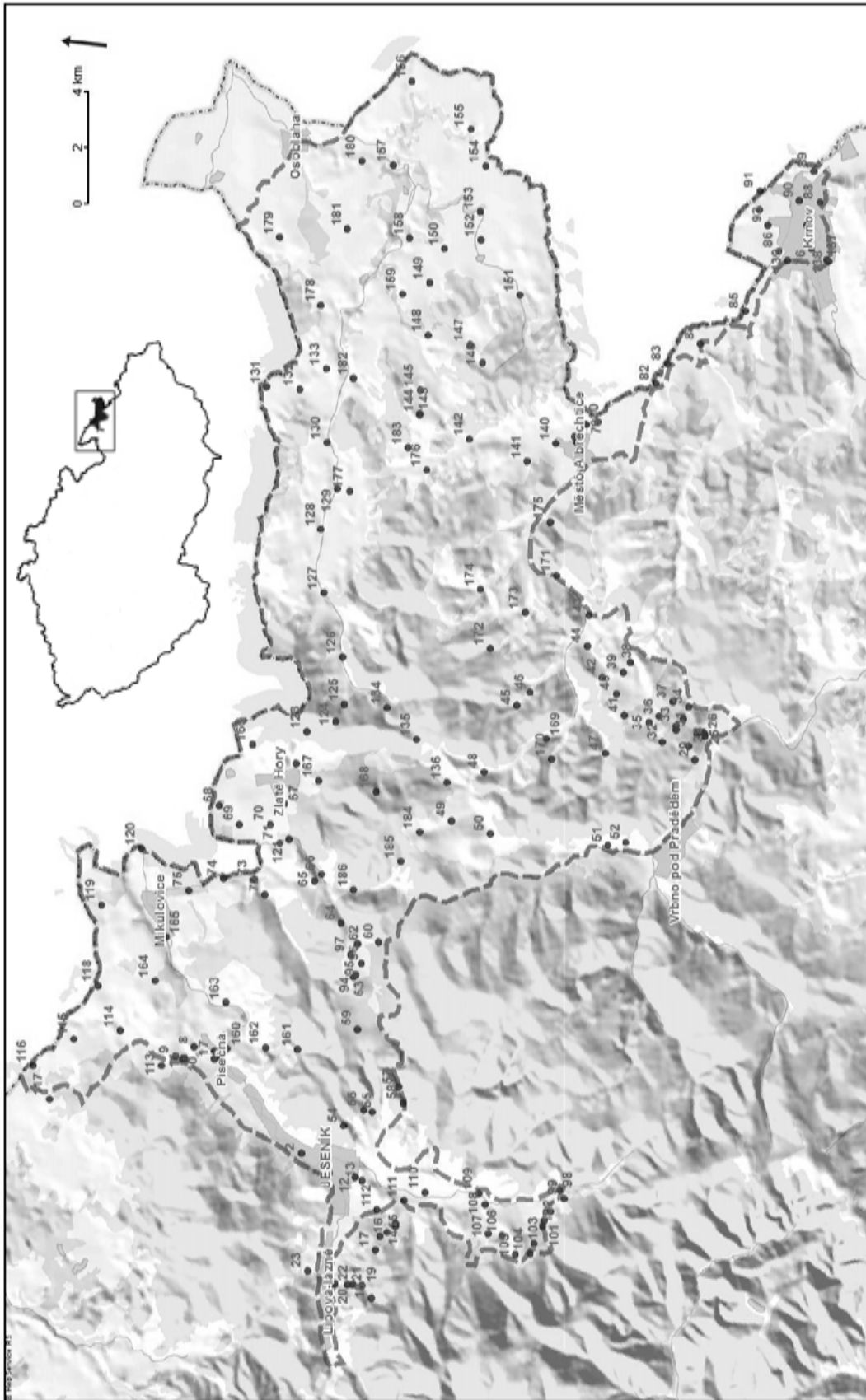
Key words: Bryophyta, bryofloristic research, *Nyholmiella*, *Orthotrichum*, *Ulota*, Silesia

Introduction

Zlatohorská vrchovina highlands is a mountain range situated in the northwestern part of the Czech Republic. On the Czech side it borders on the Rychlebské hory (Golden Mountains) and Žulovská pahorkatina upland in the west and the northwest, Nízký Jeseník range in the south and Hrubý Jeseník (High Ash Mountains) in the southwest and on Opavská pahorkatina upland in the east. Large part of the area borders on Poland where it continues as Góry Opawskie mountains. With the area of 537 square kilometres, average height about 496 m and the highest point of 974,7 m (Příčný vrch hill) it is a very diverse region with a large number of very well preserved habitats. Despite this fact, the area of the Zlatohorská vrchovina highlands has never been subjected to any bryological research. Most of the historical records connected to this area came from its marginal parts along the border with phytogeographical district of Hrubý Jeseník Mts. A considerable number of species within *Orthotrichaceae* family was documented here in the past (10 species from the genus *Orthotrichum*, 4 from *Ulota* and 1 from *Nyhommiella*). Records from lower altitudes and the central part of the area are rare and most of them were never published.

Material and methods

The bryological material was collected from September to November 2013 (using standard field methods). Only the species belonging to the family *Orthotrichaceae* were collected. In addition to the floristic data, the ecological requirements of the each species were also noted. The names and the threat status of the bryophytes follow the Check list and Red list of the bryophytes of the Czech Republic by Kučera et al. (2012). The names of trees follow Danihelka et al. (2012). All specimens were collected and identified by the first author using identification keys focused on the *Orthotrichaceae* family: Plášek (2012), Lara et al. (2009) and Vondráček (1993, 1994). The collected specimens are housed in the herbarium of University of Ostrava (OSTR). The list of localities is ordered according to the date of their collection.



Map 1.: Map of studied area with marked borders (dashed line) and all localities visited during the survey.

List of the localities

- 1 Jeseník town, bank of Staříč river, 600 m ESE of Přední vršek hill, 1.7 km WNW of Křížový vrch hill, 435 m a.s.l., 50°13'48.9"N, 17°12'04.0"E
- 2 Česká Ves village, bank of Bělá river, 1.8 km SSE of Krajník hill, 2 km WSW of Čertovy kameny rocks, 422 m a.s.l., 50°14'27.1"N, 17°12'33.1"
- 3 Písečná village, W edge PP Písečná - mokřad wetland, 1.3 km N of U Kapličky hill, 2.4 km SE of Křemenáč hill, 392 m a.s.l., 50°16'28.3"N, 17°15'06.3"E
- 4 Písečná village, SE side of the church st. Jana Křtitele, 1.1 km N of U Kapličky hill, 3.2 km ESE of Bílé kameny rocks, 418 m a.s.l., 50°16'22.1"N, 17°15'13.2"E
- 5 Písečná village, park near the church, 650 m S of Florian pond, 1.2 km NNE of U Kapličky hill, 420 m a.s.l., 50°16'24.3"N, 17°15'16.6"E
- 6 Písečná village, park near the church, 650 m S of Florian pond, 1.2 km NNE of U Kapličky hill, 421 m a.s.l., 50°16'24.9"N, 17°15'18.0"E
- 7 Písečná village, apple orchard, 500 m SSE of Florian pond, 2.5 km SE of Křemenáč hill, 423 m a.s.l., 50°16'29.5"N, 17°15'21.4"E
- 8 Between Písečná and Supíkovice villages, by a roadside, 300 m NE of Florian pond, 600 m SE of Velký Špičák hill, 432 m a.s.l., 50°16'55.7"N, 17°15'24.5"E
- 9 Supíkovice village, S edge of grove on Malý Špičák hill, 250 m N of Velký Špičák hill, 1.7 km SW of Na Vyhliďce hill, 475 m a.s.l., 50°17'18.8"N, 17°15'04.3"E
- 10 Supíkovice village, edge of NPP Na Špičáku reserve, 100 m NW of Velký Špičák hill, 1.8 km E of Křemenáč hill, 478 m a.s.l., 50°17'09.7"N, 17°15'00.3"E
- 11 Supíkovice village, on a rock mass, 50 m S of Velký Špičák hill, 1.9 km E of Křemenáč hill, 510 m a.s.l., 50°17'06.0"N, 17°15'00.5"E
- 12 Jeseník town, edge of a meadow, 400 m WNW of Čapka hill, 1.5 km NNE of Bukovický vrch hill, 471 m a.s.l., 50°13'15.5"N, 17°12'01.5"E
- 13 Between Bukovice village and Jeseník town, windbreak, 500 m WSW of Čapka hill, 1.2 km NNE of Bukovický vrch hill, 482 m a.s.l., 50°13'06.7"N, 17°11'56.3"E
- 14 1 km NW of Adolfovice village, wetland near a stream, 700 m NE of Nad Hájenkou hill, 1 km SW of Bukovický vrch hill, 543 m a.s.l., 50°12'18.4"N, 17°10'42.1"E
- 15 1.5 km NW of Adolfovice village, by a forest road, 700m NE of Nad Hájenkou hill, 1.8 km ENE of Javořík hill, 568 m a.s.l., 50°12'28.1"N, 17°10'28.7"E
- 16 1 km S of Bobrovník settlement, by a forest road, 1 km NNE of Nad Hájenkou hill, 1.6 km NE of Javořík hill, 602 m a.s.l., 50°12'36.5"N, 17°10'19.5"E
- 17 Crossroads above Bobrovník settlement, wetland, 1.1 km NW of Nad Hájenkou hill, 1.3 km NE of Javořík hill, 639 m a.s.l., 50°12'41.0"N, 17°09'53.8"E
- 18 Blue tourist trail towards Lipová-lázně village, by a stream, 1 km NW of Javořík hill, 1.5 km NE of Sněhulák hill, 607 m a.s.l., 50°12'40.8"N, 17°08'26.2"E
- 19 Blue tourist trail towards Lipová-lázně village, near a field path, 1.7 km NNW of Javořík hill, 2 km NE of Sněhulák hill, 569 m a.s.l., 50°12'53.6"N, 17°08'47.4"E
- 20 Blue tourist trail towards Lipová-lázně village, by a field path, 1.5 km ESE of Toč hill, 2.2 km NE of Sněhulák hill, 556 m a.s.l., 50°13'05.8"N, 17°08'48.3"E
- 21 Blue tourist trail towards Lipová-lázně, by a field path, 1.5 km ESE of Toč hill, 2.3 km NE of Sněhulák hill, 542 m a.s.l., 50°13'12.9"N, 17°08'46.8"E
- 22 Lipová-lázně village, alley near Annenský potok stream, 1.9 km SE of Smrčnick hill, 3.2 km ESE of Koprivný hill, 510 m a.s.l., 50°13'29.1"N, 17°08'45.0"E
- 23 Lipová-lázně village towards loc. Pomezí, below a road, 1 km SSW of Strážný hill, 1.3 km WSW of Železná hora hill, 497 m a.s.l., 50°14'05.2"N, 17°09'02.9"E
- 24 Karlovice village, forest edge, 600 m SSE of Obří vrch hill, 2.2 km SW of Ostroh hill, 547 m a.s.l., 50°06'39.3"N, 17°26'23.3"E
- 25 Karlovice village, forest edge, 600 m SSE of Obří vrch hill, 2.3 km SW of Ostroh hill, 555 m a.s.l., 50°06'40.5"N, 17°26'26.7"E
- 26 Above Karlovice village, in a forest, 500 m SE of Obří vrch hill, 2.3 km WNW of Milíř hill, 563 m a.s.l., 50°06'42.0"N, 17°26'29.4"E
- 27 Above Karlovice village, in a forest below a road, 400 m SE of Obří vrch hill, 2.3 km WNW of Milíř hill, 635 m a.s.l., 50°06'49.8"N, 17°26'26.8"E
- 28 Obří vrch hill, 1 km NW of Karlovice village, in a forest, 200 m WNW of the top of the hill, 1.5 km SE of Ostroh hill, 727 m a.s.l., 50°06'59.0"N, 17°26'02.0"E
- 29 Zadní Ves village, forest edge, 1.4 km SE of Ostroh hill, 2.4 km SW of Huk hill, 540 m a.s.l., 50°06'49.5"N, 17°25'38.0"E

- 30 Adamovský potok stream, at a bridge, 1.5 km SW of Větrný hill, 2.5 km SE of Kamenec hill, 522 m a.s.l., 50°07'08.9"N, 17°26'50.2"E
- 31 Valley of Adamovský potok stream, by a forest road, 800 m NNE of Obří vrch hill, 1.6 km SW of Větrný hill, 546 m a.s.l., 50°07'16.9"N, 17°26'28.4"E
- 32 Valley of Adamovský potok stream, by a forest road, 1.3 km ENE of Ostroh hill, 1.5 km S of Kamenec hill, 557 m a.s.l., 50°07'33.1"N, 17°26'03.4"E
- 33 Near Adamovský potok stream, by a forest road, 1.5 km NW of U Lomu hill, 2.1 km SW of Jelení vrch hill, 532 m a.s.l., 50°07'17.1"N, 17°26'36.9"E
- 34 Hájovny settlement, below a forest road, 1.7 km NW of Milíř hill, 2.5 km NNE of Karlovice village, 509 m. n. m., 50°07'03.3"N, 17°27'12.2"E
- 35 Starý Adamov settlement, near a stream, 1.1 km W of Větrný hill, 1.1 km SE of Kamenec hill, 593 m a.s.l., 50°07'53.0"N, 17°26'36.3"E
- 36 Near Starý Adamov settlement, meadow near a stream, 1 km WSW of Větrný hill, 1.5 km NE of Obří vrch hill, 565 m a.s.l., 50°07'39.9"N, 17°26'49.2"E
- 37 Adamovská cesta road, in a forest, 800 m SSW of Větrný hill, 1.3 km SW of Jelení vrch hill, 544 m a.s.l., 50°07'24.2"N, 17°27'18.3"E
- 38 Jelení village, by a roadside, 800 m SE of Horní Holčovice settlement, 900 m NW of Jelení vrch hill, 605 m a.s.l., 50°08'22.7"N, 17°28'22.1"E
- 39 Between Jelení village and Horní Holčovice settlement, by a roadside, 600 m NE of Větrný hill, 1 km N of Jelení vrch hill, 638 m a.s.l., 50°08'31.2"N, 17°28'01.2"E
- 40 Horní Holčovice settlement, near a field path, 600 m SE of Moravský kopec hill, 900 m SW of Osička hill, 708 m a.s.l., 50°08'37.6"N, 17°27'22.0"E
- 41 1.2 km W of Horní Holčovice settlement, meadow near a field road, 600 m SSW of Moravský kopec hill, 900 m ENE of Kamenec hill, 723 m a.s.l., 50°08'24.9"N, 17°26'43.9"E
- 42 300 m NE of Horní Holčovice settlement, edge of a meadow, 200 m SE of Osička hill, 1 km ENE of Moravský kopec hill, 717 m a.s.l., 50°08'57.1"N, 17°27'49.0"E
- 43 Holčovice village, by a roadside, 900 m S of Na Skále hill, 1.4 km N of Nad Dlouhou vsí hill, 472 m a.s.l., 50°09'21.3"N, 17°29'37.6"E
- 44 Dolní Holčovice village, by a roadside, 1.3 km NE of Osička hill, 1.4 km SW of Na Skále hill, 511 m a.s.l., 50°09'19.7"N, 17°28'42.7"E
- 45 Nová Komora village, near a stream, 400 m W of Kopčisko hill, 700 m NE of Smrčník hill, 575 m a.s.l., 50°10'43.0"N, 17°26'42.5"E
- 46 Nová Komora village, by a roadside, 1 km E of Smrčník, 1.1 km W of Komorský vrch hill, 547 m a.s.l., 50°10'27.5"N, 17°27'08.3"E
- 47 Sokolí Důl village, near a stream, 1.5 km SE of Rokytník hill, 1.5 km NE of Ostrý hill, 584 m a.s.l., 50°08'44.9"N, 17°25'33.2"E
- 48 Heřmanovice village, bank of Opavice river, 1 km E of Komora hill, 2.5 km NE of Jedlová hill, 608 m a.s.l., 50°11'17.7"N, 17°24'36.1"E
- 49 Heřmanovice village, by a roadside, 2 km E of Jelení hora hill, 2.3 km S of Příčný vrch hill, 655 m a.s.l., 50°11'53.3"N, 17°23'01.9"E
- 50 Between Heřmanovice and Mnichov villages, by a roadside, 900 m SSE of Holý vrch hill, 2 km NW of Jedlová hill, 702 m a.s.l., 50°11'02.4"N, 17°22'45.7"E
- 51 Mnichov village, at the red tourist trail, 1.2 km NW of Větrník hill, 1.9 km W of Ostrý hill, 548 m a.s.l., 50°08'30.9"N, 17°22'48.0"E
- 52 Mnichov village, by a cemetery, 900 m E of Větrník hill, 1.5 km SSW of Sokolí skály rocks, 564 m a.s.l., 50°08'08.4"N, 17°22'56.2"E
- 53 Between Bukovice and Dětfichov villages, near a stream, 600 m SW of Křížový vrch hill, 1.8 km N of Vavínec hill, 507 m a.s.l., 50°13'14.6"N, 17°13'16.1"E
- 54 Křížový vrch hill, 100 m NE of the top, at the blue tourist trail, 1.5 km SW of Zlatý Chlum hill, 665 m a.s.l., 50°13'36.0"N, 17°13'31.3"E
- 55 Mýtinka settlement, by a roadside, 1.1 km SE of Křížový vrch hill, 1.8 km SW of Bílé skály rocks, 527 m a.s.l., 50°13'01.6"N, 17°14'02.6"E
- 56 Seč settlement, at trees on a meadow, 1 km SE of Křížový vrch hill, 1 km SW of Kužel hill, 593 m a.s.l., 50°13'12.7"N, 17°14'03.9"E
- 57 Behind Dětfichov village, at Vrchovištní potok stream, 1.4 km NNW of Dlouhá hora hill, 1.4 km SW of Tisový hill, 574 m a.s.l., 50°12'30.3"N, 17°14'52.3"E
- 58 Between Dětfichov village and Rejvíz settlement, by a roadside, 1.3 km SW of Březový vrch hill, 1.3 km NW of Dlouhá hora hill, 605 m a.s.l., 50°12'22.9"N, 17°14'24.4"E
- 59 Between Dětfichov village and Rejvíz settlement, glade next to the green tourist trail, 800 m SE of Chlapecké kameny rocks, 1.1 km SSW of Bleskovec hill, 793 m a.s.l., 50°13'29.4"N, 17°16'28.0"E

- 60 Starý Rejvíz settlement, near a stream, 1 km W of Zámecký pahorek hill, 1.4 km NE of Přední Jestřábí hill, 733 m a.s.l., 50°13'13.1"N, 17°19'09.0"E
- 61 Rejvíz settlement, by a roadside, 400 m NE of Malé mechové jezírko bog, 800 m SE of Orlí vrch hill, 749 m a.s.l., 50°13'39.5"N, 17°19'01.7"E
- 62 Rejvíz settlement, by a roadside, 400 m NE of Malé mechové jezírko bog, 800 m SE of Orlí vrch hill, 749 m a.s.l., 50°13'39.3"N, 17°19'02.2"E
- 63 W edge of Rejvíz settlement, on a meadow, 500 m NE of U Pomníku hill, 1.3 km NE of Velké mechové jezírko lake, 772 m a.s.l., 50°13'40.6"N, 17°18'01.1"E
- 64 Between Rejvíz and Dolní Údolí settlements, above a road, 1.1 km E of Orlí vrch hill, 1.5 km NNW of Zámecký pahorek hill, 676 m a.s.l., 50°14'02.0"N, 17°19'35.3"E
- 65 Dolní Údolí settlement, forest edge, 900 m SW of Ovčácký vrch hill, 1.7 km W of Lysý vrch hill, 577 m a.s.l., 50°14'41.3"N, 17°20'46.7"E
- 66 Dolní Údolí settlement, by Olešnice stream, 1 km SW of Ovčácký vrch hill, 1.4 km W of Nový Dvůr hill, 495 m a.s.l., 50°14'33.4"N, 17°21'00.9"E
- 67 Edge of Zlaté Hory town, by a roadside, 1.8 km NE of Lysý vrch hill, 3.2 km W of Biskupská kupa hill, 448 m a.s.l., 50°15'28.7"N, 17°23'00.0"E
- 68 Border crossing at Zlaté hory town, edge of a meadow, 100 m NW of Selský rybník pond, 1.2 km NW of Zlaté jezero pond, 404 m a.s.l., 50°16'51.5"N, 17°22'44.0"E
- 69 2 km NW of Zlaté Hory town, by a field path, 1 km SW of Selský rybník pond, 1.8 km WSW of Zlaté jezero pond, 414 m a.s.l., 50°16'23.6"N, 17°22'14.4"E
- 70 Between Ondřejovice village and Zlaté Hory town, by a field path, 2 km N of Lysý vrch hill, 1.8 km NE of Ovčácký vrch hill, 437 m a.s.l., 50°15'44.1"N, 17°22'20.3"E
- 71 Ondřejovice village, near Olešnice river, 1 km NE of Ovčácký vrch hill, 3 km E of Strážisko, 430 m a.s.l., 50°15'30.4"N, 17°21'48.4"E
- 72 Valley of Javorná stream, near a stream, 1.2 km SE of Zadní vrch hill, 1.2 km V of Strážisko hill, 407 m a.s.l., 50°15'42.8"N, 17°20'11.4"E
- 73 Ondřejovice village, an old orchard, 1.3 km SW of Zadní vrch hill, 1.7 km ENE of Strážisko hill, 393 m a.s.l., 50°15'58.9"N, 17°20'38.2"E
- 74 Salisov settlement, by a roadside, 1.3 km NE of Zadní vrch hill, 2.5 km SE of U Srubu hill, 367 m a.s.l., 50°16'37.3"N, 17°20'32.9"E
- 75 Between Mikulovice village and Salisov settlement, by a roadside, 1.5 km E of U Srubu hill, 2 km NNE of Zadní vrch hill, 345 m a.s.l., 50°17'20.4"N, 17°20'05.6"E
- 76 Krnov town, by a roadside, 1.1 km ESE of Bezručův vrch hill, 2.3 km NNE of Dubový kopec hill, 308 m a.s.l., 50°05'17.3"N, 17°41'19.7"E
- 77 Město Albrechtice town, by a railway line, 2 km SE of Dubí hill, 2 km SW of Hraniční vrch hill, 395 m a.s.l., 50°09'55.4"N, 17°34'46.1"E
- 78 Město Albrechtice town, by a roadside, 1 km SE of Kamenný vršek hill, 1.6 km SW of Hraniční vrch hill, 393 m a.s.l., 50°09'59.5"N, 17°34'56.0"E
- 79 From Město Albrechtice town towards Opavice village, by Celní rybník pond, 1.4 km SW of Hraniční vrch hill, 2 km NW of Přední kopec hill, 387 m a.s.l., 50°09'45.8"N, 17°35'19.9"E
- 80 Opavice village, edge of a field, 1.8 km NE of Přední kopec hill, 2.5 km N of Na Skalce hill, 383 m a.s.l., 50°09'30.9"N, 17°35'27.2"E
- 81 Opavice village, windbreak in a field, 2.1 km NE of Sokolník hill, 2.1 km E of Přední kopec hill, 374 m a.s.l., 50°09'04.9"N, 17°35'57.0"E
- 82 Linhartovy village, castle park, 1.6 km ENE of Na Skalce hill, 2.1 km NE of Dlouhý vrch hill, 361 m a.s.l., 50°08'21.4"N, 17°36'47.2"E
- 83 Linhartovy village, by Opavice river, 2.3 km E of Na Skalce hill, 3 km N of Kobylí hill, 354 m a.s.l., 50°08'08.7"N, 17°37'24.7"E
- 84 Krásné Loučky village, by Kobylí potok stream, 1.3 km N of Vršky hill, 3.3 km E of Dlouhý vrch hill, 351 m a.s.l., 50°07'28.9"N, 17°38'07.7"E
- 85 Chomýž village, by a roadside, 1.2 km NW of Kabátův kopec hill, 1.3 km ESE of Vršky hill, 329 m a.s.l., 50°06'35.0"N, 17°39'14.4"E
- 86 Krnov town, bank of Opavice river, 1.3 km NE of Bezručův vrch hill, 1.8 km E of Kabátův kopec hill, 318 m a.s.l., 50°05'58.6"N, 17°41'08.9"E
- 87 Krnov town, city center by the Švédská zeď wall, 2 km NW of Hradisko hill, 2 km E of Bezručův vrch hill, 315 m a.s.l., 50°05'26.1"N, 17°41'59.9"E
- 88 Krnov town, traffic playground, 1 km NW of Hradisko hill, 3 km NE of Dubový kopec hill, 308 m a.s.l., 50°05'11.9"N, 17°42'44.0"E
- 89 Krnov town, part called Pod Cvilínem, below a road at Opavice river, 1.3 km NE of Hradisko hill, 1.5 km NW of Petrův rybník pond, 304 m a.s.l., 50°05'22.9"N, 17°43'38.5"E

- 90 Krnov town, part called Pod Cvilínem, by a railway line, 1.9 km NNW of Hradisko hill, 2.5 km NW of Petrův rybník pond, 304 m a.s.l., 50°05'38.1"N, 17°42'43.3"E
- 91 Border with Poland, 2 km NW of Krnov town, windbreak in a field, 3.5 km NNW of Hradisko hill, 3.5 km NE of Bezručův vrch hill, 329 m a.s.l., 50°06'29.3"N, 17°42'53.3"E
- 92 2 km N of Krnov town, windbreak in a field, 3 km NE of Bezručův vrch hill, 3.2 km ENE of Kabátův kopec hill, 335 m a.s.l., 50°06'28.0"N, 17°42'18.4"E
- 93 Between Mlýnský Dvůr village and Krnov town, by a roadside, 2.3 km NE of Bezručův vrch hill, 3.3 km NW of Hradisko hill, 307 m a.s.l., 50°06'15.5"N, 17°41'52.7"E
- 94 Rejvíz settlement, in the middle of a meadow, 500 m ENE of U Pomníku hill, 1 km SW of Orlí vrch hill, 765 m a.s.l., 50°13'37.9"N, 17°18'06.4"E
- 95 Rejvíz settlement, on the edge of Rejvíz National Natural Reserve, 1 km E of U Pomníku hill, 1.5 km N of Přední Jestřábí hill, 748 m a.s.l., 50°13'32.6"N, 17°18'27.6"E
- 96 Rejvíz settlement, on the edge of Rejvíz National Natural Reserve, 1 km E of U Pomníku hill, 1.5 km N of Přední Jestřábí hill, 748 m a.s.l., 50°13'32.5"N, 17°18'27.5"E
- 97 Rejvíz settlement, by a roadside, 500 m S of Orlí vrch hill, 2 km NW of Zámecký pahorek hill, 758 m a.s.l., 50°13'46.7"N, 17°18'40.0"E
- 98 Bělá village, bank of Bělá river, 2.5 km NE of Velký Klín hill, 2.5 km NW of Lysý vrch hill, 583 m a.s.l., 50°08'53.5"N, 17°12'18.4"E
- 99 E edge of Bělá village, on a meadow, 2.2 km NE of Velký Klín hill, 2.5 km NW of Hřib hill, 613 m a.s.l., 50°08'46.8"N, 17°12'04.8"E
- 100 Between Bělá and Filipovice villages, edge of a sheep pasture, 3 km W of Kamzičí skály rocks, 3.3 km NW of Lysý vrch hill, 611 m a.s.l., 50°09'02.5"N, 17°11'38.0"E
- 101 Drátovna settlement, meadow by a stream, 1.5 km SE of Bršť hill, 3 km W of Točník hill, 593 m a.s.l., 50°09'09.6"N, 17°11'20.7"E
- 102 Drátovna settlement, by Červenohorský potok stream, 1.3 km SE of Bršť hill, 3.3 km W of Zaječí hora hill, 594 m a.s.l., 50°09'11.2"N, 17°11'10.1"E
- 103 Before Filipovice village, forest by a road, 2 km E of Točník hill, 3.2 km NW of Červená hora hill, 627 m a.s.l., 50°09'20.1"N, 17°10'38.8"E
- 104 Filipovice village, by the post office, 1.7 km W of Točník hill, 3 km NE of Červená hora hill, 648 m a.s.l., 50°09'23.9"N, 17°10'19.3"E
- 105 Above Filipovice village, vegetation on meadow, 200 m W of Bršť hill, 1.8 km NE of Točník hill, 694 m a.s.l., 50°09'42.4"N, 17°10'14.8"E
- 106 1 km W of Domašov village, edge of a pasture, 700 m NE of Bršť hill, 1.7 km S of Domašovský kopec hill, 610 m a.s.l., 50°10'01.6"N, 17°10'45.0"E
- 107 2 km SW of Bělá pod Pradědem village, edge of a pasture, 1.1 km S of Domašovský kopec hill, 2 km SE of Nad Výrovkou hill, 568 m a.s.l., 50°10'19.1"N, 17°10'45.9"E
- 108 Bělá pod Pradědem village, by a field path, 1.2 km SE of Domašovský kopec hill, 1.3 km SW of Nad Borovým hill, 532 m a.s.l., 50°10'27.2"N, 17°11'37.9"E
- 109 Bělá pod Pradědem village, by Bělá river, 900 m WSW of Kalafovičova plotna rocks, 1 km NW of Nad Borovým hill, 513 m a.s.l., 50°10'35.7"N, 17°11'57.0"E
- 110 Adolfovice village, edge of a meadow, 600 m W of Jánský vrch hill, 1.8 km NE of Domašovský kopec hill, 487 m a.s.l., 50°11'44.6"N, 17°11'47.7"E
- 111 Adolfovice village, by a field path, 1.3 km NW of Jánský vrch hill, 1.5 km V of Nad Hájenkou hill, 495 m a.s.l., 50°12'10.9"N, 17°11'29.3"E
- 112 Kasárny settlement by Jeseník town, wetland in a forest, 600 m NW of Bukovický vrch hill, 1.5 km NE of Nad Hájenkou hill, 488 m a.s.l., 50°12'43.9"N, 17°11'06.9"E
- 113 Supíkovice village, by a field path, 1.5 km SE of Nížká hora hill, 1.5 km NE of Křemenáč hill, 460 m a.s.l., 50°17'35.6"N, 17°14'43.3"E
- 114 Supíkovice village, garden by Kunětička river, 1.5 km SE of Kamenný vrch hill, 1.5 km NW of Na Vyhlídce hill, 363 m a.s.l., 50°18'32.0"N, 17°15'38.9"E
- 115 Between Velké Kunětice and Stará Červená Voda villages, by a roadside, 1.3 km NE of Kamenný vrch hill, 2.7 km NE of Nížká hora hill, 353 m a.s.l., 50°19'30.3"N, 17°15'14.9"E
- 116 Czech-Polish bordered line, 3 km ENE of Stará Červená Voda village, by a roadside, 2.5 km NE of Kostelní vrch hill, 3.5 km E of Stromovka hill, 332 m a.s.l., 50°20'19.0"N, 17°14'18.2"E
- 117 1 km E of Stará Červená Voda village, by a pond, 1.1 km E of Kostelní vrch hill, 1.9 km SE of Ovčí vrch hill, 342 m a.s.l., 50°19'54.6"N, 17°13'21.7"E
- 118 2.4 km NNE of Na Vyhlídce hill, 2.8 km ENE of Kamenný vrch hill, near the Czech-Polish bordered line, by a field path, 362 m a.s.l., 50°19'05.4"N, 17°16'55.6"E
- 119 Kolnovice village, by a roadside, 1 km W of Vysutá hill, 1.2 km N of Svinský kopec hill, 345 m a.s.l., 50°19'10.1"N, 17°19'22.1"E

- 120 Czech-Polish bordered line at Mikulovice village, by a railway line, 1.4 km SE of Vysutá hill, 3.5 km NE of U Srubu hill, 304 m a.s.l., 50°18'25.6"N, 17°21'11.9"E
- 121 Loc. "Zlatorudné mlýny" at Ondřejovice village, bank of Olešnice river, 1 km NE of Ovčácký vrch hill, 1.2 km NNW of Lysý vrch hill, 438 m a.s.l., 50°15'18.6"N, 17°21'57.7"E
- 122 Zlaté Hory town towards Jindřichov village, by a roadside, 1.8 km W of Biskupská kupa hill, 2.2 km NW of Nad Petrovou chatou hill, 440 m a.s.l., 50°15'18.5"N, 17°24'14.7"E
- 123 Below Biskupská kupa hill, by a forest road, 800 m SW of, 800 m SE of Mnichův kámen rocks, 630 m a.s.l., 50°15'08.0"N, 17°25'13.7"E
- 124 Petrovy boudy, at a parking lot, 1 km N of Větrná hill, 1.5 km S of Biskupská kupa hill, 706 m a.s.l., 50°14'32.4"N, 17°25'38.0"E
- 125 1 km W of Petrovice village, 1 km NE of Větrná hill, 1.5 km NW of Ďáblův kopec hill, 564 m a.s.l., 50°14'23.2"N, 17°26'10.9"E
- 126 Petrovice village, bank of Osoblaha stream, 250 m N of Čertův kámen hill, 1 km SW of Malá stříbrná hill, 445 m a.s.l., 50°14'31.0"N, 17°27'36.0"E
- 127 Janov village, by a roadside, 900 m N of Nad Janovem hill, 1.5 km NW of Lomná hill, 395 m a.s.l., 50°15'02.0"N, 17°29'28.3"E
- 128 Jindřichov ve Slezsku village, an old orchard, 1.5 km NE of Lomná hill, 2 km SE of Svatý Roch hill, 356 m a.s.l., 50°15'12.3"N, 17°31'21.3"E
- 129 Arnultovice village, behind a river, 1.3 km N of Šibeník hill, 3.5 km NE of Svatý Roch hill, 341 m a.s.l., 50°14'55.9"N, 17°32'37.4"E
- 130 Arnultovice village towards Vysoká village, below a road, 1.3 km NW of Vysoká hill, 1.5 km SSW of Vysoká, 323 m a.s.l., 50°15'14.2"N, 17°33'58.6"E
- 131 Bartultovice village, an old orchard, 1.6 km NE of Vysoká hill, 4 km NW of Bouře hill, 274 m a.s.l., 50°16'37.3"N, 17°35'28.0"E
- 132 Vysoká village, by a pond, 1.2 km E of Vysoká hill, 2.7 km NE of Velký kopec hill, 299 m a.s.l., 50°15'54.8"N, 17°35'30.5"E
- 133 Between Vysoká and Pitárné villages, by a roadside, 2.5 km NE of Velký kopec hill, 2.8 km N of Strážnice hill, 326 m a.s.l., 50°15'23.4"N, 17°36'12.5"E
- 134 Křivá dolina valley at Petrovice village, bank of Osoblaha river, 1.5 km SW of Ďáblův kopec hill, 2 km NW of Solná hora hill, 570 m a.s.l., 50°13'28.1"N, 17°26'12.9"E
- 135 Between Heřmanovice and Petrovice villages, by a roadside, 1.2 km NW of Kutný vrch hill, 1.5 km N of Končina hill, 724 m a.s.l., 50°12'46.7"N, 17°25'21.1"E
- 136 Above Heřmanovice village, 600 m NW of Salaš hill, 2.3 km SE of Příčný vrch hill, 711 m a.s.l., 50°12'03.5"N, 17°24'10.2"E
- 137 Krnov town, Chářovský park, 1.1 km SE of Bezručův vrch hill, 1.9 km ESE of Kostelecký vrch hill, 324 m a.s.l., 50°04'56.8"N, 17°41'01.9"E
- 138 Krnov town, Chářovský park, 1.1 km SE of Bezručův vrch hill, 1.8 km ESE of Kostelecký vrch hill, 324 m a.s.l., 50°04'53.9"N, 17°40'59.4"E
- 139 Krnov town, a park by a roadside, 900 m NE of Bezručův vrch hill, 1.5 km ESE of Kabátův kopec hill, 323 m a.s.l., 50°05'46.8"N, 17°40'53.1"E
- 140 Albrechtice town, an old apple orchard, 1.5 km ESE of Dubí hill, 1.9 km W of Hraniční vrch hill, 388 m a.s.l., 50°10'22.1"N, 17°34'40.3"E
- 141 1 km W of Rudíkovy village, wetland on a meadow, 500 m SW of Andělská hora hill, 1 km NE of Dubí hill, 424 m a.s.l., 50°10'57.2"N, 17°34'02.7"E
- 142 Třemešná village, bank of Mušlov stream, 1 km NNE of Kozí vrch hill, 2.2 km ZNW of Kobyla hill, 369 m a.s.l., 50°12'12.9"N, 17°34'32.6"E
- 143 Liptaň village, above village near a church, 200 m SE of Strážný vrch hill, 1.4 km NE of Mlýnský vrch hill, 445 m a.s.l., 50°13'19.1"N, 17°35'09.5"E
- 144 Liptaň village, above village by a roadside, 200 m SSE of Strážný vrch hill, 1.3 km NE of Mlýnský vrch hill, 451 m a.s.l., 50°13'18.9"N, 17°35'06.7"E
- 145 Liptaň village, city centre near a stream, 1 km E of Strážný vrch hill, 1 km S of Strážnice hill, 372 m a.s.l., 50°13'21.2"N, 17°35'51.6"E
- 146 SW edge of Bučávka village, near Povelický potok stream, 800 m NE of Kobyla hill, 900 m NW of Květnice hill, 420 m a.s.l., 50°12'04.7"N, 17°36'52.8"E
- 147 Bučávka village, bank of Povelický potok stream, 1.2 km N of Květnice hill, 1.5 km NE of Kobyla hill, 364 m a.s.l., 50°12'22.4"N, 17°37'21.8"E
- 148 Between Liptaň and Horní Povelice villages, near a bus stop, 2.2 km SE of Strážnice hill, 2.5 km SW of Červený vrch hill, 345 m a.s.l., 50°13'17.1"N, 17°37'30.9"E
- 149 Horní Povelice village, by a pond, 1 km SSW of Červený vrch hill, 1.5 km NW of Vršina hill, 286 m a.s.l., 50°13'20.8"N, 17°39'06.1"E

- 150 Amalín village, end of a road, 1 km NE of Vršina hill, 1.7 km SE of Červený vrch hill, 284 m a.s.l., 50°13'05.2"N, 17°40'11.4"E
- 151 Víno village, bank of Lužná river, 500 m S of Nad Hájenkou hill, 800 m NNW of Na Kopci hill, 337 m a.s.l., 50°11'24.2"N, 17°39'01.6"E
- 152 Slezské Rudoltice village, by a roadside, 500 m W of Rudoltický rybník pond, 700 m SE of Vršina hill, 286 m a.s.l., 50°12'20.2"N, 17°40'32.7"E
- 153 Slezské Rudoltice village, castle park, 500 m S of Ovčák hill, 700 m WSW of Rudoltický vrch hill, 276 m a.s.l., 50°12'24.0"N, 17°41'23.0"E
- 154 Hrozová village, by a roadside, 300 m SSE of Za Humny hill, 1 km ESE of Rudoltický vrch hill, 279 m a.s.l., 50°12'22.3"N, 17°42'46.8"E
- 155 Rusín village, in a forest near a church, 300 m WSW of Rusínský kopec hill, 1.4 km ENE of Za Humny hill, 314 m a.s.l., 50°12'45.1"N, 17°43'49.6"E
- 156 Matějovice village, near a crossroads, 600 m S of U Mincerky hill, 1.5 km ESE of Kotlový vrch hill, 255 m a.s.l., 50°14'05.3"N, 17°45'06.8"E
- 157 Bohušov village, bank of Osoblaha river, 300 m WNW of Vinný vrch hill, 1 km NE of Bohušovský rybník pond, 233 m a.s.l., 50°14'20.1"N, 17°42'31.2"E
- 158 W edge of Dolní Povelice village, by a roadside, 1.1 km E of Červený vrch hill, 2.3 km W of Dubský kopec hill, 278 m a.s.l., 50°13'51.0"N, 17°40'22.7"E
- 159 Between Horní Povelice and Dívčí Hrad villages, by a roadside, 900 m W of Červený vrch hill, 1.8 km SW of V Pekle hill, 299 m a.s.l., 50°13'54.3"N, 17°38'41.4"E
- 160 Between Písečná and Studený Zejř villages, bank of Bělá river, 1 km NNE of U Kapličky hill, 1 km SSE of Florian pond, 384 m a.s.l., 50°16'14.0"N, 17°15'28.3"E
- 161 Chebží settlement, E edge of PP Chebží, 1.8 km NE of Zlatý Chlum hill, 1.8 km E of Čertovy kameny rocks, 534 m a.s.l., 50°14'43.5"N, 17°15'40.0"E
- 162 Chebží settlement, by a stream, 1.9 km WNW of Sporný vrch hill, 2.5 km NE of Zlatý Chlum hill, 420 m a.s.l., 50°15'24.8"N, 17°15'37.5"E
- 163 Široký Brod village, park near a church, 2.3 km NE of U Kapličky hill, 2.5 km NW of Bílý kámen rocks, 352 m a.s.l., 50°16'20.5"N, 17°16'50.3"E
- 164 Hradec-Nová Ves village, by a roadside, 1.1 km E of Na Vyhlídce hill, 2 km NW of U Srubu hill, 412 m a.s.l., 50°17'53.1"N, 17°17'16.4"E
- 165 Mikulovice village, between river and railway line, 600 m NNW of U Srubu hill, 3 km ESE of Na Vyhlídce hill, 329 m a.s.l., 50°17'44.3"N, 17°18'37.6"E
- 166 Rožmitál village, by a field path, 1.5 km N of Mnichův kámen rocks, 2 km NW of Biskupská kupa hill, 455 m a.s.l., 50°16'15.8"N, 17°24'40.7"E
- 167 Zlaté Hory town towards Heřmanovice village, a forest edge, 1.5 km NE of Zámecký vrch hill, 2.5 km SW of Biskupská kupa hill, 471 m a.s.l., 50°14'47.0"N, 17°23'48.2"E
- 168 Loc. "Maria Hilf" by Zlaté Hory town, in a forest, 1 km NE of Příčný vrch hill, 1.5 km N of Hornické skály rocks, 723 m a.s.l., 50°13'32.8"N, 17°23'39.1"E
- 169 Between Heřmanovice and Holčovice villages, by a roadside, 2 km SW of Kopčisko hill, 2.5 km E of Jedlová hill, 551 m a.s.l., 50°10'01.6"N, 17°25'48.7"E
- 170 Holčovice-Spálené village, valley of Ptáčník stream, on a bank of the stream, 1 km NE of Rokytník hill, 1.7 km W of loc. Na Spáleném, 594 m a.s.l., 50°09'52.6"N, 17°25'11.6"E
- 171 Holčovice-Hejnov village, forest by Opavice river, 1.5 km NE of Na Skále hill, 1.7 km NW of Karlova hora hill, 449 m a.s.l., 50°10'06.5"N, 17°30'43.5"E
- 172 Nová Dlouhá Voda village, bank of Solný potok stream, 500 m SW of Milíř hill, 1.2 km S of Jindřichova vyhlídka hill, 573 m a.s.l., 50°11'23.2"N, 17°28'18.9"E
- 173 Stará Dlouhá Voda village, an orchard by a stream, 700 m SSW of Milíř hill, 1.5 km SE of Kotel hill, 487 m a.s.l., 50°10'43.0"N, 17°29'31.5"E
- 174 Valštejn village, edge of a pasture, 700 m SW of Nad Kostelem hill, 2 km ESE of Jindřichova vyhlídka hill, 506 m a.s.l., 50°11'42.2"N, 17°30'04.7"E
- 175 Hynčice village, in a forest near a stream, 1 km N of Hubertova výšina hill, 1.4 km WSW of Dubí hill, 453 m a.s.l., 50°10'21.0"N, 17°32'18.2"E
- 176 Between Třemešná and Jindřichov villages, bank of a stream, 900 m WNW of Mlýnský vrch hill, 1.2 km E of Panský vrch hill, 370 m a.s.l., 50°13'03.8"N, 17°33'28.6"E
- 177 S edge of Jindřichov ve Slezsku village, by a field path, 800 m N of Šibeník hill, 2.3 km W of Velký kopec hill, 371 m a.s.l., 50°14'40.4"N, 17°32'34.8"E
- 178 1 km N of Dívčí Hrad village, by a roadside, 800 m SW of Bouře hill, 1.3 km S of Hraniční kopec hill, 327 m a.s.l., 50°15'36.8"N, 17°38'06.0"E
- 179 Hlinka village, edge of a garden, 400 m NW of Šibeniční vrch hill, 500 m SE of U Lomu hill, 272 m a.s.l., 50°16'36.7"N, 17°39'59.8"E

- 180** Between Osoblaha town and Bohušov village, by a roadside, 1.2 km SE of Červenice hill, 2 km NW of Kotlový vrch hill, 268 m a.s.l., 50°15'00.4"N, 17°42'32.8"E
- 181** Karlov village, by a roadside, 1.4 km NE of Peklo hill, 2.5 km SE of Bouře hill, 279 m a.s.l., 50°15'11.5"N, 17°40'27.8"E
- 182** Pitárné village, a pasture below a church, 1.6 km N of Strážnice hill, 1.8 km ENE of Velký kopec hill, 304 m a.s.l., 50°14'47.3"N, 17°35'59.8"E
- 183** 2 km N of Třemešná village, by a roadside, 1.2 km W of Strážný vrch, 1.3 km N of Mlýnský vrch hill, 370 m a.s.l., 50°13'30.1"N, 17°34'05.5"E
- 184** Between Heřmanovice village and Horní Údolí settlement, below a road, 1.3 km SW of Příčný vrch hill, 1.8 km NE of Jelení hora hill, 744 m a.s.l., 50°12'32.8"N, 17°22'34.7"E
- 185** Above Horní Údolí settlement, bank of Olešnice river, 1.7 km WSW of Příčný vrch hill, 2 km ESE of Zámecký pahorek hill, 676 m a.s.l., 50°12'53.3"N, 17°21'39.6"E
- 186** Horní Údolí settlement, by a roadside, 1.4 km NW of Zámecký pahorek hill, 2.3 km SW of Lysý vrch hill, 552 m a.s.l., 50°13'50.5"N, 17°20'39.3"E
- 187** 1 km E of Adolfovice village, in a forest, 800 m NE of Nad Hájenkou hill, 2.2 km E of Javořík hill, 546 m a.s.l., 50°12'19.1"N, 17°10'46.5"E

A LIST OF RECORDED SPECIES

The taxa are sorted alphabetically in the list. Their threat status - according Kučera et al. (2012) - is included in square brackets. After numbers of localities the date of collection and phorophyte species are listed. In the case of rare or otherwise interesting species a short commentary is given.

Nyholmiella obtusifolia [LC]

The species was found in 18 localities located mainly in the western part of the studied area.

2 (16. IX. 2013, *Populus nigra*); **40** (28. IX. 2013, *Acer pseudoplatanus*); **48** (28. IX. 2013, *Fraxinus excelsior*); **49** (28. IX. 2013, *Fraxinus excelsior*); **51** (28. IX. 2013, *Tilia cordata*); **53** (29. IX. 2013, *Salix alba*); **55** (29. IX. 2013, *Acer platanoides*); **62** (29. IX. 2013, *Sorbus aucuparia*); **71** (29. IX. 2013, *Tilia cordata*); **74** (29. IX. 2013, *Acer pseudoplatanus*); **97** (3. X. 2013, *Fraxinus excelsior*); **98** (5. X. 2013, *Fraxinus excelsior*); **104** (5. X. 2013, *Acer platanoides*); **121** (13. X. 2013, *Fraxinus excelsior*); **163** (20. X. 2013, *Fraxinus excelsior*); **164** (20. X. 2013, *Fraxinus excelsior*); **165** (20. X. 2013, *Malus domestica*); **184** (20. X. 2013, *Acer pseudoplatanus*)

Orthotrichum affine [LC]

The species was found in 63 localities and it belongs to three most abundant species in the studied area.

2 (16. IX. 2013, *Populus nigra*); **3** (16. IX. 2013., *Fraxinus excelsior*); **5** (16. IX. 2013, *Salix alba*); **6** (16. IX. 2013, *Acer negundo*); **8** (16. IX. 2013, *Fraxinus excelsior*); **11** (16. IX. 2013, *Quercus robur*); **15** (18. IX. 2013, *Acer pseudoplatanus*); **16** (18. IX. 2013, *Alnus incana*); **19** (18. IX. 2013, *Acer pseudoplatanus*); **22** (18. IX. 2013, *Acer pseudoplatanus*); **27** (28. IX. 2013, *Fraxinus excelsior*); **29** (28. IX. 2013, *Tilia cordata*); **30** (28. IX. 2013, *Acer pseudoplatanus*); **33** (28. IX. 2013, *Fraxinus excelsior*); **36** (28. IX. 2013, *Salix alba*); **39** (28. IX. 2013, *Fraxinus excelsior*); **40** (28. IX. 2013, *Acer pseudoplatanus*); **41** (28. IX. 2013, *Fraxinus excelsior*); **44** (28. IX. 2013, *Fraxinus excelsior*); **47** (28. IX. 2013, *Acer pseudoplatanus*); **51** (28. IX. 2013, *Tilia cordata*); **53** (29. IX. 2013, *Salix alba*); **55** (29. IX. 2013, *Acer platanoides*); **56** (29. IX. 2013, *Fraxinus excelsior*); **61** (29. IX. 2013, *Fraxinus excelsior*); **64** (29. IX. 2013, *Acer pseudoplatanus*); **78** (2. X. 2013, *Fraxinus excelsior*); **80** (2. X. 2013, *Populus nigra*); **81** (2. X. 2013, *Populus nigra*); **87** (2. X. 2013, *Acer pseudoplatanus*); **89** (2. X. 2013, *Populus nigra*); **94** (3. X. 2013, *Sorbus aucuparia*); **99** (5. X. 2013, *Acer pseudoplatanus*); **101** (5. X. 2013, *Acer pseudoplatanus*); **106** (5. X. 2013, *Quercus robur*); **107** (5. X. 2013, *Populus tremula*); **110** (5. X. 2013, *Acer pseudoplatanus*); **120** (13. X. 2013, *Salix euxina*); **121** (13. X. 2013, *Fraxinus excelsior*); **122** (13. X. 2013, *Tilia cordata*); **127** (13. X. 2013, *Tilia cordata*); **129** (13. X. 2013, *Acer platanoides*); **130** (13. X. 2013, *Malus domestica*); **131** (13. X. 2013, *Fraxinus excelsior*); **134** (13. X. 2013, *Acer pseudoplatanus*); **135** (13. X. 2013, *Fagus sylvatica*); **136** (13. X. 2013, *Acer platanoides*); **141** (17. X. 2013, *Salix alba*); **142** (17. X. 2013, *Fraxinus excelsior*); **156** (17. X. 2013, *Fraxinus excelsior*); **158** (17. X. 2013, *Juglans regia*); **160** (20. X. 2013, *Fraxinus excelsior*); **161** (20. X. 2013, *Malus domestica*); **168** (20. X. 2013, *Acer pseudoplatanus*); **169** (20. X. 2013, *Fraxinus excelsior*); **170** (20. X. 2013, *Acer platanoides*); **171** (20. X. 2013, *Fraxinus excelsior*); **173** (20. X. 2013, *Malus domestica*); **174** (20. X. 2013, *Fraxinus excelsior*); **182** (20. X. 2013, *Fraxinus excelsior*); **185** (20. X. 2013, *Acer pseudoplatanus*); **187** (3. XI. 2013, *Acer pseudoplatanus*)

***Orthotrichum affine* var. *bohemicum* [DD] - see map 2**

The taxon was found in 5 localities. It belongs to four taxa of *Orthotrichaceae* family that have been firstly recorded in our country only in recent years (Blockeel et al. 2008; Plášek & Marková 2011; Plášek et al. 2009, 2011). Together with *Orthotrichum moravicum* it also belongs to taxa recently described for the science. In the Czech Republic the moss *Orthotrichum affine* var. *bohemicum* was collected in Lužické hory, Bílé Karpaty, Hrubý Jeseník, Tepelské vrchy and Slavkovský les (Plášek et al. 2011, Plášek & Benešová 2013). In Europe its occurrence was confirmed for Poland (Ellis et al. 2012), Sweden (Ellis et al. 2013), and Ukraine (Čihal 2014). Number of records of this taxon increases and it seems that the variety is geographically widespread and relatively common.

24 (28. IX. 2013, *Acer pseudoplatanus*); **34** (28. IX. 2013, *Salix euxina*); **41** (28. IX. 2013, *Fraxinus excelsior*); **63** (29. IX. 2013, *Fraxinus excelsior*); **126** (13. X. 2013, *Fraxinus excelsior*)

***Orthotrichum anomalum* [LC]**

The species was found in 62 localities and it can be considered as a very abundant species.

1 (16. IX. 2013, *Tilia cordata*); **2** (16. IX. 2013, *Populus nigra*); **5** (16. IX. 2013, *Salix alba*); **6** (16. IX. 2013, *Acer negundo*); **8** (16. IX. 2013, *Fraxinus excelsior*); **10** (16. IX. 2013, *Fagus sylvatica*); **12** (18. IX. 2013, *Fraxinus excelsior*); **24** (28. IX. 2013, *Acer pseudoplatanus*); **28** (28. IX. 2013, *Fagus sylvatica*); **29** (28. IX. 2013, *Tilia cordata*); **43** (28. IX. 2013, *Fraxinus excelsior*); **56** (29. IX. 2013, *Fraxinus excelsior*); **58** (29. IX. 2013, *Betula pendula*); **63** (29. IX. 2013, *Fraxinus excelsior*); **65** (29. IX. 2013, *Fraxinus excelsior*); **66** (29. IX. 2013, *Acer pseudoplatanus*); **68** (29. IX. 2013, *Salix alba*); **79** (2. X. 2013, *Populus nigra*); **81** (2. X. 2013, *Populus nigra*); **82** (2. X. 2013, *Acer pseudoplatanus*); **90** (2. X. 2013, *Acer platanoides*); **91** (2. X. 2013, *Populus nigra*); **92** (2. X. 2013, *Populus nigra*); **93** (2. X. 2013, *Acer pseudoplatanus*); **97** (3. X. 2013, *Fraxinus excelsior*); **100** (5. X. 2013, *Acer pseudoplatanus*); **104** (5. X. 2013, *Acer platanoides*); **108** (5. X. 2013, *Acer pseudoplatanus*); **110** (5. X. 2013, *Acer pseudoplatanus*); **111** (5. X. 2013, *Fraxinus excelsior*); **113** (13. X. 2013, *Salix caprea*); **114** (13. X. 2013, *Juglans regia*); **115** (13. X. 2013, *Malus domestica*); **122** (13. X. 2013, *Tilia cordata*); **123** (13. X. 2013, *Acer pseudoplatanus*); **124** (13. X. 2013, *Fraxinus excelsior*); **125** (13. X. 2013, *Tilia cordata*); **126** (13. X. 2013, *Fraxinus excelsior*); **127** (13. X. 2013, *Tilia cordata*); **130** (13. X. 2013, *Malus domestica*); **131** (13. X. 2013, *Fraxinus excelsior*); **137** (17. X. 2013, *Fagus sylvatica*); **141** (17. X. 2013, *Salix alba*); **142** (17. X. 2013, *Fraxinus excelsior*); **143** (17. X. 2013, *Juglans regia*); **144** (17. X. 2013, *Fraxinus excelsior*); **146** (17. X. 2013, *Juglans regia*); **147** (17. X. 2013, *Fraxinus excelsior*); **148** (17. X. 2013, *Salix alba*); **152** (17. X. 2013, *Salix euxina*); **155** (17. X. 2013, *Acer platanoides*); **158** (17. X. 2013, *Juglans regia*); **159** (17. X. 2013, *Juglans regia*); **160** (20. X. 2013, *Fraxinus excelsior*); **164** (20. X. 2013, *Fraxinus excelsior*); **165** (20. X. 2013, *Malus domestica*); **174** (20. X. 2013, *Fraxinus excelsior*); **175** (20. X. 2013, *Fraxinus excelsior*); **176** (20. X. 2013, *Fraxinus excelsior*); **177** (20. X. 2013, *Fraxinus excelsior*); **179** (20. X. 2013, *Juglans regia*); **183** (20. X. 2013, *Fraxinus excelsior*)

***Orthotrichum diaphanum* [LC]**

The species was found in 76 localities and it was the second most abundant species.

13 (18. IX. 2013, *Populus nigra*); **21** (18. IX. 2013, *Tilia cordata*); **43** (28. IX. 2013, *Fraxinus excelsior*); **48** (28. IX. 2013, *Fraxinus excelsior*); **49** (28. IX. 2013, *Fraxinus excelsior*); **51** (28. IX. 2013, *Tilia cordata*); **54** (29. IX. 2013, *Acer pseudoplatanus*); **56** (29. IX. 2013, *Fraxinus excelsior*); **57** (29. IX. 2013, *Acer pseudoplatanus*); **58** (29. IX. 2013, *Betula pendula*); **60** (29. IX. 2013, *Salix euxina*); **61** (29. IX. 2013, *Fraxinus excelsior*); **64** (29. IX. 2013, *Acer pseudoplatanus*); **65** (29. IX. 2013, *Fraxinus excelsior*); **66** (29. IX. 2013, *Acer pseudoplatanus*); **68** (29. IX. 2013, *Salix alba*); **76** (2. X. 2013, *Fraxinus excelsior*); **77** (2. X. 2013, *Malus domestica*); **78** (2. X. 2013, *Acer pseudoplatanus*); **79** (2. X. 2013, *Populus nigra*); **80** (2. X. 2013, *Populus nigra*); **81** (2. X. 2013, *Populus nigra*); **83** (2. X. 2013, *Fraxinus excelsior*); **84** (2. X. 2013, *Salix alba*); **85** (2. X. 2013, *Fraxinus excelsior*); **86** (2. X. 2013, *Malus domestica*); **88** (2. X. 2013, *Juglans regia*); **89** (2. X. 2013, *Populus nigra*); **90** (2. X. 2013, *Acer platanoides*); **92** (2. X. 2013, *Populus nigra*); **96** (3. X. 2013, *Betula pendula*); **100** (5. X. 2013, *Acer pseudoplatanus*); **110** (5. X. 2013, *Acer pseudoplatanus*); **111** (5. X. 2013, *Fraxinus excelsior*); **113** (13. X. 2013, *Salix caprea*); **114** (13. X. 2013, *Juglans regia*); **115** (13. X. 2013, *Malus domestica*); **116** (13. X. 2013, *Acer pseudoplatanus*); **117** (13. X. 2013, *Quercus robur*); **118** (13. X. 2013, *Salix euxina*); **119** (13. X. 2013, *Quercus robur*); **120** (13. X. 2013, *Salix euxina*); **122** (13. X. 2013, *Tilia cordata*); **124** (13. X. 2013, *Fraxinus excelsior*); **126** (13. X. 2013, *Fraxinus excelsior*); **127** (13. X. 2013, *Tilia cordata*); **129** (13. X. 2013, *Acer platanoides*); **130** (13. X. 2013, *Malus domestica*); **131** (13. X. 2013, *Fraxinus excelsior*); **132** (13. X. 2013, *Salix alba*); **136** (13. X. 2013, *Acer pseudoplatanus*); **137** (17. X. 2013, *Fagus sylvatica*); **141** (17. X. 2013, *Salix alba*); **142** (17. X. 2013, *Fraxinus excelsior*); **144** (17. X. 2013, *Fraxinus excelsior*); **146** (17. X. 2013, *Juglans regia*); **147** (17. X. 2013, *Fraxinus excelsior*); **149** (17. X. 2013, *Populus nigra*); **150** (17. X. 2013, *Juglans regia*); **151** (17. X. 2013, *Fraxinus excelsior*); **152** (17. X. 2013, *Salix euxina*); **154** (17. X. 2013, *Malus*

domestica); **155** (17. X. 2013, *Acer platanoides*); **156** (17. X. 2013, *Fraxinus excelsior*); **157** (17. X. 2013, *Salix alba*); **158** (17. X. 2013, *Juglans regia*); **160** (20. X. 2013, *Fraxinus excelsior*); **163** (20. X. 2013, *Fraxinus excelsior*); **165** (20. X. 2013, *Malus domestica*); **173** (20. X. 2013, *Malus domestica*); **174** (20. X. 2013, *Fraxinus excelsior*); **179** (20. X. 2013, *Juglans regia*); **180** (20. X. 2013, *Malus domestica*); **181** (20. X. 2013, *Malus domestica*); **182** (20. X. 2013, *Fraxinus excelsior*); **187** (3. XI. 2013, *Acer pseudoplatanus*)

***Orthotrichum pallens* [LC]**

The species was found in 55 localities located mainly in the western part of the studied area.

5 (16. IX. 2013, *Salix alba*); **6** (16. IX. 2013, *Acer negundo*); **9** (16. IX. 2013, *Quercus robur*); **11** (16. IX. 2013, *Quercus robur*); **14** (18. IX. 2013, *Alnus incana*); **16** (18. IX. 2013, *Alnus incana*); **18** (18. IX. 2013, *Acer pseudoplatanus*); **20** (18. IX. 2013, *Fraxinus excelsior*); **22** (18. IX. 2013, *Acer pseudoplatanus*); **23** (18. IX. 2013, *Acer pseudoplatanus*); **24** (28. IX. 2013, *Acer pseudoplatanus*); **26** (28. IX. 2013, *Carpinus betulus*); **27** (28. IX. 2013, *Fraxinus excelsior*); **29** (28. IX. 2013, *Tilia cordata*); **31** (28. IX. 2013, *Acer pseudoplatanus*); **38** (28. IX. 2013, *Acer pseudoplatanus*); **42** (28. IX. 2013, *Fraxinus excelsior*); **46** (28. IX. 2013, *Fraxinus excelsior*); **54** (29. IX. 2013, *Acer pseudoplatanus*); **55** (29. IX. 2013, *Acer platanoides*); **56** (29. IX. 2013, *Fraxinus excelsior*); **57** (29. IX. 2013, *Acer pseudoplatanus*); **58** (29. IX. 2013, *Betula pendula*); **61** (29. IX. 2013, *Fraxinus excelsior*); **64** (29. IX. 2013, *Acer pseudoplatanus*); **65** (29. IX. 2013, *Fraxinus excelsior*); **66** (29. IX. 2013, *Acer pseudoplatanus*); **71** (29. IX. 2013, *Tilia cordata*); **72** (29. IX. 2013, *Fraxinus excelsior*); **89** (2. X. 2013, *Populus nigra*); **92** (2. X. 2013, *Populus nigra*); **96** (3. X. 2013, *Betula pendula*); **98** (5. X. 2013, *Fraxinus excelsior*); **100** (5. X. 2013, *Acer pseudoplatanus*); **101** (5. X. 2013, *Acer pseudoplatanus*); **102** (5. X. 2013, *Alnus incana*); **105** (5. X. 2013, *Fraxinus excelsior*); **109** (5. X. 2013, *Fraxinus excelsior*); **116** (13. X. 2013, *Acer pseudoplatanus*); **119** (13. X. 2013, *Quercus robur*); **121** (13. X. 2013, *Fraxinus excelsior*); **125** (13. X. 2013, *Tilia cordata*); **134** (13. X. 2013, *Acer pseudoplatanus*); **140** (17. X. 2013, *Malus domestica*); **154** (17. X. 2013, *Malus domestica*); **161** (20. X. 2013, *Malus domestica*); **162** (20. X. 2013, *Acer pseudoplatanus*); **165** (20. X. 2013, *Malus domestica*); **167** (20. X. 2013, *Acer platanoides*); **168** (20. X. 2013, *Acer pseudoplatanus*); **182** (20. X. 2013, *Fraxinus excelsior*); **186** (20. X. 2013, *Fraxinus excelsior*); **187** (3. XI. 2013, *Acer pseudoplatanus*)

***Orthotrichum patens* [LC-nt]**

The species was found in 2 localities. This species was considered as very rare in the past. Thanks to the improvement of air quality and increasing intensity of bryological research its findings have begun to increase (Kučera 2003, 2004). Despite this fact in 2005 it was still classified as vulnerable species. Over the years it was collected more frequently (Kučera 2005a, 2005b, 2006, 2007, 2008, 2010; Plášek 2011; Plášek et al. 2011; Plášek & Cimalová 2014), which led to change in its threat status – it seems to belong to taxa further spreading across our country.

8 (16. IX. 2013, *Fraxinus excelsior*); **162** (20. X. 2013, *Acer pseudoplatanus*)

***Orthotrichum pumilum* [LC]**

The species was found in 129 localities and it was undoubtedly the most abundant species of the studied area.

4 (16. IX. 2013, *Salix alba*); **5** (16. IX. 2013, *Salix alba*); **7** (16. IX. 2013, *Malus domestica*); **8** (16. IX. 2013, *Fraxinus excelsior*); **12** (18. IX. 2013, *Fraxinus excelsior*); **15** (18. IX. 2013, *Acer pseudoplatanus*); **16** (18. IX. 2013, *Alnus incana*); **24** (28. IX. 2013, *Acer pseudoplatanus*); **27** (28. IX. 2013, *Fraxinus excelsior*); **31** (28. IX. 2013, *Acer pseudoplatanus*); **34** (28. IX. 2013, *Salix euxina*); **35** (28. IX. 2013, *Salix alba*); **36** (28. IX. 2013, *Salix alba*); **38** (28. IX. 2013, *Acer pseudoplatanus*); **39** (28. IX. 2013, *Fraxinus excelsior*); **40** (28. IX. 2013, *Acer pseudoplatanus*); **41** (28. IX. 2013, *Fraxinus excelsior*); **43** (28. IX. 2013, *Fraxinus excelsior*); **46** (28. IX. 2013, *Fraxinus excelsior*); **47** (28. IX. 2013, *Acer pseudoplatanus*); **48** (28. IX. 2013, *Fraxinus excelsior*); **49** (28. IX. 2013, *Fraxinus excelsior*); **50** (28. IX. 2013, *Tilia cordata*); **51** (28. IX. 2013, *Tilia cordata*); **52** (28. IX. 2013, *Fraxinus excelsior*); **53** (29. IX. 2013, *Salix alba*); **54** (29. IX. 2013, *Acer pseudoplatanus*); **60** (29. IX. 2013, *Salix euxina*); **61** (29. IX. 2013, *Fraxinus excelsior*); **62** (29. IX. 2013, *Sorbus aucuparia*); **63** (29. IX. 2013, *Fraxinus excelsior*); **64** (29. IX. 2013, *Acer pseudoplatanus*); **65** (29. IX. 2013, *Fraxinus excelsior*); **67** (29. IX. 2013, *Malus domestica*); **68** (29. IX. 2013, *Salix alba*); **69** (29. IX. 2013, *Salix caprea*); **70** (29. IX. 2013, *Populus tremula*); **71** (29. IX. 2013, *Tilia cordata*); **73** (29. IX. 2013, *Juglans regia*); **74** (29. IX. 2013, *Acer pseudoplatanus*); **76** (2. X. 2013, *Fraxinus excelsior*); **77** (2. X. 2013, *Malus domestica*); **78** (2. X. 2013, *Acer pseudoplatanus*); **79** (2. X. 2013, *Populus nigra*); **80** (2. X. 2013, *Populus nigra*); **81** (2. X. 2013, *Populus nigra*); **83** (2. X. 2013, *Fraxinus excelsior*); **85** (2. X. 2013, *Fraxinus excelsior*); **86** (2. X. 2013, *Malus domestica*); **88** (2. X. 2013, *Juglans regia*); **90** (2. X. 2013, *Acer platanoides*); **91** (2. X. 2013, *Populus nigra*); **92** (2. X. 2013, *Populus nigra*); **96** (3. X. 2013, *Betula pendula*); **97** (3. X. 2013, *Fraxinus excelsior*); **98** (5. X. 2013, *Fraxinus excelsior*); **99** (5. X. 2013, *Acer pseudoplatanus*); **100** (5. X. 2013, *Acer pseudoplatanus*); **101** (5.

X. 2013, *Acer pseudoplatanus*); **108** (5. X. 2013, *Acer pseudoplatanus*); **109** (5. X. 2013, *Fraxinus excelsior*); **111** (5. X. 2013, *Fraxinus excelsior*); **114** (5. X. 2013, *Juglans regia*); **116** (13. X. 2013, *Acer pseudoplatanus*); **117** (13. X. 2013, *Quercus robur*); **118** (13. X. 2013, *Salix euxina*); **119** (13. X. 2013, *Quercus robur*); **120** (13. X. 2013, *Salix euxina*); **121** (13. X. 2013, *Fraxinus excelsior*); **123** (13. X. 2013, *Acer pseudoplatanus*); **124** (13. X. 2013, *Fraxinus excelsior*); **125** (13. X. 2013, *Tilia cordata*); **126** (13. X. 2013, *Fraxinus excelsior*); **127** (13. X. 2013, *Tilia cordata*); **128** (13. X. 2013, *Malus domestica*); **129** (13. X. 2013, *Acer platanoides*); **131** (13. X. 2013, *Fraxinus excelsior*); **132** (13. X. 2013, *Salix alba*); **133** (13. X. 2013, *Malus domestica*); **135** (13. X. 2013, *Fagus sylvatica*); **136** (13. X. 2013, *Acer pseudoplatanus*); **137** (17. X. 2013, *Fagus sylvatica*); **138** (17. X. 2013, *Fraxinus excelsior*); **139** (17. X. 2013, *Acer pseudoplatanus*); **140** (17. X. 2013, *Malus domestica*); **141** (17. X. 2013, *Salix alba*); **143** (17. X. 2013, *Juglans regia*); **144** (17. X. 2013, *Fraxinus excelsior*); **145** (17. X. 2013, *Malus domestica*); **146** (17. X. 2013, *Juglans regia*); **147** (17. X. 2013, *Fraxinus excelsior*); **148** (17. X. 2013, *Salix alba*); **149** (17. X. 2013, *Populus nigra*); **150** (17. X. 2013, *Juglans regia*); **151** (17. X. 2013, *Fraxinus excelsior*); **152** (17. X. 2013, *Salix euxina*); **153** (17. X. 2013, *Fraxinus excelsior*); **154** (17. X. 2013, *Malus domestica*); **155** (17. X. 2013, *Acer platanoides*); **156** (17. X. 2013, *Fraxinus excelsior*); **157** (17. X. 2013, *Salix alba*); **158** (17. X. 2013, *Juglans regia*); **159** (17. X. 2013, *Juglans regia*); **160** (20. X. 2013, *Fraxinus excelsior*); **161** (20. X. 2013, *Malus domestica*); **162** (20. X. 2013, *Acer pseudoplatanus*); **163** (20. X. 2013, *Fraxinus excelsior*); **164** (20. X. 2013, *Fraxinus excelsior*); **165** (20. X. 2013, *Malus domestica*); **166** (20. X. 2013, *Acer pseudoplatanus*); **167** (20. X. 2013, *Acer platanoides*); **169** (20. X. 2013, *Fraxinus excelsior*); **171** (20. X. 2013, *Fraxinus excelsior*); **173** (20. X. 2013, *Malus domestica*); **174** (20. X. 2013, *Fraxinus excelsior*); **175** (20. X. 2013, *Fraxinus excelsior*); **176** (20. X. 2013, *Fraxinus excelsior*); **177** (20. X. 2013, *Fraxinus excelsior*); **178** (20. X. 2013, *Malus domestica*); **180** (20. X. 2013, *Malus domestica*); **181** (20. X. 2013, *Malus domestica*); **182** (20. X. 2013, *Fraxinus excelsior*); **183** (20. X. 2013, *Fraxinus excelsior*); **184** (20. X. 2013, *Acer pseudoplatanus*); **185** (20. X. 2013, *Acer pseudoplatanus*); **186** (20. X. 2013, *Fraxinus excelsior*); **187** (3. XI. 2013, *Acer pseudoplatanus*)

***Orthotrichum speciosum* [LC]**

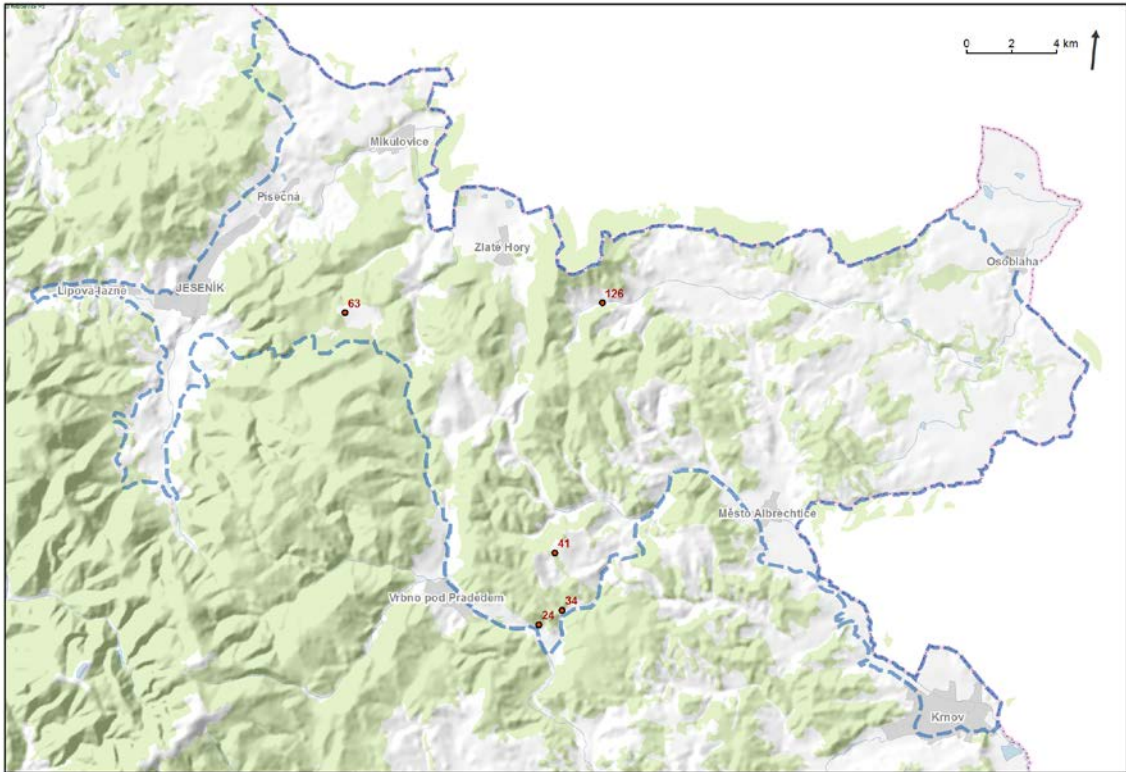
The species was found in 50 localities and it could be considered as common in the studied area.

3 (16. IX. 2013, *Fraxinus excelsior*); **5** (16. IX. 2013, *Salix alba*); **8** (16. IX. 2013, *Fraxinus excelsior*); **13** (18. IX. 2013, *Populus nigra*); **14** (18. IX. 2013, *Alnus incana*); **16** (18. IX. 2013, *Alnus incana*); **22** (18. IX. 2013, *Acer pseudoplatanus*); **23** (18. IX. 2013, *Acer pseudoplatanus*); **25** (28. IX. 2013, *Acer pseudoplatanus*); **33** (28. IX. 2013, *Fraxinus excelsior*); **35** (28. IX. 2013, *Salix alba*); **36** (28. IX. 2013, *Salix alba*); **41** (28. IX. 2013, *Fraxinus excelsior*); **42** (28. IX. 2013, *Fraxinus excelsior*); **45** (28. IX. 2013, *Acer pseudoplatanus*); **48** (28. IX. 2013, *Fraxinus excelsior*); **57** (29. IX. 2013, *Acer pseudoplatanus*); **60** (29. IX. 2013, *Salix euxina*); **65** (29. IX. 2013, *Fraxinus excelsior*); **66** (29. IX. 2013, *Acer pseudoplatanus*); **68** (29. IX. 2013, *Salix alba*); **75** (29. IX. 2013, *Fraxinus excelsior*); **79** (2. X. 2013, *Populus nigra*); **81** (2. X. 2013, *Populus nigra*); **89** (2. X. 2013, *Populus nigra*); **97** (3. X. 2013, *Fraxinus excelsior*); **98** (5. X. 2013, *Fraxinus excelsior*); **100** (5. X. 2013, *Acer pseudoplatanus*); **102** (5. X. 2013, *Alnus incana*); **105** (5. X. 2013, *Fraxinus excelsior*); **110** (5. X. 2013, *Acer pseudoplatanus*); **111** (5. X. 2013, *Fraxinus excelsior*); **113** (13. X. 2013, *Salix caprea*); **117** (13. X. 2013, *Quercus robur*); **119** (13. X. 2013, *Quercus robur*); **124** (13. X. 2013, *Fraxinus excelsior*); **125** (13. X. 2013, *Tilia cordata*); **137** (17. X. 2013, *Fagus sylvatica*); **141** (17. X. 2013, *Salix alba*); **149** (17. X. 2013, *Populus nigra*); **151** (17. X. 2013, *Fraxinus excelsior*); **162** (20. X. 2013, *Acer pseudoplatanus*); **167** (20. X. 2013, *Acer platanoides*); **170** (20. X. 2013, *Acer platanoides*); **174** (20. X. 2013, *Fraxinus excelsior*); **176** (20. X. 2013, *Fraxinus excelsior*); **177** (20. X. 2013, *Fraxinus excelsior*); **179** (20. X. 2013, *Juglans regia*); **184** (20. X. 2013, *Acer pseudoplatanus*); **186** (20. X. 2013, *Fraxinus excelsior*)

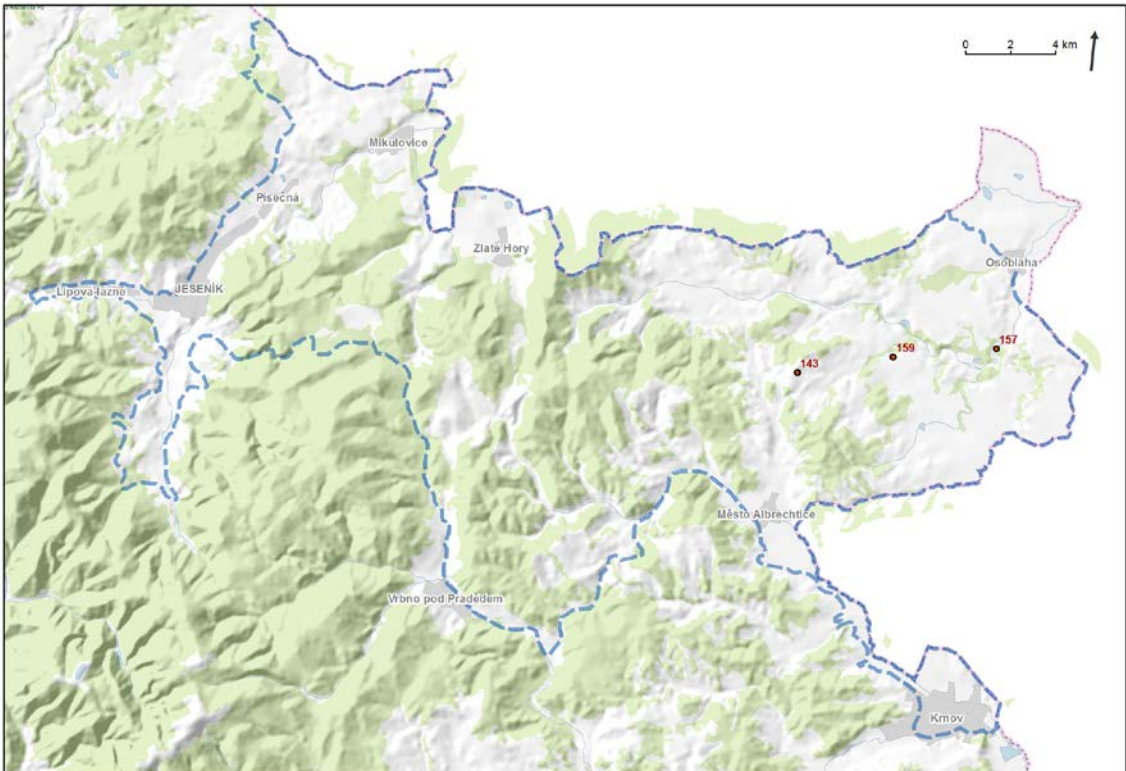
***Orthotrichum stramineum* [LC]**

The species was found in 33 localities. An interesting feature is occurrence of the vegetative propagules which was noted during identification of specimens (cf. Plášek et al. 2007). This phenomenon was overlooked until recently. However, nowadays it is observed more frequently.

15 (18. IX. 2013, *Acer pseudoplatanus*); **19** (18. IX. 2013, *Acer pseudoplatanus*); **25** (28. IX. 2013, *Acer pseudoplatanus*); **29** (28. IX. 2013, *Tilia cordata*); **30** (28. IX. 2013, *Acer pseudoplatanus*); **32** (28. IX. 2013, *Acer pseudoplatanus*); **33** (28. IX. 2013, *Fraxinus excelsior*); **44** (28. IX. 2013, *Fraxinus excelsior*); **47** (28. IX. 2013, *Acer pseudoplatanus*); **54** (29. IX. 2013, *Acer pseudoplatanus*); **56** (29. IX. 2013, *Fraxinus excelsior*); **59** (29. IX. 2013, *Acer pseudoplatanus*); **65** (29. IX. 2013, *Fraxinus excelsior*); **72** (29. IX. 2013, *Fraxinus excelsior*); **82** (2. X. 2013, *Acer pseudoplatanus*); **91** (2. X. 2013, *Populus nigra*); **96** (3. X. 2013, *Betula pendula*); **101** (5. X. 2013, *Acer pseudoplatanus*); **102** (5. X. 2013, *Alnus incana*); **104** (5. X. 2013, *Acer platanoides*); **106** (5. X. 2013, *Quercus robur*); **110** (5. X. 2013, *Acer pseudoplatanus*); **112** (5. X. 2013, *Salix caprea*); **120** (13. X. 2013, *Salix euxina*); **121** (13. X. 2013, *Fraxinus excelsior*); **151** (17. X. 2013, *Fraxinus*



Map 2: Distribution of moss *Orthotrichum affine* var. *bohemicum* in the study area.



Map 3: Distribution of moss *Orthotrichum striatum* in the study area.

excelsior); **163** (20. X. 2013, *Fraxinus excelsior*); **169** (20. X. 2013, *Fraxinus excelsior*); **170** (20. X. 2013, *Acer platanoides*); **172** (20. X. 2013, *Acer platanoides*); **175** (20. X. 2013, *Fraxinus excelsior*); **185** (20. X. 2013, *Acer pseudoplatanus*); **186** (20. X. 2013, *Fraxinus excelsior*)

***Orthotrichum striatum* [LC-att] - see map 3**

The species was found in 3 localities and belongs to three least common species of the area.

143 (17. X. 2013, *Juglans regia*); **157** (17. X. 2013, *Salix alba*); **159** (17. X. 2013, *Juglans regia*)

***Ulota bruchii* [LC]**

The species was found in 16 localities without any known locality from the eastern part of the studied area.

13 (18. IX. 2013, *Populus nigra*); **16** (18. IX. 2013, *Alnus incana*); **19** (18. IX. 2013, *Acer pseudoplatanus*); **28** (28. IX. 2013, *Fagus sylvatica*); **34** (28. IX. 2013, *Salix euxina*); **42** (28. IX. 2013, *Fraxinus excelsior*); **48** (28. IX. 2013, *Fraxinus excelsior*); **95** (3. X. 2013, *Sorbus aucuparia*); **102** (5. X. 2013, *Alnus incana*); **106** (5. X. 2013, *Quercus robur*); **108** (5. X. 2013, *Acer pseudoplatanus*); **112** (5. X. 2013, *Salix caprea*); **162** (20. X. 2013, *Acer pseudoplatanus*); **185** (20. X. 2013, *Acer pseudoplatanus*); **187** (3. XI. 2013, *Acer pseudoplatanus*)

***Ulota crispa* [LC]**

The species was found in 15 localities located mainly in the western part of the studied area.

17 (18. IX. 2013, *Salix caprea*); **26** (28. IX. 2013, *Carpinus betulus*); **30** (28. IX. 2013, *Acer pseudoplatanus*); **33** (28. IX. 2013, *Fraxinus excelsior*); **37** (28. IX. 2013, *Quercus robur*); **47** (28. IX. 2013, *Acer pseudoplatanus*); **53** (29. IX. 2013, *Salix alba*); **56** (29. IX. 2013, *Fraxinus excelsior*); **59** (29. IX. 2013, *Acer pseudoplatanus*); **60** (29. IX. 2013, *Salix euxina*); **75** (29. IX. 2013, *Fraxinus excelsior*); **102** (5. X. 2013, *Alnus incana*); **103** (5. X. 2013, *Fraxinus excelsior*); **134** (13. X. 2013, *Acer pseudoplatanus*); **172** (20. X. 2013, *Acer platanoides*)

Discussion

In the past, bryophytes of the Zlatohorská vrchovina highlands have never been studied in detail. It is possible to find several notes in the articles of Kalmus (1867), Milde (1869), Hein (1874), Matouschek (1901, 1904), Podpěra (1906), Kern (1914), Duda (1950, 1990), Šmarda (1952), Vondráček (1993, 1994), Plášek (1996, 1998), Hradílek (2004) and Číhal & Plášek (2012). From these literature sources results that 10 species from the genus *Orthotrichum*, 4 from *Ulota* and 1 from *Nyholmiella* were recorded from the study area: *Nyholmiella obtusifolia*, *Orthotrichum affine*, *O. anomalum*, *O. cupulatum*, *O. diaphanum*, *O. lyellii*, *O. pallens*, *O. pumilum*, *O. speciosum*, *O. stramineum*, *O. striatum*, *Ulota bruchii*, *U. coarctata*, *U. crispa* and *U. drummondii*.

During the recent survey the presence of 8 species from the genus *Orthotrichum*, 2 from *Ulota* and 1 from *Nyholmiella* was confirmed. In addition to this 2 taxa were found newly. Altogether 13 taxa from *Orthotrichaceae* family were recently found: *Nyholmiella obtusifolia*, *Orthotrichum affine*, *O. affine* var. *bohemicum*, *O. anomalum*, *O. diaphanum*, *O. pallens*, *O. patens*, *O. pumilum*, *O. speciosum*, *O. stramineum*, *O. striatum*, *Ulota bruchii*, and *U. crispa*. From the recorded species, *Orthotrichum pumilum* could be considered as the most common one. As for other abundant species, *O. anomalum*, *O. diaphanum*, and *O. affine* were found. On the contrary taxa occurring rarely were: *O. patens*, *O. striatum* and also *O. affine* var. *bohemicum*. Moreover, *O. patens* and *O. affine* var. *bohemicum* were found for the first time in the study area. Latter taxon was also newly discovered for the whole region of Silesia (Halfar & Plášek 2014).

Conclusions

In 2013 detailed bryological research has taken place in Northern Moravia and Silesia. Based on the field monitoring and literature review 17 taxa from *Orthotrichaceae* family was noted in Zlatohorská vrchovina highlands since the first known historical record. During the

recent survey many new data were obtained and they could make a good basis for further research focused on ecology of epiphytic bryophytes within *Orthotrichaceae* family.

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